

ABSTRACT

Title of dissertation: DEFENSE INSTITUTIONAL BUILDING –
INTEGRATING THE WORK

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After the September 11, 2001 attack on the World Trade Center and the Pentagon, the U.S. defense focus turned to fighting terrorism throughout the world. This paper discusses an approach for stability operations laying a foundation for development of defense processes from strategic through operational to tactical. Defense institutional building positions the Coalition mission and the assisted nation for success.

The U. S.'s ability to establish effective defense organizations in these regions is essential to a decreasing Department of Defense (DoD) budget. Self-sufficiency of defense ministries means less manpower by the Coalition Security Assistance Forces. The paper describes the benefits for using network organization structure, project management, performance metrics, integration planning, nation tailored process and operating systems, and interdisciplinary workforce with transformational leadership.

This positions success through managing and leveraging the interdependencies of activities (work) creating exponential performance (S-curve model). A systems approach to leverages concepts of network theory and complexity science strengthened through centralized planning but optimized through de-centralized execution. A case study on Bosnia and Herzegovina presents S-curve (growth curve) results.

DEFENSE INSTITUTIONAL BUILDING – INTEGRATING THE WORK

by

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List of Acronyms

Acronym	Full Term
ABP	Afghan Border Patrol
ACDOT	Afghan Capability Development, Objectives & Tasks
AECA	Arms Export Control Act
AMoD S&P	Assistant Minister of Defense Strategy & Policy
AMoD-Finance	Assistant Minister of Defense-Finance
ANA	Afghan National Army
ANP	Afghan National Police
ANSF	Afghan National Security Forces
AOR	Area of Responsibility
ASC	Army Support Command
ASL	Authorized Stockage List
ASP	Ammunition Supply Point
ASFF	Afghan Security Forces Fund
A-TEMP	Afghanistan-Technical Equipment Maintenance Program
AUP	Afghan Uniformed Police
BFC	Battlefield Circulation
BPC	Building Partner Capacity
BPET	Budget Planning and Execution Tool
BSB	Brigade Support Battalions
C2	Command and Control
CAPE	Cost Assessment and Program Evaluation
CAAT	Contract Advise and Assist Teams
CDD	Capability Development Document
CENTCOM	US Central Command
CF	Coalition Force(s)
CFC	Consolidated Fielding Center
CFO	Chief Financial Officer
CG	Commanding General
CIA	Central Intelligence Agency
C-JTSCC	Commander-Joint Theater Support Contracting Command
CJOA-A	Combined Joint Operational Area-Afghanistan
CLK	Corps Logistics Kandak
CM	Capability Milestone
CoA	Chief of Advisors
COG	Center of Gravity
COIN	Counterinsurgency
COMISAF	Commander International Security Assistance Force
CONPLAN	Contingency Plan
COP	Common Operational Picture
COR	Contracting Officer Representative

CoS	Chief of Staff
CPMD	Construction & Property Management Department
CS	Combat Support
CSS	Combat Service Support
CSSK	Combat Service Support Kandak
CSTC-A	Combined Security Transition Command-Afghanistan
CUAT	Commander's Unit Assessment Tool
DCG	Deputy Commanding General
DCMA	Defense Contract Management Agency
DCOM	Deputy Commander
DCOM-A	Deputy Commander-Army
DCOM-P	Deputy Commander-Police
DCOM-SPO	Deputy Commander-Support
DFAR	Defense Federal Acquisition Regulation
DIA	Defense Intelligence Agency
DIB	Defense Institutional Building
DIRI	Defense Institution Reform Initiative
DoD	Department of Defense
DoS	Department of State
DOTMLPF	Doctrine, Organizations, Training, Materiel, Leader Development, Personnel and Facilities
DNI	Director National Intelligence
DRA	Democratic Republic of Afghanistan
DSCA	Defense Security Cooperation Agency
ENAR2	Effect-Node-Action-Resource-Additional Effects
ENG	Engineers
EXSUM	Exchange Summaries
FIAR	Financial Improvement and Audit Readiness
FMS	Foreign Military Sales
FRAGO	Fragmentary Order
FSD	Forward Support Depot
FSG	Forward Support Group
GIRoA	Government of the Republic of Afghanistan
GoI	Government of Iraq
GS	General Staff
GSU	Garrison Support Units
G-TSCMIS System	Global Theater Security Cooperation Management Information System
GWOT	Global War on Terrorism
ICS	Integrated Country Strategy
IDP	Internally Displaced Persons
IJC	ISAF Joint Command
ISF	Iraqi Security Force

IS	Islamic State
ISAF	International Security Assistance Force
ISI	Inter-Service Intelligence
ISI	Islamic State of Iraq
ISIL	Islamic State of Iraq and the Levant
ISR	Intelligence/Reconnaissance/Surveillance
IT	Information Technology
JFSOCC-I	Joint Forces Special Operations Component Command-Iraq
JCP	Joint Campaign Planning
JMD	Joint Manning Document
JSC-A	Joint Sustainment Command-Afghanistan
JTF	Joint Task Force
KDP	Kurdish Democratic Party
KLE	Key Leader Engagement
LOA	Letter of Offer and Acceptance
LOE	Lines of Effort
LOO	Lines of Operation
LOR	Letter of Request
LRAT	Logistics Readiness Assessment Tool
LSOC	Logistics Support Operations Center
LTT	Logistics Training Team
MASL	Military Articles & Services List
MDB	Ministerial Development Board
MDP	Ministerial Development Plan
MMDP	Master Ministerial Development Plan
MNF-I	Multi-National Force-Iraq
MOA	Memorandum of Agreement
MoD	Ministry of Defense
MoD-F	Ministry of Defense-Finance
MoE	Measures of Effectiveness
MoI	Ministry of Interior
MoLSAMD	Ministry of Labor, Social Affairs, Martyrs and Disabled
MoP	Measures of Performance
MOU	Memorandum of Understanding
MTFF	Medium Term Financial Framework
MTPF	Medium Term Planning Framework
MTT	Mobile Training Team
NATO	North Atlantic Treaty Organization
NAP	National Action Plan
NCA	National Command Authority
NCO	Non-Commissioned Officer
NGA	National Geospatial-Intelligence Agency
NGO	Non-Governmental Organization

NMS	National Military Strategy
NRO	National Reconnaissance Office
NSA	National Security Agency
NSP	National Security Policy
NSS	Nation Security Strategy
NTM-A	NATO Training Mission-Afghanistan
ODNI	Office of National Director Intelligence
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OMLT	Operational Mentor and Liaison Team
OND	Operation New Dawn
OPR	Office of Primary Responsibility
ORHA	Office of Reconstruction and Humanitarian Assistance
OSC	Office of Security Cooperation
OSC-I	Office of Security Cooperation-Iraq
OSD	Office of the Secretary of Defense
PCC	Planning Coordinating Committee
PDP	People's Democratic Party of Afghanistan
PLL	Prescribed Load List
PoA	President of Afghanistan
POL	Petroleum, Oil, and Lubricant
PPBE	Planning, Programming, Budgeting, and Execution
P&A	Plans & Analysis
PEO	Program Executive Office
PMESII	Political-Military-Economic-Social-Infrastructure-Information
PMO	Program Management Office
PSG-I	Partnership Strategy Group-Iraq
PUK	Patriotic Union of Kurdistan
QDDR	Quadriennel Diplomacy & Development Review
RC	Regional Command
RCA	Religious and Cultural
RFF	Request for Forces
ROE	Rules of Engagement
R&S	Reconstruction & Stability
RSC	Regional Support Command
RLSC	Regional Logistics Support Command
SAMM	Security Assistance Management Manual
SAO	Security Assistance Office
SBR	Statement of Budgetary Resources
SCC	Security Cooperation Community
SCE	Security Cooperation Enterprise
SFA	Security Force Assistance
SFAAT	Security Force Assistance & Advisory Team

SFOR	Stabilisation Force
SIGAR	Special Inspector for Afghanistan Reconstruction
SIGIR	Special Inspector for Iraq Reconstruction
SITREP	Situational Reports
SoSA	System of System Analysis
SSTR	Stability, Security, Transition, and Reconstruction
TBC/CAD	Theater Business Clearance/Contract Administration Delegation
TPSO	Training Program Support Office
UNMIBH	United Nations Mission in Bosnia and Herzegovina
UN	United Nations
USAID	United States Agency for International Development
U.S./CF	U.S./Coalition Forces
USFOR-A	U.S. Forces-Afghanistan
USG	U.S. Government
WPS	Women, Peace, and Security
WMM	Waste Military Munition

Chapter 1 Dissertation Problem Statement

Section 1.1 Dissertation Question

How can defense institutional building successfully be conducted to counter the accelerating threat of terrorism?

This dissertation employs a case study approach to explain how to successfully conduct defense institutional building against the accelerating threat of terrorism. The term reconstruction and nation building (RNB) refers to the current, broad government institutional building conducted for another nation. Defense institutional building (DIB) refers to the development of Security Ministries. Building partner capacity (BPC) defines activities for training, equipping, exercises, and education designed to enhance a partner country's ability to improve its own internal security situation and make valuable contributions to coalition operations. Stability operations describe a broader multi-government effort including peacekeeping and peace enforcement. The terms are intertwined as the aspects for developing security and stability in a nation are intertwined.

There are several primary factors that lead to success of defense institutional building:

- (1) network organizational structure leveraging centralized and decentralized efforts;
- (2) application of critical thinking (system thinking, network theory, and complexity science) to leverage cross-functional initiatives to produce positive nonlinear results;
- (3) effective strategy using project management to include risk management;
- (4) measures of performance for specific areas, as well as, broader accomplishments;
- (5) integration of activities

There are facilitating factors that support success of defense institutional building:

- (6) comprehension of strengths and challenges of nation for establishing foundational processes;
- (7) cross-functional initiatives to produce positive nonlinear results;

- (8) determination of workforce skills through various learning methods (multidisciplinary, cross-disciplinary, interdisciplinary, and transdisciplinary); and
- (9) leadership for transforming a military operational to a management approach.

Advanced management concepts and tools are developed and applied for the complexity of mega-programs; traditional management practices are inadequate. The dissertation relates the concepts of system thinking, network theory, and complexity science to manage mega-program efforts.

In this new approach, defense institutional building maintains the effort through sustainment to ensure the nation is still effective with a smaller personnel footprint in-country. Defense institutional building applies a feedback loop to re-assess changes to entire effort to ensure the nation is capable of longer-term sustainment, a truly partnership arrangement. The “defense acquisition model” applies project management strategy, integration of work, and risk management planning. Through a procurement case study of examples and lessons learned, the paper depicts worst-case situation, Iraq and Afghanistan, accomplished while fighting the war. In countries with less conflict or no conflict, the effort is scalable.

Economist Paul Collier summarizes the problem that has existed for years:

The third world is shrinking. For forty years, the development challenge has been a rich world of one billion facing a poor world of five billion...Most of the five billion, about 80 percent, live in countries that are indeed developing, often at an amazing speed. The real challenge of development is that there is a group of countries at the bottom that are falling behind, and often falling apart. The countries at the bottom co-exist with the twenty-first century, but their reality is the fourteenth century: civil war, plague, ignorance. They are concentrated in Africa and Central Asia, with a scattering elsewhere.

This problem matters, and not just to the billion people who are living and dying in fourteenth-century conditions...The twenty-first century world of material comfort, global travel, and economic interdependencies will become increasingly vulnerable to these large islands of chaos. And it matters now. As the bottom billion diverges from an increasingly

sophisticated world economy, integration will become harder, not easier
(Collier, p. 3-4).

Development has been occurring across the world but not within the bottom billion. Aid organizations have difficulty attracting staff to these countries and as internal conflict grows the problem worsens. Iraq and Afghanistan wars deployed hundreds of thousands of coalition military to provide protection but once the military is gone, the lack of security will deter businesses from investing. Even with the military occupation, economic growth was marginal. To make matters worse, the population of the bottom billion is growing faster.

The current state of events in the world require extensive counterterrorism efforts using the comprehensive approach of nation-building for that bottom billion for decades to come. There are 65 nations (37 percent of the world's countries) considered very fragile states, per the Fund for Peace 2015 index. These nations have scores above 80 and reflect very high alert, high alert, alert, and high warning state status. This number decreased slightly from 2014 with 66 nations having a fragile state index above score of 80. Georgia dropped from a score of 82.7 in 2014 to 79.3 in 2015, changing in status from very high warning to warning.

The fragile state index looks at twelve social, economic, and political indicators: demographic pressures, human flight and brain drain, state legitimacy, poverty and economic decline, human rights, and security conditions to develop a composite assessment of how vulnerable the nation is for conflict. For this paper, the fragile state index was converted to a stability state index graphing the ten-year performance for pertinent nations.

The common denominator in these countries is youth bulge (as high as 65 percent of population below age twenty-five years old), high unemployment (as high as 95 percent), low literacy (as low as 27 percent), high population below poverty line (as high as 80

percent). Many are Islamic countries increasing risk for Islamic extremists to exploit youth through a common cause. There are over 1.2 billion youth below age twenty-five years old within fragile states with half a billion in countries with Muslim population over 80 percent.¹

The bottom billion has already grown larger than a billion and growing larger every day. Global terrorism has directly linked the instability of these countries to U.S. national interests through terrorist organizations to recruit and expand through network structure and internet (network theory). The shared vision marketed by the terrorist groups is a force multiplier for recruitment. Security forces in those nations and surrounding nations are challenged to expel the threat, such as the case of Iraq and spread of Islamic State across Syrian border into northern Iraq.

The paper will address reports from Government Accountability Office (GAO), Department of Defense (DoD) Inspector General (DoDIG), Special Inspector General Iraq Reconstruction (SIGIR), Special Inspector General Afghanistan Reconstruction (SIGAR), and RAND Corporation to describe independent assessments on the shortcomings of building partner capacity, defense institutional building, and reconstruction and nation building. The reports are consistent in raising a fragmented approach, lack of integrated and detailed planning, poor communication across all organizations involved, and yielding marginal results.

The RAND Corporation report, *Review of Security Cooperation Mechanisms Combatant Commands Utilize to Build Partner Capacity*, sponsored by the Joint Staff J5 and the Office of Cost Assessment and Program Evaluation (CAPE) in the Office of the Secretary of Defense (OSD) concluded a patchwork approach was not effective. As depicted in the

¹ Note: Information taken from CIA Fact Sheets for the 65 nations of the Fund for Peace index in 2015.

summary:

Security Cooperation mechanisms are composed of five elements: programs, resources, authorities, processes, and organizational relationships. They can be categorized according to the capability or purpose against which they are utilized and the activity they help execute. Combatant commands typically employ multiple mechanisms to achieve a single objective or even to engage in a single activity. Thus, security cooperation professionals in DoD commonly refer to the need to assemble multiple mechanisms in a “patchwork” to deliver security cooperation and build partner capacity (BPC).

Planners and resource managers work together to figure out creative ways, within the bounds of the law, to execute their BPC plans, which look rather like a patchwork...the term in our context has negative connotations. This patchwork is more like a tangled web, with holes, overlaps, and confusions. Often, several funding sources are used to support single events, and several programs are used to support broader initiatives. The challenges to planning, resourcing, executing, and assessing BPC activities are considerable.

First, authorities for BPC vary considerably. Some authorities attached to programs are single-year, and some are multiyear. Some limit DoD to engaging only with a partner country’s military forces, while others allow DoD to engage other armed forces under the authority of ministries other than the Ministry of Defense (MoD).

Second, resources are unpredictable from year to year, and are managed by different agencies working under different priorities.

Third, processes can be slow and cumbersome. Planning for exercises, for example, is completed at least a year before the event occurs to ensure forces are available.

Fourth, organizations that have a role in executing BPC activities, even within DoD, play by different rules and priorities. Some coordinate well with the combatant commands, and some are less collaborative. Success in executing BPC activities often lies with the knowledge and creativity of the country directors and resource managers at the combatant commands (Moroney, xiv-xv).

The RAND report clearly conveys the fragmented vision, planning, and execution of defense institutional building and building partner capacity efforts. The complexity requires a central-developed, integrated plan coordinated across the entire international development effort.

Section 1.2 Challenges in Complexity of Nation-building

In the 2009 Reconstruction and Nation Building Report for the Industrial College of the Armed Forces, the class created a reconstruction and nation building model represented as the Greek temple, figure 1-1, to define the primary elements. The six elements are (1) people's basic needs, (2) infrastructure, (3) economic development, (4) justice and rule of law, (5) health and education, and (6) good governance/capacity development (ICAF, RNB, 11). Security is fundamental for nation-building; sustainable development is impossible until a prescribed level of security is established. Security is the first step in planning nation-building under contingency operations. Nation-building requires constant adjustments during execution to ensure the appropriate mix of police and military personnel for security and rule of law for development of governance, including public services, and economy (ICAF, RNB, 18).

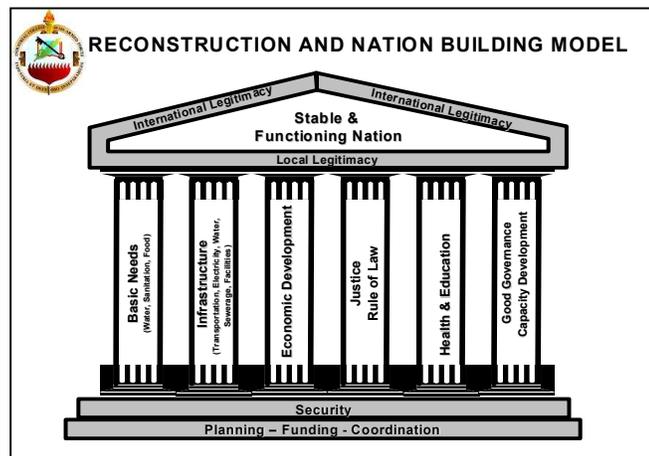


Figure 1-1. Reconstruction and nation building model (RNB, ICAF, 2)

The initial foundational step of the Greek temple is therefore planning, funding, and coordinating with the next foundational step as security. The pillars represent the initiatives to develop a stable and functioning nation. This model reflects “what” needs accomplished for reconstruction and nation building.

The U.S. role is to assist the nation to develop a Government structure that addresses these elements. In the U.S. government, these elements translate to department stovepipes in Government that plan and operate independently. They establish policies for each of their stovepipes with little interaction across stovepipes. With the resource availability of the U.S. Government system, this may produce short-term, adequate results but not efficient. Long-term inefficiency will produce ineffective results. Figure 1-2 reflects the defense spending comparison of the U.S. and seven other nations. In the nation building role, the nation's government will need to be flat organizations with less layers due to limitation of resources such as skilled manpower and funding.

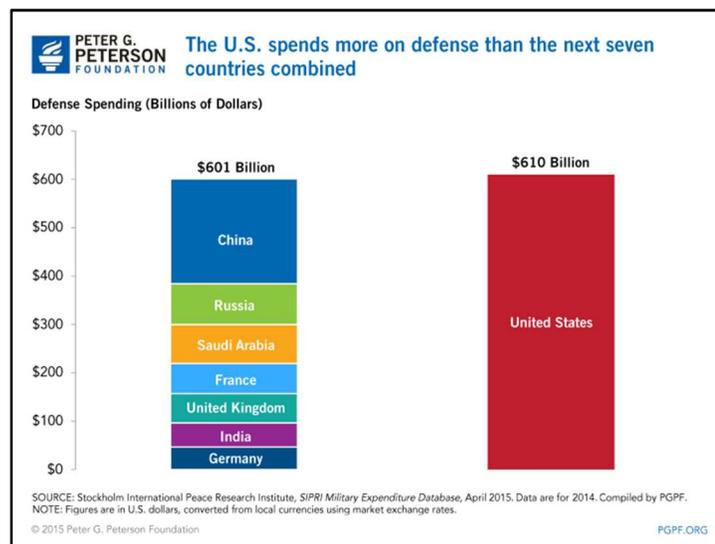


Figure 1-2. U.S. defense spending comparison (<http://pgpf.org/>)

The current defense advisory mission merely tries to replicate a smaller U.S. Government model. By applying program management to defense institutional building, the process would determine a nation-tailored model. Guidance can positively influence the model to address joint goals and objectives of the nation and the U.S.; however, utilizing experts that know U.S. Government policies and processes is not adequate, a deeper understanding of rationale for policy and processes is required. Those who only

know U.S. policy will try to replicate a smaller U.S. Government. Those that understand why policies and processes are developed use that knowledge and apply to establish policies and processes that fit the nation. Cultural differences can drive very different end solutions for different Government structures.

Many countries lack infrastructure for electronic management information systems throughout the entire country. Government processes will be some combination of manual and automated depending on progress throughout the country. Even countries with significant infrastructure, transgress after several years of conflict resulting in lack of adequate electricity, water, sewage, etc in many locations. Previous government buildings may be bombed becoming useless or need major renovation. Figure 1-3 illustrates the damage from bombing during the combat period in Iraq.



Figure 1-3. Saddam Hussein's Believers Palace in Baghdad, Iraq

Although the Iraqi government at no cost provides electricity to its citizens, in 2011 Baghdad residents had only six hours of electricity a day. Residents purchased gas powered generators and fuel as their primary means for electricity outside the period provided by the government.

Section 1.3 Holistic Approach – Foundation for defense institutional building

The dissertation describes the changes for defense institutional building through a holistic approach. Concepts such as critical thinking, system thinking, network theory, complexity science change perspective from linear to nonlinear. An Oxford University research project studied nutrient supply-lines in fungus to determine if lessons learned can apply to supply-chain management in the retail trade (Johnson, 16). System thinking, network theory, and complexity science require the ability to think across traditional disciplines to understand connections between disciplines.

There are benefits borrowed from the “defense acquisition model” strategy using project management, integration planning, and risk management. These elements from acquisition better position defense institutional building for success through centralized planning and monitoring and managing the interdependencies of the activities. A composite stability state index is used for assessing the stability of nations from 2005-2015; the stability state index analyzes linear and nonlinear performance.

Elements from Boeing Corporation 777 commercial aircraft case study and the use of CATIA for design integration parallel nation-building approach for integration of work through an integrated management plan scheduling activities for entire defense institutional building effort for a nation. The workforce will be a different workforce than previously utilized, focusing on interdisciplinary learning complemented with specific training.

A procurement case study on Afghanistan explains the benefits of cross-functional initiatives and the ability to create a multiplier effect for achieving stability within the nation. The case study analyzes Afghan contracts for budget execution, timeframe of

procurement process, and application for counter-corruption initiatives. The use of web-based management information systems reduces the cost of implementation across nations and combatant commands and allows a robust sustainment phase not currently employed. An S-curve, also known as logistic or growth curve, profile reflects optimal performance. Bosnia and Herzegovina example describes this performance and the driving factors for the S-curve profile.

A network organization structure fits managing complexity across multiple organizations. References of the Boeing commercial 777 aircraft case study illustrate how a combination of centralized strategic planning coupled with de-centralized execution for complex programs achieved success. The network structure allows the greatest flexibility for managing the effort through the most appropriate organization. The Office of Director National Intelligence model represents the vehicle for integration of intelligence across 17 organizations. A prototype approach to establish a network structure for planning and execution for defense institutional building allows reduced risk and a lesson learned phase prior to implementing full-scale effort.

The system of systems analysis (SoSA) model (figure 1-4) used in campaign planning represents visual knowledge overlap. (Campaign Planning Handbook (CPH) 2013, 30).

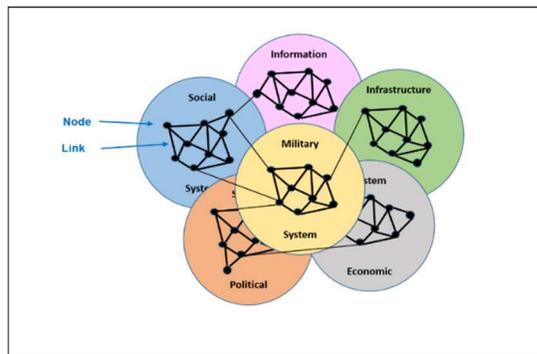


Figure 1-4. System of systems analysis (SoSA) (CPH 2103, 30)

Figure 1-5 reflects a visual representation of the problem and root cause. The

integration of knowledge is foundational for understanding system dynamics. System dynamics is the application of system thinking, perceiving the mechanics (integration of elements) within a system creating some result.

System thinking is the fifth discipline. It is the discipline that integrates disciplines, fusing them into a coherent body of theory and practice... Without a systemic orientation, there is no motivation to look at how the disciplines interrelate. By enhancing each of the other disciplines, it continually reminds us that the whole can exceed the sum of the parts (Senge, 11-12).

Peter Senge uses the term discipline to refer to the five disciplines of a learning organization: personal mastery, mental models, shared vision, team learning, and system thinking. System thinking is the basis of integration whether Senge's disciplines (personal mastery, mental models, shared vision, and team learning) for a learning organization or academic disciplines for interdisciplinary research or functional competencies for system engineering in acquisition.

Integration is the key to exceeding the sum of the parts. Network theory supports this concept through the system structure of evolving connections experienced in social networks, pandemics and the spread of disease, blackouts from power grids, computer viruses in the internet, and spread of terrorism. An integrated schedule is an application of network theory connecting all work of a project together with some work activities having a single dependency and some having multiple dependencies.

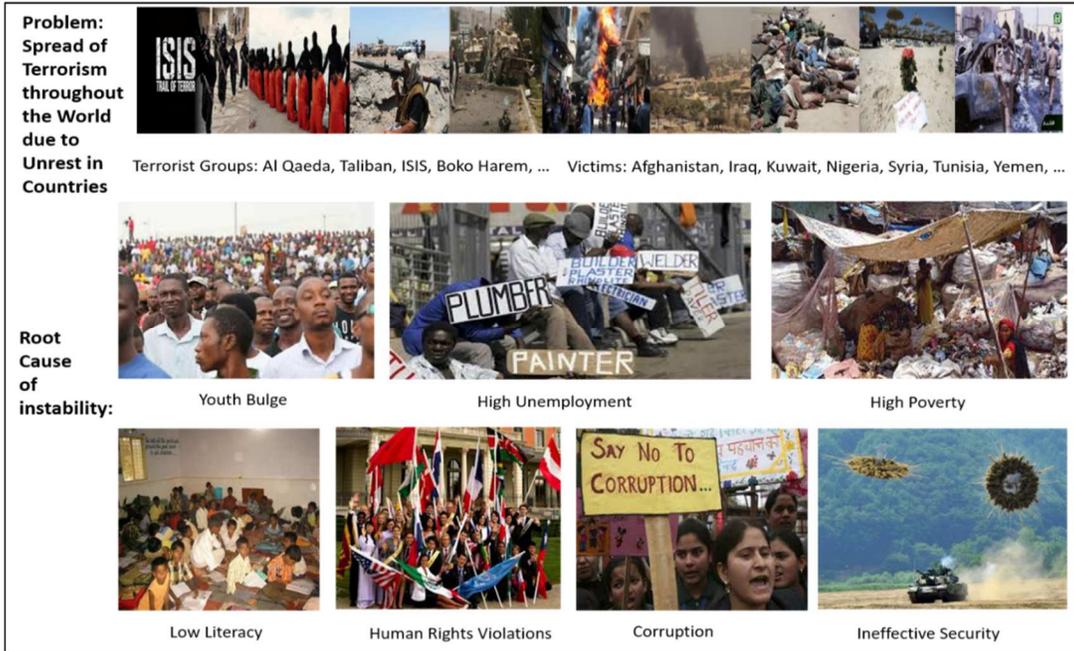


Figure 1-5. Problem and Root Cause

Section 1.4 Challenge of History

Many fragile nations have a long history of war, internal ethnic tension, and political unrest. Afghanistan and Iraq wars degraded the government's capability through loss of personnel and loss of resources requiring significant work to rebuild both infrastructure and capability. The history of these countries' makes the effort more challenging because both have experienced thousands of years of war from a cultural perspective but also from current generations having lived through multiple periods of conflict, internally and externally. Figure 1-6 illustrates the map depicting the mass grave sites from Saddam Hussein's massacre of Kurdish tribes in northern Iraq.



Figure 1-6. Map of the mass graves of the Kurds in northern Iraq

The next sections contain a summary of the history of conflict in Afghanistan and Iraq. The timeframe starts around turn of the twentieth century but both countries have known war and occupation for centuries.

Section 1.4.1 Afghanistan

Afghanistan has experienced stagnant growth, economically, intellectually, and politically from years under the Taliban government. The literacy rate is 28.1 percent for a population of 31.8 million (CIA Factsheet 2015, 5-6). The ethnic composition is 42 percent Pashtun, 27 percent Tajik, nine percent Hazara, nine percent Uzbek, four percent Aimak, three percent Turkmen, two percent Balochi, and four percent other (CIA factsheet 2015, 3). A significant portion of the population is below age twenty-five years-old, 64.2 percent with 35 percent unemployed and 36 percent living below poverty level (CIA factsheet 2015, 9). The religious composition is 80 percent Sunni, 19 percent Shia, and one percent other (CIA factsheet 2015, 3).

Changing the plight of the Afghan people is an extraordinary challenge requiring an integrated and synchronized approach across all donor nations and organizations. The history of Afghanistan also positions the country for continued conflict with internal conflict through ethnic grievances and self-serving government leadership. This historical focus will be on the twentieth century and the shift from monarchy to various other political institutions including communism.

Around the turn of the twentieth century, Abdur Rahman, known as the “Iron Emir” forced a nationalism of the country by converting the mountain people of Kafiristan to Islam and renamed the area Nursitan. In addition, he re-located ten thousand Ghilzai families from the south to the north of the Hindu Kush diluting Ghalzais power in the south while enhancing Pashtun influence in the north. Abdur Rahman would pass power to his son, Habibullah, on his death in 1901 (Ewans, 110). In February 1919, the assassination of Habibullah in a hunting trip resulted in control to Habibullah’s son,

Amanullah (Ewans, 117). In May 1919, Amanullah would launch a jihad considered the Third Anglo-Afghan War against the British along the southern Afghanistan border (Ewans, 120). British aircraft would eventually bomb Jalalabad and Kabul forcing Amanullah to meet with Lord Chelmsford and accept terms of the Durrand Line for the border of Afghanistan and the elimination of the British financial subsidence. Attached to the treaty was a letter declaring Afghanistan “free and independent in its internal and external affairs”; therefore, the year 1919 became the birth of modern Afghanistan illustrated in Figure 1-7. After World War I and the overthrow of the Tsar government in Russia, Russia raised little threat against India and British control.



Figure 1-7. Modern Afghanistan

The Soviet Union’s new government would establish relations with Afghanistan in 1921 when the two countries signed a friendship treaty. Over the next several years, the Soviets built telephone lines and a telegraph office in Kabul, sponsored a textile factory in Herat, and began work on a highway over the Salang Pass in Hindu Kush.

In 1927 King Amanullah with Queen Soroya would embark on a world tour visiting among the countries India, Egypt, Italy, France, Germany, Britain, Soviet Union, Turkey, and Iran (Ewan, 130). Upon King Amanullah’s return, he took steps to move Afghanistan forward by announcing a plan for education of women, requesting the tribal leaders adopt

a more western dress with shaved beards and wear hats and suits. Queen Soroya created discontent with her behavior abroad by not wearing a veil in Europe and appearing with bared shoulders.

In 1928, Bacha-i-Saqao (son of the water carrier) began an uprising in Kabul. By January 1929, Bacha-i-Saqao controlled Kabul and King Amanullah fled the city in his Rolls-Royce, given as a gift on his world tour (Ewans, 132). After nine months of turmoil in the country, Nadir Khan, a Durrani royal cousin, seized control hanging Bacha-i-Saqao and 17 of his followers. Understanding the resistance experienced by King Amanullah, Nadir Khan was determined to modernize Afghanistan but at a slower pace than the previous King. Nadir Shah was assassinated in 1933 and his nineteen-year-old son, Zahir Shar, would become ruler although it was Nadir's brothers and other family members that ruled the country.

In 1934, Afghanistan joined the League of Nations and the U.S. would establish diplomatic ties with Kabul through its ambassador to Iran. Germany also took an interest in Afghanistan, as the Nazi party grew stronger. German engineers helped build dams and irrigation projects around Nuristan and built the first railroad, two and a half miles from Kabul to the new government palace in Duralaman. Nuristani's were largely blue-eyed and blonde hair, believing to be descendants from Alexander the Great's men that had resided in that area. When World War II broke out, Afghanistan had remained largely neutral.

In 1947, India gained independence from Britain through a non-violent revolution led by Mohandas Gandhi. The territory considered the Indian sub-continent divided into two nations: Muslim Pakistan and Hindu India. Mahmood of Ghazni created the spread of

Islam from Afghanistan into India during his much earlier reign. Afghanistan had requested that the Durand Line be redrawn uniting the Pashtun people. This created antagonism between Pakistan and Afghanistan for years.

Soviet Occupation

Since the 1950s, the Soviet Union invested in Afghanistan through building dams, roads, airfields, schools, and irrigation systems. By 1979, the Soviet Union had provided more than \$1 billion in military aid and \$1.25 billion in economic aid (Tanner, 226). The Soviets built a highway across the Hindu Kush through the Salang Pass, which included nearly a two-mile tunnel eleven thousand feet high in the mountains (Tanner, 226). There were about 3,700 Afghan officers and cadets that received military training in the Soviet Union and Afghans made Russian the technical language of the military (Tanner, 226-227).

During this same time, the United States also invested about a half billion dollars in economic aid. The Soviet Union focused on the North and the United States focused on the South. U.S. construction efforts included a dam on the Helmand River and an airport in Kandahar. The Soviets recovered some of their investment through a natural gas pipeline through Badakshan.

Mohammed Daod, the cousin and brother-in-law of King Zahir, became the Prime Minister again attempting to modernize Afghanistan creating resentment among the Islamic mullahs. In 1963, King Zahir and Mohammed Daod came to an agreement that King Zahir would govern the country and Mohammed Daod would control the Army. On January 1, 1965, the People's Democratic Party of Afghanistan (PDPA), a communist party founded by Nur Mohammed Taraki, gained ground in Afghanistan. During the

1960s, the revolutionary ideas fueled through students and intellectuals in Kabul creating clashes between the country's elders and those wanting change.

By 1973, the U.S. no longer was a player in Afghanistan. Leadership changed from King Zahir to Mohammed Daod through a bloodless coup. Mohammed Daod's approach to opposition was jailing or executing dissidents. For the next several years, the relationship between Afghanistan and the Soviet Union grew problematic. The Breshnev Doctrine created for the situation in Czechoslovakia in 1968 created similar concern to Afghanistan.

When external and internal forces hostile to socialism try to turn the development of a given socialist country in the direction of the restoration of the capitalist system...this is...a common problem, the concern of all socialist states (Ewan, 196).

In 1977, Leonid Brezhnev summoned Mohammed Daod to Moscow for a meeting to question the Afghan leader's desire to develop stronger relations with Egypt, Saudi Arabia, and other countries. Following this meeting, the PDPA became stronger through communist support from the Soviet Union and the India Communist Party. In April 1978, Mohammad Daod was suspected of the assassination of Mir Akbar Khyber, a leading Communist activist. On April 27, 1978, the army would turn on Mohammed Daod attacking the palace (Tanner, 230); by the next morning, Mohammed Daod and his family were dead.

This event is known as the April (Saur) Revolution and led the path for the Communist party to take control. Nur Mohammed Taraki became President initially sharing control between the two communist party groups, the Khalq and Parcham; however, he sent Babrak Karmal the leader of the Parcham group to be ambassador of Czechoslovakia with his second-in-command, Hafizullah Amin. Soviet advisors arrived

in Kabul to assist the PDPA communist party.

The new government announced its reforms: equal rights and education for women; national language status for Uzbek, Turkman, Baluchi, and Nuristani; credit reform; and land redistribution. Particularly areas of Kunar Valley, central Hindu Kush, and Badakshan became anti-government. The Afghan army started to dissolve with thousands of soldiers deserting and taking weapons with them. In December 1978, the Democratic Republic of Afghanistan and the Soviet Union signed the Treaty of Friendship and Good Neighborliness (Tanner, 232).

In February 1979, the American Ambassador Adolf Dubs was kidnapped. During an attempt by the Afghan military to overpower the criminals, the ambassador was killed (Tanner, 232). Then in March 1979, a rebellion broke out in Herat, when it was finally subdued, as many as 5,000 people had died including 100 Soviet advisors and their families with the heads paraded around the city on poles (Tanner, 232). Revolts broke out around the country with the Soviet Union sending thousands of advisors and military equipment to assist the Communist government to control the country.

By midsummer 1979, President Carter would provide some initial aid to the Afghan rebels (Tanner, 233). This alerted the Soviet leadership that the U.S. may engage in the situation and summoned Taraki to Moscow in September 1979. Taraki was arrested on his return from Moscow and killed a few weeks later; his deputy Hafizullah Amin assumed control. Hafizullah educated at Columbia University in New York and spoke fluent English invoked suspicion with the Soviet head of the KGB, Yuri Andropov.

On December 24, 1979, Leonid Brezhnev sent the Soviet army into Afghanistan to squelch the political unrest expecting the same smooth results from the intervention in

Hungary in 1956 and Czechoslovakia in 1968 (Tanner, 235). The Brezhnev Doctrine called for the Soviet army to defend fellow Communist regimes. Soviet forces started flying into Kabul airport and Bagram military air base north of Kabul; both locations held by Afghan government troops and Soviet advisors. By December 27, fifty thousand Soviet men were in the country with 5,000 troops and Spetsnaz around Kabul (Tanner, 236).

Earlier in 1979, an Islamist uprising in Iran would depose the Iranian Shah and the Ayatollah Khomeini would come to power. On November 4, 1979, the Iranian government took the U.S. Embassy in Tehran hostage creating greater U.S. focus on the strategic location of Afghanistan in that part of the world, between Iran and the Soviet Union (Tanner, 234). Over the next couple days, Hafizullah Amin was killed and Soviet troops took control of strategic communication, military, and government installations. It is reported that as Spetsnaz commandos were taking the palace, Amin accepted his fate and was killed while having a drink at the bar in the palace (Tanner, 237). Babrak Karmal, the leader of the Parcham group of the PDPA, would assume control after Amin's death. On the Kabul radio frequency using a Soviet transmitter, he would address the country:

Today the torture machine of Amin and his henchmen, savage butchers, usurpers and murderers of tens of thousands of our compatriots...has been broken...The great April revolution, accomplished through the indestructible will of the heroic Afghan people...has entered a new stage. The bastions of the despotism of the bloody dynasty of Amin and his supporters-those watchdogs of the sirdars of Nadir Shah, Zahir Shah and Daod Shah, the hirelings of world imperialism, headed by American imperialism-have been destroyed. Not one stone of these bastions remains (Tanner, 237).

Babrak Karmal would again go on the radio the next day and convey that he had asked

the Soviet Union for *urgent political, moral, and economic assistance, including military assistance...the government of the Soviet Union has satisfied the Afghan's request* (Tanner, 237). Within a week, the Soviet Union had at least 750 tanks and 2,100 other combat vehicles spread across the country with 80,000 men (Tanner, 238). The Soviet military was equipped with heavy army for fighting large land wars and not traversing mountainous countryside.

Prior to the Soviet invasion, Afghanistan had a population of 17 million with 90 percent illiterate and 85 percent residing in the countryside as farmers, herders, or supporters to small communities (Tanner, 238). Despite the progressive efforts of the twentieth-century rulers from Habibullah to Daod, the country remained rustic and paid little attention to the Kabul government preferring local governance through local mullahs or tribal chiefs. An article in *Pravda* in December 31, 1979 described Afghanistan:

One of the ancient countries of Central Asia, until recently it remained one of the most backward. It seemed that their life had frozen along medieval lines and that the people were doomed to drag out a miserable existence. Feudal lords, controlled destinies and meted out reprisals against people; in order to perpetuate this state of affairs, they propagated obscurantism, enmeshed to bring a spark of light into the dark of lawlessness and arbitrary rule (Tanner, 241).

The mujahideen, a word derived from jihad for “soldiers of God” became the Afghan resistance fighters. As the PDPA attempted national reforms with local tribe resistance, the Afghan army became enforcers with mass arrests and executions; soldiers defected by the thousands taking weapons with them (Tanner, 231). The fighting started toward the east and south of Kabul around Jalalabad and Gardez. These eastern mountains were the ancient domain of the Ghilzais. The main goals of the mujahideen were (1) to deny the

legitimacy of the Kabul regime and maintain opposition among the population, (2) establish a guerrilla infrastructure and set up parallel administrative control in liberated areas, and (3) maintain a military stalemate through war of attrition making the Soviet effort too costly to continue (Tanner, 248).

By 1982, Pakistan provided arms to the mujahideen with rocket-powered grenade launchers as the weapon of choice. China would soon follow the efforts of Pakistan to supply the mujahideen with arms followed by arms from Egypt and money from Saudi Arabia. The U.S. would commit equipment under the Reagan Administration, but largely stayed on the sidelines.

In early 1984, the Pakistani leader, President Zia-Ul-Haq held a meeting with the seven Afghan resistance parties with four being Islamic Fundamentalist: Gulbuddin Hekmatyer and the Party of Islam, Burhanuddin Rabbani and the Society of Islam which included Ahmed Shah Massoud and Ismail Khan, Rasul Sayyaf who had ties to Saudi Arabia, and Yunis Khalis an elderly, respected Pashtun. The three moderate parties led by Maulvi Nabi Mohammadi, Pir Sayed Ahmad Gialani, and Hazrat Mujadidi, favored a constitutional government.

Pakistan oversaw the arms shipments to the mujahideen coordinated through General Mohammed Yousaf of the Inter-Service Intelligence (ISI), Pakistan's intelligence agency; however, many of the shipments were surplus equipment from countries, either poorly functioning or not appropriate for the guerrilla warfare mission in Afghanistan. In transferring arms, only the Chinese kept meticulous records of their shipments; therefore, arms were showing up for sale in bazaars. This is a Coalition concern of the train, equip, and advise mission of the current Afghanistan war.

In Kabul, Babrak Karmal's regime was slow but gained progress in governing Afghanistan. The Democratic Republic of Afghanistan's (DRA) army had started to grow again reaching 40,000 troops by 1984 (Tanner, 254). The Afghan secret police called KhAD, led by Mohammed Najibullah, grew to 18,000 and provided for security within the cities and intelligence in the countryside (Tanner, 254).

Under the Soviet occupation, the liberation of women occurred in cities with promotion of education and entrance to the workforce, particularly government positions. The Soviets also setup schools and childcare centers. Unfortunately, both sides of the battle lines left the Afghan countryside in destruction. By mid-1984, Afghan refugees fled with 3.5 million to Pakistan and over a million more to Iran. In Kabul, the population grew from 750,000 pre-war to two million during the war (Tanner, 255).

Soviet leader Leonid Brezhnev died in 1982 after engaging the Soviet Union in the war. Yuri Andropov, the former head of the KGB, succeeded Brezhnev. In 1984, Yuri Andropov would die of kidney failure and be replaced by Constantine Chernenko, who was also in poor health. Chernenko escalated the fighting in Afghanistan by implementing carpet-bombing and the use of hundreds of thousands of butterfly mines designed to not kill but mutilate the victim. In April 1984, Chernenko initiated the Panjshir 7, the Soviets seventh attempt to drive out Ahmed Shah Massoud and his forces from the Panjshir Valley. Massoud was twenty-seven years old at the time of the Soviet invasion, a Tajik educated at the Istiqlal High School and Military Academy graduating in 1973 (Tanner, 258). He also studied engineering at the Kabul Polytechnic until he joined Rabbani's Islamic Society.

The Panjshir Valley was strategic for the Soviets for support and protection of the

Salang Highway, Bagram Air Base, and Kabul. The Soviets pounded the valley driving the mujahideen up into the mountains and creating more destruction among the villages in the valley. The Soviets were unable to destroy the mujahideen who continued attacks on the Soviet occupied bases, retreating into the mountains.

In March 1985, Mikhail Gorbachev assumed power in the Soviet Union, the fourth leader in less than four years. After President Reagan's re-election, he signed a U.S. national security directive to support the Afghan resistance "by all available means" and committed half a billion dollars to the cause (Tanner, 263). A year later in the spring of 1986, the Soviet's would be no closer to a victory in Afghanistan. In May 1986, Babrak Karmel was forced to step down and Mohammed Najibullah, head of the KhAD security organization, would take control facing a country with little support for the government. Also in May 1986, the United Nations sponsored peace discussions in Geneva with the Soviets who offered a four-year withdraw plan. On September 25, 1986, a key event would turn the tide on the fight significantly in favor of the mujahideen (Tanner, 266).

The U.S. through the assistance of ISI would provide and train mujahideen fighters on shoulder-fired, heat seeking stingers. Soviet helicopters, on the landing approach from a routine mission to Jalalabad Air Base, exploded in the sky. In the following year, 270 Soviet aircraft were shot down causing the Soviet Union to change their tactics to avoid stingers (Tanner, 267). By January 1987, the Soviet forces had become more defensive than offensive and at the end of 1987, Gorbachev informed Najibullah that Soviet troops were pulling out. The Geneva Accord was signed on April 14, 1988 stipulating a nine-month withdrawal (Tanner, 268).

In August 1988, President Zia of Pakistan, General Akhtar of the ISI, U.S.

Ambassador Arnold Raphel, a U.S. military attache, and eight Pakistani generals all died in a plane crash near Islamabad, a suspected assassination (Tanner, 268). By February 15, 1989, the Soviets had completed their withdrawal, leaving Afghanistan in ruin (Tanner, 269). The seven leaders of the mujahideen assembled in Pakistan and became the Afghan Interim Government (AIG) preparing a force to take control of Jalalabad from the DRA in March 1989.

Once the Soviet Union left the country, the U.S. became less involved. The mujahideen were largely Muslim fundamentalists. Islamic terrorism had grown throughout the world, exemplified by the destruction of the Pan Am jetliner over Lockerbie, Scotland in 1988. The battle over Jalalabad changed the war from a Soviet occupation to a civil war with the leaders of the mujahideen vying for control.

Although women's role had progressed under Soviet occupation, it would regress under the Muslim fundamentalist culture through the mujahideen and Taliban.

The mujahideen entered Kabul and burnt down the university, library, and schools. Women were forced to wear the burqa and fewer women were visible on television and in professional jobs. The period of 1992-1996 saw unprecedented barbarism by the mujahideen where stories of killings, rapes, amputations, and other forms of violence were told daily. To avoid rape and forced marriages, young women were resorting to suicide (Ahmed-Gosh, 7).

Civil War, Al Qaeda, and the Taliban

A lesser-known mujahideen fighter, Osama bin Laden, had visited Afghanistan in 1980 as a twenty-three-year-old at the request of the head of Saudi intelligence, Prince Turki bin Fasal. In 1982, he would establish a base in Pakistan to provide support for the mujahideen. Using funds from the Saudi government, his family, and other wealthy contributors, he carved out caves and tunnel complexes in the mountains of eastern

Afghanistan, around the city of Khost and southern Jalalabad. By 1990, bin Laden became disillusioned with the mujahideen and returned to Saudi Arabia to the family's billion-dollar construction business. He also created an organization to aid and support the 35,000 Arab veterans of the Afghan war; the group known as Al Qaeda, which translates to "the base" (Tanner, 274).

With members from forty-three nations, Al Qaeda was dedicated to global jihad on behalf of a puritan strain of Islam, while in its methods is somewhat resembled the medieval sect of Assassins that had been wiped out by the Mongols in 1251 (Tanner, 286).

In March 1991, the mujahideen took control of the city of Khost and then moved onto Gardez. Najibullah changed the name of his People's Democratic Party of Afghanistan to the Homeland Party attempting to distance from the communist party affiliation. In May 1991, the United Nations devised a peace plan agreed by the Afghan government, Iran, Pakistan, U.S. and the Soviet Union but rejected by the mujahideen. In October 1991, the Iron Curtain came down and on Christmas day, December 25, 1991, Gorbachev resigned as the General Secretary of the Communist party.

In February 1992, Abdul Rashid Dostrum, a powerful Uzbek warlord, along with Massoud would take control of Mazar-i-Sharif. Dostrum and Massoud would approach Kabul from the north while Hekmatyar would approach from the south with intent to take control of the government. The mujahideen leaders would establish the Islamic Jihad Council and attempt to split control among them; however, members could not maintain agreement. Historian Ahmed Rashid describes:

Much of Afghanistan's subsequent civil war was to be determined by the fact that Kabul fell, not to the well-armed and bickering Pashtun parties...but to the better organized and more united Tajik forces...and to the Uzbek forces from the north...It was a devastating psychological blow because for the first time in 300 years the Pashtuns had lost control of the

capital. An internal civil war began almost immediately (Tanner, 276-277).

The cities became a battleground, particularly Kabul, saw 30,000 killed and 100,000 wounded in a year with overall deaths in the country at 100,000 since the control by the mujahideen (Tanner, 277). Eventually, the Hazaras, a Shite population with ties to Iran, joined Hekmatyar as did Dostrum and the Uzbeks trying to gain power of Kabul. Afghanistan became the world center for opium trade fueled by the warloads of the mujahideen.

Using filtering laboratories in Pakistan and former Soviet Union republics, the conversion of Afghan opium to heroin provided 70 percent of the world's supply (Tanner, 278). While fighting continued around Kabul between Massoud and Hekmatyar with the Hazarras and Dostrum, a new-armed group not associated with the mujahideen had developed in Kandahar, the Taliban (a word meaning students or seekers). By late 1994, the Taliban had already conquered the tribal warloads of the south and headed north toward Herat, Ghazni, and Kabul.

The Taliban began when a local warload had raped several women in the summer of 1994. Local people turned to the mullah, Mohammed Omar, and he summoned religious students to execute the criminal. Afterwards, the students responded to other calls from people victimized and the Taliban continued to grow in numbers. The Taliban appeared to have support from Pakistan under Prime Minister Benazir Bhutto. Bhutto held direct discussions with Ismail Khan and Dostrum about security for a road through Central Asia from Pakistan through Kandahar to Herat. In October 1994, the Pakistani's decided to test-drive the road with a thirty-truck convoy filled with food and medicine; however, a local warload named Mansur captured the convoy. The Pakistani's asked the Taliban to

rescue the convoy, which they did.

The Taliban then took Kandahar and continued to spread across the southern provinces; replacing anarchy with strict order through extremely conservative Islamic principles. In 1995, Hekmatyar was driven out of the country while his force either fled or joined the Taliban. The Taliban now faced Massoud on their path to Kabul. On March 19, 1995, Massoud's counterattack would drive the Taliban back to Ghazni and their strategy changed towards Herat and a fight with Ismail Khan. Initially, Herat held strong against the Taliban with support from Iran; however, new recruits from Pakistan entered the fight and the city fell in September 1995.

The Taliban then turned back to Kabul and a war raged from winter 1995 through the spring 1996. In midwinter, the United Nations led an emergency airlift of food into the capitol. In June 1996, Hekmatyar returned to Kabul and took the Prime Minister position while the other mujahideen leaders, Dostum and Massoud, joined the government leadership. Even the Hazarra leader, Karim Khalili, joined the government's coalition against the Taliban.

The Taliban took Jalalabad bypassing Kabul and headed further north for Bagram forcing Massoud out of Kabul on September 26, 1996 to head north and protect the Panjshir Valley. The next day, the Taliban entered Kabul, broke into the United Nations compound, and found the former communist leader, Najibullah, hung him and his brother on public display from a tree in front of the Presidential palace. The Taliban then took Kabul. In early 1997, Massoud held a meeting with all forces resisting the Taliban and combined as the United Front for the Liberation of Afghanistan or more commonly known as the Northern Alliance.

The Taliban's governing philosophy included denying women education and work; depending on the crime, justice was invoked by cutting off people's hands, ears, or heads; public stoning for adultery; banning television, music, photographs, whistling, and kite flying; beating women for showing an arm or wearing white socks; and blackening windows of homes where women lived. The Taliban had returned the country to medieval times. The Department for the Propagation of Virtue and Suppression of Vice became the enforcement arm of the government.

Fighting continued throughout the north over the next several years with Bamian falling in 2001 and the Taliban dynamiting the two Buddha statues. Buddhist monks carved these statues into the cliffs in the third and fifth centuries. The Taliban controlled ninety percent of the country with Massoud left to defend the remainder.

Osama bin Laden left Afghanistan in 1990 initially returning to Saudi Arabia but then moved to Khartoum, Sudan in 1992, devoting himself to building the Al Qaeda organization and a global jihad. He focused on raising funding for expanding his terrorist movement. Terrorist activities over the next few years appeared linked to bin Laden: the car bombing of the World Trade Center in 1993, five U.S. soldiers blown up in Saudi Arabia in 1995, and nineteen soldiers killed in a barracks in Dhahran from a truck filled with explosives (Tanner, 286).

In 1994, Saudi Arabia revoked bin Laden's citizenship and the Sudanese asked him to leave the country (Tanner, 286). In May 1996, bin Laden returned to Afghanistan and the cave network he previously built. In August 1998, two American embassies exploded in the capitols of Kenya and Tanzania (Tanner, 286). The Central Intelligence Agency (CIA) identified that Al Qaeda was behind the attacks and two weeks later 72 cruise

missiles were launched against bin Laden's bases around Khost and Jalalabad (Tanner, 286). In October 2000, the destroyer U.S.S. Cole while refueling in Aden harbor, Yemen, was attacked killing 17 and wounding 39 U.S. sailors (Tanner, 286). Both Yemeni suicide bombers were veterans of Afghanistan.

Utilizing the religious school in Afghanistan and Pakistan as recruiting stations, bin Laden grew and trained Al Qaeda. The situation in Afghanistan remained a stalemate between the Taliban and Massoud. At the time, Massoud had refused any interviews but in late summer 2001 agreed to an interview by two Algerian journalists carrying credentials from Belgium (Tanner, 287). During the interview in early September, a bomb hidden in the camera exploded; Massoud died while flown to a hospital in Tajikistan. The Algerians were members of al Qaeda linking the assassination of Massoud to Osama bin Laden.

On September 11, 2001, just before nine o'clock in the morning, a plane hit the World Trade Center north tower. The second airliner came in from the New Jersey side and crashed into the World Trade Center south tower. Twenty-five minutes later, another airliner crashed into the Pentagon. Half an hour later, an airliner crashed in rural Pennsylvania. The Federal Aviation Administration (FAA) closed all airports and ordered some two thousand airplanes in the sky to make emergency landings.

The loss from the twin towers included 353 New York City firefighters and Port Authority police and over 2,500 occupants in the towers at the time of the fire and collapse. The loss from the Pentagon was 184. The loss from the aircraft in Pennsylvania was forty-three (September 11, 2015 Fast Facts). Within a day, the U.S. intelligence community identified the September 11 terrorists, nineteen suicidal Arab hijackers with

15 from Saudi Arabia (Tanner, 292).

On September 20, 2001, President Bush addressed the U.S. Congress and the nation concluding his speech:

The course of this conflict is not known yet; its outcome is certain. Freedom and fear, justice and cruelty, have always been at war. And we know that God is not neutral between them... We'll meet violence with patient justice, assured of the rightness of our cause and confident of the victories to come. In all that lies before us, may God grant us wisdom and may he watch over the United States of America (Tanner, 294).

In early October 2001, the U.S. revealed to a council of North Atlantic Treaty Organization (NATO) nations the results of investigation into the September 11 attacks and the links to Al Qaeda. On October 7, American and British forces attacked Afghanistan with a force of 15 land-based bombers, 25 carrier-based fighter-bombers, and 50 Tomahawk missiles launched from U.S. ships and British submarines in the Arabian Sea (Tanner, 295). The military targeted Taliban compounds, command centers, and airfields.

Osama bin Laden responded with a videotaped speech renewing his call for global jihad:

The wind of change is blowing to remove evil from the peninsula of Muhammed, peace be upon him. As to America, I say to it and its people a few words: I swear to God that America will not live in peace before peace reigns in Palestine, and before all the army of infidels depart the land of Muhammed, peace be upon him. God is the greatest and glory be to Islam (Tanner, 295).

Although the Global War on Terrorism started in 2001 and will last well into the next decade, the terrorist expansion had been developing for years. In 1971 there were only 900 madrassas (religious schools) in all of Pakistan (Coll, 180). By 1988 this number changed to 8,000 official religious schools and twenty-five thousand unregistered

religious schools, largely along the Pakistan-Afghanistan border and funded by Saudi Arabia and other Gulf states (Coll, 180). Many schools were used for recruiting militia for fighting the Soviets, cross-fighting within the mujahedin, and jihadists joining the Taliban and Osama bin Laden's terrorist group.

The training camps established for developing militia to fight the Soviets became the training camps for developing jihadists for terrorism. Islamic fundamentalism became the backbone of the Afghanistan War with the Soviet Union. Once the Soviet Union withdrew, the jihadists re-missioned their purpose to terrorism uniting around a common purpose to spread Islamic fundamentalism across Islamic regions.

Summary of Afghan History

What has become consistent in many countries currently undergoing internal strife, Afghanistan has a long, violent history with turnover of leadership usually through assassination. For many years, Afghanistan was ruled by a monarchy, the fight for power pitted family members against each other. The mountainous areas of the country allowed some areas to resist modernization or changes to local culture. Although some rulers attempted developing a national connection over local tribal governance, few could achieve it.

The mountainous countryside impedes movement restricting the population's focus on local versus national government accomplished through leadership within tribes. With few roads traversing the country and mountain passes narrowing transportation options, criminal activity through bribes, extortion, and payoffs became accepted for passage throughout the country. Corruption is the accepted norm and has grown significantly through the influx of Coalition funds since the invasion in 2001.

Islamic fighters, such as Osama bin Laden, flocked to Afghanistan to support the mujahideen against the Soviet Union. As battles waged between the mujahideen, Soviets, DRA army, and the civil wars between the mujahideen leaders, soldiers crossed battle lines and philosophical aspirations aligned with leadership supporting their interests and benefits at that moment in time.

The call to arms attracts “want-to-be” warriors as currently seen in the recruitment for the Islamic State (IS). The Afghanistan-Soviet War provided substantial military equipment to the area ultimately supplying the jihadists with these arms. *The Soviet Union had sent between \$36 billion and \$48 billion worth of military equipment from the time of the Afghan communist revolution; the equivalent U.S., Saudi, and Chinese aid combined totaled \$6 billion and \$12 billion (Coll, 238).* As early as 1992, diplomats and analysts raised the concern for *Islamic extremists’ efforts to use Afghanistan as a training/staging base for terrorism in the region and beyond (Coll,239).*

In an Associated Press article, *20,000 Foreign Fighters Flock to Syria and Iraq*, dated February 10, 2015, the article states:

Foreign fighters are streaming into Syria and Iraq in unprecedented numbers to join Islamic State or other extremist groups, including at least 3,400 from Western nations among the 20,000 from around the world, U.S. intelligence officials say in an undated estimate of a top terrorism concern...Nick Rasmussen, chief of the National Counterterrorism Center, said the rate of foreign fighter travel to Syria is without precedent, far exceeding the rate of foreigners who went to wage jihad in Afghanistan, Pakistan, Iraq, Yemen, or Somalia at any other point in the past 20 years (Dilanian, Feb 10,2015).

With the use of internet, the world is connected more today than it has ever been; therefore, making global recruitment much easier today than it has ever been.



Figure 1-8. Mountain range surround Kabul

Figure 1-8 illustrates the mountains surrounding Kabul, the capitol of Afghanistan, and typical of other cities in Afghanistan make it vulnerable to terrorists hiding and escaping into the mountain regions.

To understand the foundational problems associated with any capacity building effort across countries, the history of Iraq is explored to recognize significant events which produce similar results across the Middle East and Central Asia territories.

Section 1.4.2 Iraq

In February 2003, the U.S. invaded Iraq. On April 4, 2003, then National Security Advisor Condoleezza Rice stated in a press briefing that the United States' intention for Iraq was to

help Iraqis build an Iraq that is whole, free and at peace with itself and with its neighbors; an Iraq that is disarmed of all WMD (Weapons of Mass Destruction); that no longer supports or harbors terror; that respects the rights of Iraqi people and the rule of law; and that is on the path to democracy (Brennan, 3).

She emphasized the U.S. would work with Coalition partners and international organizations to rebuild Iraq and turnover responsibility to the Iraqis as soon as possible. By the end of April 2003, the Iraqi Army was defeated and the Coalition forces were in control. This started the initial shift from combat operations to civilian-led reconstruction activities.

The rationale for decision to invade Iraq hinged on the premise that Iraq had WMD, was planning to attack the U.S., and was actively supporting the terrorists who had attacked the World Trade Center and the Pentagon (Polk, 2). These reasons were never substantiated.

What became evident after the initial invasion and military success, the war floundered as cited by former Secretary Robert Gates,

Even though the nation was waging two wars, neither of which we were winning, life at the Pentagon was largely business as usual when I arrived...It was clear why we had gotten into trouble in both Iraq and Afghanistan: after initial military successes in both countries, when the situation in both began to deteriorate, the president, his senior civilian advisors, and the senior military leaders had not recognized that most of the assumptions that underpinned early military planning had proven wrong, and no necessary adjustments had been made. The fundamental erroneous assumption was that both wars would be short and that responsibility for security could quickly be handed off to Iraqi and Afghan

forces.

From the summer of 2003 in Iraq and from 2005 in Afghanistan, after months, even years, of overly optimistic forecasts, as of mid-2006 no senior civilians or generals had been sacked, there were no significant changes in strategy, and no one with authority inside the administration was beating the drum that we were making little if any progress in either war and that, in fact, all the signs were pointing toward things getting worse (Gates, 115-116).

To understand the challenges faced in transitioning stability and security responsibility from the coalition to Iraq, one needs to understand the Iraqi people through the lens of their violent past and historic strategic position of the country for major world powers.

What is the land and who are the people of Iraq? Using 2015 data from the Central Intelligence Agency World Factbook, the size of Iraq is about that of California, with a population of 31.9 million (CIA factsheet 2015, 3). The ethnic groups comprise 75-80 percent Arab, 15-20 percent Kurdish, and five percent a combination of Turkoman, Assyrian, and other groups (The Middle East, 263). The religious composition is 97 percent Muslim (Shiite 60-65 percent and Sunni 32-37 percent) with three percent a combination of Christian, Yazidi, Jewish, and other faiths (The Middle East, 263).

The languages are Arabic, Kurdish, Assyrian, and Armenian. The type of government is parliamentary democracy. Twenty-five percent of the population live below the poverty line (CIA Fact Sheet 2015, 10). The population is young with 56.8 percent below age twenty-five and a median age of 21.3 years old (CIA factsheet 2015, 3).

Iraq's most valuable national resource is oil with reserves ranked fourth largest in the world estimated at 115 billion barrels (The Middle East, 262). Iraq is

mountainous in the north rising as high as 12,000 feet. Two major rivers, the Euphrates and Tigris flow through the center of Iraq establishing the best area for agriculture with irrigation canals and small lakes. Both rivers join in Basra in the south and flow to Umm Qasr, the port on the Persian Gulf. The Syrian Desert is the area west of the Euphrates and extends into Jordan and Saudi Arabia.

Iraq is all about oil. Before the Iran-Iraq War, Iraq produced 3.5 million barrels a day and transported most of the oil through pipelines to two terminals at Khor al-Amaya and Mina al-Bakr on the Persian Gulf for transfer to tankers (The Middle East, 262). Iranian attacks hampered oil production during the Iran-Iraq War. The Baniyas pipeline passed through Syria to the Mediterranean Sea; Syria shut down the pipeline. Iraq took on an ambitious pipeline construction effort to circumvent the Syrian blockade and avoid Iranian attacks in the south. The country quickly rebound its export earnings to \$11.8 billion in 1989 (The Middle East, 262).

However, the International embargo against Iraq in August 1990 limited oil exports to 80,000 barrels per day with most to Jordan as part of a United Nations agreement (The Middle East, 262). Eventually in December 1996, United Nations (UN) Security Council Resolution (UNSCR) 986 allowed Iraq to sell \$2 billion of oil every six months for the government to purchase food and medicine (The Middle East, 262).

A UN committee oversaw this oil-for-food program. In 1998, UNSCR 1153 raised the value to \$5.26 billion and by 2002 Iraqi oil exports reached 2.2 million barrels per day (The Middle East, 262). The 2003 U.S.-led invasion severely

hampered oil production and by 2006 oil production was at two million barrels per day, less than before the invasion (The Middle East, 263).

Although Iraq's greatest resource is oil, it does possess other valuable natural resources: natural gas produced in Kirkuk; limestone which gives the country limited capability to export cement, salt, and gypsum; and its agricultural potential which is greater than most nations in the Middle East.

What is the history of Iraq? If one believes that the Garden of Eden resides in Iraq as suspected by historians, then it was the beginning of mankind. Iraq was once fertile from the Euphrates and Tigris Rivers that flow from Syria and Turkey; it was Mesopotamia (the land between two rivers) occupied by the Persian, Greek, Roman, Arab, Mongol, and Ottoman empires. Farming was the occupation of the Ubaidans that resided in 6000 B.C (Polk, 14). Sumarians were the inhabitants in the southern area during this time. Small cities existed ruled by single great men. Battles between the cities created a focus on protection and walls erected to surround the cities. Over time, two groups moved east from the Mediterranean, the Assyrians settled in the north and the Akkadians followed the Euphrates River to the south.

As citizens migrated to the more protected cities, larger cities formed and eventually Babylon became the largest in the center of Iraq. Although the Assyrians grew as a formidable power, they eventually lost their strength and were defeated. In 539 B.C., Cyrus, the new Persian emperor, defeated the Babylonian army and established Babylon as the capital of the merged empire, thus merging Iraqi and Persian culture (Polk, 31). Warfare continued through this

area as the Parthians and Romans fought for control.

Iraq and Afghanistan share history through the conquest of Alexander the Great, the Macedonian ruler, whose life quest was to conquer the Persian Empire. In 330 B.C., he entered Babylon and conducted the “Wedding of Ten Thousand”, a ceremony for his soldiers to marry the women that had become camp followers (Polk, 33). Alexander married the daughter of the Persian king, Roxana.

Birth of Islam

In the year 570, a new evolution of the Middle East started with the birth of Mohammad and creation of Islam in the town of Mecca, located in an area of Saudi Arabia (Polk, 34). Mecca was a trading town and Mohammad initially was one of the merchants. He became disenchanted with greed of the materialistic world and treatment of the poor. After receiving a vision of the angel Gabriel who commanded him to *recite in the name of the Lord*, Mohammad described the visions and spoke the commandments to the public (Polk, 36), transcribed as the Quran. Mohammad’s teachings were deemed treason and he fled Mecca and later resided in the smaller city of Medina.

In Understanding Iraq, William Polk explains a foundational concept of Arabic culture:

Because of the limited resources of the desert, no group could be large. The tribe of hundreds or thousands was only a theoretical unit. In practice, no group larger than fifty or so individuals could stay together because their animals would exhaust the nearby grazing and water. The effective unit, that is, the group that tented together, herded animals in common, and protected one another, was usually made up only of the descendants of a single man over a few generations. Within this clan there could be no fighting, while among clans there could be no permanent peace (Polk, 38-39).

Using Islam as the means for banding clans together through an understanding that all were brothers and invited followers, clan after clan joined the Islamic society to gain group connection and security. Mohammad also recognized and tolerated the existence of other religions, Judaism and Christianity. By Mohammad's death in 632, only eleven years after he fled Mecca, almost all Arabia belonged to Mohammad's Muslim society (Polk, 39). Upon Mohammad's death, his father-in-law Abu Bakr became successor and in the year 633 started raids against the Byzantine and Roman empires (Polk, 40). Islam grew through conquest but the beneficiaries were largely limited to the Arabs. Although the number of non-Arab Muslims, such as Greeks and Persian, grew through conquests, they were not accepted as part of the Arab ruling elite.

Ali, the cousin and son-in-law of Mohammad, attempted to build coalitions to take control of the Islamic society. A fellow Muslim killed him in the year 661 (Polk, 45). The reign of Islam had passed through Arab successors with no relationship to Mohammad, which created more dissent among the non-Arabs that accepted Islam but not Arab control. Ali's son Husain, grandson of Mohammad, came to the new capital of Iraq, Kufa, to gain support of the followers of his father.

Husain was killed on the tenth day of the lunar month Muharram in the Hijrah year 61 (the Islamic year dates from Mohammed's flight from Mecca), which became the most significant date for Shias (Arabic for the Partisans of Ali) and created the separation of Islam between the Sunnis and Shiias (Polk, 46). Najaf and Karbala, the two holiest Shiite cities are home to many buried Shiite martyrs

located in central Iraq (The Middle East, 263). These cities attract pilgrimages of Shiite from Iran and other Muslim countries.

Iraq under British Rule

The invasion of Kuwait by Saddam Hussein and his claim that Kuwait was part of Iraq stems back to 1899 when Britain established Kuwait as a British protectorate. Although the Kuwaiti royal family had ruled the area since 1756, Iraq considered the area part of its southern province. After oil was discovered in the 1950s, the dispute initially flared and the Arab League of States established the Kuwait-Iraq border two miles north of the southern tip of the oilfield (Hayes, 1).

The modern European interest in Iraq stems back to the late eighteenth century and the establishment of a British postal system from England to India through Iraqi territory via the Euphrates River to the Persian Gulf. To maintain this route, the British established consulates in Basra in 1764 and Baghdad in 1798 (Polk, 62). Through the nineteenth century, other European countries considered expansion efforts; however, in 1899 the Germans planned the railway from Berlin to Baghdad (Polk, 63). This initiative threatened the British interests established in Iraq and Great Britain began efforts to make Kuwait a separate state. It was also during this time that Great Britain gained an understanding of the oil potential in Iraq and the agricultural value.

During World War I, Great Britain initially positioned itself in the areas around Kuwait and Basra for the protection of oil. By 1915, the British army started to advance on Baghdad and engage the Turks of the Ottoman Empire

occupying Iraq. When the war ended in 1918, the British fight in Iraq had cost nearly 30,000 soldiers and 750 million pounds (today's equivalent of \$18 billion) (Polk, 71).

In 1920, under the Treaty of Sevres, Iraq and Palestine were mandated to Great Britain with Syria under France by the League of Nations (The Middle East, 264). Since the mandate did not specify a time for Iraq to become an independent state, Britain increased its military strength in the area. Although the three groups in Iraq (Kurds, Shia, and Sunni), associated with their tribes more than a country, they rallied together for the nation to be independent from British rule.

By June 30, 1920, British had 133,000 troops fighting the Iraqis in a national war of independence (Polk, 77). In 1932, Britain agreed to end the mandate and Iraq became an independent state joining the League of Nations (The Middle East, 264). During period from 1918 to 1932, Britain positioned Iraqi leadership supportive of British initiatives.

Although the concept of a separate Kurdistan for the Kurds was considered, it was ultimately Colonel Winston Churchill who decided to make area part of Iraq; therefore, solidifying all areas known for oil to maintain strong influence from Britain (Polk, 78-80). This sealed the fate for Kurds, creating a contentious issue still unresolved today.

British authority established King Faisal, a Meccan Hashmite prince, a descendant of the Prophet Muhammad, as the ruler but his reign lasted only a year when he left the country for health reasons and died in Switzerland. His son Ghazi succeeded him until 1939 when he died in an automobile accident (Polk,

94). King Faisal's infant son, Faisal II, proclaimed ruler with Prime Minister Rashid Ali assuming leadership responsibility. In 1941, Foreign Minister Nuri Said, would overthrow Rashid Ali as Prime Minister with support from the British (Polk, 96).

Prime Minister Rashid Ali fled first to Iran and then Germany while senior Iraqi army officers were hung and several hundred other officers were sent to internment camps (Polk, 96). The British still maintained a strong influence in Iraq creating unrest among Iraqi leadership. As oil became more a critical funding source for Iraq in the 1950s, internal tension with the British grew. In 1958, a revolutionary period started with the overthrow of Prime Minister Nuri Said by Brigadier General Abdul Karim Qasim.

The Baath Party founded in Damascus, Syria expanded into Iraq through the military by General Abdul Karim Qasim. This created the support needed to stage a coup on July 14, 1958 against Prime Minister Nuri and the Hasimite monarchy, killing King Faisal II (The Middle East, 264). The July 14th bridge in Baghdad commemorates this event.

Once General Qasim took power, he became suspicious of officers becoming more powerful around him and had them removed. His new Iraqi regime established relations with communist nations and began purchasing military equipment from the Soviet Union. In March 1959, Iraq withdrew from the British-dominated Baghdad Pact, joined in 1955 with Great Britain, Iran, Pakistan, and Turkey (The Middle East, 265). With the departure of Iraq, the organization moved its headquarters to Ankara, Turkey and became Central Treaty

Organization (CENTO) (The Middle East, 265).

General Qasim made dramatic changes in the domestic policies of the country. Land reform laws were enacted and the political system liberalized resulting in segments of the society not previously involved in the political system pressing demands on the system. In March 1959, army officers in Mosul tried but failed to overthrow the Qasim regime (The Middle East, 265). In 1961, Kurdish Groups launched an armed rebellion against the government (The Middle East, 265). On July 25, 1961, General Qasim laid claim to independent Kuwait and British troops were sent to Kuwait to deter possible Iraqi aggression (The Middle East, 265).

In 1963, Colonel Abdus-Salam Arif, who had led the coup against Nuri Said with General Qasim, led a coup against General Qasim and became President and Hassan al-Bakr, a prominent Baath Party member, became Prime Minister (The Middle East, 265). In the spring of 1964, President Arif killed in a helicopter crash was replaced by his brother, Abdur-Rahman Arif (The Middle East, 265).

In July 1968, while President Arif had gone abroad, Major General Hassan al-Bakr, in a bloodless coup, took control of the radio station, Ministry of Defense, and headquarters of the Republican Guard (Polk, 117). After seizing control, General al-Bakr established a ruthless role: executed a former President, two former prime ministers, numerous high-ranking officials, and prominent members of the Shiite Muslim and Kurdish communities alleging they were U.S., Israeli, and imperialist spies (The Middle East, 265).

Saddam Hussein had become a member of the Baath Party covertly gaining power within the group. In 1971, he became Vice President and in 1979 staged a

coup against President al-Bakr (The Middle East, 265). Also in 1979, Ayatollah Khomeini took control from the Shah of Iran and put Shiite party in power (The Middle East, 242).

As typical of his predecessor, Saddam Hussein sought to eliminate all rivals within the Baath Party and the military. He ordered the execution in April 1980 of Ayatollah Muhammad Bakr al-Sadr, a prominent Shiite cleric to dissuade any challenge from the Islamic opposition (The Middle East, 265).

Iran-Iraq War (1980-1988)

There are two events attributed to Saddam's actions against Iran. The first being the Iranian-inspired assassination attempt against his deputy, Tariq Aziz, in Baghdad and the second being Khomeini's unremitting call to the Iraqi Shiite majority to revolt against the Baath Socialist Party. On September 22, 1980, Iran-Iraq War started and persisted eight years (The Middle East, 265). By June 1982, senior Iraqi leaders in the Baath Party covertly drafted an offer to end the war but Khomeini rejected a ceasefire (Polk, 131). The former President Hassan al-Bakr, a current member of Saddam Hussein's cabinet, was believed connected to the ceasefire request and suspiciously died (Polk, 131).

Although Iraq had severed ties with the U.S. in 1967 over its support of Israel in the war with Egypt, Iraq and the U.S. restored diplomatic relations on November 26, 1984 (The Middle East, 266). The relationship suffered a major setback when disclosed that the Reagan Administration had sold arms to Iran to build contacts among Iranian moderates and facilitate the release of U.S. citizens held hostage in Lebanon by Iranian-backed forces (The Middle East, 266).

With the distraction of the war with Iran, the Kurds used this time to fight for their independence. The two groups, the Kurdish Democratic Party (KDP) led by the Barzani clan and the Patriotic Union of Kurdistan (PUK) led by Jalal al-Talabani controlled their areas outside the major cities. By 1987, Iran advanced into the area of Kurdistan to support the Kurds in their battle with the Iraqis (Polk, 134). Also in May 1987, an Iraqi jet fired a missile at USS Stark killing 37 crewmembers (The Middle East, 266).

The U.S. accepted the explanation that the strike had been an accident. During the summer of 1987, the U.S. initiated naval patrols in the Persian Gulf to halt Iranian attacks on Kuwaiti ships (The Middle East, 266). However, the relationship strained again in 1988 when the Reagan Administration condemned Iraq's use of chemical weapons against Kurdish rebels and civilians (The Middle East, 266).

In March 1988, Iraq led a counterattack targeting the town of Halaja, occupied by Iranian and Kurdish forces (Polk, 135). Using chemical weapons on men, women, and children, at least 4,000 were killed (Polk, 135). Figures 1-9 and 1-10 depict the result of this attack. The Crimes Against Humanity museum in Baghdad displays artifacts of Saddam Hussein's reign of terror.

With intervention by other nations including the US, a UN Security Council sponsored ceasefire stopped the war on July 1988. By this time, both countries saw hundreds of thousands dead or wounded and devastated the economy. A mass exodus of over a million professionals left the country leaving an uneducated population to rebuild. During the war, Iraq had borrowed over \$100 billion from Saudi Arabia, Kuwait, and other Gulf states to fight the war (Polk, 134-135).



Figure 1-9. Pictures of the chemical attacks on the Kurds



Figure 1-10. Pictures of the chemical attacks on the Kurds and mass graves

Prior to the war, Iraq grew economically and academically through the profits from oil. Looking for success of Saudi Arabia negotiating a deal with Arabian American Oil Company (ARAMCO) and a fifty-fifty profit split with the Saudi government, President Nuri negotiated with the oil consortium operated in Iraq, Iraq Petroleum Company (IPC), and increased government revenue from \$40 million in 1952 to \$238 million in 1958 (Polk, 126). President Nuri earmarked that 70 percent of the increased revenue be spent on development.

When General Qasim attempted to negotiate a 90 percent-10 percent split with IPC he met resistance and established the Organization of Petroleum Exporting Countries (OPEC) to shift control from consortiums to governments. However, it was under President Abdus-Salam Arif and his brother Abdur-Rahman Arif that

established a national company, the Iraq National Oil Company (INOC) and the involvement of France and Russia to invest in new oil fields and market Iraqi oil (Polk, 126).

Saddam Hussein made the largest impact in oil economy by nationalizing IPC and increasing revenues from \$1 billion in 1973 to \$8 billion in 1975 to \$26 billion in 1980 (Polk, 127-128). Action took control of production from the British to the Iraqi government and started a period of tremendous economic development in Iraq that was devastated by the Iran-Iraq war. After eight years of fighting, the country economically and emotionally was devastated with greater dissension between the Kurds, Shia, and Sunni people and significant debt with other countries.

Events Leading to the First Persian Gulf War

The post-Iran-Iraq War domestic problems set the stage for Saddam Hussein's action to invade Kuwait on August 2, 1990. Kuwait and the United Arab Emirates (UAE) unlevelled the oil revenue playing field by exceeding the quota set by OPEC by nearly two million barrels a day and driving down the price of oil. The Iraqi oil minister, Issam Abdul-Rahim al-Chalaby, had raised this issue with Kuwait and UAE producing oil rates far above the OPEC quota to deliberately slash the price of oil. Iraq claimed that the reduction in oil price had reduced Iraq's annual oil revenues by \$1 billion (Ibrahim, July 18, 1990). Cited by Baghdad news agencies, Saddam Hussein expressed that American influence was responsible for Kuwait and UAE oil production above the designated quotas. He stated: *the policies of some Arab rulers are American. They are inspired by*

America to undermine Arab interests and security. Iraqis will not forget the saying that cutting the necks is better than cutting means of living (Ibrahim, July 18, 1990).

On July 16, 1990, the Iraqi foreign minister, Tariq Aziz, accused in a letter to the Secretary-General of the Arab League that Kuwait and UAE had exceeded OPEC oil production quotas and further accused Kuwait of stealing oil from the Rumaila oilfields on the border between the two countries.

On July 20, 1990, Iraq moved two divisions equating 30,000 troops to the Kuwait border but by July 25, the number increased to six divisions and 100,000 troops. The U.S. perceived troop movements merely a threat and would not be substantiated with action. On July 25, the Kuwaiti crown prince, Sheik Saad al-Abdullah al-Sabah, agreed to meet with Iraq leaders to discuss the oil and border disputes, a reversal position from the former assertion that issues be settled through an Arab league mediation effort (Ibrahim, July, 16, 1990).

On July 25, Saddam Hussein requested a meeting with U.S. Ambassador to Baghdad, April Glaspie. A letter from President Bush to Saddam Hussein delivered by Ambassador Glaspie represented a conciliatory policy to maintain economic and political ties and improve relations with Iraq (U.S. Department of State Office of Historian). It appears that Saddam Hussein believed the U.S. would not retaliate if he attacked Kuwait. According to an Iraqi transcript for the July 25 meeting between Saddam Hussein and Ambassador Glaspie, Hussein stated, *yours is a society which cannot accept 10,000 dead in one battle* (The Middle East, 267).

His opinion potentially influenced by the U.S. public's opposition to Vietnam and then-President Nixon's campaign promise to end U.S. part in Vietnam War. This attitude coupled with the position that Middle Eastern dictators raise their prestige through showing actions of strength may have influenced his decision to invade Kuwait to resolve his own domestic problems. In 1967, then-president Gamal Abdel Nasser of Egypt raised his position in the Arab world by taking on its neighbor, Israel (The Middle East, 267).

Working through President Mubarak of Egypt, a meeting was setup in Jeddah, Saudi Arabia the following week to resolve the issue. The Iraqi delegation to Jeddah was led by Iraqi Deputy Prime Minister, Izzat Ibrahim, who presented four demands: (1) abide by OPEC oil quotas, (2) concede the southern part of the border-Rumaila oilfield, (3) Kuwait gift the war debt, and (4) Kuwait compensate Iraq for oil market losses due to oil price reduction. Kuwait's delegation, led by Sheik Saad al-Abdallah, demands consisted of final settlement on border dispute gifting the debt for return of the border demarcation; the meeting lasted two days ending with disagreement on all four Iraqi terms. On August 2, 1990, Iraq invaded Kuwait using land, air, and naval forces (Najjar, 1).

The U.S. spent next few months tactically planning and strategically building coalitions with other nations in the Middle East and working a diplomatic means through United Nations. UNSCR 660 demanded immediate Iraqi withdrawal from Kuwait (Polk, 147). The U.S. and Soviet Union issued a joint statement denouncing the Iraqi invasion and then UNSCR 661 passed establishing a boycott of Iraq's overseas trade (Polk, 148). Both Saudi Arabia and Turkey closed the

pipeline passing through their countries, severely reducing Iraq's oil outflow and revenue. UNSCR 665 authorized the use of force to ensure compliance of the embargo (The Middle East, 106). The UN blockade stopped almost all exports from Iraq and 90 percent of imports (The Middle East, 106).

Arab countries were divided in support against Iraq's actions. President Mubarak of Egypt called a meeting in Cairo on August 10 to find an Arab solution (Polk, 141). Iraq made no concessions and the summit ended with twelve countries voting in favor of Arab troops sent to Saudi Arabia for defense against Iraq: Bahrain, Djibouti, Egypt, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Syria, and UAE. Iraq, Libya, and the Palestine Liberation Organization (PLO) voted against the measure with Jordan, Mauritania, and Sudan voting in favor but with reservations (The Middle East, 109). Algeria and Yemen had abstained and Tunisia did not attend (The Middle East, 109). The Arab solution was one of a defensive posture, not an offensive posture to extract Iraq from Kuwaiti territory.

King Fahd of Saudi Arabia agreed to allow the U.S. to position their military in the country after a visit by then-Secretary of Defense Dick Cheney. By January 1991, there were nearly 250,000 troops, at least 1,000 aircraft, and about 30 naval ships in the Gulf area. In addition, long-range B-1, B-2, and B-52 bombers were stationed within range of Iraqi targets (Polk, 150). UNSCR 678 established on November 29, 1990 set a date of January 15, 1991 as the deadline for *all necessary means* to be used to effect Iraqi withdrawal (Polk, 150).

Diplomacy can take many different shapes: enticement, coercion, and

punishment. To ensure support from Egypt, a U.S. strategic ally with the Suez Canal and a safe and fast route to Arabia, the Bush Administration forgave its debt and provided more funds. In various forms, the gift totaled billions of dollars. Turkey, with Incerlik Air Force Base, received huge consignment of military equipment, loans, and preferential trade agreements. Syria given money, arms, and a license to continue its intervention in Lebanon. The Soviet Union received several billion dollars' worth of loans, credits, and cash from Saudi Arabia and other Gulf oil states. Yemen had opposed the U.S. policy resulting in the U.S. stopping its foreign aid program and Saudi Arabia expelling nearly a million Yemeni workers (Polk, 150).

On January 9, 1991, Secretary of State James Baker flew to Geneva to meet with Iraqi Foreign Minister Tariq Aziz to negotiate a solution; however, after six and a half hours, the two emerged from the meeting unable to attain agreement (The Middle East, 109). On January 12, both the Senate and House voted to empower the President to use force to drive the Iraqi military from Kuwait (The Middle East, 109). On January 13, 1991, UN Secretary General Javier Perez de Cuellar flew to Baghdad for a last-ditch effort for diplomacy before resorting to a military solution (The Middle East, 109).

The First Persian Gulf War

The attempts to resolve the issue without military force failed and on January 17, 1991, Operation Desert Storm commenced initially with air attacks (Polk, 151). The aerial mission resulted in 106,000 sorties, 88,000 tons of bombs, nearly 300 tomahawk guided missiles with each carrying half a ton of high explosives

(Polk, 151). The aerial assault lasted 37 days, severely damaging Iraq's military industries and civilian infrastructure (The Middle East, 268).

The ground assault started on February 24, 1991 and within days on February 27, 1991 Baghdad radio announced that Iraq would comply with United Nations resolutions (The Middle East, 111). On March 2, 1991, UNSCR 686 required Iraq to pay reparations, release all prisoners, return all stolen property, and void all assertions on Kuwait (Polk, 153). On April 6, 1991, Iraq accepted the cease fire and the U.N. declared the end to the war on April 11, 1991 (Gulf War Facts).

The magnitude of the first Persian Gulf War consisted of an Allied Coalition of 39 countries: Afghanistan, Argentina, Australia, Bahrain, Bangladesh, Belgium, Canada, Czechoslovakia, Denmark, Egypt, France, Germany, Greece, Honduras, Hungary, Italy, Kuwait, Morocco, the Netherlands, New Zealand, Niger, Norway, Oman, Pakistan, Poland, Portugal, Qatar, Saudi Arabia, Senegal, Sierra Leone, Singapore, South Korea, Spain, Sweden, Syria, Turkey, the United Kingdom, the United Arab Emirates, and the United States (Gulf War Facts). The coalition force consisted of 670,000 troops from 28 countries with about 425,000 troops from the U.S. U.S. estimate for cost of war was \$61 billion with Kuwait, Saudi Arabia, and other Gulf States covering \$36 billion and Germany and Japan covering \$16 billion. The U.S. had 383 deaths with 100,000 Iraqi soldiers killed (Gulf War Facts).

Figure 1-11 illustrates the Victory over America palace that Saddam Hussein was building when the U.S. invaded in 2003 to commemorate Saddam winning the first Persian Gulf War. Although Iraq driven from Kuwait, Saddam saw it as a win for himself remaining in power.



Figure 1-11 Saddam Hussein's Victory over America palace

Saddam Hussein also built a bunker after the first Persian Gulf War to seek shelter if the U.S. would invade again. Since the depth of the bunker was limited by the ground water level, the protection of the bunker was largely above ground with a palace built upon it. Figure 1-12 depicts Believer's Palace; the bunker with living space is located below the palace. Figure 1-13 depicts the only damage in the bunker from the U.S. bombing in 2003.



Figure 1-12. Believer's Palace – home of Saddam's bunker Figure 1-13. Damage in the bunker

Events Leading to the Second Persian Gulf War

On April 3, 1991, UNSCR 687 enacted to impose sanctions on Iraq and require the dismantling of WMD and facilities to manufacture them (The Middle East, 269). The

United Nations Special Commission (UNSCOM) established to monitor Iraq for compliance on chemical and biological weapons and act in conjunction with the International Atomic Energy Administration (IAEA) on nuclear weapons (Polk, 156). 'No fly-zones' were established above the 36th parallel and below the 32rd parallel leaving the middle of the country, the only area for Iraqi air operations (Polk, 157).

For the next several years, questions arose whether Iraq was complying with UN sanctions and dismantling WMD; at times denying the inspectors access to areas and requiring continued negotiations for eventual access. The Clinton Administration ordered the firing of 23 tomahawk guided missiles on headquarters of the Iraqi intelligence agency in downtown Baghdad in retaliation for concerns to comply with the weapons sanctions and engage in an assassination plot on the former President George Bush during his visit to Kuwait in April 1993 (Polk, 162-163). President Clinton's approval rating increased by eleven points after the announcement of the missile attacks (Polk, 163). In October 1994, President Clinton ordered 36,000 troops, aircraft carriers, and Air Force squadrons to Kuwait and Saudi Arabia in response to Iraqi troop movements on the Kuwaiti border (The Middle East, 269).

The economic sanctions placed on Iraq created severe consequences on its people. Estimates are sanctions cost Iraq approximately \$20 billion annually in oil revenues and the loss of human life at 1.4 million; Iraqi children were five times more likely to die under the sanctions than they were before them (The Middle East, 112). Between 1989 and 1992, the Iraqi Gross National Product (GNP) fell from \$38 billion to close to \$17 billion, more than half, and per capita from \$2,160 to \$907 in the same period (The Middle East, 270). During this time, hyperinflation occurred with significant increases in

the price of basic goods and services. The sanctions also led to a rise in crime and the number of street children, uncommon in Iraqi society prior to 1990.

Many professionals and educated citizens forced to take unskilled employment or chose to leave the country. The U.S. and UN have routinely used economic sanctions to coerce or punish the leadership of countries for their actions; however, approach puts severe hardship on citizens and indirectly promotes domestic unrest resulting in higher potential for an internal coup to force leadership change. Although never acknowledged as an original intent, it appears logical to first or second order effects of economic sanctions.

The CIA organized flights of unmanned aircraft over Baghdad to drop leaflets urging revolt and spent millions of dollars encouraging plots and coups. The director of one CIA program told the Washington Post that it worked with the Iraqi National Accord (al-Wifaq) to engage in a series of car bomb attacks and assassinations. It failed because al-Wifaq was penetrated by Iraqi intelligence, which rolled up and executed most of its members in June 1996. The head of al-Wifaq, Iyad al-Allawi, a former senior Baathist official and intelligence agent who had turned against Saddam, was not caught and later in June 2004 became Iraq's first American-appointed interim prime minister (Polk, 164).

Unrest grew within Iraq. The Iraqi National Congress (INC) formed in 1992 in the area known as Kurdistan brought together representatives of Saddam's opposition including the Kurdistan Democratic Party (KDP), the Patriotic Union of Kurdistan (PUK), and the Supreme Council for the Islamic Revolution in Iraq (The Middle East, 270). In 1995, the son-in-law of Saddam Hussein who was the former Minister of Industry and Director of Military Industrialization, Hussein Kamel Hassan al-Majid, defected to Jordan (The Middle East, 270). Al-Majid and brother were killed upon return to Iraq in January 1996 (The Middle East, 270).

In October 1998, Iraq terminated all cooperation with the UNSCOM inspectors after

the UN Security Council did not support Iraq's request for a comprehensive review of the sanctions issue (The Middle East, 270). President Clinton signed on October 31, 1998 the Iraq Liberation Act in law allowing the U.S. to take measures to bring about a regime change (The Middle East, 271). The U.S. countered with threatening military action and Iraq backed down resulting on November 14, 1998 President Clinton terminating the mission to bomb Iraq (The Middle East, 270). On December 16, President Clinton ordered a four-day bombing after UNSCOM executive chair Richard Butler submitted a report to the U.N. on Iraq's noncompliance with UN inspectors (The Middle East, 271).

Under a new UNSCR 1441 mandate, the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) created under Hans Blix, a Swedish diplomat and former head of the International Atomic Energy Administration (IAEA), to inspect for WMD and Iraq to cooperate (Polk, 167). The Blix team found no evidence of WMD. As a follow-on effort, the U.S. established the Office of Special Plans to investigate Iraq's involvement in WMD and in an October 6, 2004 report concluded that *Saddam Hussein did not produce or possess any weapons of mass destruction for more than a decade before the U.S.-led invasion* (Polk, 168).

On February 5, 2003, then Secretary of State Colin Powell provided a convincing presentation at the Security Council for Iraq's breach of UNSCR 1441 but was less convincing with the argument that Saddam Hussein might imminently use biological weapons against the United States and link Hussein with al-Qaeda (The Middle East, 119). The U.S. was unable to acquire a UN Security Council Resolution authorizing action against Iraq (The Middle East, 271).

Second Persian Gulf War

On March 20, 2003, the U.S. initiated Operation Iraqi Freedom (OIF) as military campaign to destroy the Iraqi military, capture Saddam Hussein, and initiate the rebuilding of the country under a new democratic regime (Polk, 169). The U.S. military force and equipment were far superior over Iraq's and the approach of overwhelming air firepower through cluster bombs paved the way for the ground attack. By April 16, 2003, President Bush declared Iraq liberated (Polk, 170). On December 13, 2003, Saddam Hussein was captured in a hole on a farm (figure 1-14); twenty-two months later, he would be tried in the High Tribunal Court in Baghdad for crimes against humanity, found guilty, and hanged (The Middle East, 120).



Figure 1-14. Replica of the hole Saddam Hussein found

Although the initial battle victory came quickly over the Iraqi military, the next eight years would not prove as successful for the war. Due to many circumstances, Saddam Hussein's release of thousands of prisoners in October 2002, chaos of the invasion, Iraqi army collapse with little means of enforcing security, and weapon proliferation occurring with almost every Iraqi acquiring an assault rifle to include machine guns and rocket launchers (Polk, 170-171).

In October 2004, Congress informed that a cache of 380 tons of conventional explosives looted in April 2003 (Polk, 171). Ammunition bunkers left unprotected in transition from Iraqi holding to American responsibility. In the war planning, President

Bush issued executive order establishing the Office of Reconstruction and Humanitarian Assistance (ORHA) to move from occupation and facilitate establishment of new, sovereign Iraqi nation (The Middle East, 121).

On May 24, 2003, the newly appointed special envoy and civil administrator, Paul Bremer III, demobilized the rest of the Iraqi army that had not already deserted (Polk, 171). Nearly half a million soldiers returned home taking their weapons with them (Polk, 171). The bombings left the country's utilities devastated for water, sewage, and electricity; food was also scarce.

The decision to demobilize the Iraqi military created more instability in the country with the death toll climbing steadily over the next four years until the implementation of the surge. In addition, the program to pay Sunnis and other Iraqis to provide security functions attributed to reducing violence within the country. The program started in 2006 in al-Anbar province, called the Anbar Awakening or Sunni Awakening (Brennan, 56). The Sunnis who participated, called the Sons of Iraq (SOI), were paid \$10 a day to provide security for checkpoints and key infrastructure sites (Brennan, 56).

The combination of the use of SOI, U.S. troop surge, and new U.S. counterinsurgency (COIN) approach in 2007 significantly reduced violence. Even Special Inspector General for Iraq Reconstruction (SIGIR) recognized the benefits of Sunni Awakening and use of SOI:

The SOI provided intelligence on the location of insurgent groups and weapons caches, acted as a force multiplier by freeing U.S. and Iraqi forces to perform other operations; denied insurgent groups a recruitment pool; in some cases, began to cooperate with the Iraqi Security Forces (Brennan, 57).

In September 2007, General Petraeus in testimony on progress in Iraq stated, *the most*

significant development in the past six months...the increasing emergence of tribes and local citizens rejecting al-Qaeda and other extremists (Brennan, 57). In latter part of 2007, the number of al-Qaeda fighters had fallen 70 percent from 12,000 to 3,500 (Brennan, 57). Also, instrumental to the reduction of violence was the U.S. killing of the Islamic State founder, Abu Musab al-Zarqawi. Zarqawi suspected of bombing several Shiite mosques to ignite the sectarian violence between Sunni and Shia within the country.

The Strategic Framework Agreement (SFA) and the associated Security Agreement (SA) took a year to draft was signed on November 17, 2008 by U.S. Ambassador Ryan Crocker and Iraqi Foreign Minister Hoshiyar Zebari (Brennan, 62). The documents include

(1) set the stage for the final transition of the U.S. military out of Iraq and establish a framework for a long-term strategic relationship between the U.S. and Iraq and (2) create the legal framework governing U.S. military operations in Iraq through the end of 2011. The SA specified troop limits to the U.S. military operations in Iraq and provided limited Iraqi jurisdiction over U.S. troops who committed serious crimes while off duty and off a U.S. military installation. It constrained the use of unilateral U.S. military power by stipulating that operations must be coordinated by means of a joint U.S.-Iraqi military committee. It limited Iraqi leverage over U.S. government personnel by providing for substantial immunities for U.S. military and civilian personnel, but not contractors. The agreement also outlined a phased process leading to a complete withdrawal of troops by December 31, 2011. Control of 18 provinces would transition to Iraq by January 1, 2009 which included Baghdad's International Zone. U.S. troops would cease patrolling Iraqi cities by June 30, 2009. The SA explicitly stated that not only would all U.S. troops be required to leave Iraq by the end of 2011, no permanent U.S. military bases would be permitted to remain (Brennan, 62-63).

These last two points would gain counter opinions from those in MoD leadership in 2010-2011 when they recognized the Iraqis were not prepared to assume all military responsibility. As the U.S. Defense Department would negotiate the sale of F-16 aircraft,

some within the MoD leadership felt that the continuance of U.S. air power would better position the country. The funds for the F-16s were better spent in rebuilding Iraq's infrastructure and stimulate economic growth. The U.S. would broach a deal with Iraq to purchase eighteen F-16 (Melville, 1). Figure 1-15 summarizes the Security Agreement and Strategic Framework Agreement.



Figure 1-15. Establish enduring strategic partnerships (Brennan, 64)

The mission transitioned to Operation New Dawn (OND) in August 2010 when U.S. military combat role ended and the focus was solely for equipping, training, and advising the Iraqi military until the total U.S. military departed in December 2011.

Lessons Learned from Iraq

The result of nine years in Iraq left 4,475 U.S. military service members dead, thirteen DoD civilians, and at least 1,595 U.S. contractors killed with 32,227 military personnel and 20,306 contractors wounded (Brennan, 292). The last U.S. troops departed Iraq on December 18, 2011 in a 100-vehicle convoy with approximately 500 soldiers (Brennan, 293). The cost of Iraqi war to American taxpayers estimated at \$1.7 trillion with an additional \$490 million in benefits owed to war veterans (Trotta, 1). The war killed

134,000 Iraqi civilians with the number growing to an estimate of 176,000 to 189,000 including security forces, insurgents, journalists, and humanitarian workers from a study on the Costs of War Project by the Watson Institute for International Studies at Brown University (Trotta, 1).

Nine years of U.S. investment in Iraq quickly regressed in 2012 with an 18 percent increase in internal violence in the first six months after the U.S. departure (Brennan, 304). SIGIR reported from July 2012 through September 2012 was the most violent period for more than two years with 850 Iraqi killed and more than 1,600 wounded (Brennan, 304). In the same period, al-Qaeda attacks in Iraq had increased from 75 to 140 per month with the number of al-Qaeda fighters more than doubling from 1,000 in October 2011 to 2,500 in October 2012 (Abdul-Zahra, 1).

The mission in Iraq went through several changes over the nine years. The organizational transition evolved *from the Office of Reconstruction and Humanitarian Assistance (ORHA) to the Coalition Provisional Authority (CPA), from CPA Combined Joint Task Force Seven to Multi-National Force-Iraq (MNF-I), from MNF-I to United State Forces-Iraq (USF-I), or from USF-I to U.S. embassy* (Brennan, xxii). In addition, the mission evolved from a combat to counterinsurgency, to training and advising, and then to the broad-based reconstruction and economic development (Brennan, xxii). The final two years were focused on transition of U.S. responsibility to U.S. embassy under the Office of Security Cooperation-Iraq (OSC-I).

An assessment of transition of the mission and the ability of the OSC-I concludes that the result did not meet the objectives of the mission and transition.

But in many important ways, Iraq in 2012 did not resemble the country that DoD and DoS transition planners expected. A serious internal

political crisis erupted immediately. The embassy found that the Iraqis were initially unprepared for and unwilling to facilitate the entry of large numbers of U.S. security and support contractors. Rather than achieving an Iraq that was a supportive partner, Embassy Baghdad found the Iraqi political leadership, and Prime Minister Maliki himself, unwilling to take the most basic measures necessary to enable the effective functioning of the embassy and the newly formed OSC-I (Brennan, 297).

The assessment concluded that full capability of Iraqi military was not attained under the military mission before it was transitioned to the OSC-I and U.S. Embassy to finish the mission. The reliance of security and support contractors may be practical in a sustainment mode but not within a capability and capacity building mode. There also seemed large disparity in assessments of security situation post-U.S. military mission completion. A USF-I staff assessment predicted

while current trends suggested that Iraq's security situation would likely remain stable-or gradually improve-through 2015, violent extremist organizations would continue to conduct operations designed to undermine U.S. presence, influence, and interests in Iraq...while the overall level of violence in Iraq would likely remain stable, embassy facilities and personnel would face a high degree of threat once U.S. forces departed Iraq (Brennan, 236).

The Deputy Assistant Secretary of Defense for the Middle East, Colin Kahl, reported a more positive assessment for future security environment in testimony to the House Committee on Foreign Affairs in November 2010, almost three months after the U.S. combat role ended in August 31, 2010:

I feel confident that the State Department is planning against the security conditions as they are now, and since we expect the security conditions to continue to improve I think that the State Department will be well positioned beyond 2011 to continue to operate and contribute to Iraq's progress beyond that point. If circumstances were to deteriorate substantially then we would have to re-evaluate, but we don't anticipate that circumstances are going to deteriorate substantially (Kahl, 37).

The USF-I assessment more accurately depicts the environment as experienced by

personnel in country at the time. Throughout 2010-2011, rocket attacks into the International Zone targeting U.S. bases and embassy were a weekly occurrence; the Iraqi military routinely targeted. It was common practice for Iraqi Government and military leadership to inspect their vehicles for bombs prior to movement.

The Iraqi military would travel to their office in civilian clothes changing into uniforms at work to avoid recognition on the commute. Majority of women in the Iraqi military performed duties in their civilian clothing. This due to the need for wearing civilian clothing and not having the means to change safely while at work with Middle Eastern bathrooms commonly shared between men and women.

Assessments of present and future security environment require an element of economic growth; otherwise, there is little potential for the country to develop beyond its current state. In contingency operations, the economic growth assessment can be artificial and not representative of actual situation. The large number of contractors' in country supporting the Coalition forces can have a positive effect on the economy. Once Coalition force has left, the number of contractor's sustainable from an internal or external standpoint can significantly change; therefore, economic assessments need calibration to reduce artificial effects.

Iraqi Army lacked *a corpus of doctrine and training materials that would enable army officials to set training plans* (Brennan, 181). OSC-I was not expected to have the manpower, authorities, or resources to accomplish defense building, therefore recognized *the Iraqi Army would not be able to sustain a self-directed training program* (Brennan, 181). *Significant concern also existed about the Iraqi Army's ability to maintain the high-technology equipment it was receiving through Foreign Military Sales (FMS) programs,*

such as M-1 tanks (Brennan, 181). Iraqi MoD lacked knowledge for weapon systems containing software. The Iraqi Chief Information Officer (CIO) focused on developing business operation systems within the MoD; no corporate knowledge existed for software sustainability for weapon systems.

The book, Ending the U.S. War in Iraq, compiles documents and testimony through interviews with U.S. senior leadership to develop lessons learned for the nine years drawing conclusions and making recommendations. There are twelve recommendations derived for transfer of responsibility from military operations to U.S. Embassy role, depicted in Exhibit 1-A. These recommendations focus on strategic and policy-level for lessons learned in future U.S. missions; recommendations need incorporated into foreign and defense policy.

Twelve Recommendations from Ending the U.S. War in Iraq

Recommendation 1: Policymakers should initiate a multiagency planning process under the direction of the White House national security staff well in advance of the anticipated transition to (1) define enduring U.S. interests in the country, (2) establish realistic goals and objectives that an embassy operating under the requirements and limitations of the Vienna Convention can achieve, (3) assess follow-on military presence and resources required to achieve desired objectives, and (4) identify authorities that the embassy and its Office of Security Cooperation will require to operate within the country.

Recommendation 2: Policymakers should secure support from relevant congressional committees on the nature and likely cost of an enduring civilian-led mission well in advance of the departure of military forces, in the context of U.S. foreign and security policy goals and in conjunction with normal budget planning cycles.

Recommendation 3: Policymakers and military transition planners should initiate work early with the host nation to identify post-transition requirements and to reach firm agreements with the host nation to ensure the smooth transition and success of post-transition U.S. presence. The parameters of the scope and functions of the U.S. presence should be identified early, and when possible, agreements should be crafted to support U.S. and host-nation needs, possibly even accommodating future variations in the footprint to build flexibility into plans and programs. Such dialogues should be buttressed by outreach to other political interest groups and should be integrated with public diplomacy efforts.

Recommendation 4: Military and civilian planners both in theater and in Washington should make a fundamental reassessment of campaign goals and objectives well before the departure of forces, recognizing that previously established campaign goals likely will not have been achieved by the end point of the transition process. Therefore, planning should rigorously prioritize efforts in advance to set the critical conditions for the success of the organizations that will assume some of the military force's responsibilities rather than aim to achieve all the goals and objectives established during the campaign planning process. In particular, with respect to the crucial task of training security forces, *minimum essential capability* for host country forces is the 'good enough' functionality required to fulfill basic responsibilities, not equivalence to U.S. forces' capabilities.

Recommendation 5: Military planners should make institution-building a priority effort to ensure that the progress made through training, advising, and assisting will be sustained after the transition. In planning for sustainable host-country post-transition security, the human resource functions of recruitment, training, and professionalization are more important than providing equipment and modernization. Institutional capacity must ensure that the equipment provided can be successfully used and maintained after the departure of U.S. forces.

Recommendation 6: Prior to fielding equipment packages for a host nation, military planners should critically assess the long-term capacity of the partner nation to independently sustain the equipment and systems after the departure of the U.S. military,

contractors, and funding. Planning for sustainable host-country post-transition security, the life-cycle management of the

equipment, and the capacity and capabilities of the host country are just as important as the intended purpose of that equipment.

Recommendation 7: Pre-transition planning should be launched several years ahead of the transition deadline, led jointly by a general officer and a senior civilian, staffed with capable planners who are not involved in current operations, and granted all necessary authorities. Moreover, effective transition planning must proceed on the basis of seamless top-level collaboration between the senior military and senior civilians in country working together in partnership.

Recommendation 8: A single office to manage all contracts and contractors should be established in theater early in the operation. The USCENTCOM Contracts Fusion Cell established for Iraq is a model that could usefully inform other U.S. efforts to develop and maintain a common operating picture for the state of contracts, as well as, to coordinate with and among contract owners. In addition, a mechanism must be developed to ensure individual accountability of all contractors in country to help facilitate their departure along with the military forces they support.

Recommendation 9: Transition planners should engage host-nation officials in planning for use of third-country contractors following departure of U.S. forces because immigration restrictions and political constraints may limit an embassy's ability to use contractors for specific support functions.

Recommendation 10: Future transition efforts should undertake a systematic knowledge management survey and ensure that all databases (military and contracted civilian), key leader engagement logs, assistance project files, and other vital information remain accessible to the follow-on civilian mission.

Recommendation 11: Policymakers and commanders in future transitions should resist the temptation to delay final decisions on ending operations to such an extent that rapidly retrograding forces create a power vacuum like the one that may have occurred in Iraq. A more-gradual 'waterfall' of troops, contractors, and equipment not only would have been more logistically manageable but might also have contributed to greater political stability in Iraq.

Recommendation 12: Policymakers, commanders, and planners should use the lessons derived from the final two years of USF-I and its transition efforts to inform critical decisions and time lines required to end large-scale military operations successfully in the future.

Section 1.4.3 Syria

Syria has a population of 18 million with Muslim religion encompassing 87 percent with Sunni at 74 percent; a combination of Alawi, Ismaili, and Shia comprising 13 percent, Christian ten percent, and Druze at three percent (CIA factsheet 2015, 3). The population is young with 53.3 percent below age twenty-five years old, a median age of 23.3 years old, an unemployment rate of 17.8 percent and population below poverty at 11.9 percent (CIA factsheet 2015, 9).

The Civil War in Syria has raged since the Arab Spring in 2011. Demonstrations in the streets started for political reform requesting a parliamentary system, free elections, and the ability to organize for peaceful protests. The government rejected the demands and responded with violent attacks. Over 150,000 Syrians have died since the start of the uprisings and nine million have fled the country or are considered internally displaced.

Syria today is a subset of historic Greater Syria which included Israel, Jordan, Lebanon, Syria, and Palestinian territories. Damascus, one of the oldest continuously inhabited cities in the world, settled around 2500 B.C. Over the centuries, it has been occupied by Aramaean, Assyrian, Babylonian, Persian, Greek, Roman, Nabataean, Byzantine, and Ottoman civilizations.

Syria shares a similar history to Iraq being neighbors through the historical occupation of multiple empires. The Ottoman Empire ruled Syria from 1517 to 1918. The Ottomans allowed some local governance by the Arab tribal leaders. Local noblemen ruled in the rural areas only if they paid taxes to Constantinople (known as Istanbul today). Their own laws controlled the religious practices for Christians, Jews, and Muslims. Druze is a distinct ethnic group, split from the Shia Muslims nearly a thousand years ago. The story

of the life of Thomas Edward (T.E.) Lawrence (Lawrence of Arabia) depicts history during the turn of the twentieth century, as seen through a British Colonel who traveled through the area.

During World War I, the Ottoman Empire sided with Germany and Austro-Hungarian Empire against Britain, France, and Russia. As depicted in the movie, *Lawrence of Arabia*, British sought to develop an alliance with Sharif Hussein ibn Ali, the governor of Mecca and his sons. The Ottoman ruler was Sultan Mehmed V, recognized leader of the Muslim World. Sharif Hussein was patriarch of Hashemite family, claiming a direct descendent of Prophet Mohammad.

He supported the British during the war for a guarantee of post-war Arab nation rule that encompassed most of the Middle East. Auda Abu Tayi was the leader of the Huwaytat clan of Bedouin tribe who roamed the deserts. Auda Abu Tayi became a key fighter supporting Colonel Lawrence in the capture of Aqaba and Damascus. After winning the war, the British officials installed the Hashemite rulers in Iraq and Jordan. The Ibn Saud family had conquered the holy cities of Mecca and Medina in Saudi Arabia and became the rulers of that area. Both families known for conservative Islamic views and practices (Erlich, 26-27).

The strategic importance of World War I for the Middle East was the increase usage of oil. The United Kingdom had no domestic oil and therefore saw the Middle East as the means to acquire oil. In 1911, Winston Churchill was the cabinet member overseeing naval affairs and supportive of converting ships from coal to oil. He arranged for the British government to acquire majority stock in a company known as British Petroleum (BP). The British struck oil in October 1927 near Kirkuk, Iraq.

The French also had colonial ambitions for territory that contained oil. The French company, Compagnie Francaise des Petroles or French Petroleum Company, joined the British in developing oil fields in Northern Iraq but also expanded to Algeria. After World War I, the Sykes-Picot Agreement signed May 16, 1916 arranged for the split of Middle Eastern territory between the British and French. France received Lebanon, Syria, southern Turkey, and parts of northern Iraq. Britain received the rest of Iraq, Jordan and full control of Palestine including Jerusalem. During this same time, the Zionist movement headed by Chaim Weizmann, engaged with British leadership, Arthur Balfour, a Member of Parliament, and Chancellor of the Exchequer David Lloyd George. The Balfour Declaration issued on November 2, 1917 stated:

His Majesty's Government views with favor the establishment in Palestine of a national home for the Jewish people, and will use their best endeavors to facilitate the achievement of the object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country (Erlich, 36).

This declaration would plant the seed for the state of Israel in Palestine.

Bashar al-Assad inherited the Presidency in 2000 from his father, Hafiz al-Assad, while also inheriting the conflict between Syria and Lebanon. Following the Israeli withdrawal from Lebanon and continued criticism of Syrian presence, Assad ordered the withdrawal of Syrian forces from Beirut in June 2001 and then more troops from central Lebanon in 2004 (The Middle East, 447). In February 2005, Rafiq al-Hariri, the former Lebanese prime minister and former Syrian ally, was assassinated in Beirut (The Middle East, 447).

Prior to the assassination, Hariri became a vocal proponent for total Syrian

withdrawal from Lebanon. The act sent the message for ramifications of opponents to Syria's position. In April 2005, Assad would withdrawal all troops ending twenty-nine years of Syrian presence in Lebanon since their civil war.

Syria's economy has been volatile since the mid-1980s. Although benefits were gained in establishing 735 private ventures in late 1992, siding with western nations against Iraq in 1991 led to positive economic benefits for the country (The Middle East, 448). Syria experienced significant economic growth in the early 1990s (The Middle East, 448).

A population growth of 3.4 percent compounded Syria's rising poverty. Moreover, nearly 60 percent of Syrians were under the age of twenty, making the population nonproductive economically and placing heavy demands on the state for education, healthcare, and future employment...A recession at the end of the 1990s wiped out the modest prosperity of the mid-1990s (The Middle East, 447-448).

In 2006 the Assad government instituted economic reforms through government reduced corporate taxes, simplified exchange rate regime, established legal framework for stock market as part of broader strategy to attract investment and move to a free market economy, and implemented a free trade agreement with Turkey. Efforts were marginal due to corruption and the system of patronage undermining economic initiatives. *Indeed, corruption in Syria is widespread, with bribery and other forms of petty corruption pervading nearly every aspect of everyday life (The Middle East, 449).*

The Arab Spring turned a discontented population into a civil war with opposing factions of the Assad government seizing opportunity to unseat the regime. Islamic extremists seized the opportunity to acquire control joining the fight. Small protests in January 2011 turned into major demonstrations by March 2011 (Charles Rivers Editors, 36). Government forces to control the demonstrations had an opposing effect when

thousands of Syrians took to the streets in July 2011 demanding Assad's resignation.

Unrest was a catalyst uniting several countries' demonstrations for change in autocratic governance. Those demanding changes united as rebels attempting to expel Assad's forces from towns and cities, quickly erupting to a civil war. In 2013, there were 1,000 separate rebel brigades, battalions, and armed groups commanding an estimated 100,000 fighters in Syria (Charles Rivers Editors, 38). Figure 1-16 illustrates the multiple organizations in territorial control of Syria. The spillover of violence creating instability in Lebanon, Turkey, Jordan, as well as, Iraq.

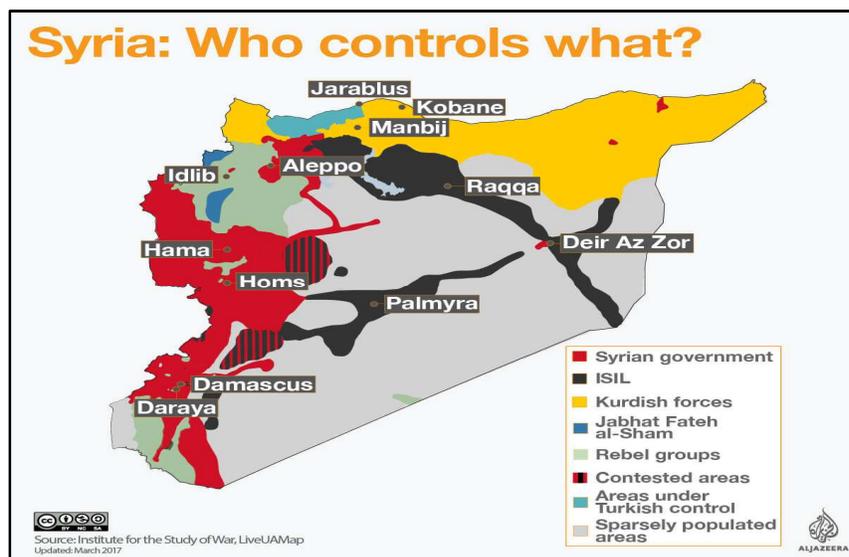


Figure 1-16. Multiple organizations controlling Syria (<http://www.aljazeera.com>)

Section 1.4.4 Spread of Terrorism in Iraq, Syria, and beyond

The recognition of the terrorist threat dates to the 1990s when then Central Intelligence Agency (CIA) Director George Tenet told Senator Bob Kerrey in 1997,

The sophistication of the groups capable of launching terrorism against U.S. interests now is worldwide. They have a capability to move money and people and explosives, and the level of activity continues to be enormously worrisome to U.S. intelligence. They're fanatical. They have every reason to continue doing what they're doing...The activity worldwide at this moment in time is unprecedented and the threat to U.S. interests is enormously high (Coll, 362).

Al Qaeda organization grew from veterans of the Afghanistan War with Russia established by Osama bin Laden. The Islamic State started as an al-Qaeda-inspired Sunni Islamic brigade growing from a jihadist struggle against foreign forces in Iraq. The group grew into a full-fledged al-Qaeda branch, evolving into a religiously motivated army. Its final transformation separated from al-Qaeda becoming its own organization. The name changes reflect the rebranding of the group, its multiple transformations, its flexibility and adaptability to survive over a decade, and become the most influential terrorist group.

The founder of the Islamic State, Ahmad Fadil al-Khalayleh, adopted the name Abu Musab al-Zarqawi distinguishing himself from his earlier rebellious self to an Islamic extremist. Zarqawi, along with other anti-government zealots were imprisoned at al-Jafr prison in a remote location of Jordan. Zarqawi was an Afghan war veteran arrested in March 1994 for plotting terrorist acts against Israeli soldiers on the Jordanian border (Warrick, 48).

In the spirit of cooperation and uniting the country, the new King Abdullah II granted pardons to political detainees. The list of more than twenty-five hundred names, some from the al-Jafr prison, was endorsed by Parliament and approved by the King (Warrick,

43). Zarqawi left prison on March 29, 1999, six months later headed for Pakistan under the pretext of starting a honey business in the country (Warrick, 43).

Although the Mukhabarat, the Jordanian intelligence agency, detained Zarqawi, he was released, flew to Pakistan, traveled to Afghanistan, and engaged in discussions with al Qaeda leadership under Osama bin Laden. Zarqawi funded by al Qaeda established a training camp near Herat in western Afghanistan near the Iranian border, specifically for Islamist volunteers from Jordan and other countries of the Levant, as well as, Iraq and Turkey (Warrick, 67). Zarqawi became known to the U.S. CIA through working with the Mukhabarat to uncover the Millennium Plot, attacks planned for New Years Eve 1999.

Organized by an al-Qaeda associate in eastern Afghanistan, the Jordanian portion of the plan called for a wave of bombings and small-arms targeting not only Amman's Radison, but also an Israeli border crossing and a pair of Christian shrines popular with Western tourists. A separate plot to attack the Los Angeles Airport was foiled when U.S. customs agents arrested the would-be bomber as he attempted to cross the U.S.-Canadian border in a car packed with explosives. (Warrick, 63).

Although Zarqawi had an advisory role in the plot, he drew attention from the CIA and raised further concern with the Mukhabarat.

After the September 11, 2001 attack and U.S. invasion in Afghanistan, Zarqawi joined other al-Qaeda in the defense of Kandahar, the Taliban government's stronghold. U.S. aircraft bombed a house where senior al Qaeda leaders were meeting, wounding Zarqawi. Osama bin Laden would escape to his mountain fortress known as Tora Bora. Zarqawi to northern Iraq among the Kurdish villages protected under the no-fly zone established at the end of first Persian Gulf War in 1991. This area became a safe-haven for Afghan war veterans creating the Sunni Muslim extremist group, Ansar al-Islam.

In October 2002, a midlevel official at the U.S. Embassy in Jordan, Lawrence Foley,

was shot next to his car parked at his house in Amman, Jordan (Warrick, 87). The Mukhabarat traced the killing to Zarqawi creating ties between the Foley killing and northern Iraq. George Tenet, Director of the CIA stated, *“he was able to forge ties between Algerians, Moroccans, Pakistanis, Libyans, and other Arab extremists located through Europe. Over several months of tireless links, we identified Zarqawi-connected terrorist cells in more than 30 countries.”* (Warrick, 91).

U.S. leadership challenged the CIA to find connections between the Ansar al-Islam terrorist camp in northern Iraq and Saddam Hussein.

On February 5, 2003, then Secretary of State Colin Powell addressed the UN Security Council,

“Iraq today harbors a deadly terrorist network headed by Abu Musab al-Zarqawi, an associate and collaborator of Osama bin Laden and his al-Qaeda lieutenants...Iraqi officials deny accusations of ties with al-Qaeda. These denials are simply not credible. Last year an al-Qaeda associate bragged that the situation in Iraq was, quote, ‘good’, that Baghdad could be transited quickly...Iraqi officials protest that they are not aware of the whereabouts of Zarqawi or any of his associates. Again, these protests are not credible. We know of Zarqawi’s activities in Baghdad.” (Warrick, 95).

The U.S. sent dozens of tomahawk missiles into Ansar al-Islam’s compound in March 2003; however, Zarqawi and other leaders had re-located to Baghdad. Zarqawi led the terrorist activities in 2003 after the U.S. invasion in Iraq, including attacks on the Jordanian Embassy and UN building in Baghdad and the Imam Ali Mosque in Najaf.

On March 2, 2004 suicide bombers detonated within the crowds attending Shiite religious shrines in Baghdad and Karbala on the Day of Shura, a holy day to Shiite commemorating the the martyrdom of Husayn Ibn Ali, the grandson of the Prophet Muhammad (Warrick, 136). At 10.00 a.m. near-simultaneous explosions occurred followed by mortar shells fired from several blocks away (Warrick, 136). After the dozen

explosions, nearly seven hundred were injured and 180 dead (Warrick, 136). This ignited ethnic tension between Sunni and Shia, creating greater hostility towards the U.S. for blame of the internal conflict. U.S. intelligence linked the Ashura bombings to Zarqawi. Synchronized attacks across the country would be the strategy throughout the U.S. presence, conveying the insurgents' ability to simultaneously effect multiple locations throughout the country.

Also in early 2004, the Mukhabarat would uncover a Zarqawi plot to use chemical weapons in Jordan. *This was to be a suicide bombing like none other; a dirty chemical bomb that blended conventional explosives and poisons, creating a toxic cloud that would kill as it settled over the capital* (Warrick, 144). Zarqawi was developing chemical weapons capability in northern Iraq within the Kurdish region and no-fly zone. Zarqawi kidnapped a young U.S. businessman, Nicholas Evan Berg, who was in Iraq marketing his skills in communication tower repair. Just prior to cutting Berg's throat in a video streamed on the internet, Zarqawi addressed President Bush stating:

Hard days are coming to you. You and your soldiers are going to regret the day that you stepped foot in Iraq and dared to violate the Muslims... We say to you, the dignity of the Muslim men and women in the prison of Abu Ghraib and others will be redeemed by blood and souls. You will see nothing from us except corpse after corpse and casket and casket of those slaughtered in this fashion (Warrick, 156-157).

To further ignite sectarian violence, Zarqawi implemented the bombing of the thousand-year-old Shiite al-Askari Mosque in Samara on February 22, 2006. Two explosions reduced the mosque to rubble. Although no one was injured, the destruction of the shrine escalated violence between bands of Shia and Sunni. *Senior White House officials came to view the Samara bombing as one of the tipping points of the war. Some*

credited Zarqawi for having lit the match that set the nation's sectarian tensions fully ablaze (Warrick, 203).

After three years, the U.S. efforts hunting for Zarqawi concluded, he died June 7, 2006 in a house bombing near the city of Baqubah. Initially, the violence started by Zarqawi continued after his death. *The twelve months following Zarqawi's death were the deadliest of the war for U.S. troops, with 904 killed. The monthly Iraqi civilian death toll hit an all-time high of 3,266 in July 2006* (Warrick, 246). Several actions initiated in 2007 would start security and economic progress for Iraq. Iraq's stability state index reached a low in 2007 (7.1), steadily climbing to a peak in 2014 (14.8).

The Arab Spring created civil war in Syria, drawing participants from Zarqawi's insurgency. In 2008, the top two leaders of Zarqawi's network, Abu Omar al-Baghdadi and Abu Ayyub al-Masri, died in attacks and the third in-line assumed control, Abu Bakr al-Baghdadi (Warrick, 250). He came from Samarra, Iraq, named Ibrahim Awad al-Badri, a member of the al-Bu Badri tribe tracing an ancestral line to Muhammad (Warrick, 255). At the time of the U.S. invasion in 2003, he was schooling for a Doctorate in Islamic law.

Baghdadi joined a resistance group, was captured, and sent to the U.S. detention center in Camp Bucca. Like Zarqawi, Baghdadi developed friendships and alliances with other prisoners. Camp Bucca regularly discharged less dangerous prisoners to reduce severe overcrowding and after ten months Baghdadi was released in late 2004 (Warrick, 257). He would eventually become one of the advisory council or shura within the Islamic State. He rose in ranks to become the top Sharia official for the Islamic State prior to attaining the top position after Zarqawi's death.

In August 2011, the Islamic State leveraged the turmoil in Syria created from the Arab

Spring and crossed the border (Warrick, 260). The al-Nusra Front, led by Abu Mohammad al-Julani from Iraq, introduced the suspected al-Qaeda group on January 24, 2012 in a sixteen-minute video (Warrick, 267). Youth from Middle Eastern and Northern Africa countries traveled to Syria to join the rebels and fight against the Assad regime. Donations from wealthy Arab countries were sent to support the rebels.

The departure of the U.S. military in December 2011 created opportunity in Iraq for the insurgency to regain strength greatly reduced since the 2007 change in U.S. counter-insurgency approach. On April 9, 2013, Baghdadi posted a video stating the merger of the al-Nusra Front in Syria with the Islamic State of Iraq becoming the Islamic State of Iraq and Levant, eventually referred to as the Islamic State by western countries. Although the al-Nusra leader Julani and al-Qaeda senior leadership did not agree, Baghdadi escalated insurgent campaigns in Syria and Iraq. He also re-structured his approach to insurgency campaign by overseeing the operations locally throughout Iraq and Syria.

The Islamic State would function like a real government, with flow charts for acquiring approvals and special departments in charge of social media, logistics, finances, training, recruitment, and even the management of candidates for suicide missions, who were kept apart from the regular fighters to ensure proper indoctrination (Warrick, 285).

On July 21, 2013, the Islamic State simultaneously raided two prisons, including Abu Ghraib prison freeing 500 inmates (Warrick, 286). Syria's eastern province town of Raqqa, with 220,000 citizens became the first urban center to fall under control of the Islamic State (Warrick, 286). In the Sunni towns of Ramadi and Fallujah, riots broke out against the government. Leveraging the turmoil, the Islamic State jihadists joined local tribal militias against the police and Iraqi troops. Fallujah fell under the control of the Islamic State, the first Iraqi city.

After four days of fighting, on June 10, Mosul, the second-largest city in Iraq, fell under control of the Islamic State including a prison (Warrick, 303). They released the Sunni prisoners and executed the others, about 670 other religious members (Warrick, 303). The Islamic State now owned oil wells, refineries, hospitals, universities, army bases, factories, and banks with cash and financial instruments approaching half a billion dollars (Warrick, 304).

The Islamic State funds its terrorism through private donations, extortion, kidnapping ransoms, involvement in underground trade of stolen antiquities, counterfeiting, and other criminal activities (Charles Rivers Editors, 2). In 2012, the group seized control of an oil field in Syria reaping profits from selling oil at a discounted rate (Charles Rivers Editors, 2). The group is establishing itself as the government in areas that it occupies, collecting taxes from citizens.

With less than 1,000 Islamic State fighters, the group took Mosul against the Iraqi army on June 10, 2014 forcing two Iraqi army divisions of nearly 30,000 equipped, trained, and battle-ready soldiers into retreat (Charles Rivers Editors, 30). A population of 1.8 million reside in the city (Warrick, 302). Baghdadi exploited the tensions between Sunni and Shia population further escalated under Iraqi President Nouri al-Maliki.

The U.S. re-involvement started as an air campaign that expanded to providing U.S. soldiers on the ground in Iraq as advisors to the Iraqi army for training. The number of advisors has steadily increased as has the bombing sorties. The U.S. expanded the air campaign into Syria. The next expansion may be ground troops in Syria for advising mission to rebel forces.

Section 1.5 Escalating Terrorist Threat

In a newspaper article on recruitment of fighters, it cited that 7,000 Tunisians had joined the Islamic State, 4,000 fighting in Libya and 3,000 fighting in Syria and Iraq (Zarcostas, 03/17/2015). Not only does this pose a threat to Tunisia but the 15 nations in sub-Saharan and Northern Africa. Failing neighboring nations, such as Chad, Niger, and Mauritania, have severe poverty, high unemployment, and more than 60 percent of their population below age twenty-five years old positioning the nation to become susceptible to terrorism expansion (Zarcostas, 03/17/2015).

The Islamic State has changed the conflict game through its ability to recruit from around the world targeting large numbers of youth in fragile nations. To counter this type of threat, a more comprehensive approach of nation building is required to build security and stability within those nations at an affordable cost. Currently, several organizations own pieces of institutional building with implementation through a fragmented, ineffective approach. Numerous organizations have initiatives for institutional building with marginal performance obtained across the efforts.

The ability to recruit large numbers of youth is not a recent Islamic extremists' strategy but merely the implementation of the original plan to win a global war through winning the hearts and minds of the global Muslim population (known as ummah). The mechanism for this is the call or rallying (dawah):

Dawah means the use of propaganda and indoctrination to induce Muslims to accept al Qaeda's worldview, specifically the enshrining of jihad...the sixth pillar of Islam and an individual obligation (fard'ayn) for believers... Dawah means the full spectrum of information employed to persuade Muslims to reject Western or apostate Muslim values in favor of violent Salafism. This persuasion ranges from traditional preaching and print materials to multimedia methods via the internet and cell phones. (Stout, 140).

The call to restore the Caliphate has become instrumental to the Islamic terrorist movement. Osama bin Laden described the Caliphate in terms of a global Islamic state:

Today, every member of the Muslim world agrees that all the Muslim countries of the world having geographical boundaries on the basis of nationality, geography, religious discord, color and race, should be merged into one Muslim state, where men do not rule men. There should be one caliph for the whole state whose capital should be Mecca. There should be one currency and defense for this state and the Holy Koran should be the constitution (Stout, 19).

Although the U.S. may end its military presence in Iraq and Afghanistan, the U.S.'s involvement in the Global War on Terrorism will continue for decades. The Islamic terrorist movement to restore the Caliphate will continue to challenge national security. With large number of Muslim youth in nations in the bottom billion, with a population growing exponentially and experiencing high unemployment and poverty, the Islamic extremists have large numbers to market the dawah. Application of centralized defense institutional building mission can effectively counter the accelerating terrorist threat. Concurrently, the approach of nation-building needs expanded as an across U.S. Government effort for developing nations.



Figure 1-17. Bus vehicle ballistic improvise explosive device (VBIED) explodes in Baghdad

Figure 1-17 depicts the aftermath of a vehicle-borne improvised explosive device (VBIED) hidden in a bus in Baghdad, Iraq in 2010. The bus needed to pass several

checkpoints to enter this area of Baghdad and park in front of a radio station. Attacks at Brussels Airport on March 22, 2016 and Atatuk Airport in Istanbul, Turkey on June 28, 2016 reflect targeting vulnerable crowded areas of large global airports. The Paris coordinated attacks on November 13, 2015 targeted stadium (Stade de France), five restaurants/bars (Le Carillon, Le Petit Cambodge, A La Bonne Biere, La Belle Equipe, and Comptoir Voltaire) and a small concert hall (Bataclan). At Bataclan, the attackers held hostages until police raided the building and attackers detonated their vests (Martinez, www.cnn.com). The U.S. has seen attacks inspired by the Islamic State through mass internet marketing for violence: (attacks in Chattanooga, TN (2015), San Bernedino, CA (2015); and Orlando, FL (2016)).

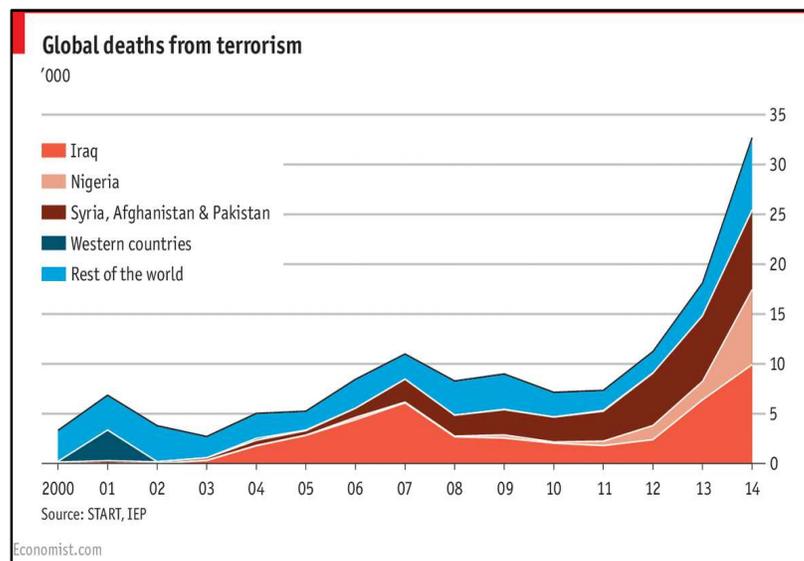


Figure 1-18. Global deaths from terrorism (www.economist.com)

Figure 1-18 depicts the increase in global terrorism since 2000 reflected in deaths attributed to terrorism, sharply increasing in 2011 with the rise occurring concurrently with the Arab Spring. The rising strength of the Islamic State contributes to the increase between 2013 and 2015 and continues to spread terrorism beyond the Middle East, Southwest Asia, and Northern Africa areas of Iraq, Syria, Libya, and Afghanistan.

Although the founder Abu Musab al-Zarqawi killed in 2006, the organization has endured and thrived under new leadership. Encouraging terrorist cells throughout the world, particularly Muslim countries, creating a de-centralized network. History of violence across the Middle Eastern and Southwest Asian territories produces a tolerance not understood in western countries. Stifled economic growth, youth bulge, high unemployment generate unrest among the population, especially the youth, fueling recruitment.

The long-term solution is nation-building to ensure these countries and surrounding countries have the governance, security, economic development, and human rights assurances to resolve unrest among the people. A centralized strategy to defense institutional building through program management approach for determining initiatives and planning across U.S. government organizations, as well as, collaborating with foreign governments and non-governmental organizations positions effective results. The DoD is best positioned to lead nation-building efforts in conflict or high-risk environments through defense institutional building.

Section 1.6 Policy and Law Changes

Current laws put defense institutional building and partner capacity building planning and execution on the combatant commands, lacking the expertise to determine full requirement for a centralized approach tailored to each nation under current circumstances. Combatant commands are not experts on Defense business systems and processes. Typically, the civilian workforce plans and develops management information systems and processes. Therefore, defense institutional building planning and monitoring should be established under an organization that can create a stable, highly competent workforce to maximize commonality across nations and regional areas to reduce costs and improve results.

The implementation of same or similar systems within nations can significantly reduce oversight and sustainment required by the DoD to ensure accurate operation and sustainment by the nation. The U.S. Government cannot merely encourage nations to award contracts to U.S. contractors that set up these systems. This approach transitions responsibility from combatant commands but does not provide accountability for U.S. funds spent on the system and ability of the nation to sustain for the long-term; nor does it create economic growth for the country.

Defense institutional building planning needs to include the sustainment of efforts through feedback to ensure the nation is effectively administering defense operations; expansion should include all operations funded by Coalition nations. This is accomplished through web-based data management systems and the ability stateside to monitor through data of the nation. Not all countries have the infrastructure for management information systems. Although planned in the large-scale efforts in Iraq and

Afghanistan, electricity and internet infrastructure required building. The key element is planning at the start or standalone systems are implemented such as Core Information Management System (CoreIMS), the inventory management system in Afghanistan.

Using the proposed defense institutional building approach, changes to policy and laws are required to change authority of organizations and effects on laws and policy, particularly Goldwater-Nichols Act of 1986.

Linear performance for achieving capability with respect to time will not meet the current accelerated threat. Each element of a composite index aligns with plans for achieving capability of the nation; these plans should be part of an integrated management plan. Assessments, at the tactical and strategic level, will measure the progress of these plans. Tactical would be the specific measures typically applied in project management for measuring task completion. Strategic performance measures if the tasks of the project management plan are the right tasks to accomplish the objective. Strategic performance evaluated through national performance measures depicted in figure 1-19, the sub-indicators of the Fund for Peace fragile state index.

Complexity policy is the result of complexity science and the ideas of replicator dynamics, nonlinear systems, tipping points, chaos, and agent-based modeling.

Complexity policy is thought of within a frame in which social, cultural, and economic dimensions are all intertwined, and it is analyzed using mathematics designed to shed light on those interactions (Colander, 271-272).

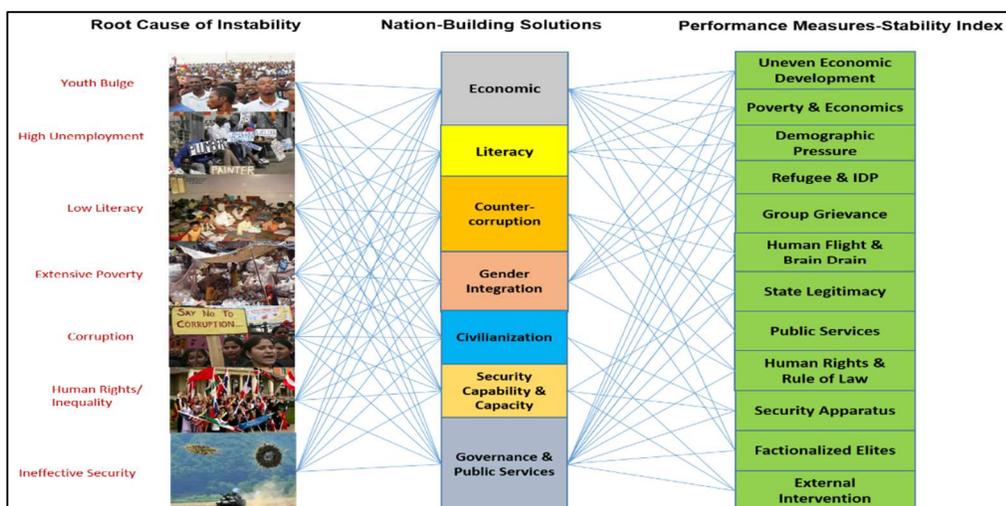


Figure 1-19. Root Cause-Solution-Performance Measure

The S-curve (combination of exponential and logarithmic) model in Figure 1-20 reflects objective performance. Although several assessments exist for ranking nations based on their performance, there are only two modeled for predicting conflict, instability, and state failure: Fund for Peace Failing State Index and University of Maryland Center for International Development and Conflict Management’s Peace and Conflict Instability Ledger (Rice, 7). One or combinations of assessments need implemented to track individual nation performance against U.S. efforts to improve security and stability. The dissertation contains a comparison of the advantages and disadvantages of these assessments. Aligning plans and activities across all organizations is required to achieve exponential performance.

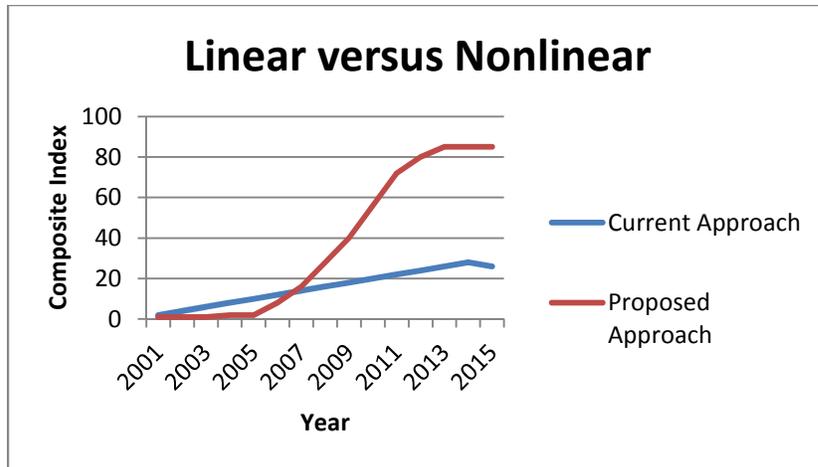


Figure 1-20. S-curve model for composite index

Figure 1-21 depicts the estimated war funding from FY2001-2015 and figure 1-22 reflects the cumulative estimated war funding. Over this period, significant funds were expended in Iraq and Afghanistan (\$1.7 trillion) without a correlation to results. The funding reflects reconstruction, nation building, and combat mission for DoD, Department of State (DoS), and U.S. Agency for International Development (USAID).

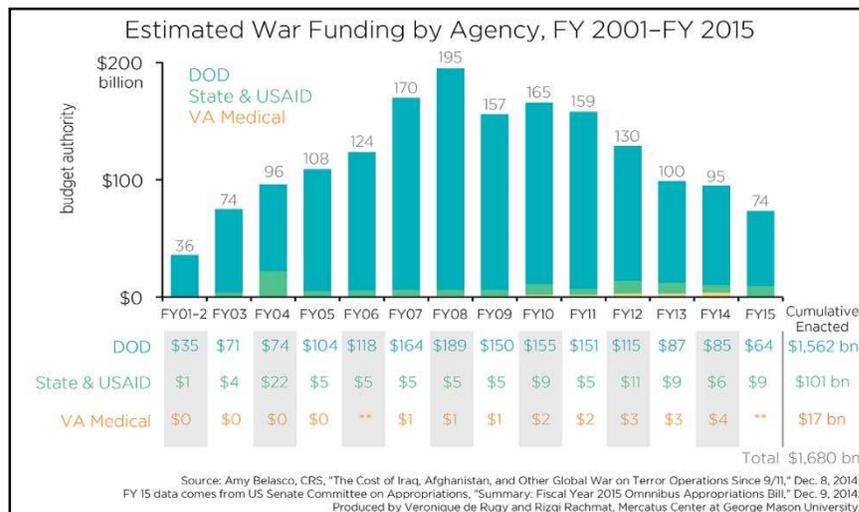


Figure 1-21. Estimated war funding by agency, FY2001-2015 (de Rugy, 1)

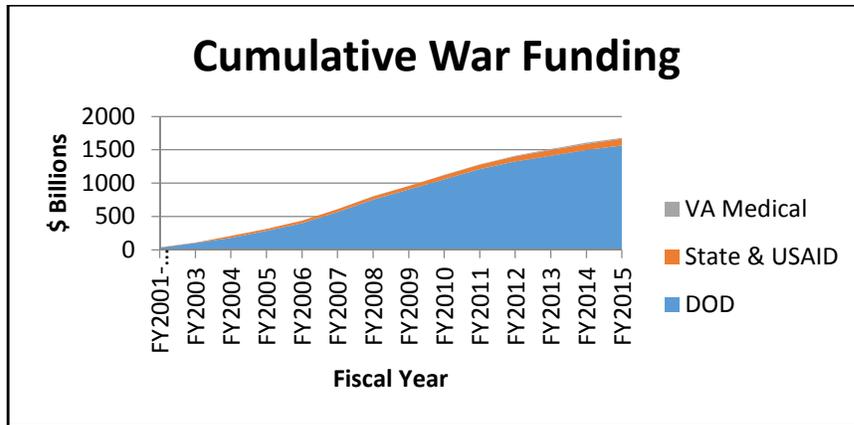


Figure 1-22. Cumulative estimated war funding by agency FY2001-2015

Leveraging the integration of activities across all stakeholders in nation-building mission ensures maximum benefit generated from money spent for driving multiple initiatives. The network structure maximizes on understanding initiatives across U.S. government, Coalition, and NGOs identifying gaps and facilitating interaction within DoD and across other organizations to appropriately fill those gaps. The emphasis is on ability to influence assisted nation and facilitate influence through all partners. The approach expands across DoS and USAID efforts, as well as, leveraging non-governmental organization initiatives to align with U.S. government goals.

Chapter 2 Measuring Nation-building Performance – Composite Index Approach

Metrics for defense institutional building are critical to mission success. Although measuring performance of a project plan attains the progress of the plan, measuring broader performance is critical for understanding whether initiatives are correct and improving the stability of the nation. Every project needs to be part of the comprehensive plan for improving stability of the nation.

Several composite indices have been generated to measure fragility or stability for nations. To compare indices as a metric in this paper’s analysis, all indices are normalized for zero to 100 range with zero being most fragile and 100 being most stable. Table 2-A depicts the index range for the year specified.

Index	Range
Fund for Peace Failing State Index - 2006	6.4 -85.7
State Weakness - 2006	5.2 – 94.1
Heritage Freedom Index - 2006	4.0 – 88.0
Fund for Peace Failing State Index-2013	5.1 – 84.7
Worldwide Governance Indicator - 2013	5.4 – 86.9
State Fragility Index - 2013	4.0 – 100.0
Fund for Peace Failing State Index - 2014	6.0 – 84.1
Peace & Conflict Instability Ledger - 2014	72.5 – 99.9

Table 2-A. Comparison of stability indices

Appendix 2-A depicts the converted scores. The Fund for Peace fragile state index encompasses data from 2005-2015 with an expectation to continue. The organization has created a mature process and has consistently used the same method over the eleven-year period. The State Weakness indicator generated only in 2006. The assessment included nations with a certain level of weakness; therefore, most stable countries are not included. The method collects routine documents and data from organizations such as the World Bank and State Department.

Collection of the Heritage Freedom index occurred since 1995; however, most fragile

nations are not included in the assessment. For 2015, these include Sudan, Democratic Republic of Congo, South Sudan, Iraq, Somalia, Afghanistan, Bhutan, Dominican Republic, Papua New Guinea, Eritrea, Serbia & Montenegro, Gambia, Netherlands, Grenada, Maldives, Micronesia, Sao Tome & Principe, and Seychelles. The data characterization leans toward economic measures but encompasses ten categories measuring freedom of the nation: property rights, freedom from corruption, fiscal freedom, government spending, business freedom, labor freedom, monetary freedom, trade freedom, invest freedom, and financial freedom (<http://www.heritage.com/>).

The worldwide index has data for 1996, 1998, 2000, 2002, and then every year from 2003 until 2013. The categories include voice and accountability, political stability/no violence, government effectiveness, regulatory quality, rule of law, and control of corruption. This index has no clear economic assessment factors; economic growth is essential developing stability and reducing internal unrest. The state stability index and the Peace and Conflict Instability Ledger are not collected every year. In addition, the Peace and Conflict Instability Ledger does not provide enough differentiation between factors as other indices.

The primary metric selected is the Fund for Peace fragile state index. The fragile state index, generated for the past eleven years, provides a historical comparison of nations. For 2015, fragile state index compiled data for 178 nations including most fragile states. In addition, fragile state index also had reasonable differentiation between the sub-indices driving larger differences between the scores of countries. This aspect allows a better means for measuring progress through change in the sub-indices by rolling up to a change in the composite index.

The variation in range from most fragile to most stable was 6.0 and 84.1. Some organizations do not collect every year or have not collected over a long period impeding trend analysis. In addition, some organizations did not determine the index for the most unstable nations therefore negating the ability to use the index for measuring performance of most unstable countries. The Fund for Peace fragile state index provided an extensive range of nations, covered an eleven-year period, and provided sufficient differentiation in score to use for measuring even small differences.

In the case for Bosnia & Herzegovnia evaluation was required prior to 2005, the Heritage Freedom index was used since it represents a more composite of various political, economic, and social factors and index generation has occurred annually.

Section 2.1 Fragile State Index

The Fragile State Index, generated from the Fund for Peace's proprietary Conflict Assessment System Tool (CAST), is a mixed methods approach using qualitative and quantitative techniques. Twelve primary social, economic, and political indicators further divide into sub-indicators. Applying content analysis approach, CAST uses sophisticated search parameters and algorithms to search millions of documents. Big data analytics method searches and compiles this data into measurable indices. The sub-indicators are assessed and compiled into the primary indicator for each of the twelve areas.

The composite fragile state index is a cumulative total of each of the primary indicators. Through both integration and triangulation techniques, CAST separates the relevant information from irrelevant using a proprietary algorithm. Scores are compared with a comprehensive set of vital statistics, as well as human analysis, to ensure that the software does not misinterpret the raw data. A team of experts review the final scores to ensure validity of results.

The Fund for Peace provides the information to the public for betterment of nations as a public resource for credible nation stability assessment's through the composite index. The Fund for Peace publishes the results of the index in the spring every year with articles on specific regions or countries that have improved or degraded over the year.

To have meaningful early warning, and effective policy responses, assessments must go beyond specialized area knowledge, narrative case studies and anecdotal evidence to identify and grasp broad social trends. An interdisciplinary combination of qualitative research and quantitative methodologies is needed to establish patterns and acquire predictive value. Without the right data, it is impossible to identify problems that may be festering below the radar. Decision makers need access to this kind of information to implement effective policies...the social science framework and software application upon which it is built-makes political risk assessment and early warning of conflict accessible to policy-makers and

the public (Fund for Peace 2014, 9).

In 2014, Fund for Peace changed the name of failing state index to fragile state index to emphasize the fragile situation of the nation and not label the nation as failing. Fragile states include failing, failed, and recovering states (U.S. Foreign Aid, 19). Fragile states also include states that appear stable but the political, economic, social, and security institutions are quite vulnerable to internal and external effects. *The goal in fragile states is stabilization, reform, recovery that provides a foundation for transformational development* (U.S. Foreign Aid, 19).

Failing states have a growing inability or unwillingness to provide even basic services and security to the people. Failed states are those where the central government does not exert effective control over, is unable, or unwilling to provide vital services to significant areas of its territory. Recovering states are those that are still weak but reflect an upward trajectory in terms of stability and basic governance.

The composite index equally weights the twelve indicators. The sub-indicators are not mutually exclusive with overlap occurring between them. This is indicative of a system where one cause may have multiple effects across political, economic, social, military, information, and infrastructure systems. Figure 2-1 illustrates the common area between systems creating the multiple effects.

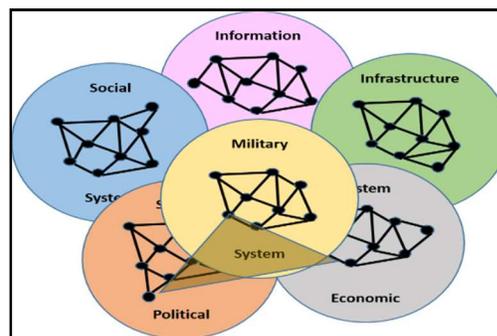


Figure 2-1. Multi-system perspective

Normalizing the fragility state index converts the index into a stability state index with stability maturity ratings between zero and 100.

Social Indicators		
Demographic Pressures		
Natural Disasters Disease Environment Pollution	Food Scarcity Malnutrition Water Scarcity	Population Growth Youth Bulge Mortality
Refugees and IDPs		
Displacement Refugee camps IDP Camps	Disease related to Displacement	Refugees per capita IDPs per capita Capacity to absorb
Group Grievance		
Discrimination Powerlessness	Ethnic Violence Communal Violence Sectarian Violence	Religious Violence
Human Flight & Brain Drain		
Migration per capita Human Capital	Emigration of Educated Citizens	
Economic Indicators		
Uneven Economic Development		
GINI Coefficient Income Share of Highest 10% Income Share of Lowest 10%	Rural versus Distribution of Services Improved Service Access	Slum Population
Poverty & Economic Decline		
Economic Deficit Government Debt	Unemployment Youth Employment	Purchasing Power GDP per capita GDP Growth Inflation
Political and Military Indicators		
State Legitimacy		
Corruption Government Effectiveness	Political Participation Electoral Process Level of Democracy	Illicit Economy Drug Trade Protests and Demonstrations Power Struggles
Public Services		
Policing Criminality	Education Provision Literacy	Water & Sanitation Infrastructure Quality Healthcare Telephony Internet Access Energy Reliability Roads
Human Rights & Rule of Law		
Press Freedom Civil Liberties Political Freedoms	Human Trafficking Political Prisoners Incarceration	Religious Persecution Torture Executions
Security Apparatus		
Internal Conflict Small Arms Proliferation Riots and Protests	Fatalities from Conflict Military Coups Rebel Activity	Militancy Bombings Political Prisoners
Factionalized Elites		
Power Struggles	Defectors	Flawed Elections Political Competition
External Intervention		
Foreign Assistance	Presence of Peacekeepers Presence of UN Missions Foreign Military Intervention	Sanctions Credit Rating

Figure 2-2. Fund for Peace fragile state sub-indicators (Fragile State Index 2015, 17)

Campaign planning system of system analysis aligns with initiatives for political,

military, economic, and social with infrastructure and information systems embedded within sub-indicators. The framework determines initiatives aligned with systems and means for measuring performance through the fragile state sub-indicators, depicted in figure 2-2.

Political system represents counter-corruption and governance & public services initiatives. Economic system represents economic initiatives. Literacy and gender integration represent the social system. Military system represents the security capability & capacity and civilianization of military role. The infrastructure system represents governance and public service box; information system represents all initiatives. Figure 2-3 reflects root cause-solution-performance measure. System overlap occurs across the initiative creating complexity of solutions but ability for exponential results.

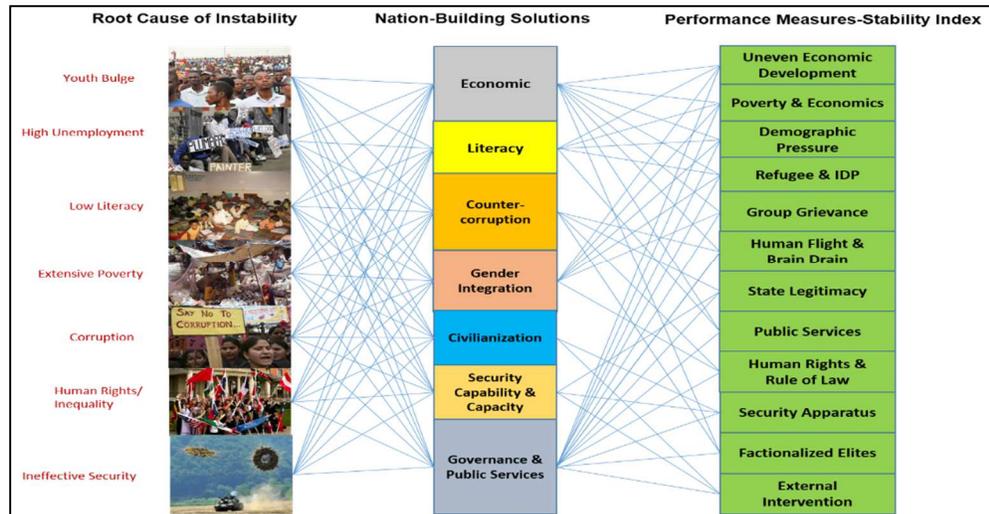


Figure 2-3. Root cause-solution-performance measure

Figure 2-4 depicts the nominal composite index for current and proposed compared with the stability state index for Iraq and Afghanistan. The perceived current nominal approach is a linear relationship of social, economic, and political factors with progress steadily occurring at a slight increase per year.

The proposed nominal approach is an S-curve (growth or logistic curve) model with four phases. (1) An initial investment for first few years with little change. (2) An exponential segment with the benefits of the initial investment creating synergy causing multiple benefits across social, economic, and political factors. (3) The third segment reflects a logarithmic profile with growth slowing due to maximization of the most critical factors. (4) The last segment is steady-state; results remain until a significant positive or negative action occurs.

The S-curve is commonly used to describe population growth, with the size of the population expressed as a function of time. S-shape of the growth curve *can describe a complex dynamic process by transforming it into numbers through measurement and using relatively simple mathematics* (Mobus, 216).

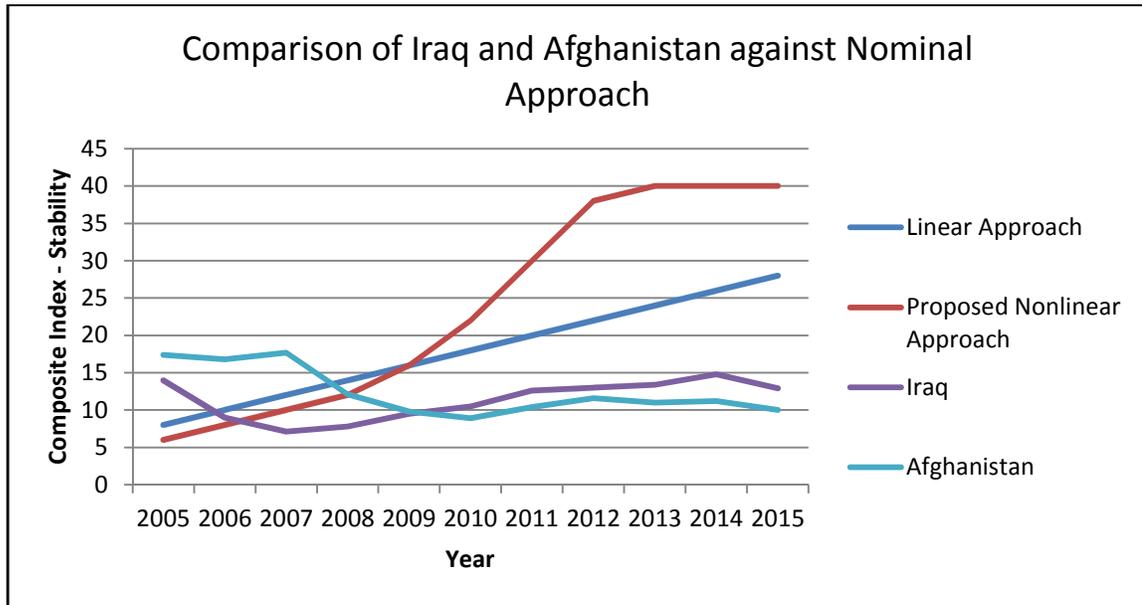


Figure 2-4. Nominal composite index comparison to Iraq and Afghanistan

External nations lack unlimited funds to assist fragile nations and therefore funding will be curtailed once the nation reaches some improved state. Based on effective initiatives implemented to resolve the problems encountered in social, economic, and political

challenges, the nation will continue to develop on a much slower but stable rate on its own merits.

The function for S-curve is $y = C / (1 + Ae^{-Bx})$ with three parameters A, B, and C. As the value of x grows in magnitude, the term $-Bx$ of the exponent in the denominator of the function becomes a larger negative value; therefore, the term e^{-Bx} becomes smaller. The term $(1 + Ae^{-Bx})$ becomes smaller. The result is that the entire denominator $(1+Ae^{-Bx})$ is a number larger than 1 and decreases to 1 as x increases.

The value y will always increase to the value of C, the maximized value. C represents the limiting value of the output; however, when the exponential term Ae^{-Bx} is a value close to A, the denominator $1 + Ae^{-Bx}$ becomes the value near $1 + A$. Setting x to 0 yields y (0) or the y-intercept of the equation. This will be the value that the S-curve starts its shape. The relationship between C and A is that A is the number of times the initial parameter will grow to reach C. The inflection point is the point that the exponential curve changes to the logarithmic curve, which is halfway point with coordinates $(\ln A/B, C/2)$.

Observations of 178 nations' stability state index graphs resulted in linear, logarithmic, exponential, polynomial, and S-curve profiles resulting that stability trends can develop based on efforts for countries. Several graphs reflected an erratic behavior, concluding that a cause and effect relationship between initiatives and results does not exist.

For those nations with erratic performance over the eleven-year period, the internal system of systems is not integrated effectively creating uniform results. For linear models, the equation is $y = mx + b$ where m is the slope (rate of change) and b is the intercept of the y-axis. For polynomial models, $y = \alpha x^n + \beta x^{n-1} + c$ where α and β are

constant and c is the intercept. For logarithmic models, the equation is $y = \alpha (\ln x) + b$ where α is constant and b is the intercept of the y-axis. For exponential models, the equation is $y = \alpha (e^{-x}) + b$ where α is constant and b is the intercept of the y-axis. For S-curve models, the equation $y = C / 1 + Ae^{-Bx}$ models the combination of exponential and logarithmic performance to a maximum value.

Nation trend examples found for each type of performance: linear (Georgia from 2009-2015), logarithmic (Dominican Republic), exponential (Botswana from 2009-2015), polynomial (Djibouti) and S-curve (Bosnia & Herzegovina for 1998 to 2016). Georgia reflects several years of internal and external conflict with Russia and then a sharp linear improvement.

Dominican Republic reflects financial crisis for the country and quick recovery. Botswana reflects solutions to refugee flow from neighboring country. Djibouti reflects impacts of instability in neighboring countries. Bosnia & Herzegovina reflects the deterioration of the country after declaring independence, war from 1992-1995, and NATO involvement in peacekeeping and nation building. Figure 2-5 reflects period from 2005 to 2016 for these nations.

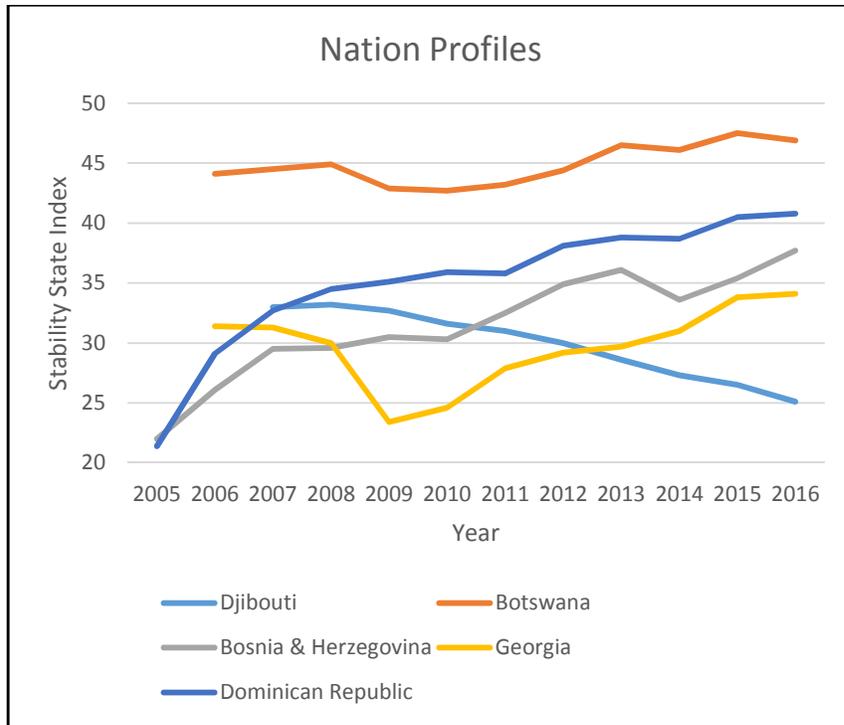


Figure 2-5. Nation stability state index performance trends

The campaign plan and resources used lack desired effect on current reconstruction and nation building, building partnership capacity, defense institutional building, or stability operations missions in those nations.

Tables 2-B and 2-C depict the stability state index for the twelve sub-indicators for Iraq and Afghanistan over the eleven-year period 2005 – 2015. Iraq saw marginal improvement from 2007 to 2014 with the last two years degraded from increased violence within the country, the result of attacks and occupation of the Islamic State in northern Iraq. The sub-indicators most affected were state legitimacy and external intervention. Economic development also showed degradation after the withdrawal of U.S. military in December 2011, reaching a value of zero for the last three years. Security rated as zero for the last three years, supporting causal relationship of security impeding economic growth.

Iraq (Modified for 0 - 100 scale)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Demographic Pressure	1.7	0.9	0.8	0.8	1.1	1.2	1.4	1.7	1.4	1.7	1.5
Refuge & IDP	0.5	1.4	0.8	0.8	0.9	1.1	0.8	1.2	1.0	1.2	0.9
Economic Development	1.4	0.2	0	0.2	0.2	0.6	0.8	0.2	0	0	0
Poverty & Economics	3.1	0.7	0.4	0.6	0.7	0.6	0.9	1.2	1.4	1.7	1.6
Human Flight	1.1	1.1	1.2	1.2	1.2	1.0	0.8	1.1	1.3	1.6	1.8
Group Grievance	1.5	1.5	1.7	1.8	2.0	2.0	2.5	1.9	2.2	2.5	2.6
State Legitimacy	1.0	1.2	0.5	0.5	0.8	0.8	1.1	1.3	1.2	1.1	0.7
Public Service	0.9	1.4	1.2	1.2	1.3	1.3	1.7	1.8	2.0	1.9	2.1
Human Rights & Rule of Law	1.5	0.2	0.2	0.3	0.6	0.7	1.2	1.4	1.2	1.1	0.9
Security	1.3	0.2	0	0.1	0.2	0.4	0.4	0.1	0	0	0
Factionalized	0	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
External Intervention	0	0	0	0	0	0.4	0.6	0.8	1.2	1.7	0.5
Composite Index	14.0	9.0	7.1	7.8	9.5	10.5	12.6	13.0	13.4	14.8	12.9
Ranking	4	4	2	5	6	7	9	9	11	13	12

Table 2-B. Iraq stability state indicators

Afghanistan declined until 2010 and then showed marginal improvement between 2010 and 2012. The areas for poorest performance were state legitimacy, security, and external intervention. Human flight improved over the period. Both economic development and poverty & economics reduced significantly substantiating little economic growth occurred in the country during the U.S. assistance and therefore improving the public's lifestyle and welfare. Public services reduced sharply in 2015 over previous years.

Afghanistan (Modified for 0 - 100 scale)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Demographic Pressure	0.8	1.7	1.2	0.7	0.6	0.4	0.7	0.9	0.6	1.0	0.6
Refuge & IDP	1.7	0.3	0.9	0.9	0.9	0.7	0.6	0.8	0.7	0.6	0.7
Economic Development	1.7	0.7	0.7	0.4	0.3	0.2	0.6	0.5	0.7	1.1	0.9
Poverty & Economics	2.2	2.5	2.5	2.5	2.3	2.3	2.3	2.2	2.3	1.8	1.6
Human Flight	1.0	1.7	1.7	1.6	1.6	1.5	1.6	1.6	1.8	2.1	2.3
Group Grievance	2.1	2.1	1.4	1.2	1.4	1.4	1.7	1.9	1.5	1.4	1.2
State Legitimacy	1.6	1.4	1.0	0.7	0.2	0	0.2	0.4	0.5	0.4	0.2
Public Service	1.6	1.7	1.7	1.4	0.9	0.9	1.2	1.2	1.0	0.8	0.6
Human Rights & Rule of Law	1.7	1.5	1.5	1.3	1.0	0.7	1.0	1.2	1.3	1.4	1.2
Security	1.5	1.5	0.8	0.3	0.1	0.2	0.2	0.2	0.1	0	0
Factionalized	1.7	1.7	1.2	1.0	0.7	0.5	0.5	0.5	0.5	0.5	0.6
External Intervention	0	0	0	0	0	0	0	0	0	0.1	0.2
Composite Index	17.4	16.8	17.7	12.1	9.8	8.9	10.4	11.6	11.0	11.2	10.0
Ranking	11	10	8	7	7	6	7	6	7	7	8

Table 2-C. Afghanistan stability state indicators

Without external intervention, few companies will invest unsure of the military and governance capability of nation to maintain security and stability on their own. Without military intervention, there will be no security. Without security, there will be no economic development. Without economic development, there will be little improvement creating further migration of educated people and contributing to the downward spiral for failing nations.

This reflects the systems response of actions being linked to multiple actions and a feedback loop, which further creates degradation. Afghanistan showed slow degradation over the eleven-year period except for human flight that slightly improved. The entire eleven-year period reflected significant dependence on external intervention.

With the investment of \$1.7 trillion dollars and peak military deployments of 170,000 in Iraq and 100,000 in Afghanistan, tables' 2-B and 2-C reflect no overall substantial improvement in the countries. In failing states, military intervention alone will not achieve a difference.

Affecting multiple functional areas with the same initiative can affect multiple social, economic, and political indicators. The linear line ($y=2x + 6$) in figure 2-6 reflects that it would take 17 years to transform a nation at a composite index of 6.0 (high alert) to 40.0 (stable), given a mission for achieving uniform growth generated over the seventeen-year period.

The nonlinear curve reflects a nominal S-curve with gradual increase from 2005 to 2008, the exponential curve growth from 2008 to 2011, the logarithmic reduction from 2011 to 2013, and steady-state rate from 2013 to 2015. The curve reflects initial funds invested will take a few years for benefits produced; however, the combination of

initiatives creates the result of the *whole being more than the sum of the parts* (exponential growth). Once level of growth is obtained, based on combination of funds and initiatives, the logarithmic profile reflects maximization and the line becomes flat.

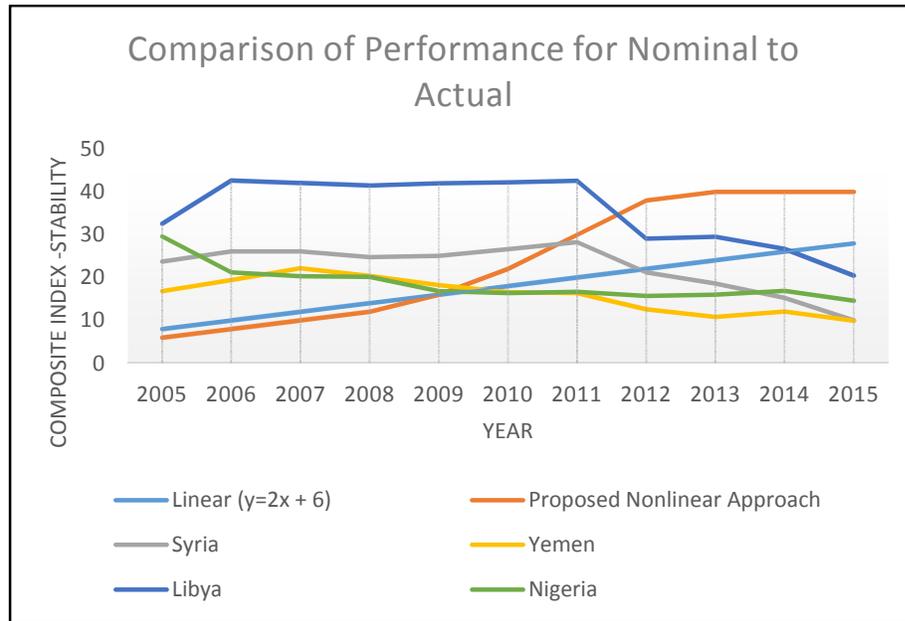


Figure 2-6. Comparison of performance for linear, S-curve, and four fragile nations

It would take another significant investment and advanced initiatives to create another S-curve or movement from steady-state growth. The nation may over a longer period experience slow growth from its own investments (feedback loop of nation system). Optimization of investments with the right combination of initiatives creates the exponential increase. Success of S-curve growth relies on the right combination of investments and initiatives.

The composite index reflects the affect of measurements of sub-indicators. Predicted future performance occurs when a mathematical equation represents the profile over a period. Deeper analysis into the actions, which caused the changes in the sub-indicators, required to understand change from input to output. Tracking performance of stability state index determines stability of nation at a point and if it has attained predictability.

Section 2.2 Graphical Analysis of the Stability State Index

The U.S. military established Africa Command (AFRICOM) in 2008 due to the unrest in African countries. AFRICOM, headquartered in Stuttgart, Germany, encompasses 35 percent of the world's land mass and 25 percent of its population (global security, 1-2).

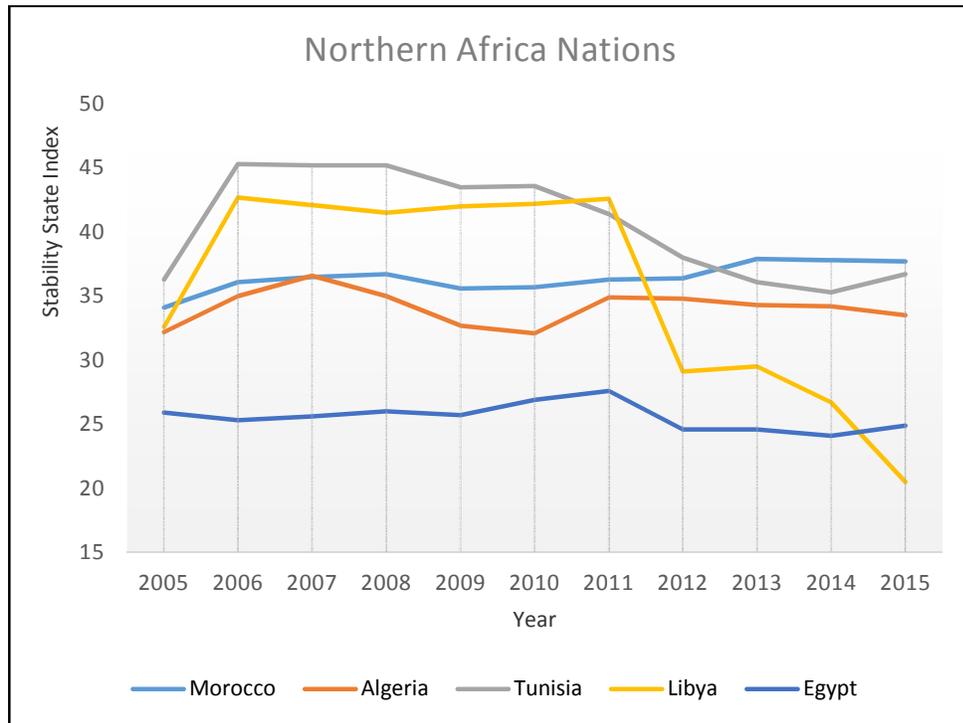


Figure 2-7. Northern Africa stability state indices

In figure 2-7, Libya reflects the results of the Arab Spring in 2011 and the sharp decline in stability through 2015. Prior to the Arab Spring, Libya had achieved stability status while under Colonel Muammar Gaddafi. In January 2004, Libya ratified the Nuclear Test Ban Treaty and the Chemical Weapons Conference with the U.S. and U.K. Weapons experts arrived in Libya to dismantle, remove, and destroy the equipment and material for their Weapons of Mass Destruction (WMD) program (Case Studies on Terrorism: Libya, 7). By September 2004, President Bush terminated all sanctions imposed through Executive Order (EO) 12543 of January 7, 1986, EO 12544 of January 8, 1986, and EO 12801 of April 15, 1992 (U.S. Department of Treasury).

These actions lifted travel restrictions to Libya and authorized U.S. companies with pre-sanction holdings in Libya to negotiate terms for re-entry. The Treasury Department unfroze \$1.3 billion in assets (U.S. Department of Treasury). The rise from 2005 (32.6) to 2006 (42.7) reflects the lifting of sanctions and improvements throughout the country. Significant increases were in refugee & IDP, economic development, poverty and economics, human flight, state legitimacy, and security. The country stayed at this stability level until the Arab Spring event.

In August 2014, the internationally recognized government was forced to move to the eastern port city of Tobruk. *Various indicators further declined as militant groups, including those allied with the Islamic State, dislodged the government's authority and assumed the role of providing critical services to the war-weary population* (Fund for Peace 2015, 19). Libya is on the same degradation as seen in Syria and Iraq through spread of terrorism by the Islamic State.

Tunisia and Egypt also show decline in 2011 with impacts of Arab Spring. The spread of the Islamic State in this region of Africa results in greater instability over next several years. The spillage of conflict within regions creates a quick decline as seen between Syria and Iraq from 2014-2015.

In a recent survey conducted by the Department of Sociology at the University of Maryland, Tunisia *shows an increase in support for social individualism, a decline in support for political Islam, a significant increase in preference for Western-style democratic government and an increase in religious tolerance* (Roberts, 1). This study re-interviewed 2,400 people from the representative sample of 3,000 Tunisian adults first interviewed in 2013 (Roberts, 1).

Tunisia is the most religious tolerant society among Middle Eastern and North African countries. The survey reflects actions of Islamic State in the past two years has not reduced citizens' belief in democratic and freedom values but appears to be strengthening them.

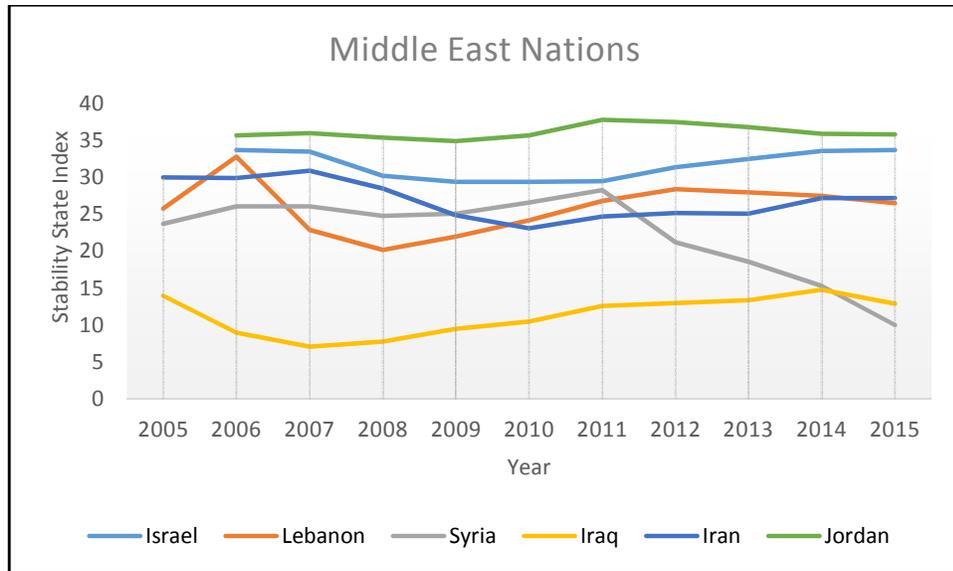


Figure 2-8. Middle East stability state indices

In figure 2-8, Iraq displayed an improvement from 2007 to 2014 aligned with the changes in U.S. strategy for counter-insurgency, the U.S. military surge, and the re-acceptance of the Sons of Iraq into the Iraqi military. The Islamic State spread from Syria to Iraq in 2014 starting a decline that continues into 2016. Lebanon depicted a significant drop from 2007 to 2008 but then a gradual increase to 2012. The impact of the Syrian War has created a significant refugee problem in Lebanon, with more than 1.1 million residing in 2014.

Battles between the Lebanese army and insurgents from Syria who overran the border town of Arsal in August 2014 has also undermined the state's border security, along with border clashes in October between Hezbollah and Syrian fighting force Jabhat al-Nursa, adding to the decade index trend which has security apparatus indicator worsen by 1.3 points (Fund for Peace 2015, 25).

Syria's decline is the result of Arab Spring with civil war and degradation of stability from 2011 (28.3) through 2015 (10.0). The huge refugee flood into Europe continues to degrade the stability state index. Sub-indicators refugee & IDP, economic development, human rights & rule of law, and security have reached or maintained zero since 2015. Sub-indicators state legitimacy, factionalized, and external intervention are just above zero at 0.1. For 2016, the stability state index dropped to 7.7.

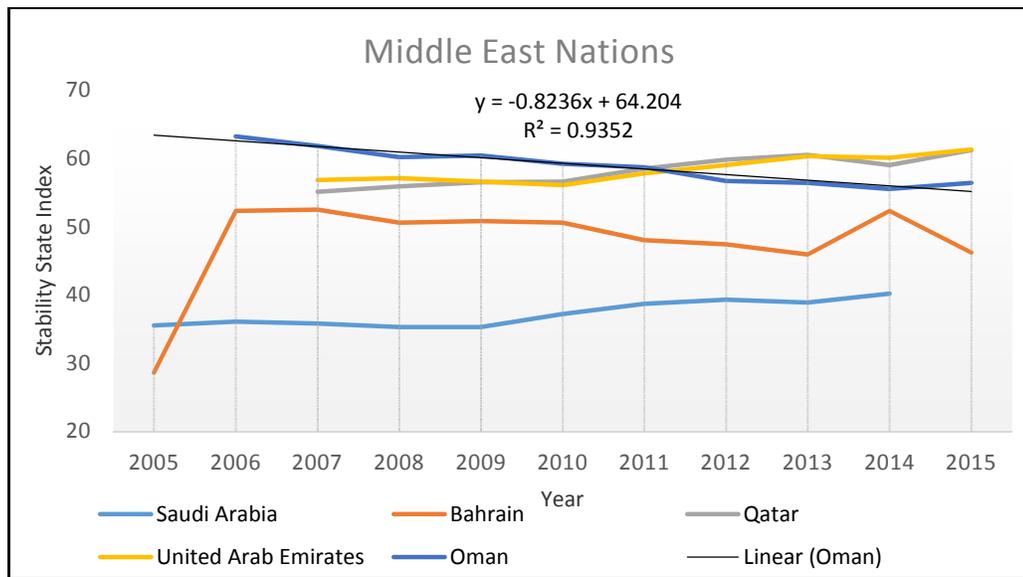


Figure 2-9. Middle East stability state indices

In figure 2-9 Middle Eastern grouping, Bahrain displayed a very significant increase from 2005 (28.6) to 2006 (52.3) largely due to economic development, poverty & economics, state legitimacy, human rights & rule of law, security, factionalized, and external intervention. This one-year improvement moved the country from warning status to stable status and maintained that position. United Arab Emirates and Qatar experienced identical stability profiles over their nine-year period.

Although in the stable state status, Oman experienced a linear decline ($y = -0.8236x + 64.204$) over the period. Oman has an uncertain future. Although Sultan Qaboos is

progressive for the country, he is in his seventies, never married, and leaves no heir; therefore, no clear successor exists risking a tumultuous period until a new ruler is identified or another form of government established. Saudi Arabia, the only nation in this group in the warning stability status, attributed to economic development, state legitimacy, human rights & rule of law, and factionalized. Saudi Arabia is possibly the most conservative Islamic country. The economy is dependent on oil revenues. As a welfare state, there is little economic development.

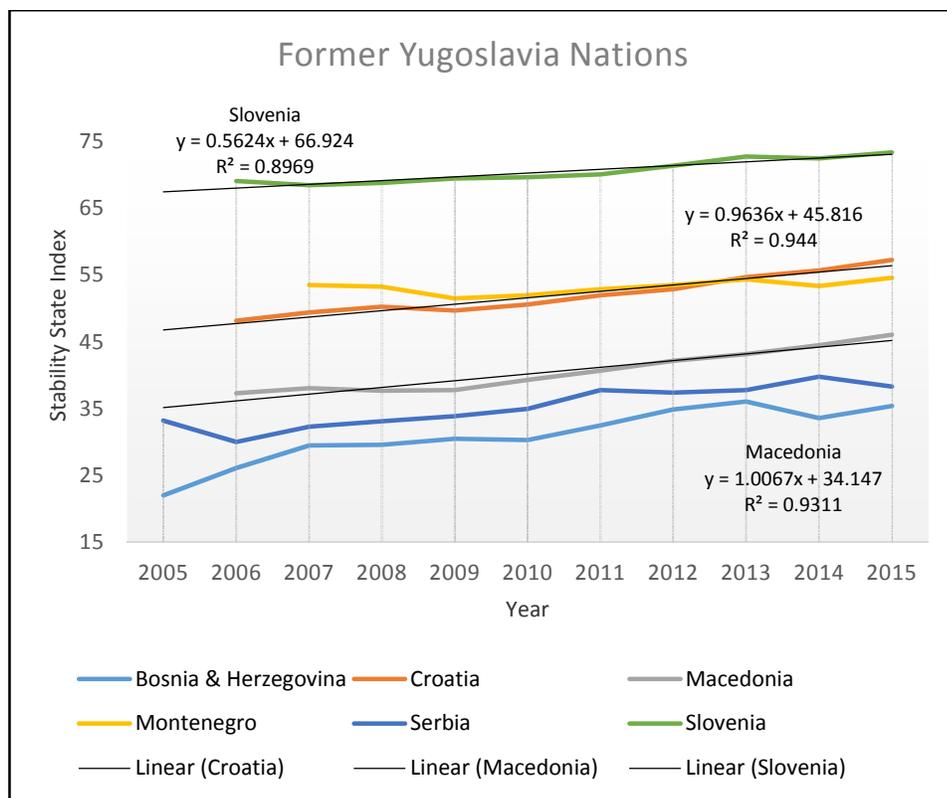


Figure 2-10. Former Yugoslavia stability state indices

In figure 2-10, six countries of former Yugoslavia all showed improvement over the eleven-year period, some with linear profiles such as Slovenia ($y = 0.5624x + 66.924$) reaching the sustainable stability status and Macedonia ($y = 1.0067x + 34.147$) reaching stable status. All six countries have either joined the European Union or are working towards joining the European Union; therefore, these nations have been closely measured

and monitored on entry criteria. Bosnia & Herzegovina will be discussed later in this section showing the significant improvement in the late 1990's and an overall S-curve stability index profile.

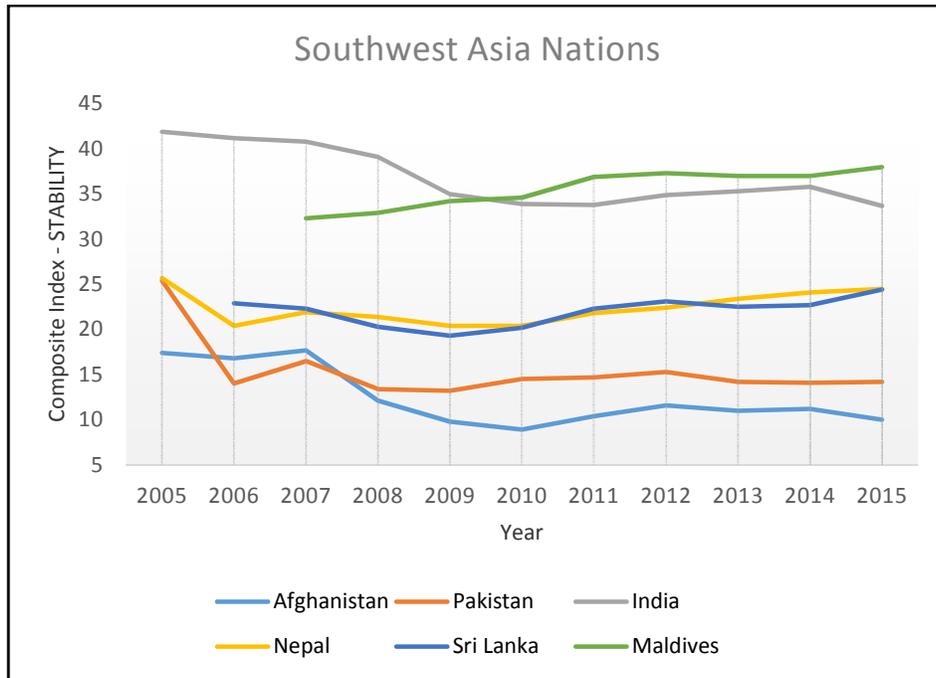


Figure 2-11. Southwest Asia stability state indices

In figure 2-11, Southwest Asia nations comprise two groupings: India and Maldives close to stable status and the other four nations between warning and alert. The war in Afghanistan contributes to instability in Pakistan; Taliban and other terrorist organizations are known to take shelter in Pakistan. The instability of Pakistan is significant since it is a nuclear capable nation and has a population of 196.2 million with 54.8 percent below the age of twenty-four years old (CIA factsheet 2015, 3).

The literacy rate of the country is only 54.9 percent (CIA factsheet 2015, 5). Although the unemployment rate is low at 6.6 percent, the population below poverty rate is 22.3 percent (CIA factsheet 2015, 9). This creates the situation for a very young, large population with about half able to read in their language living in poverty with little hope

of changing their condition.

During the period of war in Afghanistan, some improvement regained in 2010 to 2012 timeframe but 2015 depicts the increased violence the country has seen with the reduction of Coalition troops at the end of 2014 for the Resolute Support Mission (RSM).

Although Turkey displayed improvement over the period (28.1 to 37.8), the country has not reached stability status. With the continued problems of Syria and recent issues with Russia over the war in Syria, Turkey may experience a decline in its stability in the near-term.

The Syrian refugee problem impacts countries on the exit path to Europe including Turkey, Greece, Hungary, Austria, and Czech Republic. Germany, France, Belgium, Netherlands, and Poland are experiencing unrest with terrorist activities and refugee movement. These countries likely result in reductions in their stability state index over the next several years. Figure 2-12 depicts the refugee path through Europe and the reduction of index from 2015 to 2016.

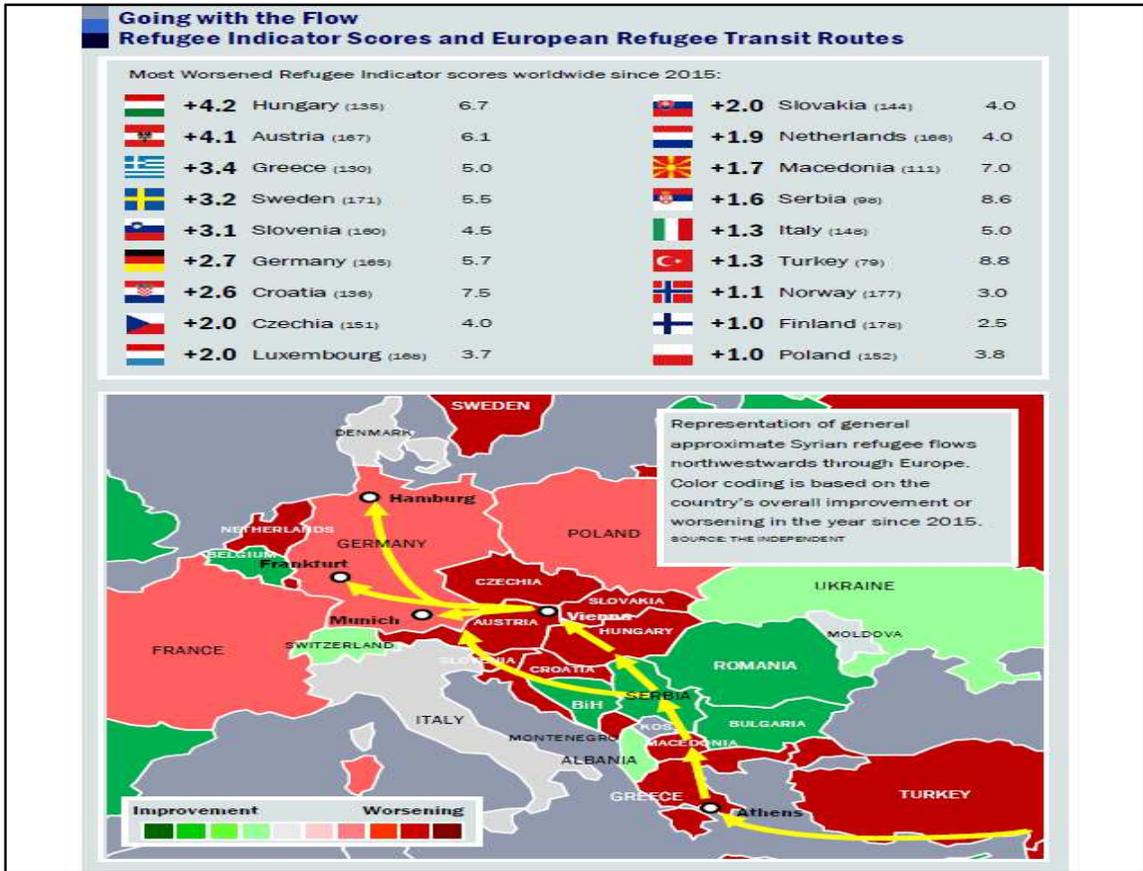


Figure 2-12. Refugee Transit Routes (<http://www.fundforpeace.org>, Europe's Refugee Crisis underscores Global Interconnectedness)

Section 2.3 Bosnia and Herzegovina – Example of S-curve (growth curve) Performance

Former Yugoslavia comprised six republics: Slovenia, Croatia, Bosnia-Herzegovina, Montenegro, Serbia, and Macedonia and covered three ethnic/religious groups: Roman Catholic Croats, Bosnian Muslims, and Orthodox Serbs (Power, 247). In 1991, Serbian President Slobodan Milosevic pushed for Serbian dominance throughout Yugoslavia resulting in Slovenia, Croatia, and Bosnia seceding from Yugoslavia. Bosnia had the most widespread composition of ethnicities: 43 percent Muslim, 35 percent Serb, and 18 percent Croat (Power, 247).

To prevent violence amongst the ethnicities, the U.N. imposed an arms embargo on Bosnia and Croatia restricting delivery of weapons to those areas (Power, 249). The Serbs acquired weapons through President Milosevic and initiated the war and genocide against the Muslims and Croats. Serbian forces reported entering Muslim/Croat neighborhoods and forcibly removing people from their homes some going to concentration camps (Pierce, 4). As the U.S., U.N. and NATO determined the options for Bosnia, the Bosnian Serb militia on July 11, 1995 entered Srebrenica, a UN safe-haven, and overtook 600 Dutch peacekeepers and murdered 7,000 Muslims (Pierce, 9). Within two weeks, the safe-haven Zepa fell from Serbian forces.

In August 1995, NATO with U.S. support engaged with 750 airstrikes against Serbian ammunition bunkers and communication centers (Power, 440). The airstrikes effectively brought the Serbian President Milosevic along with Bosnian and Croat presidents to meet with NATO leaders at a U.S. Air Force Base near Dayton, Ohio (Pierce, 10). The Peace Treaty, known as the Dayton Accords, was signed in Paris, France on December 14, 1995. The terms of the Dayton Accords partitioned land among the Serbs, Croats, and

Muslims; established an Implementation Force (IFOR) of military ground troops; protected the right to return home; upheld the ceasefire; and investigated human rights violations involving ethnic cleansing (The Dayton Peace Accords). Three entities shared governing responsibility: Federation of Bosnia and Herzegovina, Republic Srpska, and Brcko District (Fund for Peace 2014, 36).

As part of the agreement, the U.S. sent 20,000 troops to participate in IFOR (Rohde, 2). Although predicted that peacekeepers would be caught in a quagmire, the U.S. troop presence ended in 2006 without a single American soldier killed by hostile fire (Rohde, 2). The military peak intervention density for Bosnia was 60,000 troops to 3.8 million population resulting in 63 citizens per military person. The military peak intervention density for Iraq was 160 citizens per military person (200,000 troops to 31.9 million population). The military peak intervention density for Afghanistan was 254 citizens per military person (125,000 troops to 31.8 million population). *In postconflict reconstruction operations, adequate security is the absolute sine qua non of success* (Fukuyama, Nation-Building, 234).

The Bush Administration was never willing to commit anything near the force necessary to secure a viable postwar order in Iraq. Military experts had warned that the task would require, as Army Chief of Staff Eric Shinseki told Congress in February 2003, hundreds of thousands of troops. If the United States had deployed in Iraq a force with the same ratio to population as in Bosnia, it would have numbered half a million troops; never did the total coalition troop commitment in Iraq reach much more than a third of that level (Fukuyama, Nation-Building, 174).

As described in Reconstruction and Nation Building paper by the Industrial College of the Armed Forces (ICAF), security is foundational and required before initiatives can effectively be implemented. The investment in troop intervention density contributed to exponential growth from 1995 to 2005. Under this peace-enforcing security effort,

stability established quickly to allowed donor funds to generate improvements. The close oversight by NATO further positioned the effort to maintain performance even with the underlying ethnic tensions that survive today.

After two years of peace in Bosnia, guerilla warfare between Milosevic’s army and rebel fighters in Kosovo, the area south of Serbia, caused NATO to intervene. In 1999, NATO resumed bombing Serbian targets pressuring Milosevic to surrender (Pierce, 11). In 2001, Milosevic was arrested and placed in the custody of the United Nations International Criminal Tribunal at The Hague (Pierce, 11). Milosevic would die in custody in 2006 awaiting the results of his trial (Pierce, 11).

With the loss of over 100,000 Bosnians killed during the war, the country still struggles with a sense of unity and reconciliation (Rohde, 2). As of 2012, only 600 European soldiers keep the peace (Rohde, 3). Figure 2-13 illustrates both Heritage Freedom Index and Fund for Peace Index gradually developing stability over the past eleven years. Although the scales are different between the two indices, the profiles are very similar depicting a very gradual improvement over the eleven-year period.

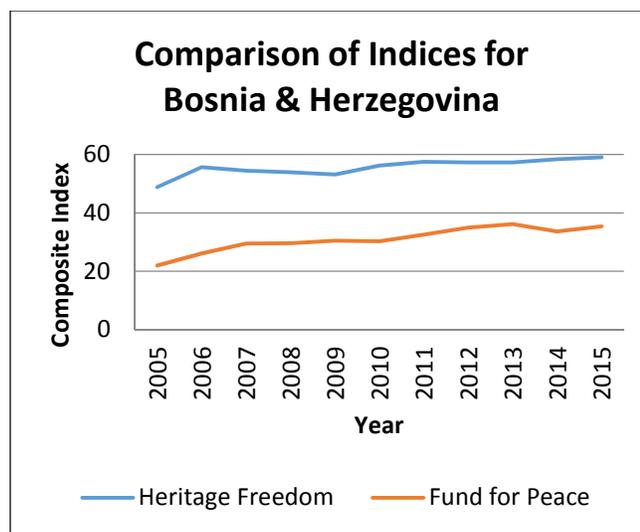


Figure 2-13. Comparison of indices for Bosnia and Herzegovina

Figure 2-14 illustrates for the period of 1995 to 2006, Bosnia and Herzegovina was significantly behind the other former Yugoslav countries, resulting from the war between 1992 and 1995. In 2000, the Bosnian line reflects a spike, the result of a large increase in government spending due to funding from donor nations for just that year.

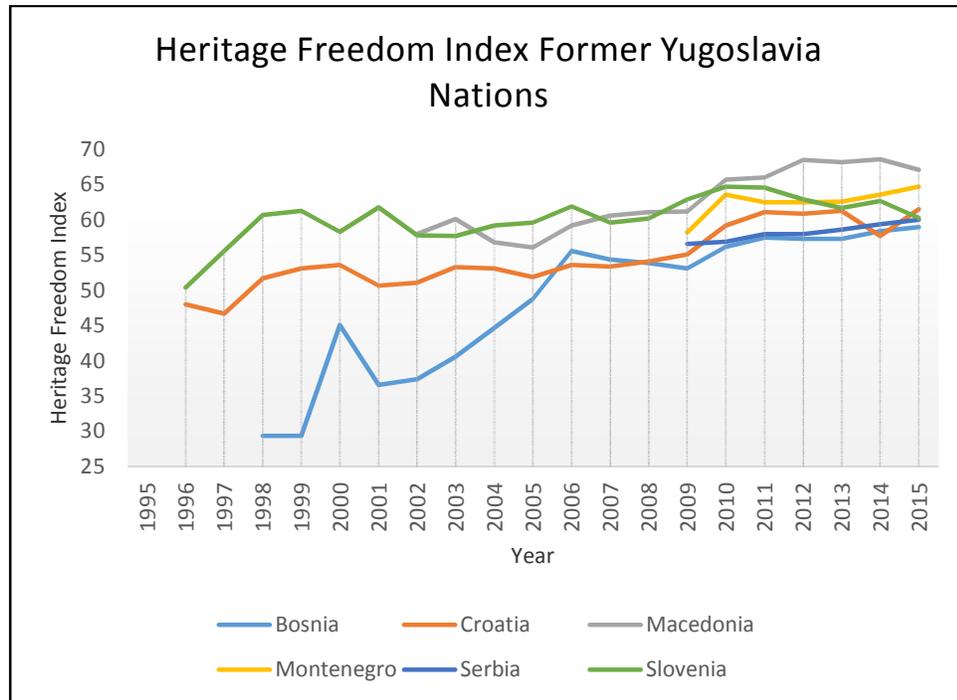


Figure 2-14. Former Yugoslavia countries Heritage Freedom indices

Per the Fund for Peace 2014-decade review (2006-2014), *of the countries that have improved the most, one region of the world stands out: the Balkans and specifically, the countries of the former Yugoslavia... Out of those seven countries, four of them are among the top ten most improved countries of the decade with Bosnia and Herzegovina placing first, followed by Serbia at third, Croatia at ninth, and Macedonia at tenth* (Fund for Peace 2014, 35). Figure 2-14 illustrates this trend started two decades before in 1996.

Figure 2-15 depicts Bosnia using the Heritage Freedom Index for the years 1998 to 2015 and the S-curve equation $y = 59 / (1 + 1.45 e^{-0.25 x})$. The preferred index is the Fund for Peace; however, since its initiation did not start until 2005, the Heritage Freedom

reflects data from 1998 through 2015 and provides a complete picture. Heritage Freedom Index was not available for Bosnia prior to 1998.

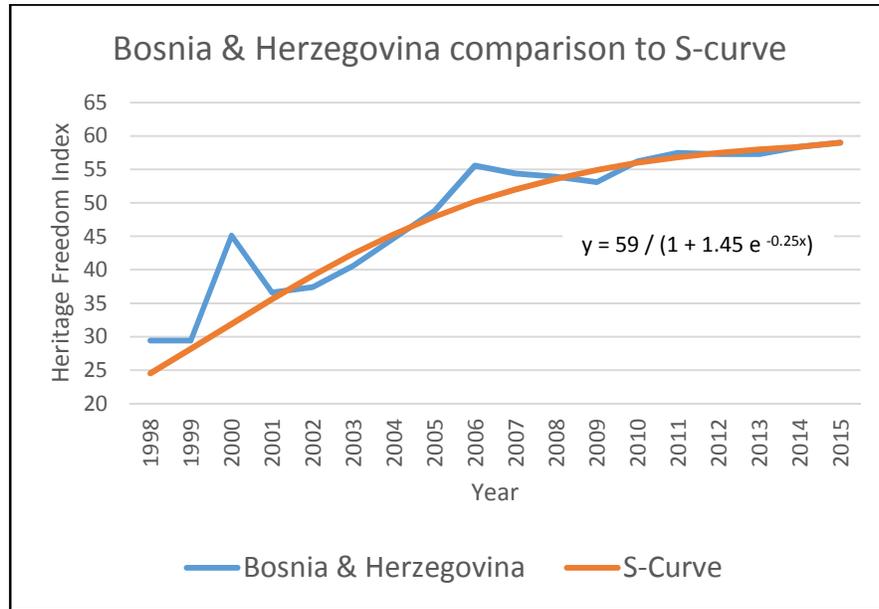


Figure 2-15. Bosnia & Herzegovina Heritage Freedom index and S-Curve comparison

For nonlinear equations, the chi square goodness of fit test used to compare the expected values from the equation to the observed values of the composite index. The null hypothesis is that the observed values fit the suggested equation or expected values. This approach used for the S-curve and logarithmic equations of composite indices performance.

Using chi square goodness of fit test for Bosnia & Herzegovina, the observation values are Heritage Freedom index and the expected values are based on non-linear equation $y = 59 / (1 + 1.45 e^{-0.25x})$ (calculations in appendix 2-B). The null hypothesis (H_0) is that the Heritage Freedom index values fit the equation. The alternative hypothesis (H_1) is the opposite of the null hypothesis that the Heritage Freedom index values do not fit the equation.

The value of 59 is the limiting factor for the S-curve representing the performance

relationship from 1998 to 2015 with the value in 2015 being 59. The total (observed value minus expected value)² divided by the expected value determines the critical value to compare with values in a chi square table for a specific α value. The result is that the hypothesis for Heritage Freedom index reflecting S-curve performance can not be rejected.

H_0 = the composite indices (observed) for Bosnia & Herzegovina fit the equation $y = 59 / (1 + 1.45 e^{0.25x})$ (expected).

H_1 = the composite indices (observed) for Bosnia & Herzegovina do not fit the equation $y = 59 / (1 + 1.45 e^{0.25x})$ (expected).

Degree of freedom (df) = number of entries of E – 1 = 18 – 1 = 17; if alpha is 0.01 then the critical value for $\chi^2 = 33.41$ and alpha is 0.05 then critical value for $\chi^2 = 27.59$ (Brase, 352). With a value of 6.64, which is less than the χ^2 value for 0.01 or 0.05, then H_0 can not be rejected.

Using Heritage Freedom index for 1998 to 2015, the relationship models an S-curve performance. Using the stability state index for 2005 to 2015, the relationship appeared logarithmic. Since the latter half of the S-curve is logarithmic, this relationship is not surprising. The conclusion is that the hypothesis for stability state index reflecting logarithmic performance cannot be rejected (calculations in appendix 2-B).

H_0 = the composite indices for Bosnia & Herzegovina fit the equation $y = 5.4978\ln(x) + 22.207$ (expected)

H_1 = the composite indices for Bosnia & Herzegovina do not fit the equation $y = 5.4978\ln(x) + 22.207$ (expected)

Degree of freedom (df) = number of entries of E – 1 = 11 – 1 = 10; if alpha is 0.01 then the critical value for $\chi^2 = 23.21$ and alpha is 0.05 then critical value for $\chi^2 = 18.31$ (Brase, 352). With a value of 0.40, which is less than the χ^2 value for 0.01 or 0.05, then H_0 can not be rejected.

To generate more stability growth, a significant effort, above what has currently been accomplished, will need planned and executed to generate a new S-curve growth profile. Figure 2-16 illustrates both Heritage Freedom index and stability state index ($y = 5.4978\ln(x) + 47.9$) transposed on the S-curve reflecting logarithmic performance since 2005.

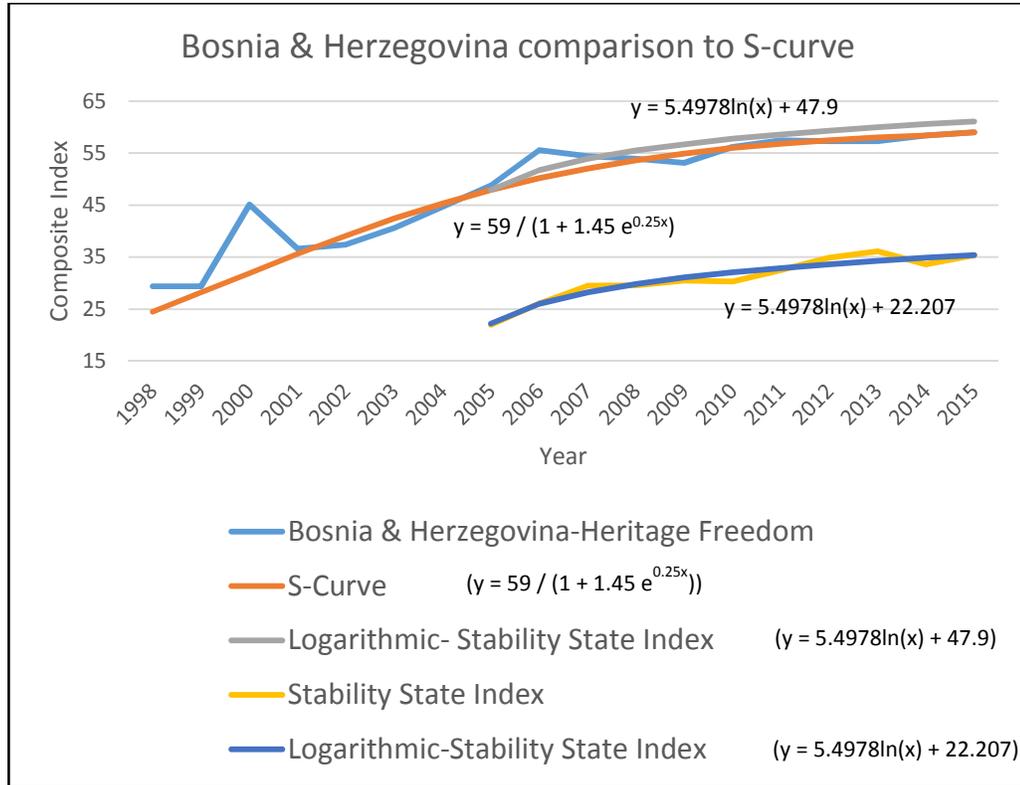


Figure 2-16. Comparison of Heritage Freedom and stability state index for Bosnia & Herzegovina

The Dayton Peace Accord and the peacekeeping mission that followed eliminated the violence and created significant improvement very quickly. However, due to the political structure of the country enacted by the Accord, the country still struggles with ethnic tension, high unemployment, and poverty due to stalled economic growth independent of donor contributions.

In the absence of Foreign Direct Investment, the international community has significantly invested in infrastructure and services for the country. The World Bank

appointed lead donor coordinator with \$1.5 billion pledged in 1995. Initially, most aid directed to infrastructure reconstruction, the return of refugees, and the rebuilding of institutions (The Portland Trust, 20). Donor disbursements between January 1996 and August 1999 were \$2.13 billion with 82 percent going to rebuilding and reconstructing housing, energy, transportation, water supplies, health services, education, social services, and agriculture. The remaining 18 percent disbursed as credit for the business sector (The Portland Trust, 20). The disbursement of \$2.13 billion through August 1999 contributed to the spike in 2000 since the temporary increase that year was government spending.

The significant improvement in the country from 1998 to 2000 attributed to initial large donor investment during that period. As foreign aid started to decline, business investments did not generate the monetary difference and overall progress of the country slowed. Following the Kosovo crisis in 1999, the European Union (EU) offered the Western Balkan states the possibility for joining the European Union through the Stabilization and Association Process. The criteria for entrance was transition and stabilization of a market economy, promotion of regional cooperation, and implementation of international and European community standards (The Portland Trust, 23).

The European Commission's Bosnia and Herzegovina Progress Report for 2014 cited the country made very limited progress in addressing the political criteria.

As manifested in the social protests of early 2014, all governments should as a matter of priority focus on addressing socio-economic needs of citizens, in particular on tackling the very high youth unemployment and assisting those in need, also following the heavy floods in May. The report recognizes that little progress has been accomplished to reform public administration and judicial system, reduce corruption, and

establish functioning market economy (European Commission, 2-3).

Without progress in the fields of agriculture and rural development, food safety, veterinary, phytosanitary policy, and fisheries, exports to the European Union are prohibited. These measures inhibit progress in economic development.

Overall, very limited progress has been made in reforming public administration and improving its capacity to fulfill the requirements of EU integration. The dysfunctionalities of public administration at, and between, its different levels remain an issue of serious concern. A new public administration reform strategy after 2014 needs to be developed. The reforms necessary in public financial management need to be addressed in a more comprehensive manner (European Commission, 11).

Unemployment still lingers at 25 percent with half of business activity generated by state-owned companies. Donor contributions were not used to promote commercial business development internally or by external international businesses (The Atlantic, 2).

Bosnia & Herzegovina lessons learned in postwar reconstruction efforts should be considered for modest development in the country. The \$1.65 billion civilian aid provided by the U.S. was too broad and too focused on immediate results (The Atlantic, 4). Aid officials selected projects focused on meeting American political needs in Washington and not Bosnian needs. *Bosnians who have helped to implement foreign aid programs argue that picking a handful of projects, establishing limited goals and consistently funding them for long periods is more effective than a rushed, scattershot approach* (The Atlantic, 4).

Security remained a success with no eruption of violence since the 1995 Dayton Peace Accord. Approximately \$15 billion of U.S. funds (90 percent of the total U.S. funds for Bosnia) spent on American troop deployment (The Atlantic, 4). An integrated national army created through a massive American training effort. In addition, American police

training and the initial work done on judicial reform were effective.

A simple procedure of national license plates, resulting in no indication where drivers reside in the country, has reduced some ethnic harassment. In general, the longer term for aid initiative, the greater the chance of success. Since early 2005, NATO troop reductions have occurred with 2,200 troops in 2009 and 1,300 in 2012 (Fund for Peace 2014, 36).

The continued attention provided by the European Union Commission to assess and report progress has resulted in maintaining status and not the decline experienced by many countries after post-conflict work. The volume of refugees and IDPs greatly decreased over the past decade and the number of returnees greatly increased with 3,600 returnees in 2007 and 7,600 in 2008. The situation is not perfect with 8,600 refugees and IDPs living in one of the 159 collective centers throughout Bosnia and Herzegovina in 2012 (Fund for Peace 2014, 36).

The stability state index of 35.4 for 2014 reflects stability not yet achieved with internal division between the three ethnicities. Bosnia and Herzegovina is the most land-mined country in Europe. Corruption continues to be widespread in public offices. *Bosnia and Herzegovina has evolved from a post-conflict country, under quasi-total international supervision, in which everything needed to be re-built, to a country which may soon be on the verge of joining the European Union* (Fund for Peace 2014, 38).

Although the country illustrated the S-curve results for nation-building, it has reached flat performance and therefore struggles to achieve further improvements.

Section 2.3.1 Influence of the European Union (EU)

Table 2-D depicts the countries of the European Union and the stability state index.

These countries share an index in at least the stable range, even though some were former Soviet Union, Yugoslavia, or Czechoslovakia territories.

Country	Year of Entry	Stability Index	Country	Year of Entry	Stability Index
Austria	1995	71.7	Italy	1958	63.7
Belgium	1958	74.4	Latvia	2004	59.3
Bulgaria	2007	53.6	Lithuania	2004	63.9
Croatia	2013	57.3	Luxembourg	1958	81.2
Cyprus	2004	44.7	Malta	2004	65.7
Czech Republic	2004	68.6	Netherlands	1958	77.4
Denmark	1973	81.8	Poland	2004	66.6
Estonia	2004	63.2	Portugal	1986	74.9
Finland	1995	84.8	Romania	2007	54.6
France	1958	71.6	Slovakia	2004	64.2
Germany	1958	76.3	Slovenia	2004	73.4
Greece	1981	55.9	Spain	1986	65.7
Hungary	2004	58.8	Sweden	1995	82.8
Ireland	1973	79.1	United Kingdom	1973	71.9

Table 2-D. European Union countries

The rigorous requirements set by the European Union for entrance leverages these countries for economic growth and stability. The carrot of joining the European Union promoted counter-corruption and social integration policies. Current candidate countries include Albania, Macedonia, Montenegro, Serbia, and Turkey.

The proximity of Turkey to the Islamic State activity in Iraq and Syria has created instability within the country. Turkey may experience a delay in entry to the European Union until greater stability occurs in the country and the Middle East region.

Bosnia & Herzegovina											
Year	Overall Score	Property Rights	Freedom from Corruption	Fiscal Freedom	Govt Spending	Business Freedom	Labor Freedom	Monetary Freedom	Trade Freedom	Invest Freedom	Financial Freedom
1998	29.4	10	10	78.8	16.7	40	N/A	0	69.4	30	10
1999	29.4	10	10	78.8	16.7	40	N/A	0	69.4	30	10
2000	45.1	10	10	82	52	40	N/A	83.3	69	30	30
2001	36.6	10	10	67	0	40	N/A	75.2	67.6	30	30
2002	37.4	10	10	66.8	0	40	N/A	77.2	72.6	30	30
2003	40.6	10	10	66.1	3.2	40	N/A	77.9	78.2	30	30
2004	44.7	10	10	70.1	18.3	40	N/A	82.4	71.8	30	70
2005	48.8	10	33	70.1	23.8	40	54.8	84.5	71.8	30	70
2006	55.6	10	31	75.1	47.8	55.7	54.9	86.1	75.2	50	70
2007	54.4	10	29	74.9	47.8	55.4	53.8	82.5	80.2	50	60
2008	53.9	10	29	73.7	48.3	57.2	54.2	76.6	79.8	50	60
2009	53.1	10	33	71.8	37.6	59.9	52.1	79	77.2	50	60
2010	56.2	10	32	83.2	28.8	61.3	61.2	74.7	80.8	70	60
2011	57.5	20	30	83.9	24.1	60.4	60.2	80.6	86	70	60
2012	57.3	20	32	84.3	24.4	55.2	60.4	80.7	86	70	60
2013	57.3	20	32	83.2	26.9	54.3	61.2	79	86.4	70	60
2014	58.4	20	33.9	82.9	27.4	55.5	62.4	80.1	86.9	75	60
2015	59	20	42	82.9	27.3	53.5	63.4	84	87.2	70	60

Table 2-E. Heritage Freedom sub-indicators for 1998-2015

Note: Table 2-E depicts the Heritage Freedom composite index and sub-indicators for 1998 through 2015 (www.heritagefreedom.org)

Although all sub-indicators showed improvement, the sub-indicators showing the most significant improvement were freedom from corruption, monetary freedom, invest freedom, and financial freedom. The Heritage Freedom composite index focuses on collection of economic data. Fund for Peace fragile index sub-indicators are collected across the broader perspective for social, economic, political, military, and infrastructure.

Section 2.4 Iraq versus Afghanistan Performance

In figure 2-17, Iraq displayed a linear ($y = 0.9679x + 5.4464$) improvement from 2007 to 2014 aligned with changes in U.S. strategy for counter-insurgency, surge of military manpower, the death of terror leader Abu Musab al-Zarqawi, and the re-acceptance of the Sons of Iraq into the Iraqi military. The Islamic State spread from Syria to Iraq in 2014 starting a decline continuing into 2016. If Iraq had continued the linear progress, then the stability state index would be at 16.1 in 2015 and 17.1 in 2016, reflecting a variance of 4.4 points or 25 percent reduction. At that continued rate, it would take 37.3 years for Iraq to achieve stability state status. The performance of Iraq was on a predictable path until the decline in 2015 from the Islamic State.

For Afghanistan, the performance was an erratic decline until 2010 with a slight improvement over the next five years. The performance from 2005 to 2010 modeled a logarithmic decline ($y = -5.056\ln(x) + 19.327$). The improvement for Afghanistan is the difference between the actual stability state index and the logarithmic model. Based on the tipping point in 2010, Afghanistan's overall improvement is 2.8 points in the stability state index.

Forecasting is the benefit gained by modeling performance through a composite index. Predictions determine whether countries are headed toward stability and support business decisions on allocation of limited resources. Forecasting also enables measure of effectiveness assessment of defense institutional building and nation-building initiatives.

Although measure of effectiveness and measure of performance are involved in campaign planning, current stability operation mission has not adequately determined a method for measuring effectiveness of initiatives. Measures of performance relate to

specific objective planned and implemented; the measure of effectiveness determines if the objectives were the right ones planned and executed.

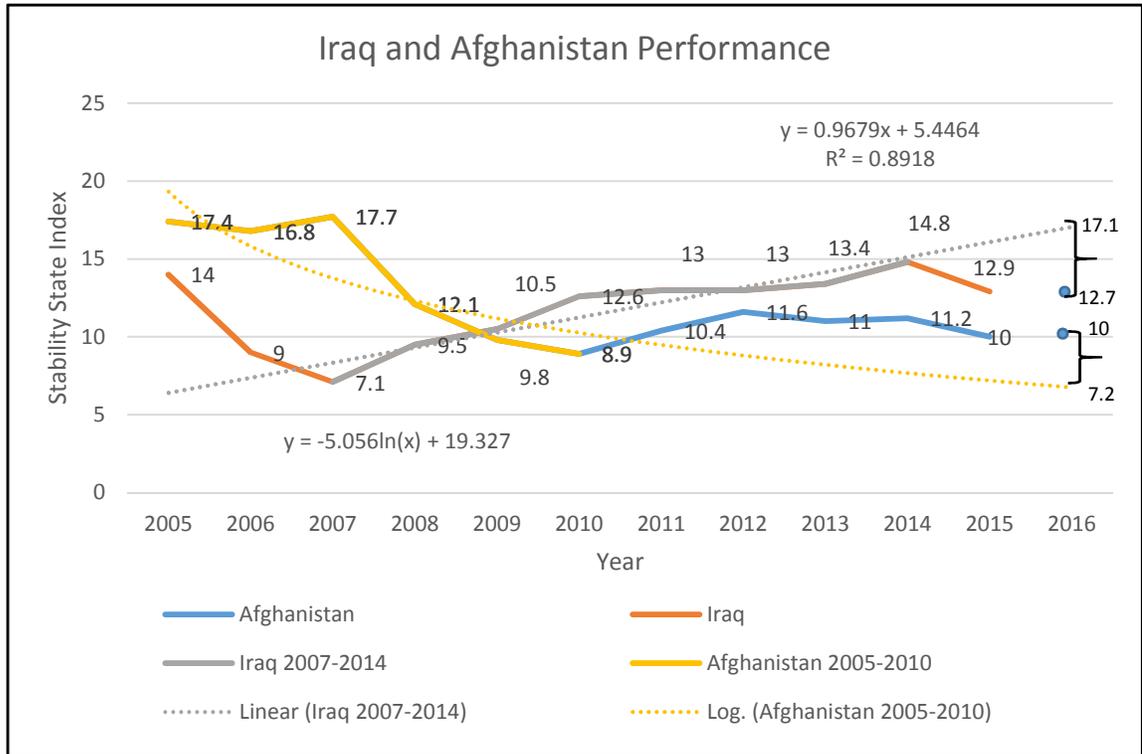


Figure 2-17. Iraq and Afghanistan performance

Figure 2-18 depicts the manpower during the ISAF and RSM missions. Peak manpower range for Afghanistan occurred during 2010-2013 during same period the stability state index showed significant improvement. Traceability of manpower, stability security sub-indicators, and impacts to the other sub-indicators provides insight for establishing exist criteria for contingency operations without the degradation seen in Iraq and Afghanistan.

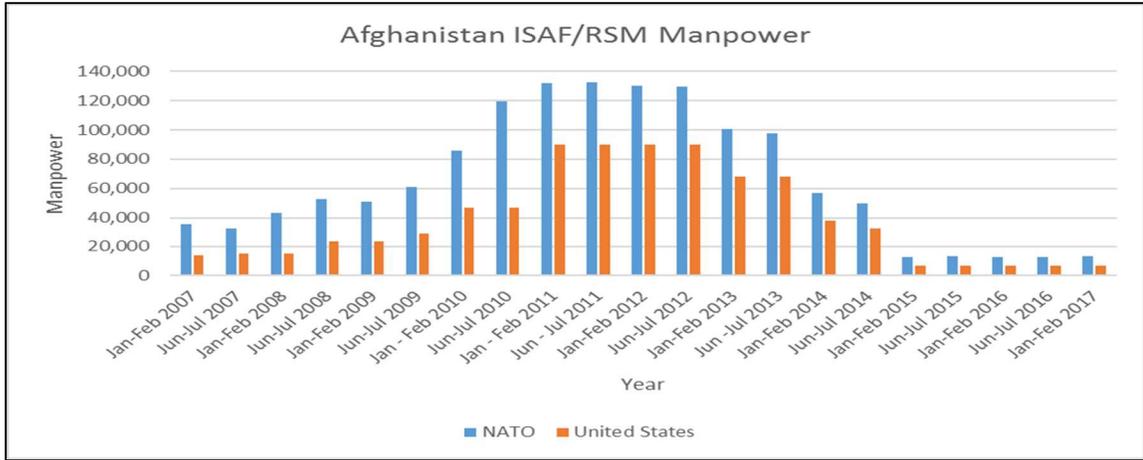
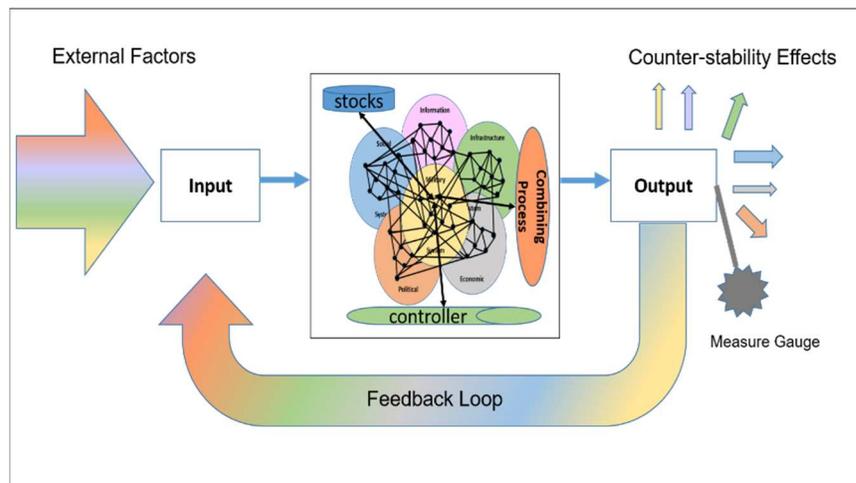


Figure 2-18. Afghanistan ISAF/ResoluteSupport Mission (RSM) Manpower
 (www.nato.int/isaf/placements_archive)

Section 2.5 System Perspective to Measuring Performance

Figure 2-19 illustrates a system perspective for the generation of a nation's stability. The large arrows into the input are external factors through military intervention, donor resources, and external conflict. The black box is the nation's institutional attributes, which include governance, commercial sector, natural resources, culture, etc. Without a concerted effort to create synergy between the external factors, a significant amount of input is lost to output through corruption, lack of generation of jobs, increased group grievance, threatened security, etc.

The feedback loop represents those attributes that become institutional and therefore feed the input and can benefit the nation. Counter-stability effects created from inefficiencies of the institutions (the system of systems within the black box). Those systems are political, military, economic, social, information, and infrastructure as recognized in campaign planning.



2-19. System perspective of nation stability generation

The performance measure (measure gauge) is the stability state index. This represents the counter-stability outputs which bleed off from the system, measured through the sub-indicators: demographic pressure, refugee & IDP, economic development, poverty &

economics, human flight, group grievance, state legitimacy, human rights & rule of law, security, factionalized, and external intervention. It measures the amount of input (nation's or external) being lost from the system and therefore not contributing to system through the feedback loop.

The integration of external factors for input influences the system for synergy creating internal processes for achieving multiple effects. Linking inputs to initiatives for reducing counter-stability effects influences output through feedback loop. Linking economic development funding with counter-corruption initiatives influences increase in economic development as loss due to corruption is reduced. With less being lost to counter-stability effects, more becomes part of the feedback loop further assisting the nation.

In complex systems, little specifics are known for what occurs within the black box or the feedback loop. In certain situations, the input is known or derived and the output is measured. The system is influenced based on those metrics. Complex systems are difficult to control because not all aspects for how the system operates are known.

The political-military-economic-social-information-infrastructure systems that are interrelated in the black box make it impossible to know how any one change in external factors will result in a change to output or the feedback loop to input. In fact, multiple changes may have no effect on the output or even produce counter-stability effects on the output. By observing the change in performance measures to changes made in the input, the system creates improvements through less counter-stability effects occurring.

This illustration depicts that integration of the inputs increases the ability to influence the black box to reduce counter-stability effects in the output. For example, a single counter-corruption effort may have little effect on the nation stability system but multiple

counter-corruption efforts across political-military-economic-social-information-
infrastructure system of systems could have significant results reducing or eliminating
corruption and resulting in improved sub-indicators for economic development, poverty
& economics, state legitimacy, public service, human right & rule of law, and
factionalized.

To optimize on the output and feedback, a greater understanding of the internal
mechanism is required. Stocks are the reservoirs or buffers of the system that provide
flexibility capacity; they can be potential energy, space, inventory, manpower, etc. Flow
is the transfer of something between two aspects of the system: stock, controller, or
processing element. Controllers are elements of the system using internal information to
try to control process within the system. The processing element is the core function of
the system.

Professor Jay Forrester of Massachusetts Institute of Technology School of
Management initiated the work on system dynamic modeling. With his background in
science and engineering, he applied the approach for modeling physical systems to
managing human organizations (Mobus, 661). The key to understanding the black box is
tapping into the measurement points throughout the internal system to collect data from
the flows and stocks. If stocks are changing, then there is a reason for these reservoirs or
buffers to deplete. Flows represent information, money, people, etc. and measures to their
change reflect the movement of information, money, people, etc. through the system.

System of systems have multiple black boxes internally with linkages passing from
one black box to another. *A system of systems is also a network of networks* (Mobus, 48).
Complexity exists with system of systems, which have networks of nodes and linkages,

processing functions, stocks, and controllers all interconnected. Attempting to measure points internally in the black box can lead to inaccurate and deceptive results.

Policy actions focus on specific measurements within the black box if the entire system responds from those actions in one area. Instead of the desired result, unintended consequences (undesired multi-order effects) may occur when those actions affect other parts of the system(s) and create nonlinear results through network interactions. For example, the increase in funding in Afghanistan to build the country faster without having the counter-corruption framework in-place only created more corruption and resulted in less stability for the country.

Any one point may have little or no bearing on the ultimate output of the system and feedback loop. Breaking the internal system into smaller pieces will have little meaning since the operation at the holistic level will be very different from the summation of the individual pieces. A holistic understanding determines methods for influencing the black box.

Tipping or leverage points maximize the effect from inputs for the system. *For systems thinking also shows that small, well-focused actions can sometimes produce significant, enduring improvements, if they are in the right place...high leverage changes are usually highly nonobvious to most participants of the system* (Senge, 64).

Viewing systems from their underlying structure and from the whole versus the parts provides insight to determining leverage. Linear approaches will not yield leverage. In the S-curve index model as in any growth model, the point the performance index takes a greater increase is the point when leverage has started to produce greater results.

Chapter 3 Current Approach - Campaign Planning and De-centralization Strategy

The Deputy Assistant Secretary of Defense for Partnership Strategy and Stability Operations (DASD PSO) established the Defense Institution Reform Initiative (DIRI) program in 2009 to identify and sustain the defense capabilities of partner nations. The Center for Civil-Military Relations (CCMR) executes the DIRI program. The Department of Defense Inspector General (DoDIG) evaluated the DIRI program and provided findings and recommendations in report DoDIG 2013-019.

The DIRI program is a global institutional capacity-building program to support partner nation's Ministry of Defense, for the development of policy and strategy, ministerial organization, force development, budgets, human resources (including professional defense and military education), logistics, civil-military relationships, and interagency coordination, under the Defense Institutional Building mission (DoDIG-2013-019, 2).

The DoDIG found that DASD PSO did not define or publish program mission and goals, program strategy, or performance measures.

CCMR program officials did not adequately implement procedures to establish a clear tracking process for DIRI program engagements or document all DIRI programs efforts...CCMR program officials did not prepare 24 event plans for the 174 DIRI program engagements held from August 2009 to April 2012...149 event plans and 173 engagement reports lacked approval. This occurred because the Under Secretary of Defense for Policy did not develop defense institution building policy to guide the DIRI program or any other defense institutional building-related efforts...As a result, DASD PSO program officials had an insufficient basis for determining the program's effectiveness in partnering with 17 countries or of its use of \$20.2 million provided to the program as of third quarter fiscal year 2012 (DoDIG-2013-019).

The report recommended the Under Secretary of Defense for Policy should issue guidance to the DIRI program that defines defense institution building roles and

responsibilities and implement procedures for coordination. DoD attempted to utilize a center for planning and execution of defense institution building, but did not plan or execute effectively per the DoDIG report. Project management strategy, performance measures, integrated planning, and risk management were missing. The effort was not integrated with the combatant commands effectively leveraging execution in country.

The Joint Chiefs of Staff, through the Joint Publication 3-0 Joint Operations manual dated 17 September 2006 and Joint Publication 5-0 Joint Operation Planning dated 11 August 2011, provide military operational policy. The Chairman of the Joint Chiefs of Staff manual (CJCSM 3130.01A) dated 25 November 2014 and Campaign Planning Handbook from the Department of Military Strategy, Planning, and Operations of the United States Army War College provide guidance on campaign planning. The planning strategy used in Iraq and Afghanistan was campaign planning, standard for combat operations. Although campaign planning includes stability operation mission, the skills are skewed for planning a campaign for combat. Campaign planning supports synchronization of decentralized plans and operation execution.

Specific guidance for military support for stability, security, transition, and reconstruction (SSTR) operations is found in Department of Defense (DoD) Directive Number 3000.05 dated 28 November 2005.

Stability operations are a core U.S. military mission that the Department of Defense shall be prepared to conduct and support. They shall be given priority comparable to combat operations and be explicitly addressed and integrated across all DoD activities including doctrine, organizations, training, education, exercises, material, leadership, personnel, facilities, and planning (DoD 3000.05, 2).

As stated in DoD3000.05, stability operations are a core mission of the U.S. military and explicitly addresses and integrates all aspects comparable to combat operations. To

date, this goal is not achieved. Stability operations are collateral duty with pockets of planning and execution across the DoD to include defense institutional building and reconstruction and nation building.

Section 3.1 Description of Campaign Planning

Figure 3-1 depicts the DoD spectrum of military operations for preparation and response. In the 1990s through the conflicts in Somalia, Haiti, Rwanda, Bosnia and Herzegovina, and Kosovo, the U.S. military expanded warfighting beyond traditional engagements for contingency operations. The 1993 Somalia mission, Operation Restore Hope, presented challenges to provide large-scale humanitarian assistance while operating in an unfamiliar political and cultural environment of clan and warlord politics. In addition, the Task Force Ranger raid demonstrated a need to maintain a combat force positioned to transition rapidly from peace operations to full combat operations (Fontenot, 11-12).

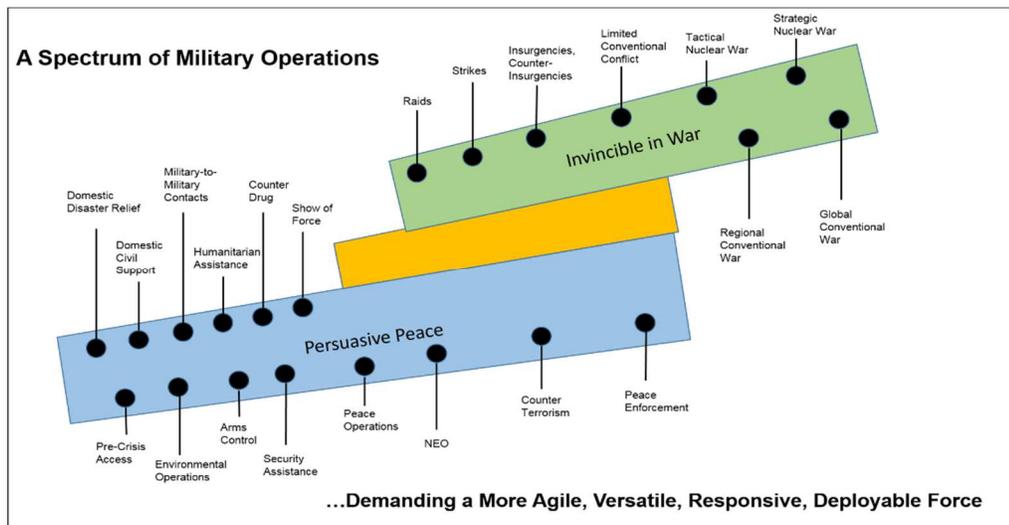


Figure 3-1. Spectrum of military operations

The initial mission of Operation Restore Democracy in Haiti in 1994 was regime change with re-learning the lesson that tactical actions of the Army soldier have powerful strategic, diplomatic, and informational effects (Fontenot, 12).

Like Somalia, Rwanda in 1994 started as a humanitarian relief operation at risk to become a clan warfare experience. The U.S. mission stayed reduced and focused based

on the history of Somalia and the desire not to replicate in Rwanda; however, there were lessons in tactical approach learned.

Perhaps the greatest lessons were that the Army led its deployment not with combat units and equipment (tanks and armored vehicles), but rather with combat support and combat service support personnel and systems. The tip of the spear was not a mechanized infantry company led by a burly male Ranger second lieutenant; it was a water purification platoon led by a female second lieutenant. The Army demonstrated an understanding of warfare in its broadest and most holistic context; that is, sometimes force may be applied to organize a solution rather than to impose one (Fontenot, 12).

Campaign Planning

Planning is core for an organization to achieve its intended goals and objectives. For the DoD, there are two primary processes for planning joint operations that are closely related, integrated, collaborative, and adaptive: joint operation planning and execution system (JOPES) and joint operation planning process (JOPP). JOPES and JOPP are rooted in the same basic approach and problem-solving elements, such as mission analysis and course of action (COA) development (MS&L, IV-1).

The Chairman of the Joint Chiefs (CJCSM) 3122.01 manual, *Joint Operation Planning and Execution System (JOPES) Volume I (Planning Policies, and Procedures)*, documents the JOPES process. JOPES is used from the National Command Authority (NCA) through the Chairman to the combatant commanders and the joint task force commanders. JOPES is a combination of joint policies and procedures, supported by an automated data processing (ADP) system for joint planning operations as depicted in Figure 3-2.

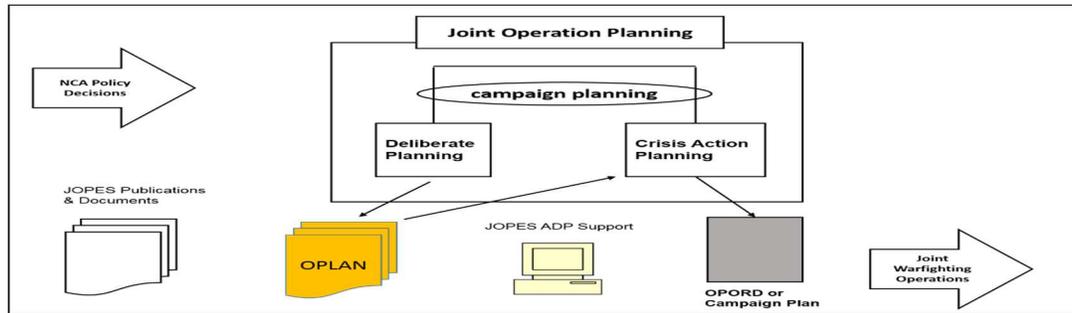


Figure 3-2. The joint operation planning and execution system (JOPES) (User's Guide for JOPES, 2)

In 2013, the adaptive planning and execution system (APEX) replaced JOPES to provide flexible options for application of military force to national decision makers. APEX coordinates integrated, flexible plans and fully integrates databases to enable rapid build of executable joint plans.

This flexible planning system is intended to facilitate the adaptive planning principles: clear strategic guidance and iterative dialogue, early integrated interagency and coalition planning, integrated intelligence planning, embedded options, living plans, and parallel planning in a network-centric, collaborative environment (CPH 2013, 11).

JOPP, accomplished by the combatant commands and subordinate commands, includes merging two campaign planning processes: contingency (deliberate) and crisis action. *A campaign is defined as a series of related major operations aimed at achieving strategic and operational objectives within a given time and space (Kem, 1).* Campaign planning is *the process whereby combatant commanders and subordinate joint force commanders translate national or theater strategy into operational concepts through the development of an operational plan for a campaign (CPH 2008, 14).*

Joint operation planning occurs by the combatant commander producing plans requiring the Secretary of Defense (SECDEF) to review during the in-progress review (IPR). Planning during peacetime produces operational contingency plans for addressing threats and missions directed by the SECDEF's contingency planning guidance (CPG)

and joint strategic capabilities plan (JSCP). *The focus of JOPP is on the interaction between an organization's commander, staff, and the commanders' staffs of the next higher and lower commands (MS&L, IV-2).* Figure 3-3 depicts the joint operational planning activities, functions, and products of the campaign planning process.

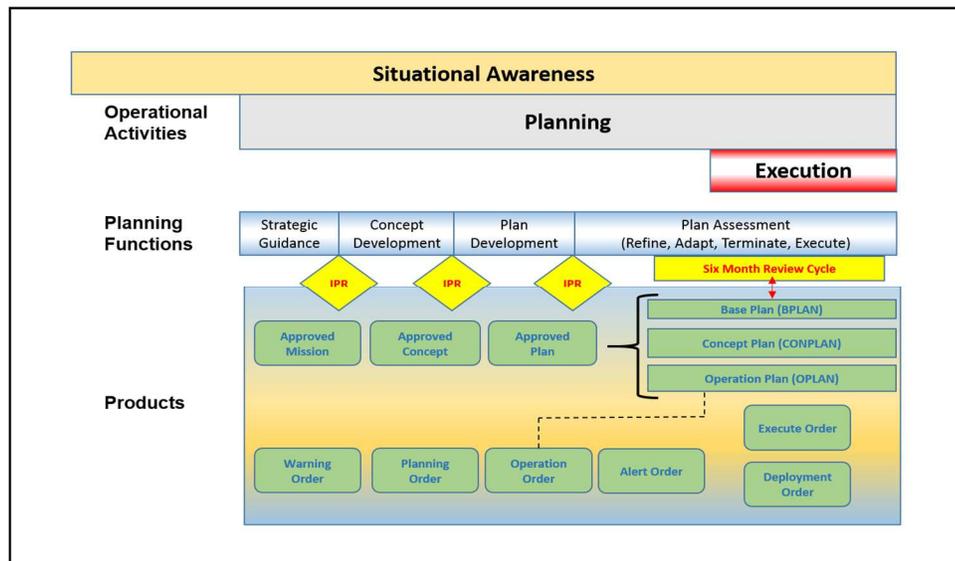


Figure 3-3. Joint operation planning activities, functions, and products (CPH 2013, 1)

Peacetime planning relies on assumptions regarding political, economic, and military environments for execution of plans. The plans are coordinated within DoD and interagency community, including multinational partners, and usually take a year to complete resulting in base plans, contingency plans (CONPLANS), or operation plans (OPLANS), which then wait for a need to implement (CPH 2008, 2).

Crisis planning occurs for actual events and requires replacing assumptions and forecasts with facts and actual conditions. OPLANS include courses of actions (COAs). When a crisis occurs, military planners review the OPLANS and COAs to find a close match. If the crisis conditions partially match an existing plan, then the planners modify the plan. If the conditions do not closely match an existing plan, then a new plan is developed. Planning during crisis reduces time to a few days or weeks with an operations

order (OPORD) as the execution. Campaign planning continues throughout a conflict reviewing and updating based on new facts and assumptions. (CPH 2008, 2-3).

Theater commanders and their staff largely apply campaign design and planning actions of Figure 3-4 for steps 1-7 of the JOPP. The theater commander develops a vision for use of military force and determines the interrelationships of that force to the other elements of national power (diplomatic-information-military-economic (DIME)) for design of the campaign. Joint intelligence preparation of the operational environment (JIPOE) is the intelligence component of campaign planning.

The combatant commander from understanding the operational environment (OE) formulates a commander's intent, the foundation for the development of courses of action (COAs), this becomes part of the commander's estimate (CPH 2008, 4).

The combatant commander then develops the strategic concept of phased operations that includes objectives and supporting effects; determines subordinate tasks, command relationships and organizations; and identifies requirements for sustainment and supporting plans. This sequence is a simplified outline of a process that's dynamic and nonlinear, and absolutely critical to successful planning. Actions, such as revising intent and estimates, are continuous and concurrent. (CPH 2008, 4).

Although the campaign planning handbook describes the process as dynamic and nonlinear, the depiction in figure 3-4 represents linear process relationship.

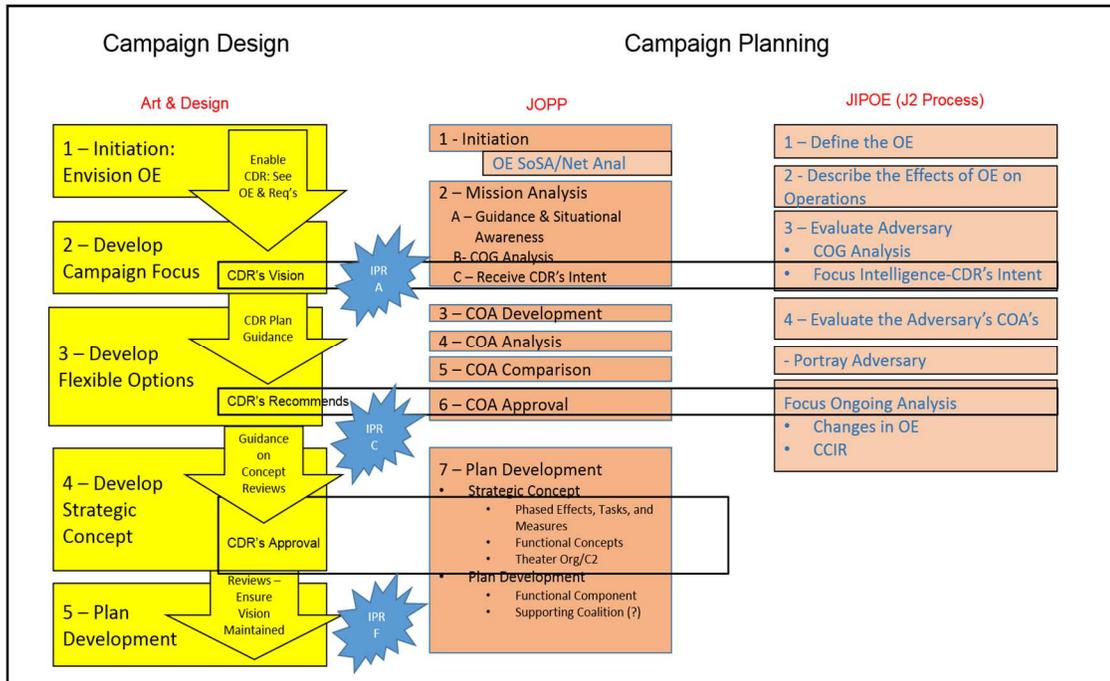


Figure 3-4. Joint operation planning process in campaign design and planning (CPH 2008, 3)

Figure 3-5 reflects the continuum between campaign design and planning. Campaign design is *a creative, cognitive commander-based process directed at interpreting strategic guidance and employing operational art in order to envision the requirements and framework for the sustained employment of military force that will enable the U.S. and its allies to gain leverage over adversaries and achieve desired effects in the strategic/operational environment.* (CPH 2008, 13). A campaign plan is *the process whereby Combatant Commanders and subordinate Joint Force Commanders translate national or theater strategy into operational concepts through the development of an operation plan for a campaign* (CPH 2008, 14).

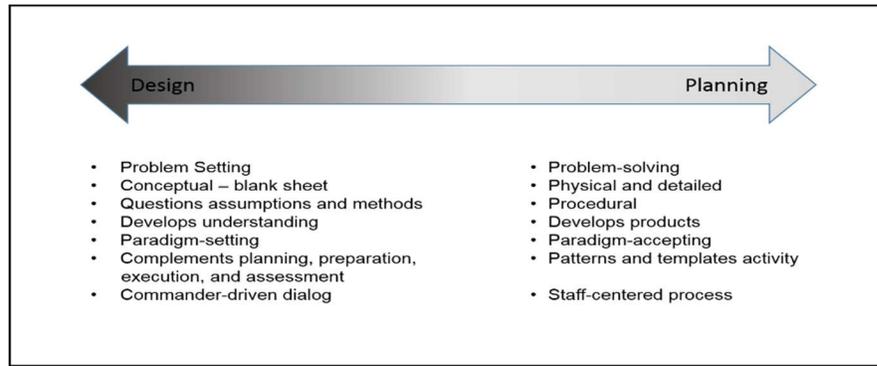


Figure 3-5. Design-planning continuum (CPH 2008, 11)

Effects based approach (EBA) (figure 3-6) complements campaign design and planning process by fully integrating military actions with other elements of national power by coupling tasks within an assessment framework to meet combatant commander’s guidance.

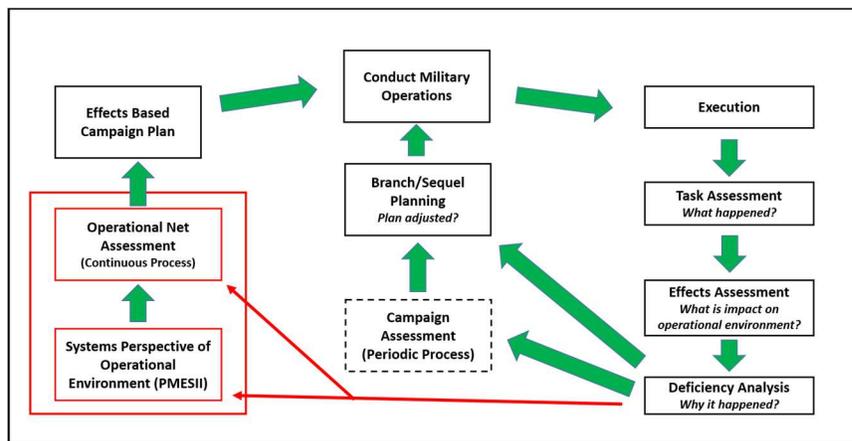


Figure 3-6. Effects based approach to campaign planning (CPH 2008, 27)

EBA focuses on system-of-systems analysis (SoSA) integrating portions of the systems of political-military-economic-social-information-infrastructure (PMESII). The SoSA recognizes the overlap and interconnectivity of tasks of elements of the operational environment.

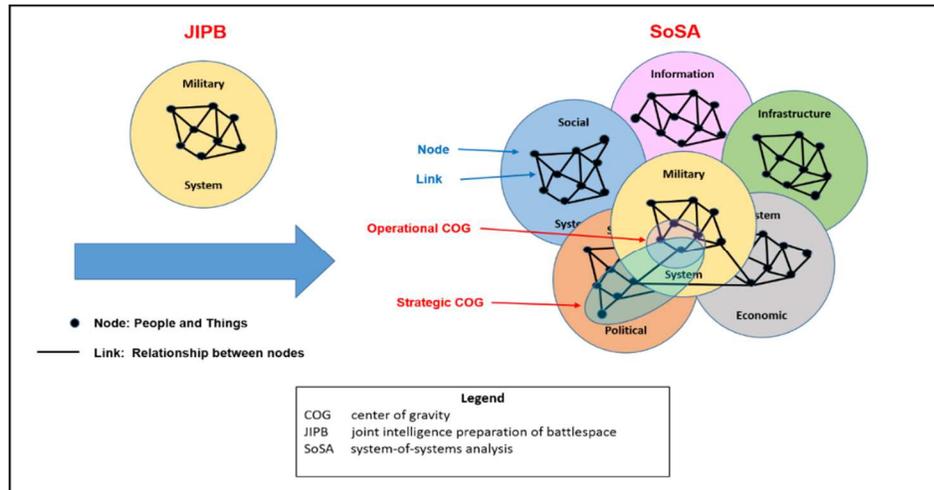


Figure 3-7. Systems perspective of the operational environment (CPH 2008, 5)

The SoSA (figure 3-7) provides a comprehensive, holistic view (both military and non-military) of the fundamental elements (nodes) and relationships (links) to each system. This systems approach integrates the nodes (tangible elements such as people, materials, etc) and links (behaviors or functional relationships) together across the various systems determining the key linkages related to strategic or operational effect or center of gravity (COG) (CPH 2008, 5).

In other words, the determination of the nodes and linkages across all systems is most important for planning and executing the campaign plan. It is expected that these key nodes will reside in multiple systems aligning to the U.S. instruments of national power diplomatic-information-military-economic (DIME).

Table 3-A denotes the data inputs and sources for developing the SoSA. Although a comprehensive list of sources is included, the integration or fusion of information is critical to developing and executing a plan by all players. Integration into a standard planning tool, such as an integrated management plan, accomplishes this merge of activities; not just a matter of what to do, but how to do it.

Data Inputs and Sources	
Data	Sources
Commander's Guidance	Combatant Commander and Staff
OPLANs/CONPLANs	Theater Intelligence Center
Functional Plans	Components
TSCP	Office of Secretary of Defense
Strategic Guidance (DoD & Joint Staff)	Joint Staff
Defense Planning Guidance	Other Combatant Commands
Joint Strategic Capabilities Plan	Interagency Community
Intelligence Estimates, Studies & reports	Allies/Coalition
Political-Military Plan	Non-Governmental and Intergovernmental Organizations
Mission Performance Plan	Multinational Corporations
Policy Notes	Academia
Interagency Coordination Assessments	Centers of Excellence
	Subject Matter Experts
	Open Source/Internet

Table 3-A. Potential sources for developing a SoSA baseline (CPH 2008, 30)

The scale (breadth and depth depicted in Figure 3-8) of analysis depends on the commander's needs.

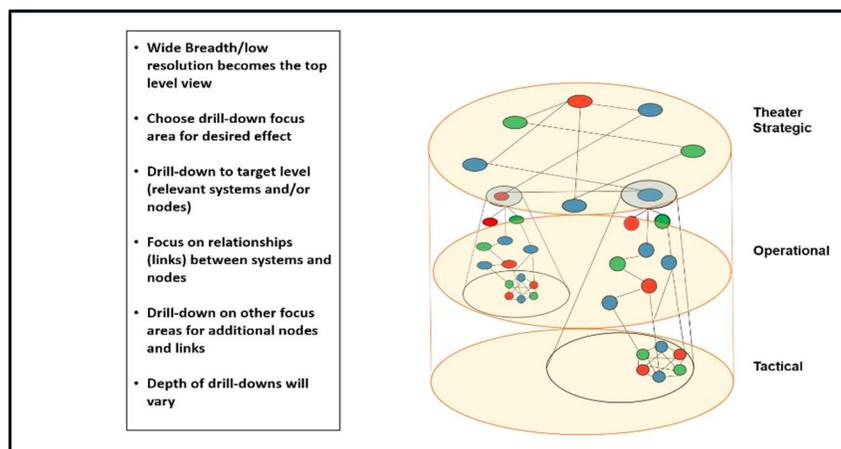


Figure 3-8. Breadth and depth of planning (CPH 2008, 6)

A combatant commander's needs may encompass an operational environment for an entire geographic region; whereas a commander of a joint task force's needs may be specific to a nation or smaller geographic regional area.

*Analysis frames each system by identifying the related groups of elements that form the complex whole. Analysis includes identifying the roles and functions in each of the systems and mapping their interrelationships. This includes identifying the **nodes** (the people, facilities, individual systems, forces, information, and other components of the system) as component parts of the system. Additionally, it includes*

*identifying the **linkages** (the behavioral, physical or functional relationships) between the nodes. Included in this analysis is an assessment of the relative strength of each of the linkages between the nodes. This system analysis must provide as complete a study as possible of each system that represent the elements that protect, sustain, integrate, or enable effective adversary operations.*

Analysis then shifts to defining how these systems are interrelated to one another, to produce a “System of Systems” view of the adversary as a complex whole. This view of the linkages (both overt and implied) between other PMESII elements within the (Operational Environment) OE provides a view of how complex and resilient the adversary’s will be to attack. Rarely will the adversary present a single, decisive weakness that if struck will lead to his catastrophic destruction. More often, the adversary’s power and ability to resist is found in the synergistic interrelationship of several portions of the system. Identifying the adversary’s critical sources of power and their linkages to one another will be central to the commander’s ability to focus overwhelming military force and to recommend how interagency actions may best compliment these efforts.

Additionally, analysis focuses on how the external factors of the OE may impact adversary actions. The adversary must also deal with a variety of external influences from regional and global actors that may support, oppose, or be neutral to their efforts within or across their systems. Political, cultural, economic, and perceptual factors all expand or limit their options for action; identifying these factors and linkages will provide further opportunities for the Commander’s action if properly shaped over time. This system analysis must be shared across the maximum audience possible to gain a diversity of opinions on its detail and accuracy. As critiques occur, they are incorporated into the analysis as appropriate. Unused portions are not discarded. They are recorded and linked as “differing perspectives” for potential future use or integration as situational awareness and understanding improve over time (CPH 2008, 31).

The above description is a methodical approach for understanding the linkages within a system and then understanding the linkages across systems that create the operational environment. The third paragraph then describes the external factors outside the operational environment and their effect on the operational environment. This analysis forms the basis of the work to accomplish within a country for nation-building

determining the initiatives assessment of performance.

The wording emphasizes combat application against the enemy, seeking political, cultural, economic, and perceptual factors to exploit vulnerabilities. The same methodology applies to stability operations but specifics of “what” and “how” are different; campaign planning description lacks application for stability operations and defense institutional building.

The description acknowledges other agencies are part of system analysis; it therefore recommends establishing joint interagency coordination groups (JIACG) and other liaison elements within headquarters for sharing and coordinating analysis with other agencies of the U.S. Government. This achieves early buy-in from these agencies to the combatant commander’s recommended plans.

Table 3-B illustrates the potential system’s elements of the SoSA and appendix 3-A depicts an expanded description with questions, which correspond to the systems or PMESII. The information is relevant; however, doctrine lacks description of application for integration of the system of systems. Interdisciplinary perspective denotes that linkages between nodes of information may yield different understanding.

Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice...Interdisciplinary thinking is rapidly becoming an integral feature of research as a result of powerful drivers: the inherent complexity of nature and society, the desire to explore problems and questions that are not confined to a single discipline, the need to solve societal problems, and the power of new technologies...Successful interdisciplinary researchers have found ways to integrate and synthesis disciplinary depth with breadth of interests, visions, and skills (National Science Academy, 2).

Appendix 3-A identifies elements of SoSA with better understanding of each node but lacks integration approach through the linkages. An interdisciplinary understanding required to address linkages and the benefits gained through actions for multiple elements.

Political System	Military System	
Leadership	Leadership	<u>Navy</u>
Core leadership	Command and Control	Surface Capabilities
National Leadership	Intelligence	Subsurface (Submarine)
Regional Leadership	SIGINT	Remote Control Vehicles
Local Leadership	HUMINT	Mine Laying Submarines
Local Worker Parties	Electronic Warfare	Special Operation Force (SOF) Platforms
Regime Control of National Resource Systems	Logistics	Patrol Fleet Anti-Ship Missiles
Security Apparatus	Mobilization	Coastal Defenses
Secret Police	Civil Defense	Radar Capabilities
Detention Camps	Training	<u>Air Forces</u>
Informants	<u>Army</u>	Air-to-Ground
Alliances & External Support	Artillery	Fixed Wing
Legal	Long-Range Missile Systems	Rotary Wing
Symbolic	Infantry	Air Defenses
Domestic image of omnipotence, omnipresence, infallibility	Armor	Radar/Integrated Air Defense System (IADS)
	Engineers	Precision munitions capabilities
	Mobility	Bases (runways, refuel, capabilities, ramp space)
	Mine Clearing	Industrial/Technical Base (for production and repair of advanced equipment)
	Bridging	Communications
	Counter mobility	Missiles (Theater/Ballistic)
	Obstacles	Weapons of Mass Destruction (WMD) (Research, Production, Storage, Delivery)
	Survivability	Space
	Underground facilities	
	Stockpiles	
	Power Ventilation Access	
	Communications	
Economic System	Social System	Infrastructure System
Industry	Culture/System	<u>Transportation</u>
Financial	Personality	Rail
Distribution Humanitarian Aid	History	Train Bridges
Currency	Religion	Tunnels
Arms Exports	Family ties/tribal linkages	Switches
Corruption/Linkages	Organized Crime	Road Ship/Boat
Black Market	Families: traditional/influential controlling major decisions	Dam Locks
Agriculture	Impact of local traditions	Air
Drug Crops & Trafficking		<u>Communications</u>
Mining		Military Networks
Natural resource areas/production		Radio Telephone
Foreign Investment		Teletype Fiber Satellite
Trade linkages		Visual
		Civilian
		Radio Telephone
		Television Speakers
		Signs
		<u>Energy/Power</u>
		Coal
		Petroleum-Oil-Lubricant (POL)
		Hydro
		Nuclear
		Water
Information Systems		
Education		
Propaganda		
Inside Country		
Outside Country		
Newspapers/Magazines	Information Technologies	
Radio/Television		
Internet		
Informal transmission (word of mouth/rumor)		
Cyberspace		

Table 3-B. Systems to analyze as part of a net analysis (CPH 2008, 47-50)

Campaign planning handbook provides the foundation for systems thinking focusing on combat mission. Although questions of Appendix 3-A are thorough and thought

provoking, many military and civilians lack the knowledge to adequately evaluate questions in Appendix 3-A within the SoSA and especially across systems of SoSA. As campaign plans need continuous review and revision, questions and plans change based on answers; this concept aligns with need to revisit assumptions in project planning and ensure that assumptions have not changed.

Figure 3-9 depicts the operational net assessment process through identifying the strengths and vulnerabilities of systems.

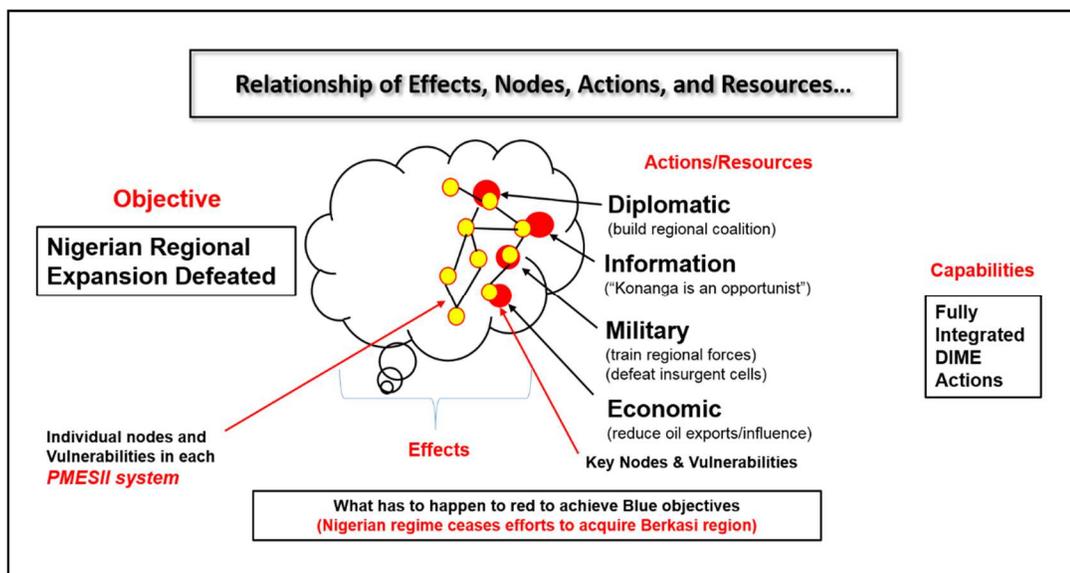


Figure 3-9. Example of relationship of effects, nodes, actions, and resources (CPH 2008, 33)

This exemplifies the relationship of effects, nodes, action, and resources to defeat Nigerian insurgent expansion. The diagram depicts the diplomatic-information-military-economic (DIME) roles merging within the effects element to produce fully integrated DIME actions to achieve objective of Nigerian regional expansion defeat. The campaign plan approach focuses on synchronization of activities allowing sub-planning by the various commands.

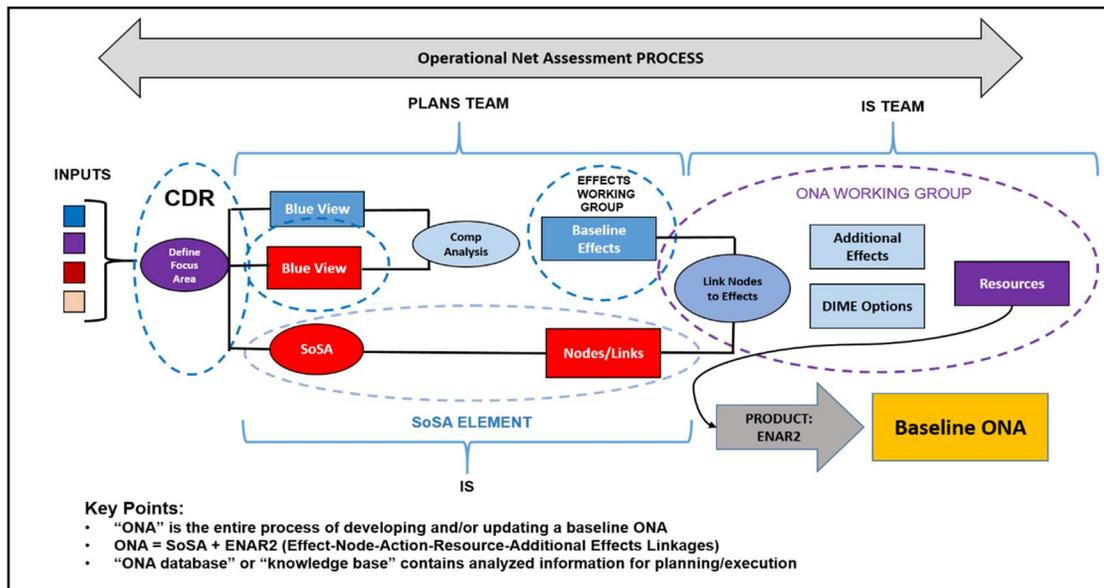


Figure 3-10. Building the operational net assessment (CPH 2008, 32)

The combatant commander develops a course of action, which meets the national objective, depth and breadth of operational environment, and defines how, when, and where other instruments of national power are used, as well as, use of multinational partners. Figure 3-10 illustrates the assessment of operational environment process including SoSA and DIME perspectives.

Figure 3-11 depicts the national and strategic effects, command levels, and flow of end state, mission, objectives, effects, and tasks. Tasks are the coalition actions to achieve the desired effects or prohibit the undesired effects. The desired effects are the conditions to achieve the objectives. The undesired effects are those actions that impede accomplishing the objectives. Objectives are the coalition goals to achieve the end state. The end state defines conflict termination criteria.

In defense institutional building, end state is a certain level of nation's security and stability measured with specific criteria. Objectives are goals or cross-functional initiatives such as counter-corruption, economic growth, gender integration, education and literacy, and civilianization; institutional building defines tasks and activities.

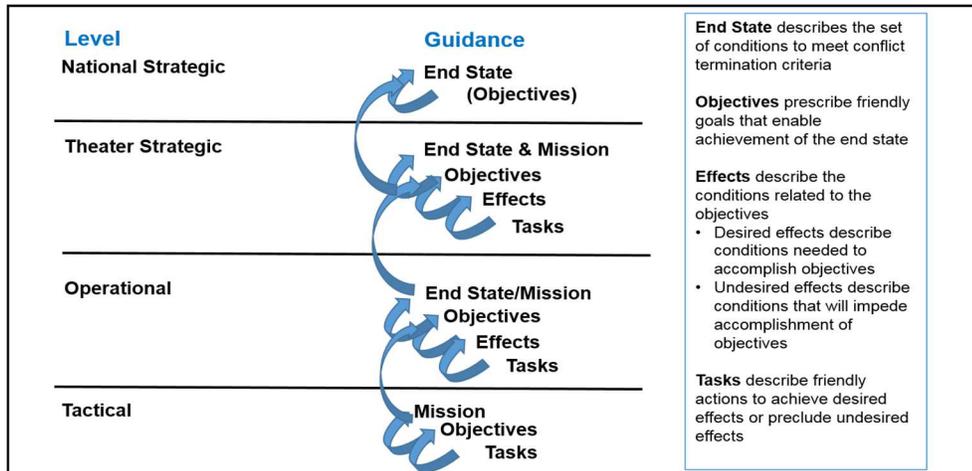


Figure 3-11. Relationship between end state, objectives, effects, and tasks (CPH 2013, 75)

The mission is revalidated or updated based on additional information gained through the center of gravity (COG) analysis, one of the planning concepts and tools. The objectives define the goals of military end state. Military objectives define the role of the military forces in the larger context of national-strategic objectives; describing the campaign effects and work accomplished. An effect is a physical and/or behavioral state of a system that results from an action, a set of actions or another effect. *Effects bridge the gap between performance of tasks by describing the conditions that need to be established through performance tasks, in order to accomplish objectives* (CPH 2013, 75).

Effects are expressed as desired effects and undesired effects: (1) *How do we want the environment to behave when we reach end state, or at particular points of the campaign enroute to the end state?* (2) *What are the behaviors and conditions in the Operational Environment that we must avoid during the campaign?* (CPH 2013, 75). Other agencies and partners expect to use the desired effects to shape their own activities to support military activities.

The U.S. Army and General Staff College in Ft. Leavenworth, Kansas expanded on

tools used for campaign planning in *Planning for Action: Campaign Concepts and Tools*. These tools include center of gravity (COG), lines of effort, courses of action (COA) development, wargaming, and assessment. Although these tools are considered a science, campaign planning is considered an art (Kem, 4). In Iraq and Afghanistan, the counterinsurgency (COIN) campaign included counter-terrorism, developing governance, developing host nation security forces, establishing essential services, and supporting economic development (Kem, 2).

Center of Gravity (COG)

Center of gravity concept dates to noted expert on war, Baron von Clausewitz, who defined it as *the hub of all power and movement, on which everything depends...the point at which all our energies should be directed* (Kem, 117). The purpose of the center of gravity analysis is to provide an understanding of friendly, adversary, or neutral systems in conjunction with political-military-economic-social-information-infrastructure (PMESII) systems analysis enabling decisive points for achieving the campaign objectives.

At strategic level, a center of gravity can be a military force, an alliance, political or military leaders, set of critical capabilities or functions, or national will. At operational level, a center of gravity relates to the adversary's military capabilities, such as a powerful element of the armed forces, as well as, other capabilities in the operational environment (Kem, 117). Both refer to assessing the vulnerability of opponent and leveraging this knowledge in defining one's actions.

In the business world, this is analogous to having a bargaining or negotiating chip, leveraging a product improvement over a competitor, or exploiting a competitor's

disadvantage. It is a matter of understanding the opponent’s strengths and weaknesses in relationship to one’s own strengths and weaknesses. Leveraging an advantage is instrumental for achieving objectives in defense institutional building; for example, donor funds can leverage effective counter-corruption initiatives measured through metrics and audits. Use of the “carrot” versus the “stick” for psychological leverage defuses emotional tension in a highly, political environment.

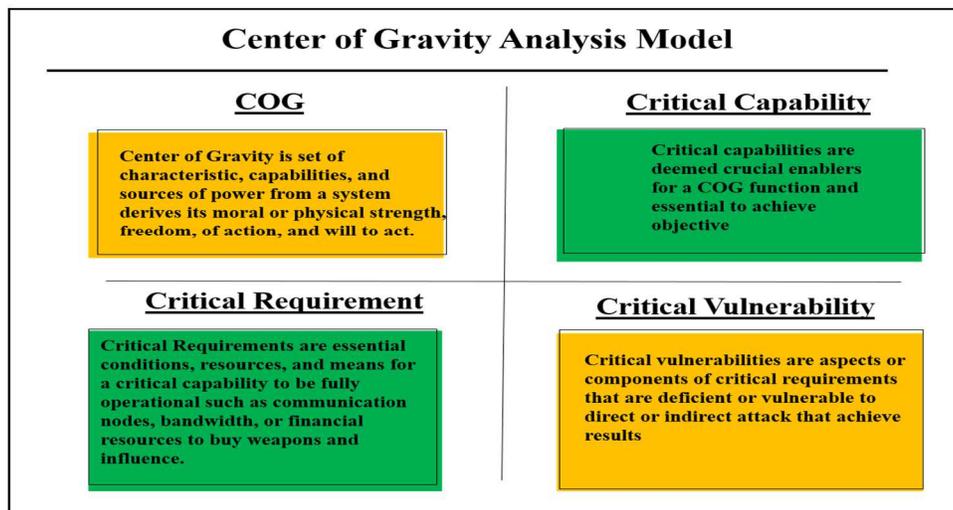


Figure 3-12. Center of gravity (COG) analysis model (CPH 2013, 37)

Figure 3-12 depicts the center of gravity analysis model describing critical capability, critical requirement, and critical vulnerability. Center of gravity analysis is in context of the adversarial environment; the adversary will therefore protect their center of gravity. The recommended approach is not a direct attack to the center of gravity but exploiting the vulnerabilities of the center of gravity.

Lines of Operation (LOOs)

A line of operation is a physical line that defines the interior and exterior orientation of the force in relation to the enemy or that connects actions on nodes and/or decisive points related to time and space to an objective(s) (CPH 2013, 38). Major combat

operations are designed using lines of operation, connecting offensive, defensive, and stability tasks to geographic and positional references in the operational approach (JP 5-0 2011, III-27). Figure 3-13 illustrates a sample line of operation.

Under stability operations, *the goal of these military and civil efforts should be to eliminate root causes or deficiencies that create the problems (e.g., strengthen legitimate civil authority, rebuild government institutions, foster a sense of confidence and well-being, and support the conditions for economic reconstruction)* (JP 5-0 2011, V-23). The approach is to harmonize civil-military operations with the efforts of other government agencies (OGAs), International Government Organizations (IGOs), and/or non-governmental organizations (NGOs).

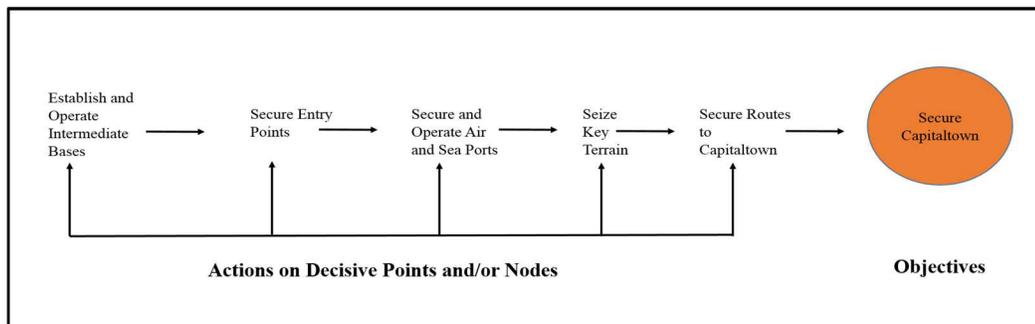


Figure 3-13. Line of operation example (JP 5-0 2011, III-27)

The operational approach provides the guidance and unity of effort throughout the levels of the command and partner organizations. All aspects of system of systems analysis are utilized in the operational approach. Figure 3-14 illustrates an operational approach example.

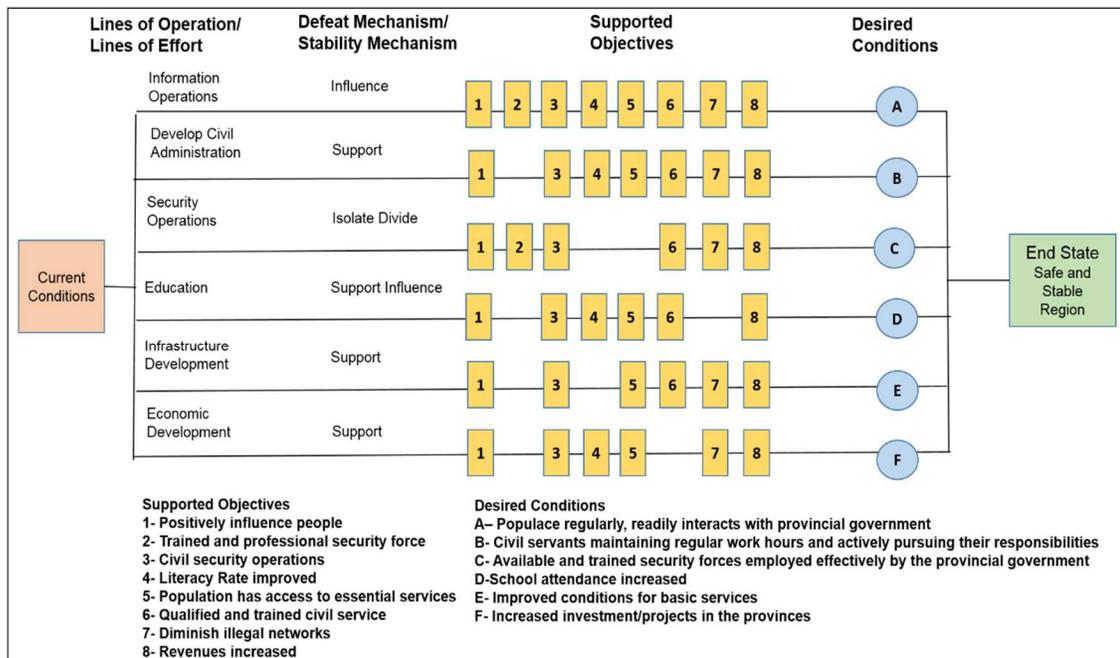


Figure 3-14. Operational approach example (Kem, 164)

This example illustrates the lines of operation and lines of effort for system of systems analysis that include social, economic, military, and information systems; however, the approach does not represent an integrated approach with lines showing connections or interdependencies. The assumption is that each line is independent and executed as such requiring synchronized activities concurrently being conducted by various organizations. Each line results in a desired condition. The cumulative desired conditions yield end state of safe and stable region. The military operational approach executes through synchronized, independent activities required for military operations. The managing model or business model requires integration of activities across the organization.

Lines of Efforts (LOEs)

A line of effort links multiple tasks and missions using the logic of the purpose – cause and effect- to focus efforts toward establishing operational and strategic conditions. It describes and connects the major efforts/actions of the campaign when positional reference to an enemy or adversary has less relevance or is insufficient to guide the conduct of the campaign (CPH 2013, 38).

Lines of effort focus on the logical arrangement of tasks, effects, and/or objectives, and assist the commander to understand the logic of the campaign. Figure 3-15 illustrates a sample lines of effort for a campaign yielding specific conditions for each specific line of effort.

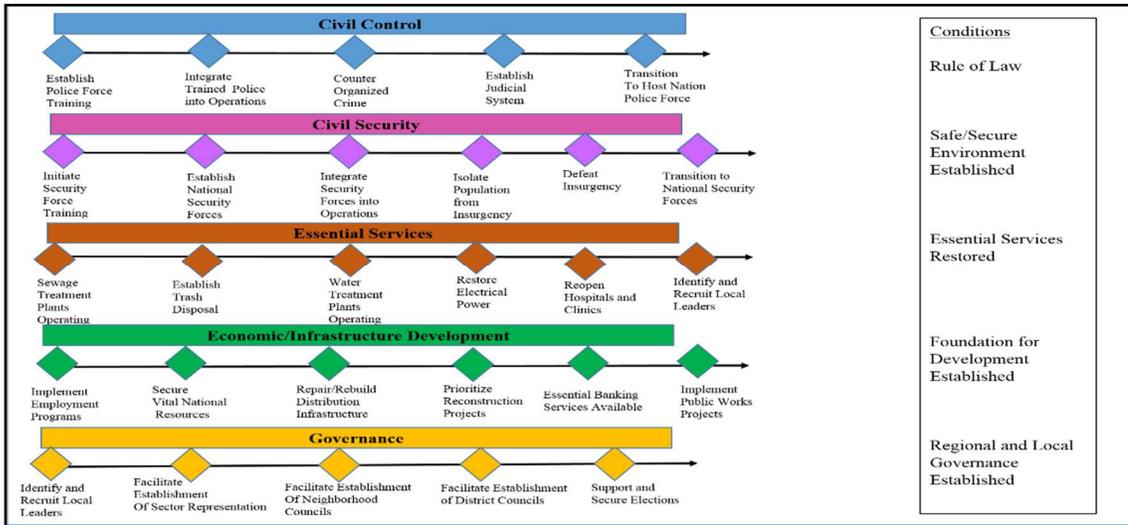


Figure 3-15. Lines of effort sample (Kem, 161)

When designing the operational approach consider resources. *As part of the framing of the environment, the designer should have a basic awareness of the level of resourcing that is likely to be made available* (CPH 2013, 39). This operational approach focuses on the first order effects of efforts, while acknowledging undesired follow-on effects. *Note any undesired second and third order effects and either modify the operational approach to mitigate those effects, or transmit those risks to the operational approach to planner and other interested parties in the design concept* (CPH 2013, 39).

Campaign planning design approach discusses the organization of design work for joint operations recognizing that the work depends on several aspects: *organizational climate, the degree to which the commander will be involved in the design work; the size experience and training of the staff; the amount of time available; and the degree of*

complexity of the problem (CPH 2013, 40). Team size balances the ability to gain diversity of perspectives with efficiency and effectiveness of the team.

The campaign planning handbook provides guidance on managing teams in determination of roles of team members, challenges of team dynamics, stimulating team members to ‘think out of the box’, and mechanics for team effectiveness. These recommendations are conducive to any effort applying a team approach.

The DoD acquisition community has adopted an integrated product team approach for research and development efforts of complex weapon systems. The teams are multidisciplinary (integrated team gaining multiple views through individuals from multiple disciplines) or crossdisciplinary (views one discipline from the perspective of others) versus interdisciplinary (synthesized approach to integrate knowledge and methods from different disciplines). An interdisciplinary team produces greater integration of disciplinary knowledge creating effective critical thinking and innovative ideas than a multidisciplinary team.

The conclusions of a 3M study determined that polymaths, individuals that have acquired a combination of high depth and breadth in and cross disciplines, *are required to effectively convert inventions into commercially successful products that bring sales and value to the organization...The polymaths contributed not only by generating inventions, but applying these inventions widely to multiple parts of the organizations, integrating with multiple technologies, thus becoming the most valued scientists of 3M* (Boh, 364). Teams require polymaths to facilitate integration of knowledge across disciplines to effectively manage complexity.

Campaign planning relies on performance of the team for results in design of

campaign plan. The lines of effort produce linear, sequential activities for campaign plan design. The design approach lacks an integrated plan baseline generated through integrating the lines of effort across systems. The SoSA approach reflects considerations in other systems in designing lines of effort for military. It does not recognize the interdependencies on other areas, leverage of other system areas in gaining multiple effects, or understanding undesired multi-order effects for stability. Campaign planning acknowledges second and third order effects but lacks multi-dimensional solution for recognition.

The understanding of center of gravity and line of effort is pertinent to defense institutional building application. Terrorist strength or center of gravity generated from ignorance of recruits from fragile nations that lack educational systems and population with low literacy rate. Figures 3-14 and 3-15 recognize SoSA methodology but lack understanding of integrated implementation; for example, campaign plan lines of effort include development of education systems across all SoSA institutional elements for population.

Courses of Action (COA) Development

The combatant commander develops the courses of action to meet the national objective, depth and breadth of the operational environment, and definition of how, when, and where other instruments of national power are used, as well as, the use of multinational partners.

Wargaming

Wargaming is a simulation of a military operation involving two or more opposing forces, using rules, data and procedures designed to depict an actual or assumed real-life situation. It is a conscious effort to visualize the flow of a plan, within an operational environment, using joint forces,

while integrating the other elements of power as appropriate, and a realistic, thinking, and adaptive adversary. Wargaming assists joint-force planners to identify the strengths and weaknesses, associated risks, and asset shortfalls for each friendly course of action. While joint doctrine refers to visualizing the flow of a military operation as the key element in wargaming, the commander and staff must consider the application of all elements of a national power. (CPH 2013, 81).

Determining the evaluation criteria for wargaming is a critical element of requirement and accomplished before the course of action analysis. Potential evaluation criteria are risk, flexibility, time, sustainment/support, surprise, defeats/protects the center of gravity, force protection, casualties, use of flexible deterrent options, financial costs, and impact on coalition interests (CPH 2013, 81).

<p>1. Prepare for the wargame Gather Tools List and review friendly forces List and review opposing forces List known critical events Determine participants Determine opposing alternative end states and actions or Determine enemy courses of action to oppose Select wargaming method Manual or computer-assisted Select a method to record and display wargaming results Narrative Sketch and note Wargame worksheets Synchronization matrix</p>	<p>2. Conduct the wargame and assess results Purpose of wargame (identify gaps, visualization, etc.) Basic methodology (e.g. action, reaction, counteraction) Record results</p> <p>3. Output of wargaming Results of the wargame brief Potential decision points Governing factors Potential branches and sequels Revised staff estimates Refines courses of action Feedback through the courses of action decision brief</p>
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Figure 3-16. Sample Wargaming Steps (CPH 2013, 83)

Figure 3-16 depicts the sample wargaming steps which comprise three categories: prepare the wargame, conduct wargame and assess results, and output of the wargame. The final step is the feedback loop to revise plans in accordance with results of the wargame.

During preparation, there are several means for recording the proceedings of the

wargame. A narrative describing the action, probable reaction, counteraction, assets, and time used is one method. Another method is a matrix worksheet with action, reaction, counteraction, assets and time columns, and major event rows. A synchronization matrix is organized by time or major events as the columns and functional or other major activities as the rows; it is used by staff officers to then build the detailed functional plans that support the campaign plan.

Assessment

Assessment is a process that measures progress of the joint force toward mission accomplishment (JP 3-0, xxi). This definition is similar to assessment in defense acquisition model with assessment accomplished in developmental testing and operational testing to determine if system designed met requirements. The assessment process uses measures of performance (MOP) to evaluate task performance at all levels of war and measures of effectiveness (MOE) to measure effects and determine the progress of operations toward achieving objectives (JP 3-0, xxi).

Joint Planning 5-0 document provides examples of MOEs in stability operations as depicted in table 3-C. Example of MOPs in noncombat operations are tons of relief supplies delivered or noncombatants evacuated. These measures are for the performance of a specific task but assume that the tasks are relevant to the measure of effectiveness for objectives of the mission. In stability operations, measuring equipping the army is a measure of performance; however, that metric alone does not equate to the operational assessment of the army to perform specific objectives for security and stability within the country.

Measures of Effectiveness in Stability Operations

- a. Perception among identity group members that loss of power (e.g. to other identity groups) will eliminate the prospect of regaining power in the future.
 - b. Dispute resolution mechanisms exist and are being used to clarify or resolve remaining vital issues among parties to the conflict.
 - c. Percent of military-aged population that expresses an inclination to support or join a violent faction (by identity group).
 - d. Degree to which members of formerly warring factions and competing identity groups can travel in areas controlled by their rivals.
 - e. Detainees/prisoners are subjected to torture, cruel, or inhuman treatment, beatings or psychological pressures (by identity group).
 - f. Safe and sustainable return of displaced persons and refugees to former neighborhoods.
 - g. Estimated percentage of gross domestic product accounted for by illicit economic transactions.
 - h. Level of public satisfaction with electrical power delivery (by identity group and region).
 - i. Perception that ethnic identity polarizes society (by identity group).
 - j. Perception of heads of households that, under normal conditions, they are able to meet their food needs either growing foodstuffs/raising livestock or purchasing food on the market.
-

Table 3-C. Measures of effectiveness in stability operations (JP 5-0 2011, D-8 and D-9)

Security Cooperation Planning

Security cooperation consists of DoD activities to encourage and enable international partners to align and support U.S. goals; provide U.S. with access to territory, information, and resources; and develop and apply capability and capacity to achieve U.S. defense objectives. Security cooperation activities are in combatant command's campaign, posture, and country plans and supporting plans of components, services, Defense agencies, and National Guard Bureau (NGB). Training, exercises, military engagement, experimentation, education, personnel exchanges, counter- and non-proliferation activities, counternarcotics activities, armaments cooperation, information sharing and intelligence cooperation, defense institutional building, security assistance programs, and all other security cooperation activities are included in operations, activities, and investments of a campaign (CJCSM 3130.01A, A-5).

Country Plans

Combatant commands prepare country plans in conjunction with pertinent organizations to describe how they and country teams will engage with the partner

country, utilize required resources to achieve both U.S. and partner country security objectives, and the role the partner country has agreed to play or is expected to play in the campaign (CJCSM 3130.01A, A-4). The country plan must be consistent with bilateral security agreements that govern the U.S. and partner country. Country plans are included within the campaign plan.

Integrated Country Strategy (ICS)

The U.S. Ambassador to the country is the Chief of Mission (COM) and the President's representative. The country team comprises the senior representative of each U.S. Government agency appointed to that mission. The Chief of Mission and country team prepare an integrated country strategy, a three-year plan for country identifying U.S. national interests and goals and describing how to achieve them. The U.S. Agency for International Development (USAID) prepares Country Development Cooperation Strategies which are included in the integrated country strategy.

Campaign planning is a comprehensive planning and analysis method to defeat the adversary or the "fight" piece of war and taught to the military operational community. De-centralization creates fragmented efforts where solid connections for interdependencies between efforts executed by different commands are required. Under the Goldwater-Nichols DoD Reorganization Act of 1986, the combatant commands are given executive authority for missions within their regional areas; therefore, requiring the combatant commands to plan and execute defense institutional building missions. For Iraq and Afghanistan, U.S. Central Command is responsible for mission in both countries.

Through strategic policy development, campaign planning guidance is provided in

joint operations documents and campaign planning handbooks updated with lessons learned every several years. A system of systems analysis is included recognizing the need to view a problem from multiple systems or perspectives.

Although these planning documents acknowledge integration, none explain how to accomplish. The doctrine acknowledges complexity of systems, but not the means for dealing with complexity. A complexity system approach should model the system as a black box with focus influencing the system, not controlling it; with complexity, fully understanding the system may not be achievable. Metrics on security and stability need to measure performance of stability operations.

Section 3.2 Iraq Campaign Planning

On March 17, 2003, the United States commenced Operation Iraqi Freedom (OIF) invading Iraq with intent to capture dictator Saddam Hussein and temporarily assume control of the government to develop stability until a new leader could assume control. This first year dedicated to attaining control through capture of senior Baath party military leadership, including Saddam Hussein.

In 2004, the Multi-National Force (MNF-I) released the first approach for building partner capacity (BPC) as a campaign plan that included four lines of operations (LOOs): security, governance, economic development, and strategic communication. *This was neither the narrow humanitarian Office of Reconstruction and Humanitarian Assistance (ORHA) mission nor the Commander Joint Task Force-Iraq (CJTF-I) military occupation in advance of the transfer of sovereignty; this was a military plan with a broad vision and U.S. military responsibilities for building security institutions, rule of law, economic development, and even a communication strategy that would support a positive U.S. relationship with Iraq* (Brennan, 35).

Due to growing problems of insurgency in Iraq, the security LOO became the most dominate. In a five-month progress update for campaign plan, the emphasis was on deteriorating security situation disrupting execution of plan. Although the campaign plan emphasized a whole-of-government approach for U.S. mission in Iraq, the execution lacked an interagency coordination.

Unity of Effort is a central pillar of counter-insurgency doctrine. Within the MNF-I, top-level liaison and understanding between Force and State appears excellent but is based on personalities rather than structures. At the working level, there are few structures for joint coordination, and those that exist are largely ad hoc (Brennan, 36).

It was not until 2010 that joint Defense Department and State Department planning was formalized in the 2010 Joint Campaign Plan (JCP) signed by U.S. Ambassador to Iraq Christopher Hill and United States Forces-Iraq (USF-I) Commanding General Raymond Odierno on November 23, 2009 becoming effective 1 January 2010 (Brennan, 71). The JCP focused on the transition supporting the Security Agreement and the Strategic Framework Agreement. The JCP established four LOOs as political, economic and energy, rule of law, and security.

Figure 3-17 illustrates the 2010 JCP LOOs. The JCP established three campaign stages for period of transition that was both conditions and time-based. Operation Orders (OPORD) and Fragmentary Orders (FRAGO) were means for directing the execution of planning with OPORD 10-01 being the first published to support the 2010 JCP under the new organization of USF-I.

OPORD 10-01.4 published in August 2010 dealt with Stability Operations, providing guidance on execution of final transition process. Although OPORD 10-01.4 should have represented the execution planning of the JCP, it contained three LOOs (strategic partnership, operations, and civil support and theater sustainment) versus the four LOOs (political, economic, rule of law, and security) (figure 3-17) of the JCP.

Based on an interview with the USF-I command historian, the change in LOOs reflected USF-I's pivot away from supporting Iraqi governance and capacity building toward establishing a long-term strategic partnership and enabling the U.S. troop redeployment (Brennan, 75). In other words, downplaying the military role and structuring around a civilian role. OPORD 10-01.4 established broad parameters for the final transition but lacked detail in execution. The intent was to allow the new

Commanding General for USF-I the flexibility to determine the detail necessary to plan and execute the end of transition.

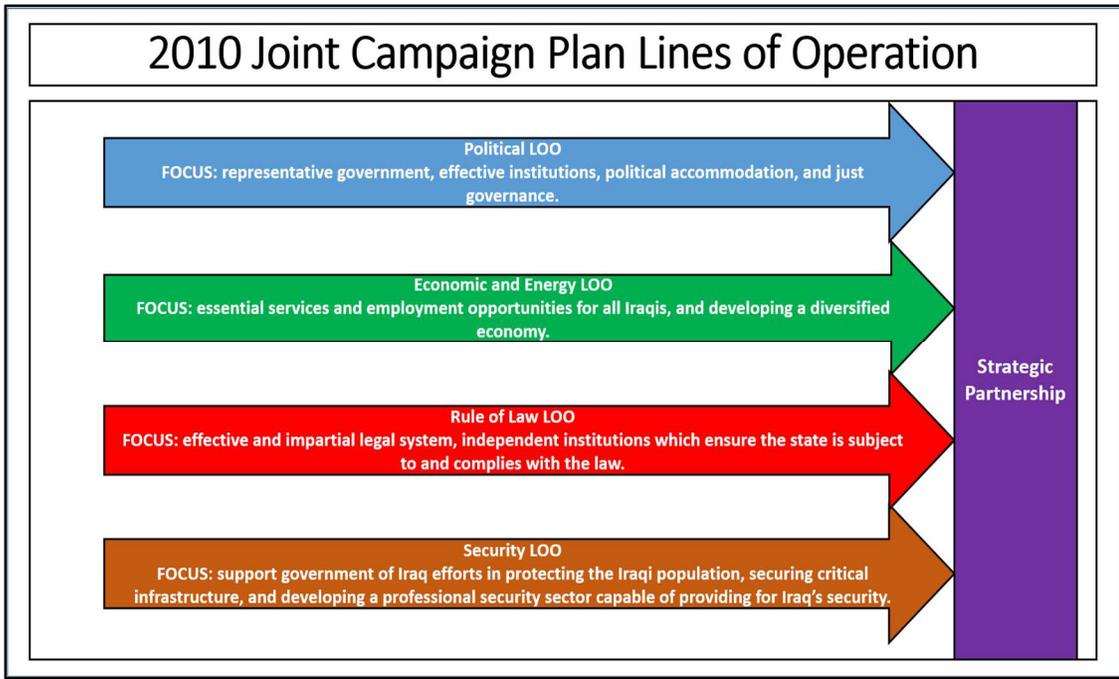


Figure 3-17. Joint campaign plan lines of operation (Brennan, 72)

Figure 3-18 illustrates three stages for achieving transition to the Iraqi government over the two-year period. The bullets in each stage are goals; however, the lines of operation do not connect to specific objectives, effects, or tasks to achieve the goals. A line of operation does not reflect the ability to achieve multiple tasks, effects, and objectives.



Figure 3-18. 2010 joint campaign plan campaign stages (Brennan, 73)

Lines of operation and lines of effort, as depicted in figures 3-18 and 3-19, represent linear approaches to campaign planning. Although system of systems analysis in joint operational doctrine reflects a multi-dimensional approach, planning and execution are linear.

As the U.S. mission changed from Operation Iraqi Freedom (OIF) to Operation New Dawn (OND), OPORD 11-01 issued to provide key objectives and guidance for Operation New Dawn execution. OPORD 11-01 specified the commander’s intent for USF-I to continue improving the ability of Iraqi Security Forces to provide internal security, develop foundational external defense capabilities, and lead and manage their institutions.

Simultaneously, USF-I must support the Chief of Mission-Iraq with military capabilities and engagement, while transitioning responsibility for operations in Iraq to U.S. Central Command, U.S. State Department mission in Iraq, Government of Iraq (GoI), and others. It is essential throughout to ensure unity of effort and demonstrate

continuity of U.S. commitment to Iraq government and citizens.

To achieve this mission and the commander's intent, the OPOD 11-01 established ten key tasks as follows:

- Protect the force.
- Maintain situational awareness.
- Advise, train, assist, and equip the Iraqi Security Force (ISF).
- Conduct partnered counterterrorism operations and an enduring counterterrorism capability within Iraq's Special Operations Forces.
- Provide military capabilities in support of Embassy Baghdad.
- Transfer responsibility to appropriate partners.
- Establish and support Office of Security Cooperation – Iraq (OSC-I).
- Support the establishment and mission of Bureau of International Narcotics and Law Enforcement Affairs.
- Support reconciliation efforts within Iraq to address grievances between Arabs and Kurds, and between the Sunni/Sons of Iraq (SOI) and the Shi'a extremist groups.
- Redeploy the force. (Brennan, 83)

OPOD 11-01 also included lines of effort (LOE) and thirteen supporting objectives for the Operation New Dawn mission as depicted in figure 3-19. The transition plan outlined in Annex F of the JCP focused on the identification of all programs, projects, and relationships managed by the military and assess how they aligned with the broader objectives of the JCP. The intent of Annex F to provide a detailed process for turnover of USF-I activities to other organizations; therefore, USF-I defined the term transition to mean:

The transfer, transformation, completion or termination of tasks, programs, projects, or relationships that are owned, performed or managed by a military organization engaged in combat, counterinsurgency, stability and support operations, or any other military operation to the host nation, U.S. Embassy and Office of Security Cooperation, follow-on DoD organizations operating in country, or any other U.S. government or international entity (Brennan, 85).

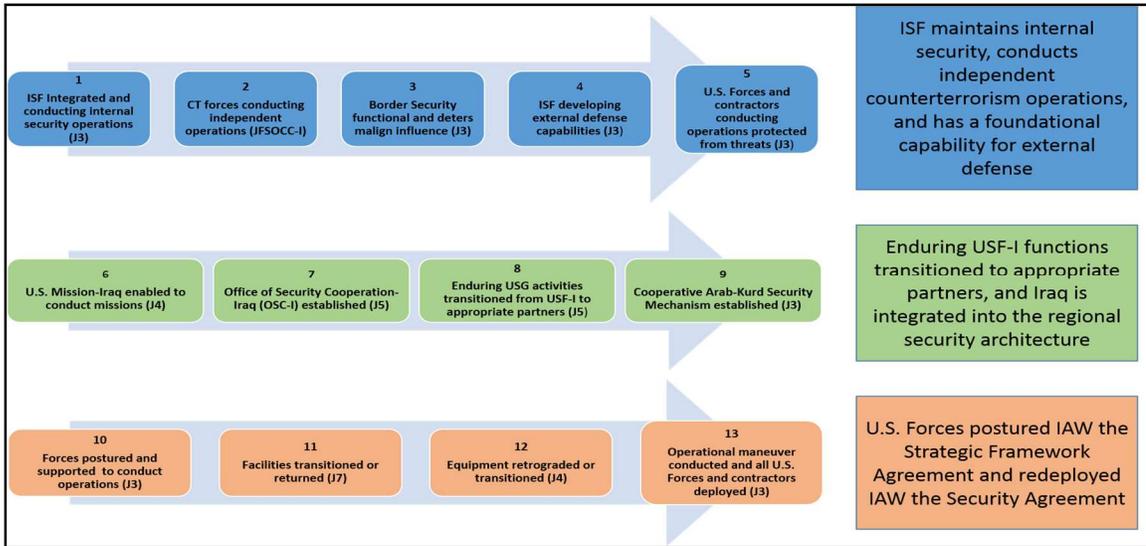


Figure 3-19. Operations order 11-01 lines of effort (LOE) (Brennan, 84)

The transition proceeded through five phases: define, measure, analyze, implement, and assess. The define phase consisted of determining the transition objectives, assessing challenges, identifying key stakeholders, and outlining a timetable with major milestones. The measure phase consisted of data gathering effort across the country to identify tasks for transitioning. The result was the identification of more than 30,000 discrete military tasks, projects, programs, and relationships.

USF-I staff reconciled these into 1,127 separate activities with 530 deemed completed, 144 transitioned to the Embassy, and 22 others terminated prior to meeting objectives due to no appropriate recipient nor feasible once military force departed (Brennan, 86-87). The remaining 431 activities considered enduring and therefore transferred or ended; the ‘define’ and ‘measure’ phases completed by October 2009 (Brennan, 87).

In the analyze phase, the USF-I staff evaluated the effectiveness of the 431 enduring activities for achieving the JCP objectives and then determine whether to transfer, modify, or terminate each one. Initially, the activities were assigned to one of the four JCP LOOs for owner of each LOO to manage the transition process.

This proved too difficult and therefore the activities were combined into 14 transition plans, which aligned with the JCP annexes. Each plan defined the responsibilities, resource requirements, milestones, policy guidance, and other material necessary to determine the transition process (Brennan, 87).

Transition Plan	USF-I Staff Lead	Recipient Organization
Intelligence	J2	USCENTCOM, embassy, OSC-I, and Government of Iraq
Defense attaché office	J2	Defense Attaché Office
Arab-Kurd relations	J35	Embassy
Balance Iranian threat	J35	USCENTCOM, embassy, OSC-I, and Government of Iraq
Counter-violent extremist organizations	J35	USCENTCOM, embassy, OSC-I, and Government of Iraq
Turkey-Iraq-U.S. trilateral cooperation	J35	Embassy
Counterterrorism	JFSOCC-I	Government of Iraq, USCENTCOM
Police Training	ITAM-Police	Embassy
Office of Security Cooperation Transition	PSG-I	USCENTCOM, embassy
Transition to police for internal security (police primacy)	J5 Plans	Embassy
Telecommunications	J6	Embassy
Transportation	ACCE	Embassy
Knowledge management	J6	Embassy
Rule of Law	SJA	Embassy

Table 3-D. Analyze phase for USF-I

Note: Table 3-D depicts the result of the analyze phase for USF-I. (Brennan, 87)

The Iraqi planning for defense institutional enduring activities was not as detailed as accomplished in Afghanistan. Afghanistan had the Master Ministerial Development Plan (MMDP) providing broad guidance and then individual Ministerial Development Plans (MDP) for primary functional areas such as procurement, logistics, operational planning, budget, etc. In Iraq, the basic functional areas advised by Iraqi Training and Advising Mission – Ministry of Defense (ITAM – MoD) resided in one table on one page. For procurement, two words: “institutionalize contracting”, represented the entire objective. There were no metrics for measuring the achievement of meeting institutionalized contracting. The other functional areas had similar nebulous objectives.

In the implement phase, USF-I would take the steps necessary to transition each of the enduring activities: (1) assess if the identified recipient organization had the capabilities to receive the activity, (2) ensure the recipient organization agreed to accept activity, (3) identify the manpower and financial resources needed for recipient organization to perform activity, (4) a timeline for handover, and (5) transfer of related data for activity (Brennan, 87-88). If determined that an activity was non-transferrable, then it was re-scoped to be manageable for recipient organization. The assessment phase required macro-level and micro-level assessments of effectiveness of the transition. This required routine reporting from USF-I and the Embassy.

The organization responsible for advising the Iraqi Ministry of Defense (MoD) was ITAM – MOD under the Deputy Commanding General for Advising & Training Mission (DCG A&T). Figure 3-20 depicts the Iraqi MoD organizational structure and alignment with the advising mission. The Iraqi military General, gained significant power from both civilian and military sides of the MoD, by staffing both positions of senior military advisor and Secretary General.

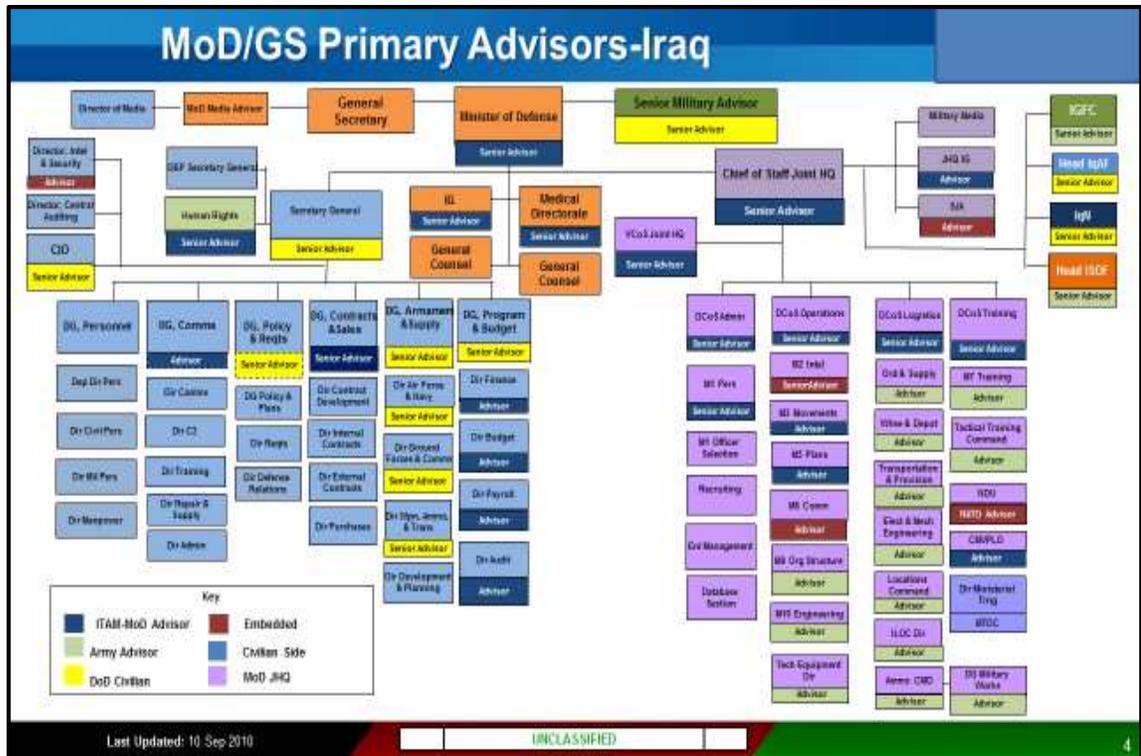


Figure 3-20. Iraqi Ministry of Defense organization structure with alignment of advising mission

The transition plan lacked an integrated approach under project management planning for linkages across all tasks and activities of the Iraqi mission. To summarize the effort, the preparation of the transition plan (1) compiled all the work being accomplished, (2) determined what was completed and what still needed completed, (3) determined what the Department of State (DoS) could do, and (4) close out what the DoS couldn't do.

The *canvassing process identified more than 30,000 discrete military tasks, projects, programs, and relationships* (Brennan, 86). Without an integrated plan, how would USF-I staff determine the relationships or the multi-order effects to changes of those tasks, projects, and programs. None of the USF-I staff were present when the efforts were initiated nor did detail plans exist. The expression “unintended consequences” describes those undesired second and third order effects of actions described in campaign planning.

Reducing 30,000 discrete military tasks, projects, and programs down to 431 enduring activities through a temporary workforce lacking the rationale for activities initially started adversely positioned transition to the DoS. Programs were deemed complete without objectives, end states, and metrics to measure achievement. In the example of institutionalize contracting, end state and metrics were sufficiently nebulous to determine complete status at any time. Strategic logistics tracked red throughout 2010 but turned yellow to green by the time the DoD mission transitioned to the DoS.

Defense institutional building in Iraq had many challenges; however, these challenges should not compromise appropriate planning and execution for well-defined objectives, detail plans to attain those objectives, and metrics to provide status to achieving those objectives. Campaign planning in Afghanistan significantly improved over Iraq; however, integration of effort was still significantly lacking.

Section 3.3 Afghanistan Campaign Planning – Master Ministerial Development Plan

In Afghanistan, detailed campaign planning flowed down to organizations. For the Ministerial advisory mission, the MMDP, provided the overall mission, objectives, guidance for building capability and capacity of the Minister of Defense and General Staff (GS) and their staffs.

The MMDP is a campaign plan for Ministerial Development mission; therefore, a significant portion of the plan is devoted to organizational operational guidance. It provides the mission statement taken from the International Security Assistance Force (ISAF) website “Mission” December 2012:

In support of the Government of the Islamic Republic of Afghanistan, ISAF conducts operations in Afghanistan to reduce the capability and will of the insurgency, support the growth in capacity and capability of the Afghan National Security Forces (ANSF), and facilitate improvements in governance and socio-economic development in order to provide a secure environment for sustainable stability that is observable to the population (Goodman, 7).

The plan provides sensible guidance to the North Atlantic Treaty Organization (NATO) Training Mission-Afghanistan/Combined Security Transition Command-Afghanistan (NTM-A/CSTC-A) MoD/GS advisors on operating with the Afghan MoD:

NTM-A/CSTC-A Coalition Advisors. While advisors are at their best when aware of differing societal and cultural issues, they must remain focused on the tasks associated with transitioning the Afghan MoD. Although understanding, respecting, and valuing the Afghan customs and traditions requires awareness and practice, advisors must engage with their principals beyond drinking chai or being a military aide. Advisors will find that they must walk a fine line between advising, mentoring, training, liaising and facilitating. These activities can't be done from a desk in Camp Eggers; as in nearly all cases, enduring change will result from direct engagement with and support to the Afghan principal and their office.

Lasting action comes from mentoring and improving not only the Afghan principal, but also leadership one and two levels down, and the

office staff as a whole. An advisor should keep in mind that not everyone, particularly the Afghans, wish to be “Westernized.” They welcome the support the Coalition is able to provide, but accept it within their own framework and societal values. The only way to build enduring capacity and capability with the MoD is to assist them in finding the “Afghan solution to the Afghan problem,” rather than forcing a Coalition solution that won’t survive the ISAF drawdown. Finding the best way to navigate among cultural norms, whilst implanting ideas to improve the office or organization, represents the top skill an advisor will be required to exhibit (Goodman, 8-9).

The MMDP describes the relationship between NTM-A/CSTC-A and ISAF Joint Command (IJC): *As the operational headquarters, IJC is an equal partner in development of the MoD, but oriented towards the fielded forces; in essence, finishing the training of ANA units and supporting them in combat operations. IJC includes coalition advisors with whom we must coordinate to ensure a consistent message from the Minister of Defense all the way down to the individual soldier on the ground (Goodman, 8).*

There are five lines of operation (LOO): support to operations, human resource management, national logistics, executive leadership and defense policy, and resource management. Figure 3-21 illustrates these lines of operation with a vertical and horizontal component for development within the respective office and across offices.

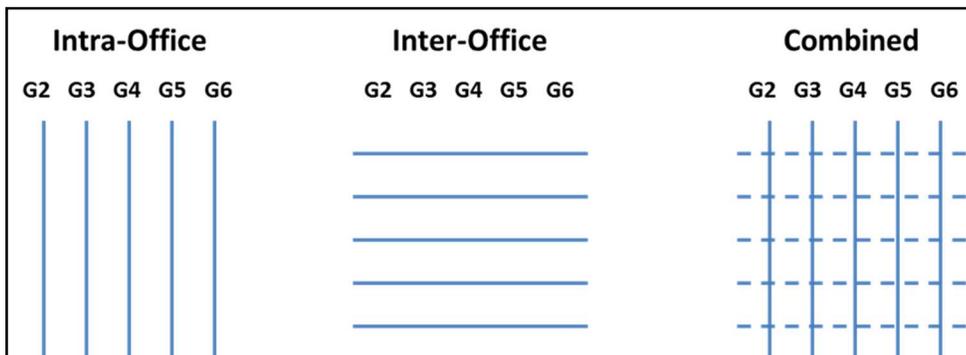


Figure 3-21. Inter-office versus intra-office development (Goodman, 20)

The MMDP recognizes the need for integration, but does not reflect details of the integration. Project management integrates tasks through an integrated schedule with

linkages of tasks. An integrated schedule also provides corporate knowledge of detail for specific tasks and status ensuring a more informed turnover to support the five to twelve-month period of deployments.

The MMDP recognizes four cross-cutting initiatives: corruption, literacy, civilianization, and gender integration. The MMDP recognizes that literacy and computer literacy rate need considered when evaluating processes, particularly with expense of purchase and sustainment.

The Ministerial Development effort must take into account the ANA's low literacy rate and the low computer literacy rate, as well as, the expense of purchasing and maintaining Information Management Systems. Automating processes may not always be the best solution and will likely require a number of pre-requisite conditions/steps over an extended period of time (Goodman, 14).

Although the plan provides this essential guidance for process development, the Ministerial Advisory Group does not have authority over the processes established for the MoD/GS. This responsibility is a combination of other commands that usually do not request guidance from the MoD/GS advisors. The logistics information management system was divided into two separate systems: WebManage for maintenance management and Core Information Management System (CoreIMS) for inventory management. This occurred because acquisition strategy was for two separate U.S. contracts and the contractors selected separate systems.

This approach is counterproductive for achieving capability and capacity in logistics. The senior advisor to the Afghan Minister of Defense (Acquisition, Technology, & Logistics) (AMoD AT&L) briefed the Coalition Deputy Commanding Officer – Support (DCOM-SPO) to justify the need to reduce from two management information systems for logistics down to one and the better choice being WebManage.

The Director for DCOM-SPO decided to continue with current path of fielding both systems, based on the analogy *not wanting to change horses in mid-stream*. Figures 3-22 through 3-24 illustrate sections of the brief most pertinent to the decision. With one-year deployments, short-sighted solutions are favored over long-term solutions.

Criteria	WEBManage	CoreIMS
1. Application	1. Maintenance and Supply Chain Management	1. Inventory Management only
2. Data Quality	2. Uses international standard; FEDLOG	2. No standard, 18,000 NSN errors
3. Work off line capability	3. Capable, just load local client on laptops	3. Not capable, awaiting quote
4. Change Management	4. No charge; changes within 48 hours (793 documented in 18 months at no cost)	4. Difficult & costly (Class V tab took 5 months, \$10K)
5. Connectivity	5. VSAT provided as part of contract	5. Relies on build out schedule, none built yet
6. Language Capability	6. Dari – Batch upload for translating fast	6. Dari – labor intensive
7. Desire to use	7. Embraced – associated with vehicles running	7. Avoided – associated with letting others know what they have

Figure 3-22. WebManage versus CoreIMS for logistics management information system

Criteria	WEBManage	CoreIMS
1. Company Stability	1. 523 Employees/\$296M Sales	1. 10 Employees/\$1.5M Sales
2. Revenue Source	2. Trainers	2. Software
3. Site History	3. 57 to the CSSK peak, 30 now	3. 24 to the RLSC level, 20 now
4. Users Trained	4. 1051; 253 Afghans	4. 689; 176 Afghans
5. Server vulnerability	5. Server solution in VA	5. MoD server
6. Training Model	6. Training – hands-on mentored	6. Classroom – trained to time
7. ANA – ANP Users	7. ANA only; minor changes needed to support ANP	7. ANA and ANP users trained and using CoreIMS

Figure 3-23. WebManage versus CoreIMS for logistics management information system (continued)

Cost and Risk reflected in relative terms:
Qualitative Units of Cost: Low (\$) to High (\$\$\$\$\$)
Qualitative Units of Risk: Low (R) to High (RRRRR)

Criteria	WEBManage	CoreIMS + Upgrade	WEBManage + CoreIMS
1. Application	1. \$	1. \$\$\$\$\$	1. \$\$\$
2. Data Quality	2. \$	2. \$\$	2. \$\$
3. Work off line capability	3. \$	3. \$\$\$\$\$	3. \$\$\$\$\$
4. Change Management	4. \$	4. \$\$\$\$\$	4. \$\$
5. Connectivity	5. \$	5. \$\$\$	5. \$\$\$
6. Language Capability	6. \$	6. \$\$\$	6. \$\$\$
7. Sustainment	7. \$\$	7. \$\$\$	7. \$\$\$
8. Viewed as Beneficial	8. R	8. RR	8. RR
9. Company Stability	9. R	9. RRRR	9. RRRR
10. Server Vulnerability	10. R	10. RRRR	10. RRRR
Cost Comparison (sum)	8-\$	24-\$	20-\$
Risk Comparison (sum)	3-R	10-R	10-R

WEBmanage is the lower cost and lower risk solution because it already has the end state capability.

Figure 3-24. WebManage versus CoreIMS for logistics management information system (continued)

Campaign plan approach emphasizes synchronization of independent work for each of the subordinate commands to ISAF; ISAF lacked a master campaign plan identifying the responsibility for each subordinate command, the dependencies of the work across subordinate commands, assumptions in these dependencies, and mapping to overall objectives and methods for measuring performance. An integrated master schedule accomplishes these efforts, but one was not part of any campaign plan.

LOO #3: National Logistics.

End State: By transition the MoD, AT&L and GSG4 must be able to generate policy, define requirements, manage strategic level logistic nodes and enforce compliance with national directives. To accomplish this, they must have the fundamental management ability to forecast requirements, effectively procure all classes of supply, distribute those supplies to adequate storage depots throughout the theater of operations and, at the same time, maintain asset visibility and accountability in order to support and sustain independent stability operations as assigned by GIRoA.

Lines of Development

- 3.1. Assume command and control of the national logistics function
- 3.2. Develop and implement a national material management capability
- 3.3. Accelerate transition of acquisition responsibility for all classes of supply from NTM-A to ANA
- 3.4. Develop a comprehensive logistics budget (based on well-defined requirements) that can withstand parliamentary scrutiny

Figure 3-25. National logistics line of operation (Goodman, 22)

Figure 3-25, extracted from the MMDP, is an effective description of the objective for the Afghan MoD/GS organization for logistics. The specifics for how to achieve this are in the individual Ministerial Development Plans for Acquisition and National Logistics but those plans provide more detail on the objectives, not specific details on how to achieve the objectives by the MoD/GS advisors. The approach lacks a baseline document providing the integrated work for all commands to meet objectives of ISAF mission. The emphasis on synchronization of independent activities implies coordination is required but that does not equate to integration.

The specific MDPs describe the lines of operation but focus on the specific office of the MoD/GS, not the function of the MoD/GS. Functions cross organizational boundaries and therefore organizational responsibilities.

Figure 3-26 depicts the capability milestone rating description. The rating starts at

CM-4 reflecting that the Coalition is leading the capability with the Afghan organization observing or participating on a much smaller scale. CM-1A reflects the Afghans have assumed responsibility and the Coalition is largely observing. The stars next to CM-2A, CM-1B, and CM-1A reflect the leadership level that must approve the transition of capability from each of these levels. This approach is very methodical and balanced to ensure that advisors are not increasing the rating to reflect accomplishment prior to redeploying.

Although the approach is sound, rigor is lost with continuous turnover of advisors and leadership resulting in a lapse in staying current in requirements within campaign plans. Centralized planning and monitoring would retain a knowledgeable workforce for evaluating capability milestone to ensure accurate assessments throughout mission.

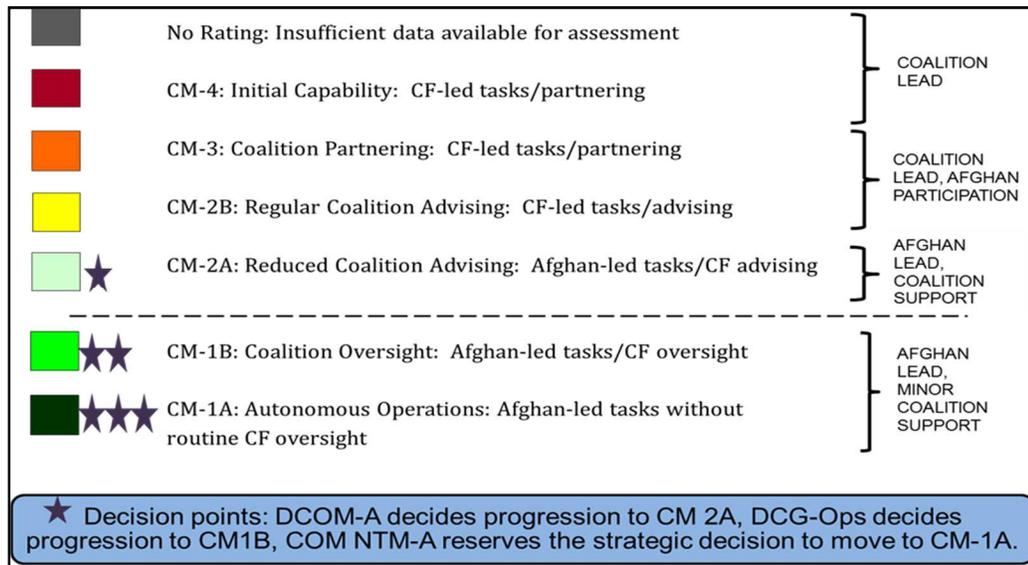


Figure 3-26. Capability milestone rating chart with explanation and color (Goodman, 27)

Section 3.4 Shortfalls in Campaign Planning for defense institutional building

Although at the strategic level of campaign planning, a system of systems analysis (PMESII) acknowledges the need for merging the systems of operational environment into a common picture, the campaign planning process lacks a means for accomplishing this critical piece. The framework for system thinking resides within campaign planning doctrine but the doctrine falls short of providing guidance on how to apply an integrated approach. The doctrine acknowledges the inputs of other organizations, such as DoS and USAID, through their country plans and integrated country strategy; however, these planning products still rely on synchronization of effort and not integration.

This paper discusses the difference between integration and synchronization using the Boeing 777 development program as an example of software for integration of design. The aircraft program would not have been a success if the strategy merely synchronized the work across all functional areas of the aircraft. Each sub-system would view their area (local efficiency and priority) as most important with little desire to compromise for success of the full program (global efficiency and priority). Campaign planning emphasizes battle rhythm of meetings to synchronize activities; however, integration involves more than timing of independent activities.

Although Joint Planning 3-0 and 5-0 documents acknowledge multiple lines of operations and lines of efforts are initiated together, this linear approach reflects synchronization and not integration. An integrated management plan would provide this means, linking all work across defense institutional building and the larger nation building effort for a nation. A common picture for measuring performance and understanding how changes will affect other aspects of the plan is created. The integrated

management plan is a centralized component of planning with the execution occurring de-centralized. With the detail of an integrated management plan, high turnover in execution becomes manageable with maintaining corporate knowledge through the plan. Standard network scheduling tools of project management integrate the work.

In addition, campaign planning depicts a linear strategic approach identified through lines of operation and lines of effort. In the MMDP, the concept of lines of development recognizes that vertical and horizontal lines exist creating an integrated approach; however, the plan does not intend to provide the detail for actual work and integration of work. The individual MDPs were developed for specific functional areas and did not cover efforts or tasks which cross functional areas. The lack of an integrated means of merging tasks across system of systems and within functional areas is missing in the current approach utilizing the method of operational planning through campaign planning.

Further compounding the problem, each command had its own campaign plan, which flowed from strategic to operational to tactical but did not cross-functional areas or initiatives. The result created stovepipes independently planning and executing within their chain of command. Ultimately, the chain of command flow up to the heads for each command, which then reports to the four-star commander of ISAF. A hierarchical structure does not support complex efforts that require multiple dimensions of work and initiatives.

Although campaign planning recognizes the system of systems analysis, it does not recognize further attributes of system performance. *In complex systems, the elements relate in open non-linear ways and this enables the system to evolve, so that it can find*

new ways to pursue goals and reach its objectives, despite obstacles, stressors, and constraints (Williams, 205). In systems modeling, the emphasis is not on controlling but on influencing. Complexity science also recognizes the ability of a system to self-organize or adapt.

International peacebuilding missions to date have made the mistake of interfering so much that they end up undermining the ability of the local system to self-organize (Williams, 206). External peace builders attempt to develop the nation in its own image instead of allowing the nation to develop in accordance with its own history, culture, and context.

The key to successful statebuilding and peacebuilding lies in finding the appropriate balance between external security guarantees and resources, on the one hand, and the degree to which local system has the freedom to develop its own self-organization, on the other (Williams, 206).

Campaign planning does not emphasize this critical point that development of the nation can not be externally planned and executed but accomplished with the nation. The approach for Iraq and Afghanistan largely planned outside of interaction with the nation through establishing the equipment, training, and processes and then transitioning these to the ministries.

Figure 3-27 depicts the linear and nonlinear perspective for combat operations; again, the doctrine lacks the application to stability operations. The combinations of areas of operation and linear/nonlinear operations relate to the proximity and symmetry of the forces. *Nonlinear operations typically focus on creating specific effects on multiple decisive points...the potential for fratricide increases due to the fluid nature of the nonlinear operational area and the changing disposition of attacking and defending*

forces (JP 3-0, V-17).

With most comparisons between linear and nonlinear, nonlinear situations create more difficulty in planning and executing whether combat operations or nation-building cross-functional initiatives. Uncertainty increases in nonlinear situations with respect to specific results based on certain actions. Project management recognizes these uncertainties and uses tools such as risk management to manage.

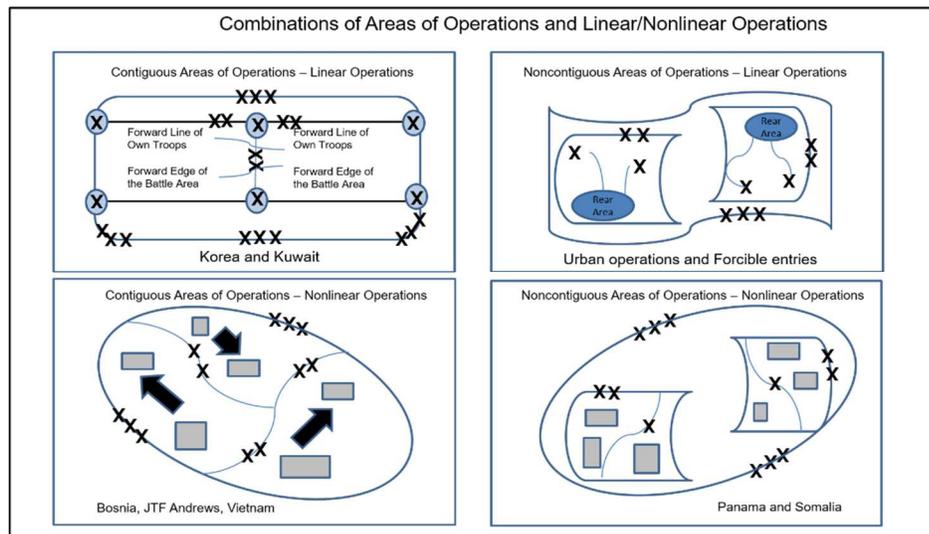


Figure 3-27. Combinations of areas of operations and linear/nonlinear operations

Military planning acknowledges multi-order effects but lacks complexity of stability operations application (JP3-0, V-23).

National Security Presidential Directive (NSPD)-44 assigns US State Department the responsibility to plan and coordinate US government efforts in stabilization and reconstruction. Secretary of State is responsible to coordinate with Secretary of Defense to ensure harmonization with planned and ongoing operations. Military support to stability, security, transition, and reconstruction (SSTR) within the Joint Operation Areas (JOA) are the responsibility of the Joint Force Command (JFC). (JP 3-0, V-23).

Nation-building complexity challenges the DoS to plan and execute stability operations under conflict environment. DoD doctrine recognizes the appropriate advancements in complexity science: system of systems, linear versus nonlinear, network

theory, etc; however, lacks means to apply these methodologies to defense insititutional building and nation-building. The defense acquisition model utilizes project management, integration through scheduling, and risk management process which can be tailored for stability operations, defense institutional building, and nation-building. Current acquisition process needs to apply advanced project management techniques for managing complexity of mega-programs.

USF-I objectives for building partner capacity were nebulous resulting in ill-defined measures for meeting objectives. The transition of responsibility from DoS to DoD was not based on what needed to be accomplished but what DoS could assume responsibility. In defense acquisition model, performance parameters have threshold and objective values. Threshold achieved to meet operational capability; objective is the desired value. In the upfront planning, stability operations should define the difference between threshold and objective requirements tied to means of measurement, a standard practice in defense acquisition model.

Section 3.5 De-centralization in campaign planning

Section 3.5.1 U.S. Organization Structure in Iraq

Prior to January 2003, the Defense Department and State Department were simultaneously planning postwar efforts for Iraq. In January 2003, fourteen months after planning for combat operations and two months before the start of the Iraq war, the National Security Presidential Directive (NSPD) 24 consolidated responsibility for postwar Iraq in DoD in the Office of Reconstruction and Humanitarian Assistance (ORHA) (Brennan, 22). Secretary of Defense Rumsfeld selected retired Army LTG Jay Garner to lead ORHA.

General Garner was the Deputy Commander of Operation Provide Comfort, the humanitarian and reconstruction efforts for Northern Iraq following the first Persian Gulf War. His approach was to use an interagency team comprised of representatives from Departments of Agriculture, Commerce, State, and Treasury; USAID; and other agencies with authority to report directly to the Secretary of Defense. The assumption for planning was that the combat mission would remove Saddam Hussein and his loyalists leaving the infrastructure of the Government and the country would continue to function with limited disruption from combat damage (Brennan, 23).

In April 2003, one month after the start of the Iraq War, ORHA staff started to deploy to Kuwait establishing advisory teams for each ministry. On May 1, 2003, President Bush announced on the deck of the USS Abraham, mission accomplished with the completion of major combat operations. ORHA would be short-lived with the realization that postwar efforts in Iraq would be longer and more aggressive than planned. The Coalition Provisional Authority (CPA) replaced ORHA and former Ambassador (AMB) L. Paul

Bremer became head of CPA arriving in Baghdad in mid-May 2003. The Combined Joint Task Force (CJTF-7) was the military authority and jointly with CPA took over security, economic development, and governance functions. Special Investigator General Iraq Reconstruction (SIGIR) noted:

ORHA was designed as a short-term holding mechanism, to be followed by a rapid shift to an interim Iraqi authority...But the deteriorating situation in Iraq apparently had caused the White House to change plans... [the CPA] rapidly and massively expanded, far eclipsing the minimalist liberation vision that had set planning for war in motion a year and a half before (Brennan, 25).

Although both AMB Bremer and CJTF-7 commander LTG Sanchez reported to Secretary Rumsfeld, they did through different chains of command inhibiting interaction between the two groups. Joint Task Force (JTF) operate under the combatant command for that specific region. LTG Sanchez identified his mission as defeating internal armed threats, disarming the militia, and locating the caches of weapons of mass destruction that intelligence agents believed remained (Brennan, 27). On May 23, 2003, AMB Bremer signed CPA Order 2 dissolving the Ministry of Defense (MoD) and announcing the Coalition would develop a New Iraqi Army. The Ministry of Interior with the Iraqi police remained.

This decision would set in motion a Sunni insurgency and greatly impede the ability to develop the Iraqi Army from a fresh start. *From the moment forward, the United States would not only have the responsibility to train and equip the New Iraqi Army but would also assume responsibility for the Iraq security against both internal and external threats until that new military was sufficiently trained, organized, and equipped (Brennan, 28).*

In June 2003, MG Paul Eaton would take command of CPA's newly established Coalition Military Assistance Training Team (CMATT).

In January 2004, Secretary Rumsfeld would send MG Karl Eikenberry to Iraq for an assessment. Based on recommendations from MG Eikenberry, Secretary Rumsfeld transferred CMATT responsibility from CPA to CJTF-7 to align military training with the military role. Although CMATT did ramp up the training effort, *operational demonstrations of the capabilities of trained recruits left many observers concerned that quality was being sacrificed in the name of quantity and expediency* (Brennan, 29).

On May 11, 2004, President Bush issued NSPD 36 that established DoS through the Chief of Mission to lead all activities except military operations and the development of the Iraqi Security Force (ISF) following the transfer of sovereignty to the Iraqis. The DoD through the Multi-National Force-Iraq (MNF-I) would assume this responsibility.

A new DoS controlled organization, the Iraqi Reconstruction Management Office (IRMO), led by AMB William B. Taylor would support the reconstruction programs. The office also assumed the responsibilities of advising the Iraqi ministries using the senior advisors from the CPA. With the transition of U.S. organizational control also came new leadership: GEN George Casey replaced LTG Sanchez and AMB John Negroponte replaced AMB Bremer.

AMB Bremer's demobilizing the military resulted in nearly half a million soldiers who had not already deserted returning home and taking their weapons with them. The bombings had left the country's utilities devastated for water, sewage, and electricity; food was also scarce. The decision to demobilize the Iraqi military created more instability in the country than less with the death toll climbing steadily over the next four years until the implementation of the surge.

The program to pay Sunnis and other Iraqis to provide security functions attributed to

reduction of violence. This program was started in 2006 in al-Anbar province called Anbar Awakening or Sunni Awakening. The Sunnis who participated were the Sons of Iraq (SOI) and paid \$10 a day to provide security for checkpoints and key infrastructure sites (Brennan, 56).

The combination of the use of SOI, U.S. troop surge, death of insurgent leader Abu Musab al-Zarqawi, and the new U.S. counterinsurgency (COIN) approach in 2007 significantly reduced the violence. Even the Special Inspector General for Iraq Reconstruction (SIGIR) recognized the benefits of the Sunni Awakening and the use of SOI when he wrote:

the SOI provided intelligence on the location of insurgent groups and weapons caches, acted as a force multiplier by freeing U.S. and Iraqi forces to perform other operations; denied insurgent groups a recruitment pool; in some cases, began to cooperate with the Iraqi Security Forces (Brennan, 57).

In September 2007, General Petraeus in testimony on the progress in Iraq stated, *the most significant development in the past six months...the increasing emergence of tribes and local citizens rejecting al-Qaeda and other extremists (Brennan, 57).* In the latter part of 2007, the number of al-Qaeda fighters had fallen 70 percent from 12,000 to 3,500 (Brennan, 57).

The Strategic Framework Agreement (SFA) and the associated Security Agreement (SA) took a year to draft was signed on November 17, 2008 by U.S. AMB Ryan Crocker and Iraqi Foreign Minister Hoshyar Zebari.

The terms of the documents included (1) set the stage for the final transition of the U.S. military out of Iraq through establishing a framework for a long-term strategic relationship between U.S. and Iraq and (2) create the legal framework governing U.S.

military operations in Iraq through the end of 2011. The Security Agreement specified troop limits to U.S. military operations in Iraq and provided limited Iraqi jurisdiction over U.S. troops who committed serious crimes while off duty and off a U.S. military installation.

It constrained the use of unilateral U.S. military power by stipulating that operations must be coordinated by means of a joint U.S.-Iraqi military committee. It limited Iraqi leverage over U.S. government personnel by providing for substantial immunities for U.S. military and civilian personnel, but not contractors.

The agreement outlined a phased process leading to complete withdrawal of troops by December 31, 2011. Control of 18 provinces to transition to Iraq by January 1, 2009, which included Baghdad's International Zone. U.S. troops would cease patrolling Iraqi cities by June 30, 2009. The Security Agreement explicitly stated that all U.S. troops be required to leave by end of 2011, no permanent U.S. military bases were permitted to remain (Brennan, 62-63).

These last two points gained counter opinions from those in MoD leadership in 2010-2011 when recognized not prepared to assume all military responsibility. As the U.S. negotiated the sale of F-16 aircraft, some within the MoD leadership felt that the continuation of U.S. air power would be better for the country. The funds for the F-16s were better spent in rebuilding Iraq's infrastructure and stimulate economic growth. The U.S. would broach a deal with Iraq to purchase eighteen F-16 aircraft (Iraq Signs \$830 million deal, UPI, May 3, 2013). These agreements were time-based not event-based for transitioning responsibility from the Coalition to the Iraqi government. No comprehensive metrics existed for measuring performance to support an event-based

transition.

Figure 3-28 summarizes the Strategic Framework Agreement and Security Agreement.



Figure 3-28. Establish enduring strategic partnerships

In 2007, the Special Inspector General for Iraq Reconstruction (SIGAR) provided a report on *Lessons in Program and Project Management* with recommendations for DoD, DoS, and USAID construction efforts. Table 3-E provides these recommendations. The report and recommendations cite confusion in roles and responsibilities of the various organizations. The report recommendations using the policies and standards of the host nation versus those of the U.S. In addition, a strategy and plan for transition of projects to the host at completion or during a transition phase provides commitment by the host nation.

Recommendation	Description
1. The Congress should consider a “Goldwater Nichols”-like reform measure to promote better integration among DoD, USAID, and DoS, particularly with respect to post-conflict contingency operations.	As a result of the Goldwater-Nichols Act, U.S. forces had an increased environment for cooperation and integration. New legislation to advance further cooperation beyond the limited efforts that have been developed across the three organizations.
2. The Congress should adequately fund the Department of State’s Office of the Coordinator for Reconstruction and Stabilization (S/CRS).	S/CRS was created by the President as a means of coordination across Departments with a post-conflict implementation plan in October 2006. The lack of funding and weak recognition of S/CRS by other agencies has marginalized plan implementation.
3. The U.S. government should clarify the authorities of the multiple agencies involved in post-conflict operations to avoid ambiguity over who is in charge.	Developing adhoc offices in theater such as Project Management Office (PMO) and Iraq Reconstruction Management Office (IRMO) did not have appropriate staff, procedures, systems, or institutional strength to direct effectively the complex interagency rebuilding effort.
4. Existing agencies should institutionalize the most effective project management systems, procedures, policies, and initiatives developed during Iraq reconstruction effort.	New procedures and practices were established within Iraq; those that were beneficial should be institutionalized.
5. Program managers should integrate local populations and practices at every level of the planning and execution process.	U.S. should involve a broad spectrum of individuals familiar with affected nation (from policy makers to contractor to international experts). Local practices and customs, local contractors and vendors, and local and regional quality standards should be applied not U.S. methods and standards.
6. Funding designated for post-conflict contingency programs should support flexible programs and projects that yield both short- and long-term benefits.	Multi-year funding program profile versus unscheduled supplemental appropriations.
7. Develop policies and procedures to manage non-U.S. appropriated funds.	Develop standardized policies for managing non-U.S. funds. The lack of this created allegations of waste, fraud, and abuse with jurisdictional questions arising.
8. Develop comprehensive planning for capacity development.	Congress should require agencies to present a capacity-development strategy that will enable the effective transfer of operational responsibility for reconstructions projects to the host country.
9. Future post-conflict contingency planning should provide for well-resourced and uninterrupted oversight of relief and reconstruction programs to ensure effective monitoring from the outset and permit real-time adjustments.	Congress should take steps to standardize oversight and provide clear guidance on any reporting requirements for operations that involve multiple agencies, funding streams, and management systems.

Table 3-E. Recommendations of SIGAR (SIGAR, March 2007, 14-19)

Some recommendations such as considering a Goldwater Nichols like reform are common theme across many studies and reports. The result is better integration for all organizations' efforts; current execution focused on synchronization of efforts and not integration.

The Office of Security Cooperation-Iraq (OSC-I) was established in 2011 under Chief of Mission authority (DoS) operating out of the U.S. Embassy. *Congress granted the OSC-I authority to conduct training and advising activities in Iraq that other DoD elements, like US Central Command, would have normally performed in a country where the U.S. Government maintained a defense cooperation presence* (DoDIG-2013-136, 6).

The National Defense Authorization Act (NDAA) Fiscal Year 2013 signed in January 2013 allowed the OSC-I to

...conduct non-operational training activities...in an institutional environment to address capability gaps, integrate processes relating to intelligence, air sovereignty, combined arms, logistics and maintenance, and to manage and integrate defense-related institutions (DoDIG-2013-136, 6).

Since these activities are normally the responsibility of DoD, DoS was not capable in performing these defense activities. DoDIG-2013-136 report found

- *that DoS and DoD disagreed on the OSC-I mission;*
- *the process used to direct OSC-I personnel reductions did not fully consider its mission priorities;*
- *the OSC-I was not fully integrated into the U.S. Mission, to include insufficient standard operating procedures;*
- *the OSC-I did not have sufficiently trained personnel, nor the required capability to transition sites back to the Government of Iraq; and*
- *joint doctrine insufficiently supported the post-contingency inter-departmental transition of responsibilities that was occurring in Iraq* (DoDIG-2013-136).

Transition of responsibility from DoD to DoS as the OSC-I mission was not adequate.

DoS did not have the personnel capable for continuing to transition responsibility to Government of Iraq, leaving the country vulnerable during this period. This transition period is critical for the success of the assisted nation and requires consistent U.S. Government oversight until the nation is fully capable of its security and stability.

Section 3.5.2 Organization Structure in Afghanistan

Between 2012 and 2014, the International Security Assistance Force (ISAF) re-organized four times. The ISAF Joint Command (IJC) was led by a one or two-star General Officer. Figure 3-29 reflects the Ministry of Defense (MoD) - Ministerial Advisory Group (MAG) as embedded in Deputy Commander- Army (DCOM-A) within North Atlantic Treaty Organization (NATO) Training Mission – Afghanistan (NTM-A). This marginalized the ministerial advisory mission focusing on training and equipping the military than developing capability for the MoD.

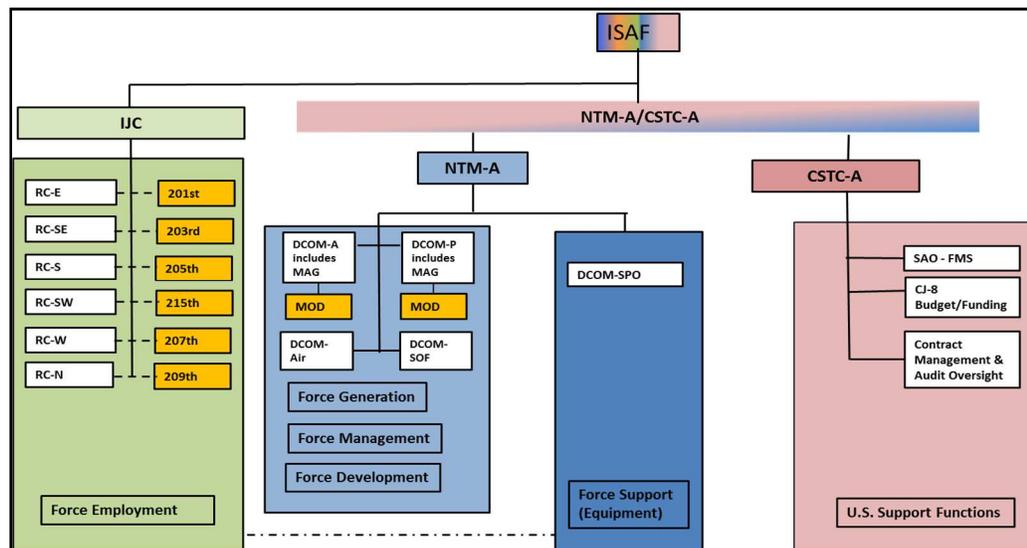


Figure 3-29. ISAF organization prior to October 2012

IJC largely interacted with the operational and tactical levels at the Corp Headquarters and outlying bases. IJC was responsible for force employment and training for the Afghan National Army (ANA) for the combat mission. NTM-A was responsible for force generation, force management, and force development. DCOM-A was responsible for force generation to include equip and institutional development function for the force. Table 3-F depicts the description for different military force functions. The MAG is the link with the strategic component of the ANA, the MoD, through the advisory function

for force management and force development. Deputy Commander-Support (DCOM-SPO) was responsible for force support through developing the support infrastructure for the ANA, largely logistics support.

Force	Description
Management	Activities and processes related to planning, directing, monitoring and coordinating Force Development, Force Generation, Force Support and Force Employment activities.
Development	Integrated and interdependent activities and processes that identify necessary changes to existing capability and articulate new capability requirements. Force development comprises capability based planning, capability management and capability production allowing integration into the Force Support, Force Employment, and Force Generation.
Employment	Activities and processes related to the command, control, and overall employment of military field forces in operational roles.
Generation	Activities and processes related to recruiting new military personnel, assembling, equipping, training, certifying and generally preparing military field and garrison forces, and activities required to maintain military forces in a defined state of readiness for Force Employment.
Support	Activities and processes related to the broad support and/or overall sustainment of military field forces, both deployed and in-garrison, including maintenance and repair of equipment, the movement and control of operational materiel, and administrative and logistic support of personnel and infrastructure that directly and primarily enables field force operations (in contrast to Force Management functions focused on indirect support).

Table 3-F. Types of military force

Combined Security Transition Command-Afghanistan (CSTC-A) is the U.S. Command responsible for defense business operations such as U.S. Contract Management and Audit Office (CMAO), Security Assistance Office (SAO), and Finance Office.

With MAG advisors absorbed into the force generation role, there was little focus on force management and force development. For example, the senior advisor to the Assistant Minister of Defense (Acquisition, Technology, & Logistics)'s focus was on

supporting the transfer of equipment purchased through CSTC-A's SAO to the ANA, not establishing the business processes and leadership development for MoD.

DCOM-A was responsible for determining what equipment and how much to be purchased. The CSTC-A SAO then purchased it. The senior advisor facilitated the transfer for DCOM-A. DCOM-SPO was responsible for inducting the equipment into the inventory system that initially was under the Coalition responsibility and then transitioned to the ANA. All aspects of transition were schedule driven and not event driven.

The schedule driven emphasis is based on the change in DoD mission from combined combat/equip, advise, and train (Operation Enduring Freedom) to train and advise (Resolute Support Mission (RSM)) to DoS (post-RSM). This same situation existed in Iraq with the change in DoD mission from combined combat/equip, advise, and train (Operation Iraqi Freedom) to advise and train (Operation New Dawn) to DoS (OSC-I).

The Deputy Commander for NTM-A Operations realized the lack of emphasis on ministerial advising in October 2012 and divided DCOM-A into two offices (figure 3-30): one for train and equip and the other for ministerial advising. The Chief of Advisors was responsible for supervision over the advisory mission and revised the MMDP to reflect the change in organizational structure and provide direction for Ministerial work through RSM.

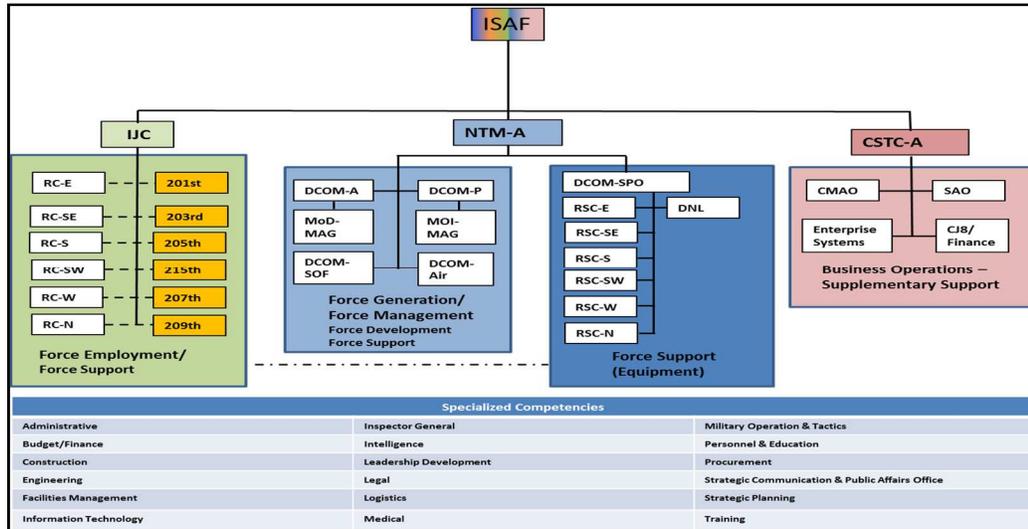


Figure 3-30. ISAF organization between October 2012 and July 2013

In figure 3-31, the MoD-MAG was re-aligned with CSTC-A under a combined MAG/CSTC-A organization led by a two-star General Officer. IJC and NTM-A were combined re-aligning DCOM-Support under this command.

The challenge for supported JFCs is to integrate and synchronize the wide range of capabilities at their disposal into joint operations. The synergy achieved by integrating and synchronizing the actions of conventional and special operations forces and capabilities in joint operations and in multiple domains enables JFCs to maximize available capabilities and minimize potential seams or vulnerabilities (MS&L, IV-19).

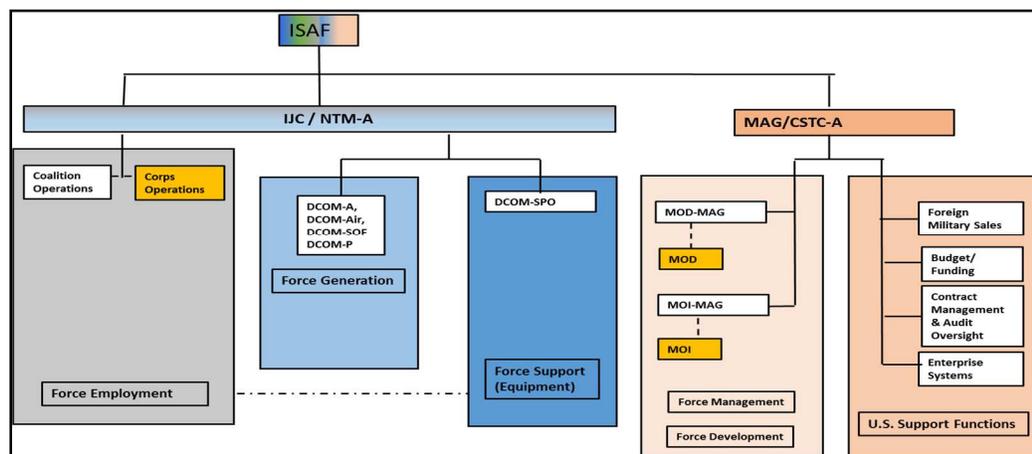


Figure 3-31. ISAF organization between July 2013 and July 2014

Figure 3-32 depicts the Afghan MoD organizational structure and alignment with

IJC military personnel were responsible for advising the Regional Contracting Centers at the Corp headquarters. Support contractors were hired by CSTC-A to assist the IJC military personnel with advising the Regional Contracting Centers. Advising at the strategic level was accomplished by the MoD-MAG under NTM-A.

Each command (IJC, NTM-A, and CSTC-A) operated independently; therefore, a means for implementing cross-command changes in processes or training did not exist for Coalition. Collection of data occurred independently by each command and within IJC by each regional command. No higher level focal point existed having means to cross commands; de-centralized data collection creates different criteria, different databases, and different data sets. MoD leadership owned entire processes from strategic-to-operational-to-tactical and therefore Afghan data collection occurred centralized. ISAF headquarters focus was on Coalition operations. This problem consisted across all processes: contracting, logistics, budgeting, or training.

Section 3.5.3 Base Service Transition

The U.S. managed Afghan base services contracted through the Joint Task Force Contracting Command – Afghanistan (JTFCC-A). As military bases transferred from Coalition responsibility to Afghan responsibility, the responsibility for providing services would also transfer. This effort includes multiple aspects: development of Afghan procurement capability and capacity, determination of organic or contracted services, determination of measure of performance for transition, and evaluation of implementation of solution. In other words, the discontinuance of a contract by the U.S. and transfer of funding to the Afghan MoD, does not measure success. The capability and capacity of the Afghan MoD needs assessed prior to transfer of funding and responsibility; this was not accomplished.

The Coalition effort crossed multiple Coalition commands without a broad, cross-command approach for planning and execution. CSTC-A was responsible for tracking the transition of contracts and the contract for advisory support contractors within the regions. IJC was responsible for military advisors to Regional Contracting Centers. The base services were under several Afghan end users but primarily Logistics-GSG4/G4 and Construction & Property Management Department (CPMD). Facility engineers were under CPMD. The Director for CPMD recommended organic capability for some services such as trash removal and black-water removal and recommended procurement of equipment versus services. The Coalition did not plan this approach for transition and therefore training for CPMD leadership on cost-benefit analysis comparing multiple options was not accomplished.

The Afghan training command in Kabul neglected to put a contract in place for

laundry services, before the Coalition contract had completed. In the absence of these services being provided or washer and dryer machines being purchased, the gap grew for months causing a lice infestation. Lack of centralized planning and monitoring created high-risk situations in execution. The recommendation by an advisor at the Acquisition Agency, an Air Force major, to have the Minister of Defense grant Delegation of Authority for contracting approval to the Corp Commander of lower cost contracts (5 million Afs = \$86,000) was instrumental risk mitigation which averted serious consequences in gaps of base services within the regions. This one individual's insight saved significant political consequences for the U.S. The Senior Advisor to the Minister of Defense understood the significance and championed the effort convincing the Minister. Single acts can have exceptional results in defense institutional building.

Figure 3-33 illustrates a populated template for the roll-up of service contracts for transfer from U.S. responsibility to the Afghan MoD. Figure 3-34 illustrates one page of a populated spreadsheet. This chart was created by senior advisor for the AMoD AT&L and populated by a program analyst, Air Force major, in CSTC-A. The program analyst compiled three different databases into one, producing a pivot table, which allowed her to maintain the original data and develop a table for any one view.

The templates were translated into Dari such that the advisors to the Regional Contracting Centers could mutually manage the work transition. The template was simplified to be more user friendly for the Afghan MoD. The success of translating billions of dollars of services and construction contracts into something the Afghan MoD could understand resulted from collaboration of a few people between MoD-MAG and CSTC-A and not through a well-thought out plan that had been in-place prior to

November 2012.

However, with the change in manpower at CSTC-A, the incoming personnel chose not to use the templates and therefore the advisors at Regional Corps discontinued providing status.

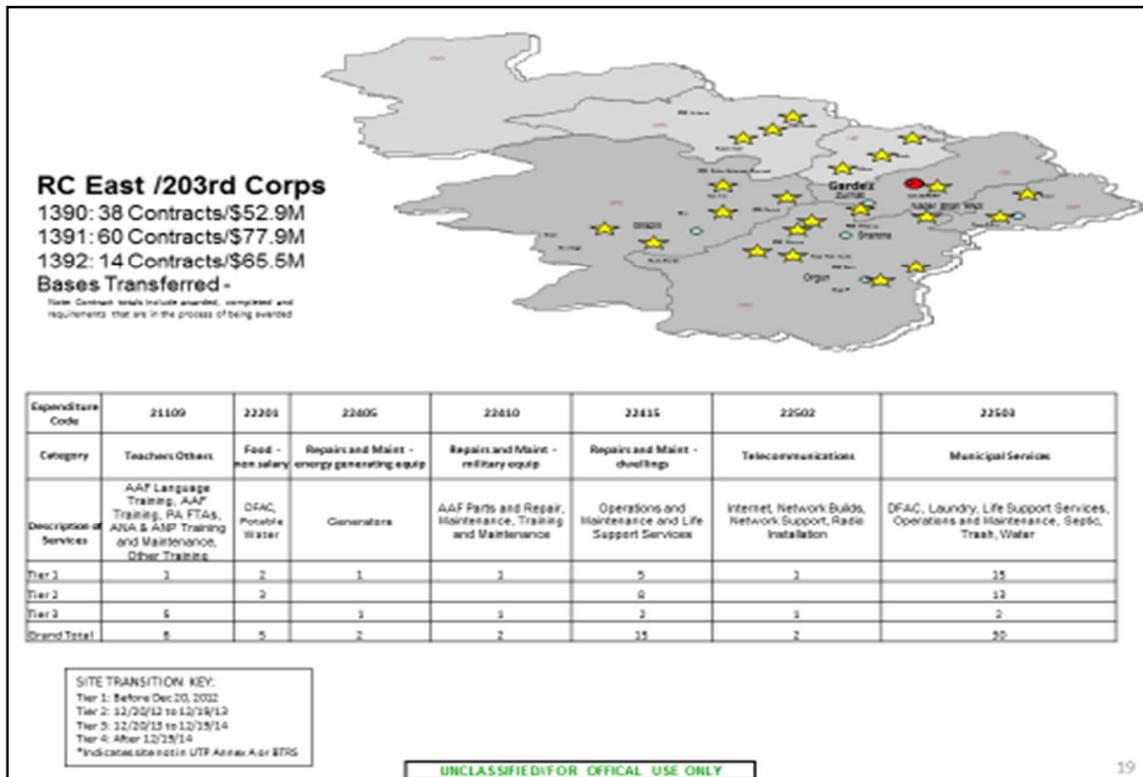


Figure 3-33. Base transfer template for 203rd Corp

203rd Corps – Tier 1 (1 of 2)

Status	OWNER	Contract Number	Mapped Site	Description	Afghan Expenditure Category	Contract Need Date	State of Transition & Estimated Completion Date
Oy	RSC East	W90YVD-12-P-0094	2 AERHABAL COP	Water Delivery/Water Removal/Port-a-Johns & Service	22502 - Municipal Services		
	RSC East	W90U42-12-P-0003	ANDAR (COPI)	Generator Maintenance/Septic Truck	22502 - Municipal Services		
Gy	RSC East	W90U42-12-P-0022	ANDAR (COPI)	Black Water Removal, Water Delivery & Porta Johns/ICE And/or/Andis/Grains	22502 - Municipal Services	12/26/2012	Est Rqmt Expires: Dec12
Gy	RSC East	W90U42-12-P-0143	ANDAR COP	OSM POC Andis	22415 - Repairs and Maint - dwrlings	12/24/2012	Est Rqmt Expires: Dec12
Oy	RSC East	W9104N-12-P-0040	ASR OP FOX TROT BRAUO	Septic Water Removal	22502 - Municipal Services	3/14/2012	Est Rqmt Expires: Mar12
	RSC East	W90YVD-12-P-0028	CONLON (COP)	Black/Gray Water Removal Service & Bulk Water Delivery	22502 - Municipal Services	3/21/2012	
Oy	RSC East	W90YVD-12-P-3008	CONLON COP	Site Manager, Black Water Removal Service, Bulk Water Delivery, trash removal service	22502 - Municipal Services	7/16/2011	Est Rqmt Expires: Feb12
	RSC East	W90YVD-12-P-0020	SARDA	Non Potable Bulk Water and Black/Gray Water Removal	22502 - Municipal Services	3/21/2012	
Oy	RSC East	W90YVD-12-P-3008	SARDA	Site Manager, Black Water Removal Service, Bulk Water Delivery, trash removal service	22502 - Municipal Services	3/28/2012	Est Rqmt Expires: Mar12
Oy	RSC East	W9104N-12-P-0130	GORBUZ (OC)	Latrine	22502 - Municipal Services	4/20/2012	Est Rqmt Expires: Mar12
Gy	RSC East	W9104N-12-P-3079	MUSANABAF COP	OSM Services for Alamy S. Hesserbar	22415 - Repairs and Maint - dwrlings	2/26/2012	Est Rqmt Expires: Feb12
Gy	RSC East	W90YVD-12-P-0030	ASHATO COP	Bulk Water Delivery	22301 - Food - non-fuels	3/21/2012	Est Rqmt Expires: Jan12
Oy	RSC East	W90YVD-12-P-0036	ASHATO COP	Porta-Johns	22502 - Municipal Services	3/21/2012	Est Rqmt Expires: Mar12
				Chemical Latrines with Cleaning/Reupply and Septic Trucks, 50-Common Latrine/Showers/Sink with Cleaning/Maintenance/Black and Gray Water Removal, Generator Maintenance and Service, Potable Water Supply and Delivery, Out Post Potable Water Supply and Delivery, Provide and Deliver Chlorinated Non- Potable Water, Trash Removal (Jangal COP 46)	22415 - Repairs and Maint - dwrlings	5/21/2012	Est Rqmt Expires: May12
Oy				Chemical Latrines with Cleaning/Reupply and Septic Trucks, 50-Common Latrine/Showers/Sink with Cleaning/Maintenance/Black and Gray Water Removal, Generator Maintenance and Service, Potable Water Supply and Delivery, Out Post Potable Water Supply and Delivery, Provide and Deliver Chlorinated Non- Potable Water, Trash Removal (Jangal COP 41)	22415 - Repairs and Maint - dwrlings	5/21/2012	Est Rqmt Expires: May12
	RSC East	W9104N-12-P-3008	Jangal (J13) COP	Chemical Latrines with Cleaning/Reupply and Septic Trucks, 50-Common Latrine/Showers/Sink with Cleaning/Maintenance/Black and Gray Water Removal, Generator Maintenance and Service, Potable Water Supply and Delivery, Out Post Potable Water Supply and Delivery, Provide and Deliver Chlorinated Non- Potable Water, Trash Removal (Jangal COP 41)	22415 - Repairs and Maint - dwrlings	5/21/2012	Est Rqmt Expires: May12
	DCOM Army	W900XG-07-C-0001#9232	LIGHTNING (POB)	Algerietan Route Clearance - Camp Lighting	21109 - Teachers Others	10/21/2012	

SITE TRANSITION KEY:
 Tier 1: Before Dec.20, 2012
 Tier 2: 12/20/12 to 12/31/12
 Tier 3: 12/20/13 to 12/31/14
 Tier 4: After 12/31/14
 *Indicates transition UTP Annex A or BTRG

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Figure 3-34. Base transfer template for 203rd Corp contracts status

The template included Coalition contract number, Coalition contract owner, description of the service, Afghan budget code for service, and contract need date. With adding status and providing a comparison of estimated and actual cost, historical data is available for future improvements in training. Although all Regional Contracting Centers had computers, these were stand-alone with none having internet connectivity. ANA personnel drove contract packages from the Regional Contracting Centers to the Acquisition Agency weekly for approval process. Only one Regional Contracting Center maintained an excel spreadsheet for tracking contracts, a paper ledger was typically used for all tracking purposes.

Although the U.S. advisors tracked contracts by contract number, the Afghan MoD, both central and regional, tracked by the number of line items in a contract. If multiple contracts had the same number of line items, then further description was added; for example, seven line items of fruits and vegetables or seven line items of cleaning

supplies. Descriptive tracking is typical for Afghan culture. Migrating to tracking by a number is a cultural change that is possible but needs planned and executed across the whole MoD in changing ingrained practices.

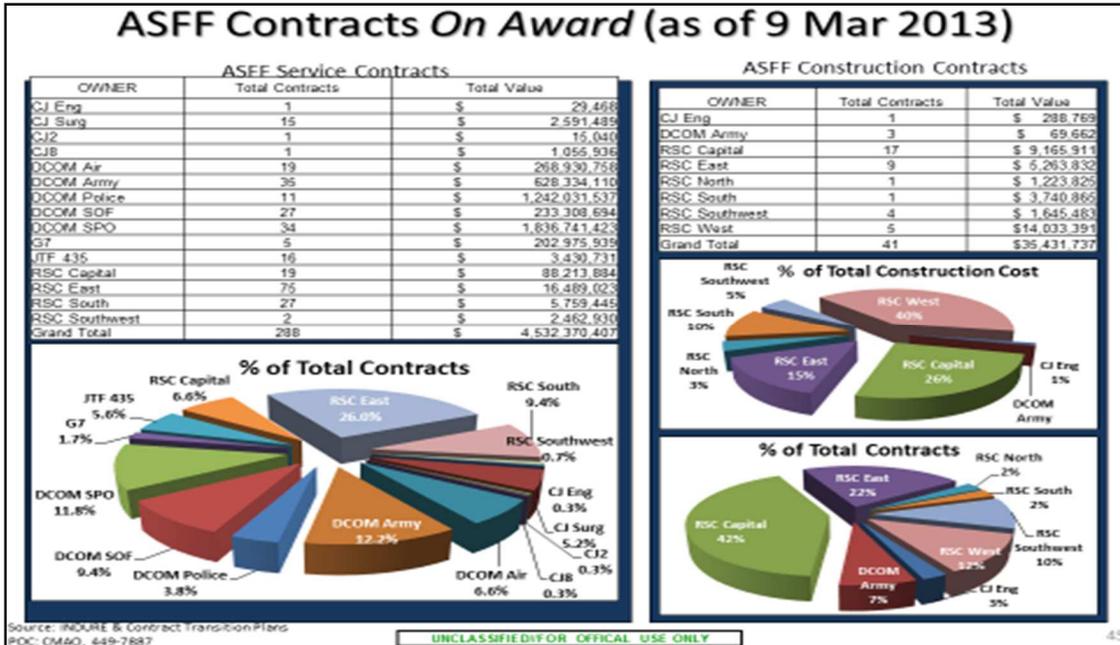


Figure 3-35. Afghan security force funding (ASFF) contracts to transition to ANSF

Figure 3-35 illustrates the breakdown of the various Coalition areas responsible for contracts; the chart reflects all Afghan National Security Force (ANSF), which includes both Afghan National Army (ANA) and Afghan National Police (ANP).

Figure 3-36 illustrates the severe drawdown and transition for Coalition contracts from October 2012 to April 2013. The senior advisor for AMoD AT&L arrived in Afghanistan in November 2012 and immediately started working with CMAO of CSTC-A to compile the merged database and populate the templates that were developed in January 2013. The service contracts for transition valued \$4.5 billion and construction contracts were \$35.4 million; the procurement organization previously purchased only goods such as food, firewood, cleaning supplies, for a value of \$433 million.

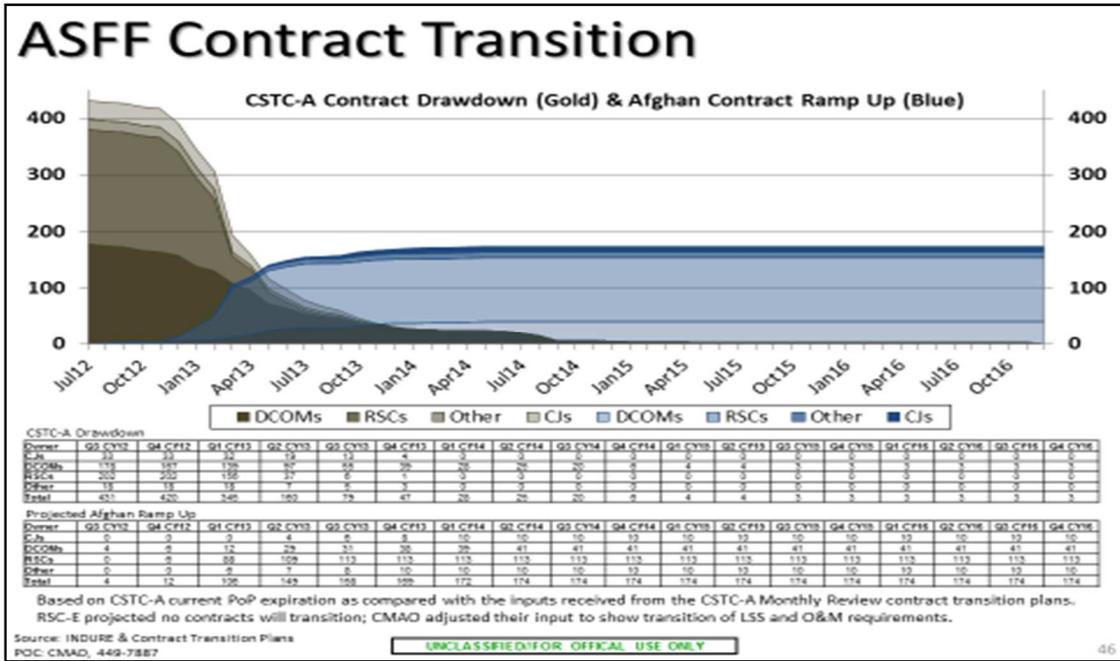


Figure 3-36. Afghan security force funding (ASFF) contract transition

Figure 3-37 depicts the shortage of ministry advisors for acquisition and logistics area. In December 2012, there were only ten ministerial advisors for acquisition and logistics with a total requirement of nineteen. Seven of the new requested positions were for acquisition and two for logistics. Over the next year, there were as few as five and as many as fifteen advisors with senior advisor for AMoD AT&L shifting newcomers to the acquisition agency whether acquisition or logistics background to cover the shortfall in acquisition advising. Shortfalls in ministerial advising will directly influence the capability of the assisted nation.

The Capability Milestone (CM) criteria correlate CM rating and number of advisors. The incorrect increase in CM rating in 2012 triggered a reduction in advisors at the most critical time for the transition of \$4.5 billion of service contracts. Although MAG leadership supported the increase in advisors, ISAF was not positioned to search across U.S. military and civilian workforce to identify and recruit people with the right skills to

achieve success. Combatant commands or task force do not have the capability, agility, or flexibility to accomplish.

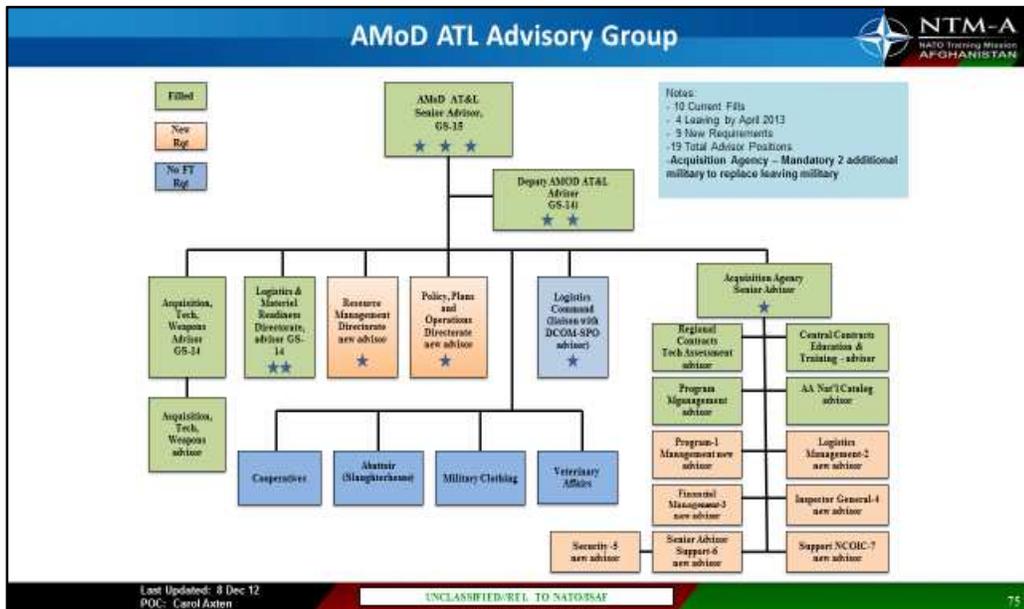


Figure 3-37. Assistant Minister of Defense (Acquisition, Technology & Logistics) (AMoD (ATL) advisor group organization chart

Although actions were taken by CSTC-A to contract for regional contracting advisors, the MAG in the strategic advisory role requires appropriate manpower to accomplish the mission. The new senior advisor for AMoD AT&L assessed in December 2012 and reduced CM rating two levels which justified additional advisors, but the U.S. combatant command’s process took a minimum of six months from generation of manpower requirement to advisor in country.

This timing is inadequate and means for rapid identification of requirement and fulfillment need to be a policy effort. In addition, the ability to extend effective personnel whether military or civilian needs accomplished. A centralized U.S. defense institutional building effort will produce upfront planning to anticipate better in-country advisory requirements.

There was little pre-planning on the actual method for providing the information to

the Afghan MoD: what information provided, evaluation methods, and feedback loop through transitioning period. The effort further compounded with different commands responsible for different pieces of contract transition. Further compounding the problem was the movement between commands in Kabul and between Kabul and other Regional Contracting Centers. Approval was required from the host U.S. regional command and General Officer level within one's command to travel. Even with approvals, trips took several weeks to plan and were frequently cancelled or postponed for security or weather problems.

All Corp Commanders had video-teleconferencing capability but reserved for senior leadership. The ability to use this capability for more interaction between the MoD headquarters and regional Corp headquarters would facilitate more communication. The methodology, templates, status and feedback is better accomplished with a centralized approach. This approach would ensure appropriate data collection and effective transition of contracts to organic or contracted services depending on most cost-effective method. With the lack of pre-planning, organic capability was very high risk, at least initially, for purchase of equipment, training, and ensuring counter-corruption implementation.

Base service transfer was an excellent situation for teaching the MoD on business case analysis and decisions between organic and contracted services. ISAF leadership's focus was on transition of responsibility and not maximizing the learning experience for the MoD. Within the U.S., the decision for organic capability is very political with Congress's role ensuring defense organic capability maintained through a Depot Caucus. Centralized planning ensures appropriate skilled advisors to train business case analysis for organic versus contracted.

This situation was also problematic in Iraq when the Iraqi army wanted organic maintenance and U.S. position was to continue with contracted services. There is significant benefit gained for institutional skilled training provided to military, attracting youth to service to learn a skill and then transition to industry. This approach can build an internal industrial base within the country; therefore, combining two elements of the nation-building system of systems for economic development and military to meet nation-tailored solutions. This example reflects that defense institutional building supports nation-building.

Section 3.6 Literacy, English Literacy, and Computer Literacy in Procurement

According to *The World Bank Group report no. 66862-AF on International Development in Afghanistan*, significant progress has been made in the last ten years with 4,500 schools constructed and school enrollment increasing from one million to 7.6 million students with 2.5 million girls, a 100 percent increase for girls' enrollment. At the tertiary level (university level), students have increased from 23,000 in 2002 to 70,000 in 2010 with 12,000 women. However, this represents only two percent of the adult population attaining some level of higher education, among the lowest in the world. (The World Bank, 56-57). Figure 3-38 reflects a significant drop off for enrollment after fourth grade through twelfth grade. This erosion of academic development impedes reading comprehension and math skills in competing for better jobs within the country.

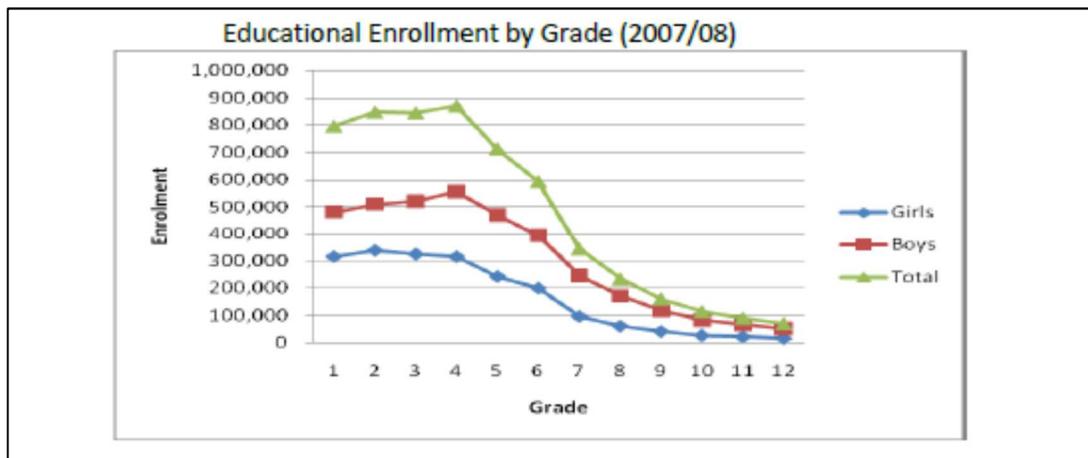


Figure 3-38. Education enrollment in Afghanistan by grade for 2007 and 2008 (The World Bank, 56)

Afghan Government organizations and businesses are competing for the same tiny pool of educated, competent people. The migration of the educated out of Afghanistan due to security and stability concerns exasperates this problem. As Paul Collier states for a country to turnaround from a failing state, it must have a critical mass of educated people. This equates to every initiative for Afghanistan aligning with an element

addressing education and tracking that performance appropriately.

The U.S. government spent \$200 million and five years on a program to teach the Afghan National Security Force (ANSF) to read. The goal of the program was for 100 percent of the ANSF to read at least at the first-grade level and 50 percent literate at the third-grade level before the U.S. forces were to leave at the end of 2014.

An Afghan soldier who can read at the first-grade level is expected to read, write, pronounce, and identify letters, read and write short words, read and write one's own name, and count up to 1,000.

To be considered literate at the third-grade level, an Afghan soldier must be able to read, write, and comprehend short paragraphs, use correct punctuation to aid meaning and understanding, add and subtract using six-digit numbers, and multiply and divide with three-digit numbers (Rogin, 1).

The results indicated that between 2009 and 2013 that 73,700 ANSF soldiers met the third-grade level and 224,000 met the first-grade level (Rogin, 2). The Special Inspector General for Afghanistan (SIGAR), questioned the effectiveness if the attrition rate was between 30 and 50 percent, how many of those trained soldiers remain in the ANSF. Based on the results of the report, ISAF planned to implement new contracts for literacy training with more stringent metrics to measure performance and limit contract scope to achieve better performance for literacy initiative.

Literacy of ANSF is critical for functional training and job performance. A balance between a reasonable attrition rate and institutionalize literacy training would continually provide improvement in literacy for the ANSF and the country. An institutionalized approach with longer-term focus can improve the literacy of the country resulting in economic development improvement too. Without improved literacy across country, economic growth is severely hampered. Initiatives need multiple effects and measures need to assess multiple results.

At the Acquisition Agency, the Director for Cataloging Department provided English language training to those in his Department. Cataloging required interfacing with supply information, which often was in English. Cataloging Department would establish Federal Stock Number (FSN) or Material Stock Number (MSN) for supplies and parts. Incentives for those teaching and for those learning would increase the numbers for both in the nation's language and English. Measured performance needs emphasis with incentives tied to quantifiable metrics. Increased pay for literacy, English language, and computer skills attainment is a strong motivator.

The overall problem in Afghanistan with literacy is the result of the nation's setback from Taliban's anti-education governance during their control. It will take many years to significantly improve a 28.1 percent literacy rate (CIA factsheet 2014, 5).

Chapter 4 Better Approach - Project Management Strategy

Section 4.1 What is Project Management?

Project management started in construction and defense industries, but spread throughout all industries to meet challenges of advancing technology in a constantly changing environment. The traditional organizational structure of hierarchical management is too bureaucratic and does not respond effectively to a changing environment. The purpose of project management is to establish a temporary management structure that splits the management role between project managers and line managers.

Project management has long been discussed by corporate executives and academics as one of several workable possibilities for organizational forms of the future that could integrate complex efforts and reduce bureaucracy...The project management approach requires a departure from the traditional business organizational form, which is basically vertical and which emphasizes a strong superior-subordinate relationship (Kerzner, 2).

As defined by the Project Management Book of Knowledge (PMBOK), a project is a series of activities and tasks that (1) have a specific objective to be completed within certain specifications, (2) have defined start and end dates, (3) have funding limits, (4) consume human and nonhuman resources (ex. money, people, equipment), and (5) are multifunctional (cut across several functional lines) (Kerzner, 2).

These five elements describe the role of defense institutional building with a specific objective, defined timeframe for military mission, funding provisions, consumption of human and nonhuman resources, and crossing multi-functional lines. Defense institutional building mission aligns with project management more than campaign planning.

Project Action	Description
Project Initiation	Selection of the best project given resource limits Recognizing the benefits of the project Preparation of the documents to sanction the project Assigning of the project manager
Project Planning	Definition of the work requirements Definition of the quality and quantity of work Definition of the resources needed Scheduling the activities
Project Execution	Evaluation of the various risks Negotiating for the project team members Directing and managing the work Working with the team members to help them improve
Project Monitoring and Control	Tracking progress Comparing actual outcome to predicted outcome Analyzing variances and impacts Making adjustments
Project Closure	Verifying that all work has been accomplished Contractual closure of the contract Financial closure of the charge numbers Administrative closure of the paperwork

Table 4-A. Project management process groups

Note: Project management involves five process groups as depicted in table 4-A that cover the project from initiation to closure (Kerzner, 3).

Using these five processes, successful project management is defined as the ability to achieve the project objectives within specified time, cost, and at desired performance/technology level, while utilizing the assigned resources effectively and efficiently, and accepted by the customer (Kerzner, 3). In comparison, traditional management has five principles: planning, organizing, staffing, controlling, and directing.

Using the hierarchical structure, the manager is responsible for the work accomplished through the employees of his department. In simpler efforts, this single path may work. However, in multi-functional projects or programs, the complexity drives a two-dimensional effort for managing the project along one dimension and managing the people along the other dimension creating the matrix organization.

Benefits from project management are (1) identification of functional responsibilities to ensure all activities are accounted, regardless of personnel turnover, (2) minimizing need for continuous reporting, (3) identification of time limits for scheduling, (4)

identification of methodology for trade-off analysis, (5) measurement of accomplishment against plans, (6) early identification of problems for corrective action to follow, (7) improve estimating capability for future planning, and (8) knowing when objectives will not be met or be exceeded (Kerzner, 4).

What is a Project/Program manager?

A key factor to good program performance is having a good program manager. The complexity of programs requires experienced and cross-functional program managers to ensure success. *Managing complex programs represents a challenge requiring skills in team building, leadership, conflict resolution, technical expertise, planning, organization, entrepreneurship, administration, management support, and the allocation of resources* (Kerzner, 148).

Type	Methods and techniques
Experiential training/on-the-job	Working with experienced professional leader
	Working with project team member
	Assigning a variety of project management responsibilities, consecutively
	Job rotation
	Formal on-the-job training
Conceptual training/schooling	Supporting multifunctional activities
	Customer liaison activities
	Courses, seminars, workshops
	Simulations, games, exercises
	Group exercises
	Hands-on exercises in using project management techniques
	Professional meetings
Organizational development	Conventions, symposia
	Readings, books, trade journals, professional magazines
	Formally established and recognized project management function
	Proper project organization
	Project support teams
	Project charter
	Project management directives, policies, and procedures

Table 4-B. Methods and techniques for developing project managers

Note: Table 4-B depicts the methods and techniques for developing good project managers (Kerzner, 157)

Figure 4-1 depicts the nominal path for program managers recognizing that it is an iterative, building block process for acquiring the knowledge and experience for a program executive position. This same path fits defense institutional building application;

each position would have specific criteria for competence and capability. A program manager will develop competence in program management but after attaining depth and breadth in other disciplines; therefore, the program management career path will build upon an individual's initial function or discipline.



Figure 4-1. Career path for program managers

There are many challenges to defense institutional building especially under conflict: transportation constrained and at times restricted, language barriers require translation which is slow and cumbersome, and cultural differences require different approaches amiable to assisted nation. These challenges require initiatives to produce multiple benefits for the nation, as second and third order effects. Figure 4-2 depicts an organizational structure with the Program Management Office (PMO) responsible for defense operating systems and cross-functional initiatives planned and executed across all commands and participants.

Establishing institutional training can benefit the Afghan army but also provide economic growth for the country and develop young adults with discipline, responsibility, pride, and self-esteem. This approach is an objective multiplier for security and stability. Every initiative should have a networked plan for potential first, second, and third order effects.

	Joint Command	ETA-Army	ETA-Air Force	ETA-Navy	ETA-SOF	ETA-Logistics	US Command	
	Columns with Competencies	Columns with Competencies	Columns with Competencies	Columns with Competencies	Columns with Competencies	Columns with Competencies	Columns with Competencies	Economic-Literacy – Counter-Corruption – Gender Integration – Civilianization
Project 1 Strategy & Policy	X	X	X	X	X	X	X	
Project 2 HRM	X	X	X	X	X	X	X	
Project 3 Budget/ Finance	X	X	X	X	X	X	X	
Project 4 Procurement	X	X	X	X	X	X	X	
Project 5 Logistics	X	X	X	X	X	X	X	
Project 6 Institutional Training	X	X	X	X	X	X	X	
	Economic- Literacy – Counter-Corruption – Gender Integration – Civilianization							

Figure 4-2. Matrix organizational structure with cross-functional initiatives

Terrorism is the problem with multiple root causes aligned with multiple solutions aligned to multiple performance measures. In complex systems, the goal is influencing the system not controlling the system because underlying behavior is beyond comprehension at observer level.

Project Management Tools

A project plan is fundamental to success of a project. A program plan encompasses multiple projects. The benefits of the program plan are (1) standard communication tool throughout the lifetime of the program and throughout the multiple organizations involved with the program, (2) identifies inconsistencies in the planning phase across multiple planning organizations, (3) provides an early identification of problem areas and risks so that surprises do not occur downstream, and (4) provides a standard for measuring performance (Kerzner, 459).

Network scheduling techniques identify and manage work for the project. The advantages are that it

forms the basis for all planning and predicting and assist management on resource decisions for achieving time and cost goals; provide visibility and enable management to control specialty programs; assist management to evaluate alternatives by answering questions that

influence time delays to project completion, determination of slack, and crucial elements for project completion; provide a basis for obtaining information for decision-making; provide a basic method for determining manpower, material, capital requirements, and a means for checking progress; provide the basic structure for reporting; facilitate ‘what if’ exercises; identify the longest path or critical paths; and aid in scheduling risk analysis (Kerzner, 494).

Network scheduling techniques are the basis for managing work and should include risk mitigation activities. The ‘what if’ exercises allow greater insight into what problems develop from schedule delays. With all work tasks linked, full consequences are evaluated and risk mitigation or contingency plans developed providing a proactive approach to managing.

Project Auditing

Business operations of an organization recognize auditing, but also reflects projects.

Audit Type	Description
Performance Audits	Used to appraise the progress and performance of a given project or program. The project manager, project sponsor, or an executive steering committee can conduct this audit. Program Management Reviews are an example.
Compliance Audits	Are usually performed by the project management office (PMO) to validate that the project is using the project management methodology properly. Usually the PMO has the authority to perform the audit but may not have the authority to enforce compliance.
Quality Audits	Ensure that the planned project quality is being met and that all laws and regulations are being followed. The quality assurance group performs this audit.
Exit Audits	Are usually for projects that are in trouble and may need to be terminated. Personnel external to the project, such as an exit champion or an executive steering committee, conduct the audits.
Best Practices Audits	Conducted at the end of each life-cycle phase or at the end of the project. Some companies have found that project managers may not be the best individuals to perform the audit. Organizations may have professional facilitators trained in conducting best practice reviews.

Table 4-C. Types of project audits

Note: Table 4-C depicts the types of audits with explanations for each (Kerzner, 479).

Statutory requirement evolution for auditing started in 1990 with Chief Financial Officers (CFO) Act, Government Management Reform Act in 1994, Fiscal Year (FY) 2014 Financial Improvement and Audit Readiness under National Defense Authorization

Act for audit readiness of General Fund Statement of Budgetary Resources (SBR), and FY2017 statutory direction to achieve full agency financial statement audit readiness (Easton, slide 9).

The purpose of the Congressional enactment is to verify correct allocation of funds, make better use of resources, and increase the public trust. Based on specific legislation directed at the DoD, sound financial systems with audit capability is not prevalent. The ability to establish auditable systems and processes by combatant commands in defense institutional building environment is not viable when even Defense Department business operations have been challenged under this responsibility.

Department of Defense Inspector General report DODIG-2014-046 *Independent Auditor's Report on the Examination of DoD Execution of North Atlantic Treaty Organization-Contributing Countries' Donations to Afghan National Army Trust Fund dated March 24, 2014* cites the problem of lack of internal control by the Office of Under Secretary of Defense (Comptroller)/Chief Financial Officer (OUSD(C)/CFO) and Combined Security Transition Command-Afghanistan (CSTC-A) for financial reporting for \$520 million of NATO Afghan National Army (ANA) Trust Fund contributions to Afghan Security Forces Fund (ASFF).

The report concludes *OUSD(C)/CFO in coordination with CSTC-A did not establish an effective NATO ANA Trust Fund program management structure ensuring program governance, assignment of responsibilities, and the development of sustainable processes and procedures for effective management and execution of the financial reporting of the NATO ANA Trust Fund contributions* (DODIG-2014-046, 6).

The report further cites the lack of accounting data and source documentation from

multiple DoD agencies contributed to the problem resulting in a working group being established with personnel from OUSD(C)/CFO, Defense Finance and Accounting Service (DFAS), CSTC-A, Army Central Command, US Army Corp of Engineers, and Defense Security Cooperation Agency. Other recommendations of the report cite developing and documenting formal procedures and a reconciliation of the project-level supporting schedule to accounting data on a quarterly basis (DODIG-2014-046, 7).

Report DODIG-2014-046 cites the lack of DoD accountability through auditability of the NATO funding allocated for ASFF. If the DoD in-theater lacks their own financial procedures for accountability, the military and civilian personnel from DoD deployed to advise the assisted nation will lack the ability to develop and implement audit processes. Management audits provide the evaluation piece for measuring performance of the process, which is instrumental to the success of defense institutional building.

Internal quality assurance methods ensure effective institutional building. Special Inspector General for Iraq Reconstruction (SIGIR) recommended in their 2011 report the use of SIGIR to support independent audits. Although the report focuses on reconstruction efforts, the recommendations of table 4-D support all institutional initiatives. These recommendations focus on best practices and lessons learned applied to all institutional building efforts. Policy development for defense institutional building should include these provisions.

The SIGIR report cites inspection of Baghdad Police College to provide training for 4,000 cadets and 500 instructors (SIGIR report December 2011, 33). The construction contract completed at \$73 million with \$29 million from Iraq's development fund and \$44 million in U.S. funding from Iraqi Relief and Reconstruction Fund. (SIGIR report

December 2011, 33).

Based on a hotline complaint, SIGIR performed a site inspection. The findings consist of observances of deluted feces and urine drained from the ceilings into the cadet barracks, light fixtures filled with urine, and floors bowed inches off the ground resulting in cracking apart. SIGIR report

recommended that an independent assessment of all wastewater plumbing installations in the newly constructed buildings be performed and that critical studies of the concrete floor slabs of the cadet buildings be carried out to determine their structural integrity, load-carrying capacity, and the potential environmental and health hazards posed by rust, mold, and the presence of urine and fecal matter (SIGIR report December 2011, 34).

The root cause of the problem addressed a lack of effectively managing the project, both through the contractor and government agency, U.S. Army Corp of Engineers, ensuring adequate inspections and quality assurance of the construction throughout the effort. Whether managing the construction of a building or the construction of a management information system for providing services across an organization, inspection is instrumental to success.

Periodic independent audits are required to ensure objectivity across the effort and ensure project or program methods are fully being utilized and effective. Ultimately, the SIGIR inspection team referred the matter to the SIGIR investigation directorate.

Part of Report	Number	Description
II - Best Practices	1	Provide reconstruction officials with near real-time reporting.
	2	Team engineers with auditors.
	3	Report on complex technical topics in accessible language.
	4	Use graphics to explain complex engineering issues.
	5	Prepare for rapid but effective inspections.
	6	Whenever possible, visit projects sites in person.
	7	Visit as many projects as possible early in the construction phase.
	8	Develop alternative approaches to executing inspections.
	9	Support the host government's IG system.
	10	Always consider sustainability in assessing reconstruction projects.
	11	Engage with host-country end users and government officials when developing the reconstruction program.
	12	Establish working relationships with all parties involved in the reconstruction effort.
	13	Became an informational resource for reconstruction officials.
	14	Perform assessments in all sectors throughout the country.
	15	Complement and augment existing audit and investigative functions.
III-Lessons Learned	1	Achieve a secure environment before initiating major reconstruction activities.
	2	Enforce contracts to reward good performance and hold poor performers accountable.
	3	Design projects in accord with the host nation's capacity to maintain and sustain them.
	4	If a project requires sophisticated equipment, encourage the host nation to contract for operations and maintenance with a qualified contractor until organic capacity is established.
	5	Base project reporting on actual construction progress and not on the amount that the contractor has been paid to date.
	6	Ensure that contractor invoices are reviewed by U.S. construction management before payment is made.
	7	Do not allow construction activities to begin before detailed drawings have been prepared and approved.
	8	Design projects that anticipate potential limitations of electrical power and potable water sources.
	9	Require oversight managers to regularly visit sites as part of a project's quality assurance program.
	10	When designing projects, work with host-nation users to create effective, usable, and culturally sensitive facilities.
	11	Enhance coordination and decision making by consolidating all project data in a unified information management system.
	12	Do not underestimate the importance of relatively small "last-mile" projects to the success of large-scale reconstruction projects.
	13	Minimize use of "nested tiers" of subcontractors in stabilization and reconstruction operations.

Table 4-D. Recommendations from Special Inspector General for Iraq Reconstruction for inspections

Section 4.2 Project/Program Management Office (PMO)

The results of audits and inspections provide valuable knowledge as feedback for policy improvements. A de-centralized approach does not afford the means for combining these lessons learned and best practices across the defense institutional building mission. The role of a program management office (PMO) is *a central center of organizational project knowledge, one with expertise-related project management practices, techniques, and standards* (Letavec, 4). An enterprise PMO assumes the role for the organization as the consulting office, knowledge office, and standards office. The knowledge office retains the lessons learned and best practices providing easy access to offices for planning, monitoring, and executing.

The consulting office assists programs to achieve cost, schedule, and performance objectives. The intent is for the PMO to be center of excellence for project and program management within the organization.

The consulting domains include project and process consulting, mentoring, and project staff augmentation and active project management. *This consulting role might include assisting with project workshops, assessing troubled projects and providing guidance to improve results, or answering questions from the PMO's constituents on PMO processes and standards or general questions in the realm of project and program management* (Levatec, 350).

Mentoring is a powerful method for providing continuous guidance and coaching by pairing senior project or program managers with junior members in the organization. The ability for junior members to access senior members outside their chain of command benefits individual development and cross-functional knowledge development.

Projects or programs of significant importance to the organization experiencing problems may require the PMO's assuming a more active role in management. In addition, the PMO may be assigned program management for projects or programs that require guidance by most senior project/program manager experts or may cross-functional efforts in which the project or program does not logically reside in any one functional area.

Center of excellence PMOs have the capability and capacity to assume any of these roles to support the organization. Defense institutional building requires a center of excellence PMO within a centralized organization to provide these services. A decentralized institutional building structure does not afford the development of a center of excellence for program management.

Combatant commands operational focus does not align with business management perspective required for successful program management. The skillset development is different for junior and senior leadership positions. Lessons learned are gained for operational and acquisition models. The role of the centralized organization for the bridge between DoD operation and acquisition communities, other government organizations, and non-government organizations allows for maximum development of a knowledge-based resource of best practices and lessons learned.

Section 4.3 Dynamic Program Management

Program management is the management of multiple related projects and requires additional techniques beyond those for managing projects. With the understanding of system thinking, network theory, and complexity science, new program management techniques enable managing in a dynamic environment. The dependencies and interdependencies across projects create complexity not experienced when focused on a single project.

Eliyahu Goldratt, author of the book Critical Chain, developed the concept of buffer management for dealing with managing multiple projects performed in parallel. Time buffers to protect the critical chain of each project and provide the basis for allocation of limited resources. The result is higher priority given to the project that has used the higher proportion of the time buffer in relation to the actual progress made (Shtub, 475). This approach benefits companies by creating awareness of project elements that require the most attention within the basic schedule.

Program management instills more complexity through the management across multiple projects. Two concepts emphasized in program management are (1) local efficiencies or improvements do not equate to global efficiencies or improvements and (2) focusing on everything is equal to focusing on nothing (Goldratt, 90-91). When project managers focus solely on their project performance (local), they inadvertently may not look out for what is best for the company (global).

The Pareto principle considers that focusing on the right 20 percent of problems will provide an 80 percent benefit, but this rule applies to independent variables. Under complexity and the interdependencies of tasking, the Pareto principle does not apply

(Goldratt, 91-92). The interdependencies of project resources will cause a different solution than a simple project focus.

Critical chain describes the sequence activities performed by a critical resource or constraint, which connect the start of the project to its end (Shtub, 469). This is different from the critical path, which is the longest path and equates to the shortest timeframe from start to end of the project. Critical path analysis is effective if there are no other dependency concerns. Critical path focuses on a single point in time and resolving problems at that single point in time. Agile project management applies the concepts of agile software development to project management.

Number	Principle Title	Principle Description
1	Customer Satisfaction	Customer satisfaction can ultimately determine project success. For a business, happy customer's mean future work.
2	Accommodation to Change	Project managers that can successfully incorporate changes with as little impact to cost, schedule, and performance make their organization more competitive.
3	On-Time Deliverables	Completion of projects as soon as possible to exceed customer's expectations and allow team members ability to take on another project.
4	Teamwork	Business Managers for the organization need to be involved with projects to ensure success aligns with organizational success.
5	Motivation	Create an environment for personnel to be motivated for success through trust and empowerment.
6	Constant Communication	Face-to-face is the most efficient and effective communication, maximize the practice.
7	Metrics	Specific measures of progress are the best practice.
8	Sustainable Progress	Throughout the project think long term for sustainable practices to eventually be incorporated.
9	Attention to Excellence	Strive for excellence and the best product or service possible.
10	Minimal Waste	Incorporate only value added tasks to the project.
11	Self-Organization	The best architectures, requirements, and designs emerge from self-organizing teams. Teams maximize on team members' natural strengths and abilities.
12	Continuous Improvement	Consistent and value added communication among the team members for reviewing progress and generating ideas.

Table 4-E. Principles of agile project management

Note: There are twelve principles in the Agile Manifesto as illustrated in table 4-E. (Agile Project Management Mastery (APMM), 20-25)

Self-organizing team concept is worth more explanation because it encompasses many of the other principles: teamwork and collaboration, self-sufficient competency,

motivation, awareness and priority of accomplishing the end goal of project, and continuity of constant communication (APMM, 31).

Self-organizing, Self-directing, and Self-managing teams

Team performance is critical as the standard for cross-functional teams to manage projects. As cited in the book, “Reframing Organizations-Artistry, Choice, and Leadership”, *evidence suggests that self-directed teams often produce better results and higher morale than groups operating under traditional top-down control* (Bolman, 113). This same concept is referred as self-organizing, self-directing, or self-managing teams. The premise is a cross-functional team operates independently, thus leveraging multiple functional areas and optimizing by managing themselves. Saturn production plant is an example of General Motor’s experiment using self-managing teams and achieving exceptional performance.

The Saturn Corporation, a “Different Kind of Company”, is an example of a revolutionary approach to manufacturing, establishing a standard for not only manufacturing but also adopted in other areas of industry and even government. The key contributor to Saturn Corporation’s success was the partnership of the United Auto Workers labor union and General Motors building a small car factory in Spring Hill, Tennessee with American suppliers, American workers, but Japanese management practices. Applying the lessons learned experienced from the New United Motors Manufacturing, Inc. (NUMMI), the Saturn factory was setup as a team-based organization with team-based work systems.

NUMMI was a joint venture between General Motors and Toyota set up in 1982 to produce compact cars for both companies. The arrangement afforded Toyota managing a

new organization in a former General Motors plant in Fremont, California that had shut down two years earlier. The Fremont plant had the reputation as one of General Motor's worst plants in terms of productivity, quality, and labor relations (Rubinstein, 18).

The plant restarted with Toyota's management, production system, and labor relations; however, retained the same union leaders, majority of the workforce, and relatively the same old technology. Within two years, the plant was the most productive and highest quality auto producer in the United States. The data illustrated in table 4-F depicts a comparison and significant difference between the NUMMI plant and other auto plants.

Plant	Productivity^a (Hrs/Unit)	Quality^b (Defects/100 Units)	Automation Level^c (0=none)
Honda, Ohio	19.2	72.0	77.0
Nissan, Tennessee	24.5	70.0	89.2
NUMMI, California	19.0	69.0	62.8
Toyota, Japan	15.6	63.0	79.6
GM, Michigan	33.7	137.4	100.0
GM, Massachusetts	34.2	116.5	7.3

Table 4-F. NUMMI comparison with other auto plants

Notes: ^aProductivity = standardized number of man hours to weld, paint, and assemble a vehicle.

^bQuality = defects attributable to assembly operations reported in first six months of ownership.

^cAutomation level = robotic applications/production rate, normalized to 100 for the highest level in group

Originally source: John Krafcik, Triumph of the Lean Production System, *Sloan Management Review*, 1988, Vol 3, pp. 144-152.

Based on results from NUMMI, Saturn Corporation established self-managing teams.

Although executive management provided the design of the car, corporate values, and quality standards, the team was responsible for translating broad objectives into measurable performance goals. Teams were empowered with budget, safety procedures, ergonomics, vacations, time off, and other management functions (Bolman, 114-115). Saturn experiment proved creating team composition of union and company working together achieved exceptional performance.

Saturn example illustrates a combination of centralized and de-centralized planning

and execution yields exceptional performance. Self-managing teams with competent team members drove results through constant communication, teamwork, motivation, and commitment to the end goal.

Through an integrated management plan, defense institutional building work is planned and measured across the mission. Work that is largely independent, not having strong dependencies to other work of other commands, would best fit using self-managing teams and their ability to operate independently of other efforts. For teams crossing commands, routine communication is instrumental to achieving team cohesion and ability to raise and resolve problems early.

Simultaneous Management

Alexander Laufer created and described the concept of Simultaneous Management from his research and consulting with Proctor & Gamble. The three elements are planning, integration and leadership, and systems that apply to program management whether designing a high-performance aircraft or designing business operations of a government in defense institutional building. These three elements are also included in military operations identifying planning, system perspective, and leadership. Synchronization is the focus in campaign operations versus integration of activities or tasks.

These principles were developed based on research in a capital project setting. Later, they were tested successfully in many other fields and found applicable to the wide spectrum of business, technology, and social projects from modification of a management information system to new product development (Laufer, 7-8). The most important aspect is determining the best approach based on environment and constraints.

Group	Principle	Description
Planning	Systematic and Integrative Planning	Start planning as early as possible. Set project objectives and employ a diverging/converging multiphase process. At each phase, prepare all functional plans simultaneously and interdependently.
	Timely Decision Adjusted to Uncertainty	Adjust the timing of decisions and their degree of detail to the completeness and stability of information. Plan for multiple time horizons and selectively accelerate implementation to obtain fast feedback for further planning.
	Isolation and Absorption	Isolate tasks plagued by very high uncertainty and loosen connections between uncertain tasks. In both cases, you absorb uncertainty by selectively employing redundant resources. Divide large projects into independent subprojects and group tasks within projects according to uncertainty.
Leadership and Integration	Inward and Outward Leadership	Lead the project throughout while assuming both internal and external leadership roles. Manage decision making, scan and influence the external environment, keep the momentum, and be ready to intervene swiftly.
	Teamwork	Build multifunctional and multi-organizational teams composed of a small number of individuals with complementary skills. Develop mutual accountability for project results and foster collaboration and enthusiasm by engaging their minds and souls. Sustain teamwork throughout.
	Overlapping of Phases	Involve representatives of downstream phases in project planning as early as possible. To accelerate project speed, overlap project phases. To ensure that the schedule is compressed without sacrificing cost or quality, take essential steps related to the other eight principles of Simultaneous Management.
Systems	Simple Procedures	Develop standard and adhoc procedures, which are simple, easily implemented, and allow a degree of flexibility. Document and share success stories that promote great flexibility. Employ optimization strategies selectively.
	Intensive Communication	Design and promote an extensive communication system capable of frequently and quickly sharing a large volume of information among a great number of people. Employ multiple mediums, in particular, extensive face-to-face communication and modern information technology.
	Systematic Monitoring	Systematically monitor project performance as well as the changes in the critical planning assumptions. To understand what is going on, you should both move about and review formal reports.

Table 4-G. Principles of Simultaneous Management

Note: The concept includes nine principles organized in three groups (planning, leadership and integration, and systems) as depicted in table 4-G. (Laufer, 6-7)

The hallmark of a simultaneous manager is his or her ability to fit the principle to the project context (for example project size, complexity, speed, uncertainty, contract type) by exercising a great deal of discrimination and judgment. The most important quality of the Simultaneous Management principles is their adaptability to different contexts (Laufer, 8).

Laufer emphasizes that organizations will need to operate in multi-functional teams with all team members requiring being masters of project management skills. Whether team members are planning or executing the project or program, they will need to understand the basics of project management including scheduling, business tools, and decision-making techniques under the dynamic environment of systems, networks, and complexity.

The mind-set shift recognizes the need for a network organization structure for work to cross multiple organizations. Human resource management is an essential element of project management. People working in teams produce better products, services, and systems through knowledge sharing. Critical thinking, system thinking, network theory, and complexity science essential for understanding area between defined disciplines or recognized knowledge.

Dynamic project management deviates from traditional project management through the focus of flexibility, agility, and versatility. The use of small, competent teams managing the work produces optimization. The teams need to plan the work, determine metrics to measure performance, and adjust the work to achieve goals and objectives. Interaction with senior management for direction is on an “as needed” basis with routine communication on status.

Element	Traditional Mind-set	Simultaneous Management Mind-set
Project Management	Performing according to plan, with minimal changes, is the essence of project management.	Meeting customer needs, while coping successfully with unavoidable changes, is the essence of project management.
Objectives	Objectives are always resolved before means are specified.	Objectives and means are often resolved gradually and almost simultaneously.
Uncertainty	Early in the project, analysis of risk by a staff specialist; later in the project, operate under the assumption that uncertainty is negligible.	Continuous management of uncertainty by entire team.
Optimization	Efficiency, for example, all tasks are tightly coupled.	Efficiency mixed with essential redundancy, for example, uncertain tasks are loosely coupled.
Leadership Integration	Inward attention. Multifunctional teams; contracting emphasizes risk allocation.	Outward and inward attention. Multifunctional and multi-organizational teams; contracting emphasizes cooperation.
Speed	Overlapping phases.	Fast reduction of uncertainty followed by overlapping of phases.
Systems	Systems are the key.	People using systems-and sometimes challenging them-are the key.
Communication	High-tech, emphasis on completeness and accuracy of information.	High-touch and high-tech, emphasis on timeliness of information.
Control	Measurement of project performance--feedback-based control.	Monitoring of environmental changes, and project performance—anticipation and feed-back based control.

Table 4-H. Mind-set Shift

Note: Table 4-H illustrates a shift in mind-set from traditional project management to simultaneous management. The ability to ascertain the principle to the project context is critical thinking attained through knowledge and experience. (Laufer, 9-10)

Decision Analysis Tools

Complex problems require complex decisions. Decision analysis encompasses some tools considered under management science or operations research such as decision trees, simulation, multi-criteria decision analysis, and risk and uncertainty management. As problems become complex, multiple methods produce multiple courses of action and evaluation of those actions. Campaign planning includes developing courses of actions

but lacks a robust explanation of use of tools in management science and operations research. A technique for multi-criteria decision analysis is simple-multi-attribute rating technique (SMART) depicted below (Goodwin, 33-34).

Stage	Description
1	Identify the decision-maker or decision-makers.
2	Identify the alternative courses of action.
3	Identify the attributes that are relevant to the decision problem.
4	For each attribute, assign values to measure the performance of the alternatives on the attribute.
5	Determine a weight for each attribute.
6	For each attribute, take a weighted average of the values assigned to that attribute.
7	Make a provisional tree.
8	Perform a sensitivity analysis to see how robust the decision is to changes in the figures supplied by the decision-maker.

Table 4-I. Simple-multi-attribute-rating-technique (SMART)

Fragile nations will lack higher education levels or removed from the international education environment through sanctions. These nations become stagnant in their academic ability; therefore, the advising role requires teaching the thought-process behind any decision. Without the institutional development of decision-making, the leadership will make emotional, subjective decisions not objective, logical and calculated decisions.

Management science and operation tools are required in project management for determining and evaluating courses of actions and need to be part of the Coalition implementation of a project management structure. Very fundamental techniques need taught to the senior leadership of the nation, as well as, part of institutional training for the country.

Project management and decision analysis tools integrate external efforts to influence mechanisms within the system. Counter-stability effects will reduce output loss allowing more resources of external factors to feedback into the system. Numerous government investigative reports for the mission in Iraq and Afghanistan reflect a lack of effective

stability improvements for resources spent.

Defining the right goals is critical to planning, monitoring, and executing defense institutional building mission. If the performance gauge (stability state index) is not changing or negatively changing, then the goals for the external influences may not be the right goals or the efforts to achieve those goals are not effective.

System behavior is particularly sensitive to the goals of feedback loops. If the goals-the indicators of satisfaction of the rules-are defined inaccurately or incompletely, the system may obediently work to produce a result that is not really intended or wanted (Meadows, 140).

Other aspects of a system produce leverage or tipping points and buffers. Leverage points are the points where a small change can make a large change in behavior. It is possible that some sub-indicators depending on the fragility of the nation will have more effect at a time. For instance, security was the most important in Iraq from 2003-2007; at the time, other system elements were ineffective due to the breakdown in security. Understanding the leverage points of a system are important for influencing the system.

Buffers have a stabilizing power on the system by creating a reservoir or capacity. Engineers design buffers into their systems to deal with potential for problems. A water reservoir is a buffer to deal with surges in rainfall. Project managers now design buffers into their project plans as a proactive method for dealing with problems of resource constraints creating bottlenecks.

You can often stabilize a system by increasing the capacity of a buffer. Businesses invented just-in-time inventories, because occasional vulnerability to fluctuations or screw-ups is cheaper than certain, constant inventory costs-and because small-to-vanishing inventories allow more flexible response to shifting demand (Meadows, 150).

Buffer management incorporates the right amount of buffer in the right places.

Decision analysis tools are used to determine leverage points and buffers through the

ability to model a situation and then change variables to determine the effects.

Wargaming produces the same result for evaluating the scenarios of a combat mission and determining courses of action for the combat mission. The tools are generic and applied across all disciplines create the common ground for an interdisciplinary approach.

Game Theory

Wargaming simulations are a military application of modeling and simulation routine in the business world for conducting ‘what if’ exercises and evaluate courses of actions for business decisions. For business applications, game theory or operations research techniques provide statistical rigor or mathematical methods for the means of wargame simulation. Below is an example of the application of game theory to the business dynamics between the Boeing 727 and Airbus.

Game Theory Example

Game theory offers new avenues to study strategic behavior and to integrate cultural and sociological dimensions into the analysis...new advances in game theory have given it the potential to reconnect the social sciences-economics, sociology, anthropology, and psychology-by providing an underlying theory that incorporates norms and culture into the theory, something that standard game theory did not...the lesson from modern game theory is that economics can not stand alone. If it is to understand human behavior, it must integrate anthropology, sociology, psychology, and the other social sciences to arrive at understanding of what motivates people...the current training in specific disciplines is the wrong type of training. Complexity policy requires transdisciplinary training: it requires social scientists, not economists, sociologists, or anthropologists (Colander, 150-154).

This example is taken from Thinking Strategically: The Competitive Edge in Business, Politics, and Everyday Life by Avinash K. Dixit and Barry J. Nalebuff. Using game theory for strategic decision-making, an example is presented on the decision of Airbus to develop an equivalent version of Boeing’s 727 aircraft.

Developing a new commercial aircraft is an expensive investment requiring an expected number of aircraft sold to warrant the large investment. This example illustrates Airbus' decision whether to compete in the 150-passenger medium-range jet class with Boeing Corporation in the lead with the developed Boeing 727. The two markets considered were the United States (U.S.) and the European Economic Community (EEC).

Each market is assumed to produce a \$900 million profit if either company had a monopoly of that market. If the two firms were to compete, then the profit would reduce to \$600 million divided between the two firms. Although the companies experience reduced profits, the consumers gain a \$700 million savings through competition.

In the past, European nations have provided government assistance to companies to promote economic development within the nation, benefiting the company internationally as well. Airbus' decision whether to invest the funds for developing Airbus 320 is contingent on ECC subsistence. This subsistence method can be a regulation protecting the European market for Airbus resulting in a monopoly of that market. If that should happen, would the U.S. government then protect U.S. market producing a monopoly for Boeing corporation.

Figure 4-3 depicts the strategic network for analyzing options and payoffs for Boeing and Airbus in a competition for the medium-range aircraft market in U.S. and ECC.

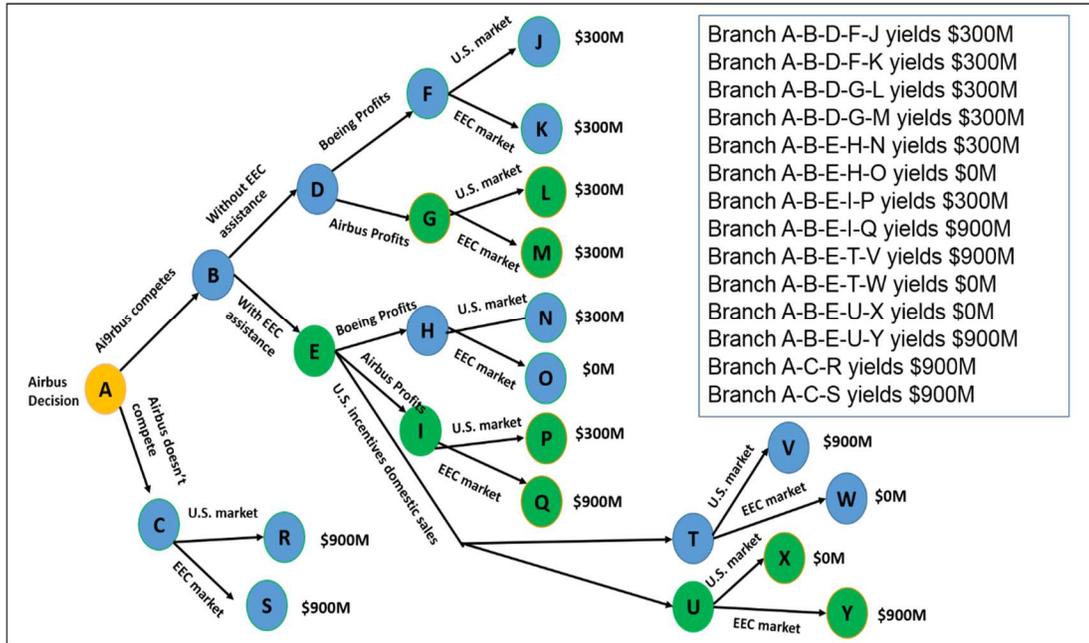


Figure 4-3. Game theory analysis of Airbus decision to enter aircraft competition

If Airbus decides to compete without assistance from the ECC, then both Boeing and Airbus would each yield \$600 million. If Airbus competes with assistance from the ECC, then Boeing would yield \$300 million and Airbus would yield \$1.2B. If Airbus competes with assistance from the ECC and the U.S. Government provides incentives for U.S. airlines to buy from Boeing, then Boeing yields \$900 million and Airbus yields \$900 million. In the case of full competition, the consumer wins with a \$700 million reduction in airline ticket prices. Since the investment will cost \$1.0 billion for Airbus, the only option that ensures a payoff is the ECC providing assistance and the U.S. Government taking no action to position Boeing better in the U.S market.

This example illustrates the application of game theory as a traditional strategy tool for evaluating several options based on potential actions of players involved. Game theory is taught at war colleges and utilized in wargaming exercises of military operations evaluating U.S. actions based on possible adversary actions. The tool can also be used in defense institutional building for strategic assessments of options. As

described by David Colander in Complexity and the Art of Public Policy, modern game theory is expanding beyond the economic tool and used to predict behavior of population groups requiring an integration of all social science fields rather than the specialization in one field. This integration of knowledge creates new insights not available when focused on one particular field of expertise.

Section 4.4 Project Management Thinking- Evaluation of Afghan Acquisition Agency

Within the first month in-country, the senior advisor conducted an evaluation of majority of twelve Directorates under the AMoD (AT&L). The Acquisition Agency had a separate Ministerial Development Plan from logistics; this decision valuable for providing more detail in the work that needed accomplished for each functional area. However, linkage between the two plans was not developed and the previous senior advisor had managed them independently.

The senior advisor determined the current rating of Capability Milestone (CM) – 1B did not reflect the maturity of the Acquisition Agency to procure all classes of supply. The CM rating range is (4) for the least mature and (1A) for the most mature. At that time, the simpler classes of supply had been transitioned (food, clothing, construction materials, etc); however, the procurement of these items aligned with fixed price, fixed quantity, fixed delivery type contracts predominately awarded by the Acquisition Agency. Service contracts for internet capability and complex acquisitions for end items and spare parts were not yet attempted. The effort for the large fuel contract(s) had just started.

A justification for reduction of the CM rating from a CM-1B to a CM-2B was drafted and approved by the Director General for Operations, in accordance with the MMDP for changing a CM rating. Exhibit 4-A depicts the Information Paper for the CM reduction. Ministerial development should occur through a road map with specific criteria and metrics for each class of supply rather than written to accomplish the end state. Responsible transition of supply classes is from less complexity to greater complexity; the transition of funding needs aligned, as well. Responsible defense institutional

building aligns funding through detail planning and metrics demonstrating capability and capacity accomplishment of procurement mission at each stage of transition. Budgeting will require flexibility to retain U.S. purchasing when the assisted nation has not demonstrated the capability and capacity for the function but funding has transitioned.

The lack of a U.S. consistent, knowledgeable advising workforce inhibited the development of a more detailed plan and metrics. In fact, the inaccurate assessment of the Acquisition Agency as a CM-1B reflects that previous advising capability was insufficient to determine that elements of procurement process were lacking.

Requirement generation was still very immature but the Acquisition Agency is not responsible for requirement generation; end users (requirement owners) are responsible. The Ministerial Development Plans for these areas did not adequately cover the Afghan's ability to generate requirements for products and services but focused on office operation.

This exemplifies the need to ensure the organization is measuring the right work; merely defining and measuring work does not achieve success if the wrong elements of work are measured. Specifications and test criteria need developed by end users because they are the experts in that area. The Acquisition Agency is merely a procurement office responsible for the solicitation, bid evaluation, contract award, and contract administration.

For many DoD personnel, they drew the conclusion that the term acquisition had the broader context that it does in the DoD acquisition process. The acquisition community includes the technical experts who determine the specifications and testing criteria using the requirement owners' capability development document (CDD) as the basis for requirement generation. In other countries, the government organizations and particularly

the MoD will be a flatter organization with different responsibility structure that should not parallel the U.S. government, yet U.S. defense institutional building tends to create similar structure. This occurs from a lack of understanding for designing a structure built from the bottom up versus replicating a familiar structure.

UNCLASSIFIED
NTM-A / CSTC-A
INFO PAPER

SUBJECT: Ministry of Defense (MoD) Acquisition Agency CM2B Transition Decision by DCG Operations.

STAFF LEAD: Mr. David Mitchell, DSN 237-8215

PURPOSE: Provide background and supporting information for MoD Acquisition Agency to transition from Capability Milestone (CM) 1B to CM2B.

BACKGROUND:

The Acquisition Agency (AA) assessment in Calendar Year (CY) 2010 Quarter (Q)1 was CM3. This then progressed to CM2B in CY2010 3Q. By 2011 2Q the rating transitioned to CM2A and then CY2012 2Q CM1B. Early objectives were based on establishing a foundation that included; development plan, training plan, and contracting plan. As time progressed these objectives included actual contracting assessments for the basic requirements such as class I. These assessments did not evaluate the ability to contract for more complex equipment that progressed through the other classes of supply. Assessments were more focused on the task at hand and not the ability to get to the end state.

To reiterate, previous assessments were the result of consistent and proficient demonstration in processing basic commodity contracts for certain classes of supply (other than Class V) and a few service type contracts. Since then, the complexity and volume of transitioning requirements has overloaded the capability of the ANA and once again requires some level of direct assistance from the coalition. While the overall goal of transitioning all classes of supply over to the Afghans has not changed, the classes of responsibility have. Now that the Afghans have become proficient in the procurement of basic commodity contracts the natural progression is to now transition to them the procurement of more complex classes. While the AA is showing organizational maturity and advancement, a temporary, but natural, regression is expected while the AA masters these new classes. It is the Advisor's opinion that with time and practice the AA is fully capable of becoming proficient in these new classes as well.

OVERALL ASSESSMENT:

The Office of the Minister of Defense, AA, has regressed in two of its five objectives: Objective 3.3.1 Develop, validate and implement programs to obtain major end-items of equipment and all classes of supplies, as well as contracts for commercially provided services to meet the operational requirements for the Afghan National Army (ANA); and Objective 3.3.4 Oversee contract bidding processes to ensure fair and open competition in order to obtain best value for MoD in accordance with the law. Limited progress has been accomplished in Objective 3.3.3 Develop comprehensive institutional knowledge of acquisition, procurement, contracting law, policy and management; and Objective 3.3.6 Maintain complete records of all contracting actions and provide reports for the MoD as required. Continued proficiency occurs in Objective 3.3.5 Perform technical inspections on contract items prior to acceptance to ensure compliance with specifications. In order to effectively be able to award more complex contracts, capability will need to be grown, which cannot be developed overnight. The AA needs to be pre-positioned before the transition period since proficiency is gained through training and experience. The challenges with the Organizational Clothing and Individual Equipment (OCIE) contracts reflects the inability to quickly be "brought up to speed" on purchasing new equipment, systems, and materiel. The approach of providing coalition specifications did not help develop capability but probably hampered because the use of technical subject matter experts would have been a better approach to assist the Afghans in the development of Afghan-based technical specifications.

Exhibit 4-A. Information paper for reduction of Acquisition Agency

SUPPORTING INFORMATION:

↓ **Objective 3.3.1 Develop, validate and implement programs to obtain major end-items of equipment and all classes of supplies, as well as contracts for commercially provided services to meet the operational requirements for the Afghan National Army (ANA).** At the conclusion of Budget Year (BY) 1391, the AA processed over 335 contract requirements with an estimated cost of over \$456M. Although the Agency has processed a large number of contracts, the complexity and technical proficiency needed for translating operational requirements into technical specification requirements still needs to be developed. An example is the 8 months, 3 bid openings and intervention by the Ministries of Economy (MoE) and Finance (MoF) to award two OCIE contracts that included winter gear for ANA soldiers. The standard contract award time is approximately 4 months. Similar issues exist and are expected for future OCIE and CLIII fuel requirements. These future efforts will require more technical knowledge, the use of non-standard contract vehicles Indefinite Delivery/Indefinite Quantity (ID/IQ) and BPA Afghan-equivalents, and better, well-defined requirements from the end users. MoF is also pursuing removal of MoD's 'national security' exemption from using the Afghan Reconstruction Development Services (ARDS) due to MoD's current procurement issues. If successful, MoD will be required to use ARDS for any procurement above \$200K for Goods/Services and \$500K for Works (construction).

→ **Objective 3.3.3 Develop comprehensive institutional knowledge of acquisition, procurement, contracting law, policy and management.** In the second quarter calendar year 2012 Minister of Defense replaced the former Procurement Committee (PC) Chairman, BG General Zarif, with BG Ghani, GSG4 Deputy. This quarter BG Ghani was replaced with MG Abdullah, Logistics & Material Readiness (LMR) chief. There is no continuity, the PC is not always up to speed on Afghan Procurement Law, and the preference trends to lowest cost over best value. The PC must understand that sometimes it is more important to recommend award of a contract for a critical commodity (e.g., heating firewood needed for winter) at less than optimal price rather than negotiating or re-soliciting a requirement and adding to procurement timelines. There are trade-offs on cost, schedule, and technical requirements in order to meet the user needs. At times, schedule may be the most important factor and the process needs to accommodate different priorities than merely cost. There is opportunity to encourage and educate the new PC Chairman on merits of best value vendor selections.

Objective 3.3.4 Oversee contract bidding processes to ensure fair and open competition in order to obtain best value for MoD in accordance with the law. This goal had been partially achieved as the AA routinely processed contract requirements and awards contracts without direct advisor oversight. However, there are known cases of vendor exclusion in order to 'control' the bidder pool. Advisors have also witnessed negotiations during the bid opening which is against Afghan Procurement Law. The AA has demonstrated increased proficiency in most of the commodities it's responsible for, but it will require assistance in the more complex commodity types, i.e., CLII OCIE and CLIII fuel.

→ **Objective 3.3.5 Perform technical inspections on contract items prior to acceptance to ensure compliance with specifications.** Contract Administration verifies delivery and performance, levies penalties for non-performance, and certifies all contracts for payment. The directorate has structured itself to match the types of commodities the agency normally contracts. Performance evaluations will be developed and the use of past performance evaluations will be coordinated with the AA to provide better selection criteria and decisions.

→ **Objective 3.3.6 Maintain complete records of all contracting actions and provide reports for the MoD as required.** Advisors have developed comprehensive contracting officer representative training, utilizing existing Afghan Procurement Procedures with an emphasis on monitoring service contracts that are transitioning from NTM-A/CSTC-A to MoD. Along with this training are checklists that will be used to audit the monitoring process. Advisors are in discussion with MoF PPU to have a MoD Contract Instructor certified as Procurement Capacity Building Officer (PCBO).

RECOMMENDATION: Recommend that the MoD Acquisition Agency be officially transitioned to CM2B.

Date: 30 December 2012
Approved by: MG J. Feron

MoD Acquisition Agency Capability Milestone Slide as of 21 Dec 2012

This issue arose during a Special Inspector General for Afghan Reconstruction (SIGAR) visit making note that an internal assessment had been conducted and the rating was changed.

The CSTC-A's ratings of individual ministry offices are largely subjective and cannot be compared over time. The MOD Master Ministry Development Plan states, "Due to the subjective nature of operational and strategic-level advising, imposing a system of rigorous, authoritative, and valid progress measurements is difficult when working with MoD." Reportedly, CSTC-A Senior Advisors to the MOD and MOI regularly revise the metrics used for evaluation within the individual MDPs. As a result, the metrics used to provide a CM rating for each evaluated ministry office has changed multiple times over the years. According to the CSTC-A senior advisor we met with, these revisions to the MDPs are made to incorporate changing conditions and lessons learned.

Different advisors may have different interpretations of the same criteria. According to a CSTC-A official, the CM rating is a combination of quantitative and qualitative metrics and therefore includes some subjectivity. For example, in November 2012, the newly arrived senior advisor downgraded the MOD Acquisition, Technology, & Logistics Office's CM rating from 1B to 2B. The MDP objective stated that this office was "responsible for procuring all classes of supply necessary to responsibly meet ANA requirements."

However, at the time, the MOD was only responsible for procuring three classes of supply and those classes were considered simplistic and not representative of "all classes of supply". Because the MOD had not yet procured the more complex supplies, the new Senior Advisor concluded that the previous advisor's 1B CM rating did not accurately depict the MOD's ability to meet the objective¹ (SIGAR-14-12-SPECIAL PROJECTS, 8).

¹ *In a response to a draft of this report CSTC-A emphasized that there is a defined process for reviewing and changing CM ratings that include decision points for senior CSTC-A officials. CSTC-A stated that the CM rating downgraded described here followed the appropriate process and received all of the required approvals from CSTC-A officials.*

Since the CM ratings reflect the degree of advising required for the assisted nation, an improvement in rating results in a reduction of advisors. This had occurred in early 2012. Although the information paper was approved in December 2012, the request for two Air Force replacement advisors was previously terminated.

When officers left in early January, there were no replacements creating an advising

and transportation problem. Movement requires a certain number of participants and the acquisition advisors had reduced below this number. The senior advisor for AMoD (AT&L) had re-directed incoming advisors for logistics to the Acquisition Agency to support their advising mission for transitioning purchase of supplies.

Over the year, the Mission Essential Task Assessment (META) criteria did not change. This is imperative to ensure an adequate assessment; changing criteria provide no baseline to measure performance. The META for the Acquisition Agency was

- 3.1 Acquisition Agency (AA) responsible for procuring all classes of supply necessary to responsively meet ANA requirement.
- 3.2 New Procurement Committees trained and proficient in bid opening and evaluation IAW Procurement Laws, Rules, and Procedures
- 3.3 Processes enable efficient and transparent solicitation, bidding, evaluation, and selection of offers IAW Afghan Procurement Law
- 3.4 Capable to conduct contract management
- 3.5 Capable of performing internal control and audits on processes.

Each month, the Chief of Advisor for the MAG would hold a quad chart review. At the end of a quarter, the three-month roll-up assessment occurs. Senior advisors were required to discuss these assessments with their Afghan counterparts. Figure 4-4 depicts the quad chart for second quarter 2012 showing the increase from CM-2A to CM1B.

Figure 4-5 depicts the monthly quad chart for January 2013, just after the reduction in December 2012 from 1B to 2B. The 4Q12 section under Mission Essential Task Assessment (META) reflects the change. The 1Q13 reflects the first month of the first quarter for calendar year 2013. As stated under current assessment narrative box, *META 3.1 and 3.3 dropped from CM1B to CM2B due to increased complexity of supply classes and issues with the bidding process.*

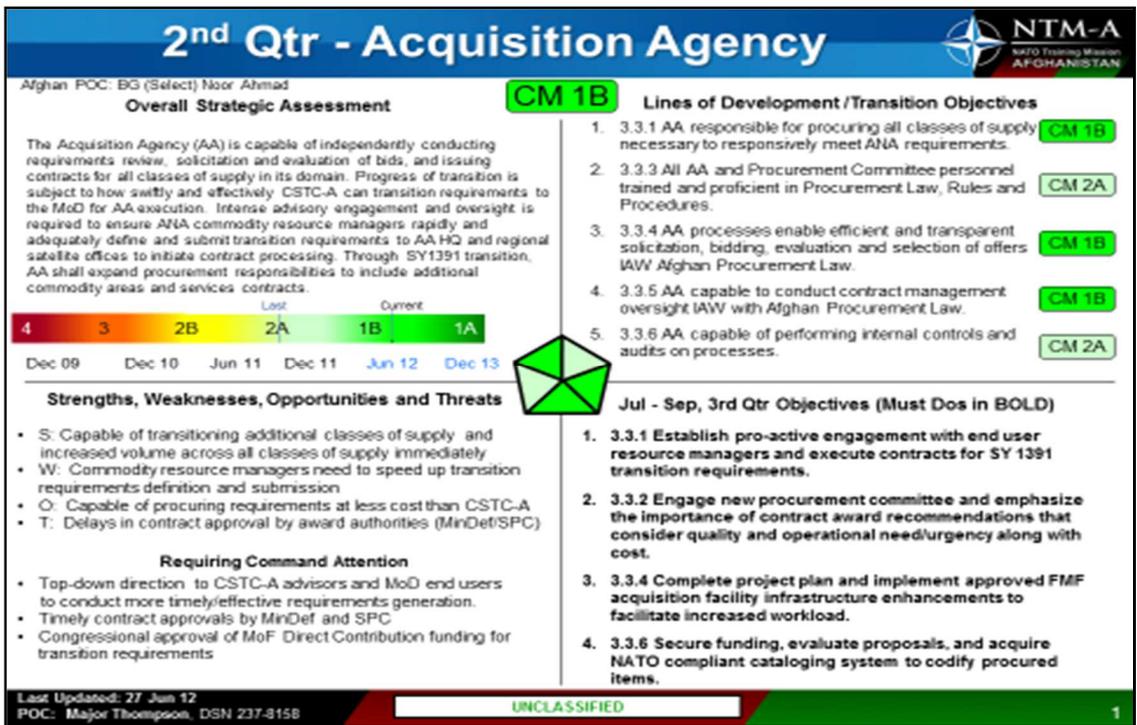


Figure 4-4. Acquisition Agency quad chart for 2nd quarter 2012

Within the overall strategic assessment of figure 4-4, the paragraph states, *the Acquisition Agency (AA) is capable of independently conducting requirements review, solicitation and evaluation of bids, and issuing contracts for all classes of supply in its domain. Progress of transition is subject to how swiftly and effectively CSTC-A can transition requirements to the MoD for AA execution.*

Under **Strengths, Weaknesses, Opportunities, and Threats** section it states, *capable of transitioning additional classes of supply and increased volume across all classes of supply immediately.* The POC for the chart later supported the reduction in rating stating that his superior had directed the reduction.

The senior advisor to the AMoD (AT&L) in June 2012 had never visited the Acquisition Agency to understand the capability or capacity but supported the rating improvement from the senior advisor for the Acquisition Agency. Six months later when the new senior advisor to the AMoD (AT&L) arrived and visited the Acquisition Agency,

advisor assessed that the rating did not correlate with the maturity of capability and discussed findings with the acquisition advisory team and previous senior advisor.

The senior advisor was given direction by previous senior advisor preparing to redeploy to maintain the rating aligned with the schedule chart depicted in the quad chart. The schedule chart shows attainment of CM1A by December 2013. Schedule-driven plans result in under-developed capability and capacity for the nation; an independent assessment needs conducted. Currently DoDIG investigations are the only independent method, not an effective approach.

AMOD Acquisition, Technology and Logistics - Acquisition			
Mission Essential Task Assessment (META)	4Q12	1Q13	Current Assessment Narrative (1Q13)
3.1. Acquisition Agency (AA) responsible for procuring all classes of supply necessary to responsively meet ANA requirement	CM2B	CM2B	<p>The Acquisition and Resource Management course started 5 January 2013. Courses are scheduled to be taught by advisors during the weeks of January 20-February 2 for procurement. Contracting Officer Representative course to be part of training (Jan 23). AMoD ATL (Jan 17) briefed on MoD Procurement Certification and agreed to preliminary assessment with AA and Advisors through Regional Contracting. Self-inspection and COR checklist have been translated and provided to the AA.</p> <p>META 3.1 and 3.3 dropped from CM1B to CM 2B due to increased complexity of supply classes and issues involved with the bidding process.</p>
3.2. New Procurement Committee trained and proficient in bid opening and evaluation IAW Procurement Law, Rules, and Procedures	CM2A	CM2A	
3.3. Processes enable efficient and transparent solicitation, bidding, evaluation, and selection of offers IAW Afghan Procurement Law	CM2B	CM2B	
3.4. Capable to conduct contract management oversight IAW Afghan Procurement Law	CM1B	CM1B	
3.5. Capable of performing internal control and audits on processes.	CM2A	CM2A	
Overall Rating -	CM2B	CM2B	
Resources, Decisions, Support Required to Achieve IO13		Mission Essential Task Objectives CY1Q13	
3.3.1. A more robust advisory team (assistance vs. oversight) is required to effectively address all objectives. Assistance will be required to socialize the importance of timely requirements generation from the end users to support acquisition timelines. This must be addressed across all MoD staff. More regional contracting oversight by AA and AA advisors.		3.3.1 Improve Procurement Processes	<ol style="list-style-type: none"> 1. Work with O&M&D and users to provide requirements earlier, manage procurement lead time 2. Increase advisory role to support increasing the Afghan knowledge base on developing technical requirements.
3.3.2. The Procurement Committee (PC) Chairman (currently LMR chief) is appointed by MinDef and is not under the authority of the AA. Although the PC Chairman does interact with the AA Sr Advisor, recommend that the AT&L and MinDef advisors occasionally check in on him.		3.3.2 New Procurement Committee trained and proficient in Procurement Law	<ol style="list-style-type: none"> 1. Enhance advisory role to train all Concept of Trade-offs between cost, schedule, and technical performance
3.3.3. Promote the use of the Ministry of Economy's Afghan Reconstruction Development Service (ARDS) as a bridge to full ANA procurement autonomy. Support the pursuit MoD Organization Certification for Procurement through PPU.		3.3.3 Processes enable efficient and transparent solicitation, bidding, evaluation, and selection of offers IAW Afghan Procurement Law	<ol style="list-style-type: none"> 1. Pursue Organization Certification for MoD through PPU 2. Explore more flexible bidding and contract types 3. Perform contract data analysis to determine problem areas of poor execution & benchmark
3.3.5. Assistance from Coalition IG advisors on formalized inspection/audit processes would greatly enhance the integrity of the ANA procurement process.		3.3.4 Capable to conduct contract management oversight IAW Afghan Procurement Law	<ol style="list-style-type: none"> 1. Facilitate Checklist for contract close-out 2. Facilitate implementation of remedial actions for vendor delinquencies in a more timely manner. 3. Develop contractor performance evaluations to provide better selection criteria and decisions for post performance evaluations.
		3.3.5 Capable of Performing Internal and Control and Audits on processes.	<ol style="list-style-type: none"> 1. Facilitate checklist for audit monitor process 2. Facilitate an internal control processes to ensure delivery of goods, construction, and performance of services. 3. Train appropriate personnel on audit monitor process (once checklist completed)

Figure 4-5. Monthly quad chart for Acquisition Agency for first quarter 2013

Figure 4-5 illustrates the change in December 2012 for META for 3.1 and 3.3 to CM-2B and the overall rating to CM-2B. Current Assessment Narrative states *AMoD ATL (Jan 17) briefed on MoD Procurement Certification and agreed to preliminary assessment with AA and Advisors through Regional Contracting*. This was a significant milestone that Afghan leadership would consider having an external organization Afghan Policy Procurement Unit of the Ministry of Finance review MoD's procurement process

and documentation for potential certification.

Figure 4-6 depicts the Monthly Quad Chart for December 2013, a year later. The ratings have not changed although there had been considerable progress. The establishment of the procurement module in the Afghan Financial Management Information System (AFMIS) allowed tracking of the invoice payments through the process with 400 of the 500 contracts for Solar Year (SY) 1392 entered in the system.

The advisor preparation and review by the Acquisition Agency of a contract closeout checklist. The acceptance by both U.S. and Afghan leadership for implementation of NATO Codification System for standardization of stock number to resolve the generation of thousands of incorrect stock numbers crossing to part numbers in the Afghan supply system.

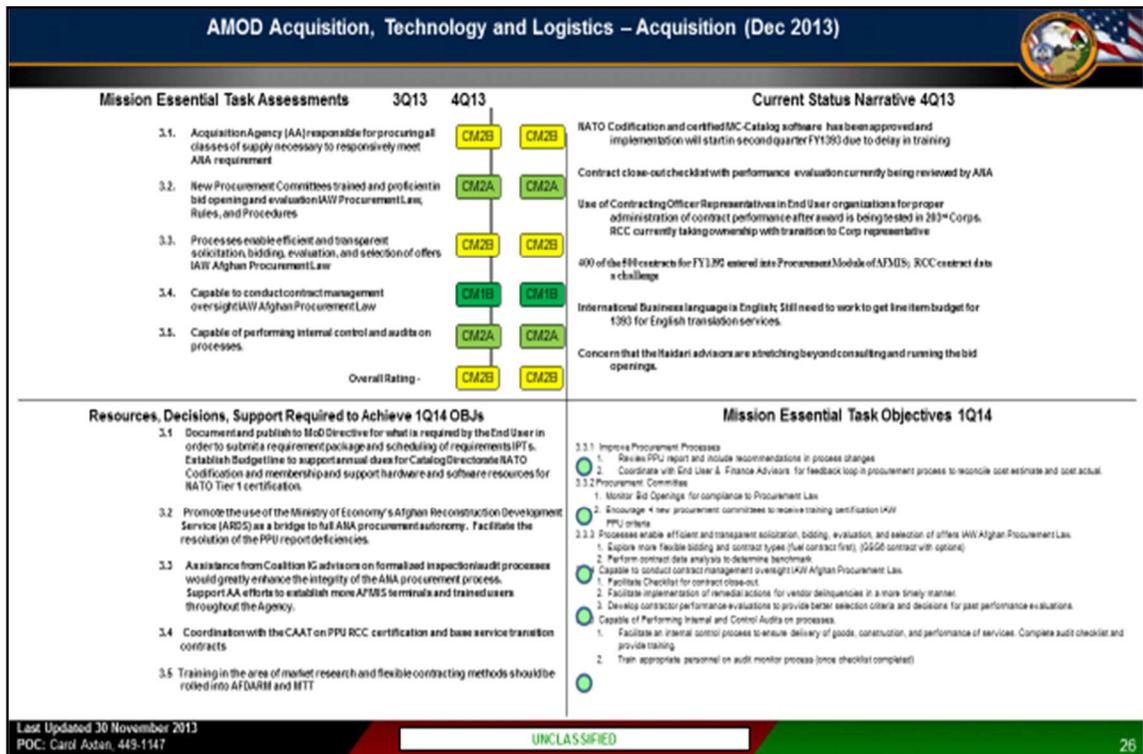


Figure 4-6. Monthly quad chart for Acquisition Agency for third and fourth quarter calendar 2013

Effective advising relies on effective critical mass; not just the quantity of advisors but

also the quality. Program management planning and execution provides better alignment of work to be accomplished, measures of performance, and changes to plan when required.

Section 4.4.1 Weekly Status Reports

Acquisition Agency advisors submitted weekly status reports documenting current work and progress. The reports included a section on contracts in-process. Reports also included pertinent problem areas such as NATO codification project and the problem of data in Core Information Management System (CoreIMS) being inaccurate when physically checked in supply warehouse.

Assignment of stock numbers to part numbers is the responsibility of the Acquisition Agency under the Cataloging Department; the Coalition direction for allowing Material Support Numbers versus maintaining a standardized cataloging system led to erroneous stock number. The Afghan Director for Cataloging Department voluntarily taught English classes within the Acquisition Agency to his department and others within the agency.

These reports provided a significant level of detail collected on the procurement process. The senior advisor to the AMoD (AT&L) visited the Acquisition Agency two to three times each month to discuss issues and coordinate resolutions with the AMoD (AT&L). The weekly reports provided timely information on the progress and areas to focus for discussions with the Director of the Acquisition Agency and the AMoD (AT&L).

An Army major, under the Afghanistan-Pakistan (AFPAK) Hands program, was assigned to the Acquisition Agency with the responsibility to correct the huge inaccurate stock number problem created from a previous U.S. bad decision to generate material stock numbers rather than require NATO stock numbers. *The AFPAK Hands program was established in late 2009 to fill a need for individuals who knew the culture, language,*

history, politics, and other aspects of the Afghanistan and Pakistan region (Lee, 1).

Training consists of five to seven months and includes *customs, politics, economy, governance, development, counterinsurgency, and the military situation for Afghanistan and Pakistan* (Lee, 1).

With the advanced training, these personnel were granted more flexibility for interaction with the Afghans. Upon completion of deployment, they are given preference in job assignments and war college selections rewarding them for the dedicated training and deployment assignments. Future assignments are to leverage the knowledge gained from their deployment experience. Many will deploy for a second tour to build upon their previous knowledge and experience.

Utilization of AFPAK Hands can be effective when aligned with specific goals and direction to achieve within the broader objectives of the mission. When he arrived, the stock number problem had just been uncovered; however, many officers and advisors across all Commands were re-deploying leaving the problem to fall on brand new arrivals. Fortunately, the senior advisor for AMoD AT&L was the carryover and raised the problem, solution, points of contact, and re-assigned the AFPAK Hand to the Acquisition Agency to resolve the issue. If this senior advisor had been re-deploying, the problem would have fallen through the cracks again which had occurred for previous two years.

The weekly report included a section on status of current contract packages through the procurement process. The advisors assigned a tracking number for each package. At each procurement step, the date entering step, identification number, description, estimated price, end user, and the Corp were tracked. Table 4-J depicts a section of the

November 14, 2013 weekly report for the contract packages for the bid opening step. The Acquisition Agency tracks contract packages by description which encumbers tracking through an excel spreadsheet. The weekly status report includes significant accomplishments and issues needing raised to senior leadership.

Using a centralized planning and monitoring stateside approach, weekly reports provide critical knowledge to understand progress and discuss with advisors in-country what changes to make in execution. Reports can assist independent audits focusing on areas of concern.

Date	ID	Description	Estimate	Offer	End User
07- Nov-13	W317- 92	Construction and renovations of pools, towers, and streams at MoD Environment and Isteqial high school (Single Source)	\$512,659	\$469,067	CPMD
07- Nov-13	W370- 92	Providing connexes/containers (40ft) with freezing systems for Deaths at different Corps, construction of a building, roads asphalt and pavements at MedCom (Single Source)	\$7,960,650	\$7,233,772	CPMD
09- Nov-13	G261- 92	17 line items of publication equipment for MoD Public Affairs Office	\$492,063	\$472,917	PA
09- Nov-13	G135- 92	20 line items of training materials for ANATC	\$208,333	\$84,733	GSG3
10- Nov-13	G236- 92	Establishing Communication Network for 5 regional GSG2 Offices located in different sites	\$2,816,667	\$2,521,341	GSG6
10- Nov-13	G017- 92	49 line items of Radio communication equipment for (NOC) GSG6	\$378,092	\$354,063	GSG6
10- Nov-13	W371- 92	Renovation of walls and play grounds at KMTC, along with some minor renovations at CFC Kandak located at Pul-e-Charki (Single Source)	\$452,577	\$414,716	CPMD
10- Nov-13	W372- 92	Construction and renovation affairs at GSG2 (Single Source)	\$1,242,349	\$1,137,181	CPMD
10- Nov-13	S255- 92	O&M contract for CT-Scan machines at ANA 400-bed hospital (1 Year)	\$68,750	\$62,292	MEDCOM
11- Nov-92	W397- 92	Construction of a building with power and irrigation systems for and at ANA Acquisition Agency (Single Source)	\$84,419	\$77,497	CPMD
13- Nov-92	G129- 92	24 line items of PT uniform for ANATC	\$77,792	\$0	GSG5
13- Nov-13	G180- 92	47 line items of diagnostic machines for ANA hospital and clinics	\$1,819,431	1,603,833	MEDCOM
Total			\$16,182,541	\$14,493,703	

Table 4-J. Bid opening contract packages for week of 14 November 2013

A stable, competent workforce stateside provides the stability for effort. In January 2014, the newly-assigned senior advisor for the Acquisition Agency decided to stop collecting the Afghan procurement data and detailed reports. The newly-assigned senior advisor to the AMoD (AT&L) supported this decision not understanding the history of data collection and criticality for assessing procurement process. The work accomplished in country is largely dependent on individuals executing work; therefore, often full ramifications of decisions were not considered.

There was significant work and improvement made during the year. The Procurement Policy Unit (PPU) of the Ministry of Finance assessed the Acquisition Agency on their ability to meet procurement law through a checklist. PPU granted temporary certification citing sixteen discrepancies that required resolution prior to a re-assessment within six months. The Acquisition Agency resolved twelve of the sixteen discrepancies and were developing corrective actions for the remaining four discrepancies. State Department advisors are responsible for working with the PPU to ensure the checklist requirements are sufficient to meet U.S. donor expectations.

The procurement process is illustrated for central contracting in figure 4-7 and regional contracting in figure 4-8.

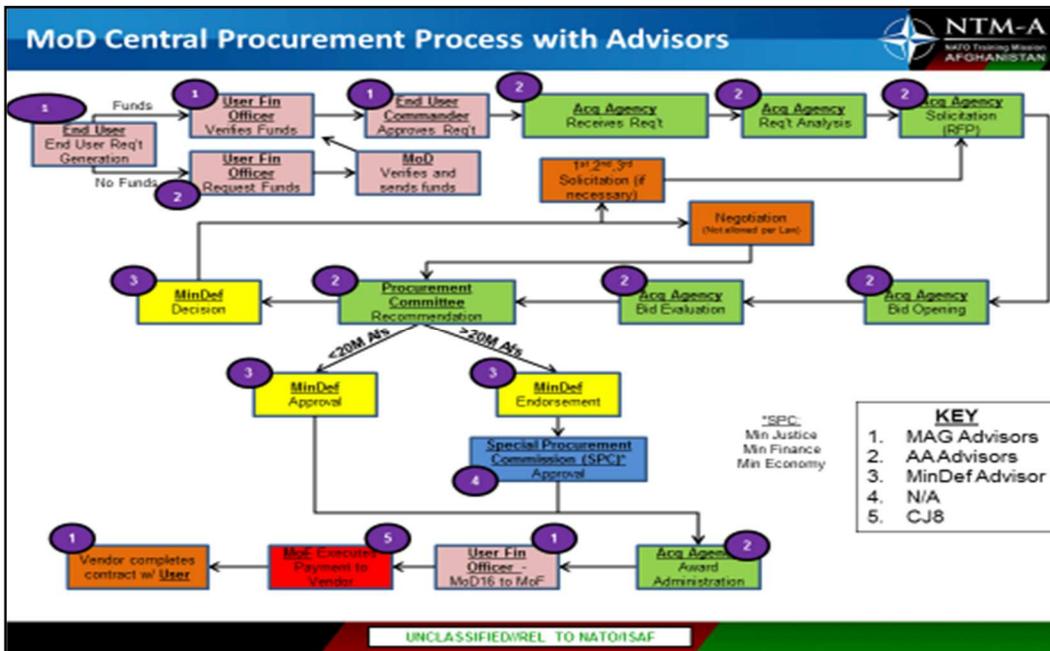


Figure 4-7. Afghan procurement process for central contracting

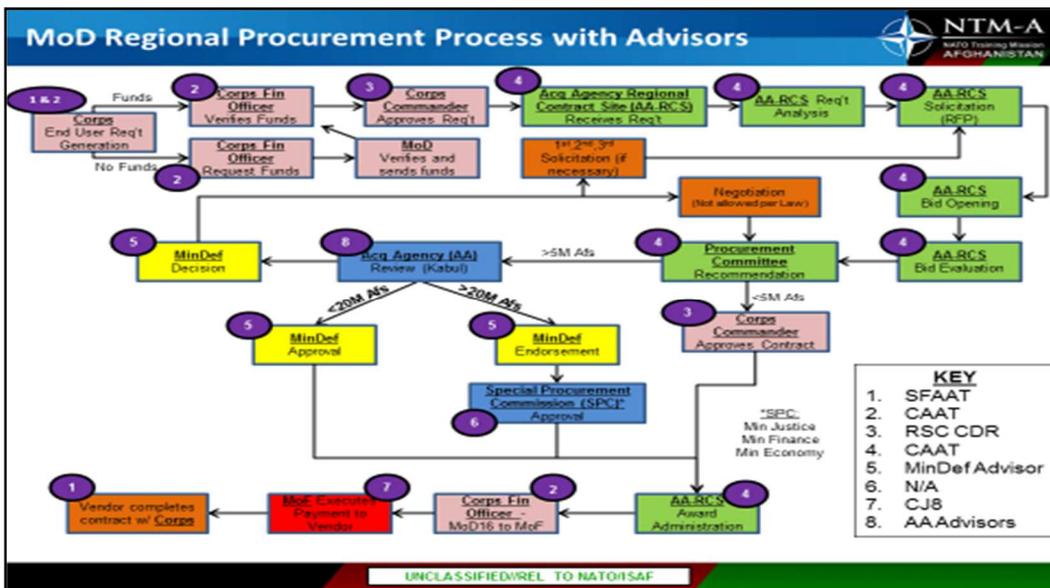


Figure 4-8. Procurement process for regional contracting

These two charts were developed in fall 2013 for the benefit of training new advisors on the process and the advisory resources within Kabul (central) and the regions. Security Force Assistance & Advisory Team (SFAAT) and Contracting Advice & Assist Team

(CAAT) are advisory teams supporting the ANA operational and tactical levels. They fall under IJC for SFAAT and CSTC-A for CAAT.

This creates a situation where strategic contract advisory role is under the MoD-MAG Command and the regional contract advisory role is under different commands on the Coalition-side. On the Afghan MoD-side, all fall under the AMoD (AT&L) since all belong to the Acquisition Agency whether centrally or regionally located. This is imperative for developing consistent, end-to-end processes throughout the MoD.

Responsibility on the Coalition-side should have been functionally focused, aligned with the Afghans organization for MoD contracting. In other words, procurement function should be responsibility of the advisory mission to the AMoD (AT&L) with the SFAATs and CAATs assigned as team members to a procurement integrated process team (IPT). The senior advisor to AMoD (AT&L) would be the IPT lead, applying similar approach for DoD acquisition.

Section 4.4.2 Procurement Policy Unit Assessment

The Procurement Policy Unit (PPU) assessment was a significant accomplishment for the U.S. advisory role facilitating two Ministries (MoD and MoF) working together and the MoD allowing transparency of their records to another Ministry. Initially, the Ministry of Interior (MoI) Procurement Agency had declined to seek PPU certification due to scrutiny of their procurement records by another Ministry; however, when the MoD sought certification, the MoI changed its decision. A competitive nature exists between Ministries and can be leveraged; this environment also existed in Iraq.

A point paper (exhibit 4-B) was translated into Dari language and provided to the AMoD (AT&L) on the specifics of the certification process. The Afghan Director of the Acquisition Agency was briefed to gain support prior to discussing with the AMoD (AT&L). The point paper was shared with the senior advisor for the Minister of Defense to build support within the MoD leadership.

Coordination of actions within the MoD leadership created a more synergistic approach and resulted in collaboration and achievement of accomplished goal, convincing the MoD leadership to pursue Organization Procurement Certification through the PPU. Ultimately, the goal is to develop capability and capacity within the nation's Government to monitor its Ministries on their ability to develop policy and processes to meet laws and then monitor performance. The PPU assessment was an important milestone; however, the two examples in the following section for counter-corruption of procurement describe that more scrutiny through detailed assessments using compiled data is needed.

Organizational Procurement Certification for MoD
Point Paper

The Ministry of Finance (MoF) Procurement Policy Unit (PPU) is the organization responsible for Afghan Government Procurement Law. As established in Circular number PPU/C022/1387 dated February 28, 2009 on "Interim Procurement Arrangements" provides for the Gradual Decentralization Program for Procurement as follows:

- Decentralization of procurement services shall be effected gradually
- Afghanistan Reconstruction Development Services (ARDS) is the institution in charge of assisting entities in their procurement activities. Entities may at their discretion seek assistance from ARDS for all procurement up to the thresholds defined in Circular number PPU/C022/1387.
- Where the procurement estimated cost is above thresholds defined in Circular number PPU/C022/1387, it is mandatory for entities to refer to ARDS to provide procurement facilitation and support.
- Exemption from the above provisions is only possible through Procurement Capacity Certification by the PPU. The entity must submit the application for certification to the PPU and have its procurement capacity certified by the PPU. Certification shall be granted by the PPU on a case by case basis.

The procuring entity must first conduct an initial assessment and gather the following information supported by written proof to be sent to the PPU together with the Application for Capacity Certification:

1. Procurement organizational structure, job functions, and operational procedures.
2. Procurement staff academic and professional background and evidence of attainment by formal assessment of their level of understanding of (i) Public Procurement Law 2008 as amended (ii) Rules of Procedures.
3. Status of Infrastructure/Equipments within the procurement department and maintenance of records.
4. Procurement Performance Monitoring System: manual/electronic.

The assessment, when measured against the benchmark standard, would assist the entities to identify the required improvements for achieving eligibility criteria/benchmark. The certification process for an organization to be certified in procurement requires an internal assessment of procurement capacity through the evaluation of 5 areas:

(1) **Organizational structure** assesses the formal procedures for planning, bidding, contract management, and dispute resolution. (2) **Staff competency** assesses training, experience, and qualification of the personnel. (3) **Infrastructure equipment and maintenance records** assess the use of computers and printers for documenting and maintaining the procurement records in compliance with procurement law and PPU procedures. (4) **Capacity building measures** assess training of current personnel, the capability to continue to develop the personnel, and the capability for motivating the workforce for good performance. (5) **Performance measures** assess the establishment of procurement metrics evaluating actual performance against benchmarks.

Exhibit 4-B. Organization procurement certification for Ministry of Defense

Section 4.5 Applying Counter-Corruption Initiatives in Procurement – Project Auditing

For procurement case study, Afghan procurement data was analyzed to determine if excessive cost estimates caused poor Afghan budget execution. In addition, procurement data also analyzed as a management audit tool to evaluate procurement process effectiveness and make recommendations for improvements. Information on counter-corruption initiatives explored with recommendations to provide “checks and balances” in the procurement process.

In February 2015 in Afghanistan, five senior Afghan military officers were suspended during a probe into bid rigging for the \$803.3 million MoD fuel contract awarded on September 1, 2014. The excluded bid was for \$629.5 million, creating almost a \$200 million difference between the winning and excluded bid. U.S. donor funds provided for this contract (Stancati).

Corruption is widespread and prevalent at all levels of Government and within other parts of society...grand corruption by some political leaders and power brokers remains well outside the tools available to the Bank and will influence strongly the willingness of legislatures and the citizens of donor countries to provide assistance to Afghanistan (World Bank, 39).

Transparency International has consistently ranked Afghanistan in the top five most corrupt countries in the world (Ellyatt, 1). Per United Nations survey, corruption tied with lack of security as the greatest issue of concern to Afghans, therefore rating higher than unemployment, standard of living, and government performance (UNODC Corruption Widespread, 1).

The USAID assessed in 2009 that corruption in Afghanistan *has become pervasive, entrenched, systemic, and by all accounts now unprecedented in scale and reach* (M. Goodman, 3). In February 2015, the Chairman of the Joint Chiefs wrote, *corruption*

alienates key elements of the population, discredits the government and security forces, undermines international support, subverts state functions and rule of law, robs the state of revenue, and creates barriers to economic growth (M. Goodman, 3).

Countering corruption in defense institutional building is instrumental to the success of security and stability of a nation. Corruption undermines the effectiveness of government and the confidence of the people. Corruption denies limited resources for development of the nation to support greed of individuals. Corruption is an international systemic problem aggressively managed in every nation, but it is most vulnerable in nation building because of the large influx of financial resources to a nation that is struggling to establish basic governance policies. Nation building requires donor funds to build institutional capability and capacity within the fragile nations, but corruption will deter donor nations from providing resources.

The Corruption and Economic Crime Branch of the United Nations Office on Drugs and Crime (UNODC) established a guidebook on anti-corruption in public procurement and the management of public finances, *Good practices in ensuring compliance with article 9 of the United Nations Convention against Corruption*.

The requirements of the United Nations Convention against Corruption (UNCAC) article 9 are (a) the establishment of a sound procurement system; (b) transparency in procurement; (c) objective decision-making in procurement; (d) domestic review (or bid challenge) systems; (e) integrity of public officials; and (f) soundness of public record and finances (UNCAC, 8).

The determination for what constitutes a sound procurement system is required at the start and then a project plan is developed to meet that objective. Critical elements are

competition, transparency, and integrity typically achieved through management information systems.

For some nations, an electronic system is initiated early but for others it will be a paper-driven system or a combination of both. The long-range goal should be electronic to provide the greatest ability for transparency but this goal requires a significant investment in electronic infrastructure that may not be practical.

Transparency is instrumental for a sound procurement system and should include the following activities (a) publicity of procurement opportunities and the disclosure of the rules to be followed; (b) undertaking procurement processes publicly and visibly, per prescribed rules and procedures that limit discretion of officials; and (c) the provision of a system for monitoring and enforcing applicable rules (UNCAC, 8). Transparency is required in all stages of the procurement process.

Competition in a procurement process means more than one bidder afforded the opportunity to propose and awarded a contract for goods or services. Full and open competition refers that every means available used to solicit bidders to propose for procurement of goods or services.

The use of objective criteria in decision-making supports non-discrimination and equal treatment for providers, as well as, integrity (UNCAC, 9). Integrity requires objectivity in all stages of the procurement process. An independent review of solicitation and award decisions should achieve the same result by any qualified procurement personnel using the evaluation criteria through a procurement audit.

UNCAC cites several methods for promoting these principles in procurement: (article (1)(a)) the public distribution of information relating to procurement procedures and

contracts; (article (1)(b)) the disclosure of conditions for participation; (article (1)(c)) the use of objective and pre-determined criteria for public procurement decisions; (article (1)(d)) an effective system of domestic review; and (article (1)(e)) measures to regulate matters regarding personnel system responsible for procurement (UNCAC, 9).

UNCAC article 9 (1)(a) requires *public distribution of information relating to procurement procedures and contracts, including information on invitations to tender and relevant pertinent information on the award of contracts, allowing potential tenderers sufficient time to prepare and submit their tenders* (UNCAC, 10). The public advertisement of request for bids or proposals is essential for compliance. This accomplished through media sources and website postings. This principle ensures transparency and competition within the procurement process.

UNCAC article 9 (1)(b) requires the *establishment, in advance, of conditions for participation, including selection and award criteria and tendering rules, and their publication* (UNCAC, 10). This requirement further supports transparency and competition to ensure that all bidders understand the stipulations of the procurement bid. Ensuring ease of access to the bid facility for meeting submission deadlines is critical.

In Afghanistan, an initiative was planned to build bid facilities outside the Afghan army bases to better ensure security through non-access of civilian vendors for submitting bids. Although this effort orchestrated through the U.S. Army Corp of Engineers for construction of the facilities, all facilities were cancelled except the bid facility at the Acquisition Agency in Kabul based on reduction of construction efforts by the U.S. aligned with scaling back efforts at the tactical and operational level due to elimination of U.S. and Coalition presence.

Utilizing project management would identify all tasks linked and related to the construction of bid facilities. Risks and mitigation strategies would be identified for the elimination of bid facilities for Regional Contracting Centers at the Afghan Corp headquarters through linkages to impacts. The purpose of bid facilities outside the ANA Regional Corp headquarters reduced the risk of base attacks through vendor access to the bases. This risk still exists with the elimination of the construction of the bid facilities. A risk mitigation plan identifies means even as a contingency of a temporary facility should the permanent structure not be built.

Planning for these bid facilities did not significantly include the ANA other than the location of the facility outside the base. Risk mitigation strategy would be the transfer of responsibility of construction at a point agreeable to both parties, U.S. and Afghans. Involvement of the Afghan MoD would have facilitated this approach.

UNCAC article 9 (1)(d) requires an appropriate system of procurement to have an *effective system of domestic review, including an effective appeal, to ensure legal recourse and remedies in the event that the rules or procedures are not followed* (UNCAC, 11). For defense institutional building mission, the domestic review of systems can be accomplished through a management audit of the process and procedures used for procurement.

UNCAC (1)(e) recommends *measures to regulate matters regarding personnel responsible for procurement, such as declarations of interest in particular public procurements, screening procedures and training requirements* ensuring ethical standards of procurement officers and personnel. UNCAC article 8 refers to conduct of public officials that have a direct relevance in public procurement and procurement

personnel. The integrity of public officials is critical to acquire people's confidence in the government.

Appendix 4-A contains the checklist for meeting minimum requirements set out by article 9 (1) of UNCAC. This checklist can be coordinated with the organization responsible for establishing and monitoring procurement and financial law within the country. Based on results of the checklist, a corrective action plan is generated to identify the gaps and corrective action. For country's receiving donor funds, an assessment and corrective action plan should tie results with donor funding therefore incentivizing counter-corruption actions within the procurement and financial management processes.

Section 4.5.1 Procurement and Budget Execution

For Afghan government, budget execution drives assessments on performance of an organization. Each Minister of an organization is evaluated by Parliament based on their ability to spend funding, largely donor funds, within the one-year execution window. Since significant Government spending is donor funds, this relates directly to the ability to expend funds and affects future donor funds. Budget execution measures the ability to spend the funding and connects to a reduction of funding for the next year if funds are not executed within the allocated year.

Although practical for basic consumable items such as food, clothing, office supplies, and services; for larger, more complex procurements, one-year window is not practical. Moving the planning timeframe earlier can assist in meeting the one-year execution, but planning a year in-advance is not understood for many countries, particularly those that have been stagnant in academic development through economic sanctions.

Linking efforts to budget execution increases buy-in from the nation because priorities of the Minister are linked to all Ministry senior leadership. In Afghanistan, some advisors did not understand importance merely focusing on aspects of their functional area that was in-line with their personal knowledge. Advising the MoD on what to buy is just as important as how to buy.

Recommendations are provided for improvements in the procurement process for reduction in timeline from requirement generation to contract award, development of common procurement benchmarks for tracking progress, and establishment of counter-corruption initiatives. Procurements need two approaches: (1) items and services procured and delivered within one year and (2) items and systems requiring more than

one year for award, production, and delivery.

This case study will evaluate the contract data for contracts awarded by the ANA in Solar Year (SY) 1390 and SY1391. There were 244 contracts awarded in SY1390 and 305 in SY1391. Fiscal SY 1390 ran from March 2011 to March 2012 and SY1391 ran from March 2012 to December 2012. SY1392 adjusted to calendar year and ran from December 2012 to December 2013. For future, solar year fiscal cycle remains from December to December.

The analysis looks at trends in cost estimation and makes recommendations for improvements in the ANA procurement and budget execution process. Shortfalls in budget execution have led to funding cuts by donor countries and Afghan Parliament. In an article for the publication “Politico” the Director for the Special Inspector General for Afghan Reconstruction (SIGAR), John Sopko, stated *the U.S. has spent about \$104 billion rebuilding Afghanistan, more than it spent on the post-World War II Marshall Plan, but much of that has been stolen or squandered* (Ewing). Although the cost estimate of \$104 billion is largely U.S. expenditures for both U.S. and Afghan military, future expenses focus on continuing to build and sustain the Afghan National Security Force (ANSF).

Section 4.5.1.1 Background

NTM-A/CSTC-A transitioned supply class I, II, some III (firewood), some IV and VIII to the Afghan MoD by the beginning of SY1391. All classes of supply were planned to transition to the ANSF before U.S. departure. Over the next two years, the other classes of supply (III, V, VI, VII, IX, and X) were planned for transition. Classes of supply are depicted in table 4-K. In general, the more complex classes of supply would be V-ammunition, VII-end items, and IX- repair parts.

Class of Supply Number	Class of Supply Type	Class of Supply Number	Class of Supply Type
I	Food, Rations, & Water	VI	Personal Items
II	Clothing	VII	Major End Items
III	Petroleum, Oils, & Lubricants	VIII	Medical Supplies
IV	Fortification & Barrier Materials	IX	Repair Parts
V	Ammunition	X	Miscellaneous Supplies

Table 4-K. Classes of Supply

Many U.S. military specifications were translated into Dari language and provided to the Afghan MoD. Most words in the specification do not translate into a Dari equivalent. In addition, the testing and terminology used is not comprehensible to majority of Afghan end users. An excerpt taken from a U.S. detailed specification for Cold Weather Coat:

2.2.1.1 The basic material for the coat shall be six color desert wind resistant sateen cloth made of 50% nylon 50% cotton blend (NYCO SATEEN) with Quarpel type water repellent finish. The cloth shall be dyed, or dyed and printed on the filling effect side as the face. The cloth shall be desized, dyed or dyed and printed. The weave when viewed from the face side shall be a 5-harness sateen. The cotton shall be carded and drawn. (Detailed Specification, 1)

The testing section encompassed American Society for Testing and Materials (ASTM) and American Association of Textile Chemists and Colorists (AATCC) standards

unknown to Iraq and Afghanistan. These standards surpass the knowledge for civilians in fragile and failing nations requiring defense institutional building. The U.S. mission must provide specifications and statements of work (SOW) that are understandable for the nation, not merely translate existing U.S. specifications and SOWs. This effort requires centralization of effort through knowledgeable, adaptable personnel and not advisors in the country. This effort can be coordinated with universities that have organizations such as Engineers without Borders with the knowledge of challenges of education and utilities in some nations.

Nation-tailored specifications are needed for requirement, testing, and inspection for deliverables. These specifications need developed at a level that is understandable to the skill set of the assisted nation. Afghanistan has a 28 percent literacy rate (males – 43.1 percent and females – 12.6 percent) (CIA factsheet 2014, 5). The first challenge is finding MoD personnel who can read Dari; U.S. technical specifications are incomprehensible.

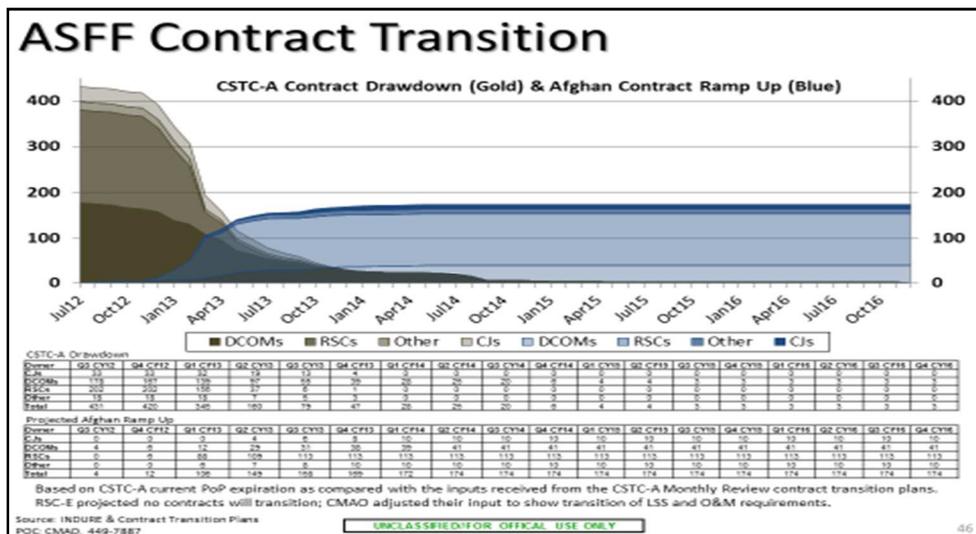


Figure 4-9. ASFF Contract Transition

An integrated management plan correlating contracting activities and ministry

capability required long before the 155-day timeframe for contracting period.

Requirement generation occurs several months before the contracting process starts. The quantity of contracts to plan to transition during this period was unrealistic. A seamless transition is required to ensure no gaps in goods and services.

This case study provides information on the procurement problems and challenges of the MoD and some reasons for poor budget execution. Budget execution is a metric used to measure the ability to spend the funds allocated for a year. It does not measure the effectiveness of the funds spent but only that they were spent in the execution year, therefore not practical for an assessment of military readiness.

The procurement process starts with the end user (resource manager) determining the requirement and preparing and submitting a requirement package to the Acquisition Agency for contracting. The procurement process ends when the procurement invoice paid through Ministry of Defense-Finance (MoD-F) and Ministry of Finance (MoF). The budget execution metric encompasses this entire process, which for some classes of supply will be difficult to accomplish in one year because the production period alone may exceed one year.

The funding held is based on the estimate; therefore, if the estimate is too high then funding is frozen and unused during the year. If the estimate is too low, then a shortage occurs and contract packages are cancelled to pay for those already awarded. It is imperative that good cost estimation tools and practices are used to ensure proper budget execution; also, sufficient funds are available to pay invoices.

Program Budget Assessment Committee (PBAC) meetings are held monthly to review budget expenditures. Informal meetings were initiated at the request of CSTC-A to

review at the MoD-F; however, these meetings still focused on the expenditure of budget codes. A mid-year review was first conducted with Afghans in spring 2013 to review expenditures, discuss spending shortfalls, and determine re-alignment of funds.

For the first mid-year review, the greatest accomplishment was raising the importance of the meeting. Many end users sent lower level officers who did not have authority to represent the office. When the office's funds were cut, the senior members of the offices attended further meetings better prepared to describe status of funding efforts. The Afghan leadership quickly learned the importance of monitoring expenditures. Interim meetings were required to review contract status, but coordination across advisors and counterparts challenged implementation.

With management of funding and contracts, robust processes must have 'checks and balances'. To determine if processes were meeting a level of transparency and accountability, a comprehensive management audit of the process was accomplished by the senior advisor to AMoD (AT&L) with a detailed report citing conclusions and recommendations.

Data Collection and Analysis

The contract data in this case study was possible due to the insight and vision of a senior acquisition advisor who started the process in SY1390. Acquisition advisors since then had maintained the process, providing a weekly report, which depicted the contracts at the various steps and the number of days. At the start of SY1393, the new senior acquisition advisor convinced the new senior advisor to the AMoD (AT&L) to discontinue the practice of collecting the data and generating the reports; therefore, this data is no longer collected or if restored by auditing community later, a gap exists.

The acquisition advisor hired an Afghan data manager who reviewed Acquisition Agency reports daily and filled an excel spreadsheet used in an ACCESS software database to generate weekly reports displaying contracts at each step of the acquisition process. For SY1390 and SY1391, the data within the ACCESS software database generated excel spreadsheets for comparison of estimate and actual award value. Data management capability is critical in the advising mission for collecting, monitoring, and assessing performance. The MAG at times had over 200 military and civilian advisors but never a data manager.

Section 4.5.1.2 Description of Afghan Procurement Process

The Afghan procurement process is broken into two methods: Central for items purchased across the entire ANA and Regional Contracting Centers to support specific Regional Corp Commands. Both processes meet the Afghan Procurement Law but each tailored for the types of procurements and situations.

1. Step One Requirement Analysis – The end user or resource sponsor is responsible for preparation of the procurement package requirement and estimated cost (requires 3 independent estimates). The End User Finance Officer verifies that funding is available based on estimated cost. If funds are not available, then the End User will submit a Form B-20 requesting funding from MoD-F. For Regional procurements, the Regional Corp Commander can approve procurement packages less than 5M Afs (\$86,000) for goods and services.

For Central procurements or Regional procurements over the limit, the End User Commander must approve the procurement package before submittal to the Acquisition Agency. The End User then submits the procurement package to the Acquisition Agency. For Regional procurement packages, they are submitted to the Regional Contracting Centers at Corp Command headquarters. Based on Afghan procurement law, the Acquisition Agency can process procurement packages without funds available but cannot award the contract without funding allocation.

2. Step Two Bid Evaluation: The Acquisition Agency will review the package and then possibly meet with the End User to discuss any missing or unclear information. The Acquisition Agency will use a checklist to ensure that the package meets Afghan Procurement Law and Rules and Procedures of the MoD. If the checklist is complete,

then the package sent for preparation of bid documents and an Acquisition Agency cost estimate developed. For basic procurements, bid openings are held with sealed bids. A bid security, typically five percent of the bid price, is requested by each vendor in cash, as illustrated in figure 4-10.



Figure 4-10. Bid bond for procurement

The bid bonds are held by the Acquisition Agency for all vendors until determination of bid winner. If the bid winner chooses not to be awarded the contract, then he forfeits the bid bond. When the contract awards, the bid funds are held by the Acquisition Agency as a performance security. The bid bonds are returned to all other vendors. The bids are opened in front of all vendors and the bid read and recorded by the Procurement Committee. The Procurement Committee will include members from the Acquisition Agency, End User, Ministry of Defense-Inspector General (MoD-IG), and PPU of the MoF.

Although negotiation is a violation of procurement law for sealed bids, the Procurement Committee will routinely ask the vendor, once the bid is opened, if he has a discount. This gives the last vendor at the bid opening an unfair advantage over the previous vendors because one knows the other bids and discounts. Vendors will also provide a sample of their items under bid, to ensure that actual deliverables are not of less quality than item initially bid. The sample of the awarded bidder is retained to compare

with deliverables.

Complex procurements require a pre-qualification of vendors prior to the bidding process. Once the bid opening is completed, a bid evaluation report is drafted which documents the bid prices and any pertinent information from the bid opening. The report will include a recommendation of the Procurement Committee.

3. Step Three AMoD (AT&L) Review – For Regional contracts less than 5M Afs (\$86,000), the Regional Corp Commander can approve the contract. All Regional contracts above 5M Afs (\$86,000) are forwarded to the Acquisition Agency for approval process. The Acquisition Agency will review the regional contract package and if acceptable will send package to AMoD (AT&L) to review and approve.

4. Step Four Minister of Defense Approval - If AMoD (AT&L) approves, then the contract package is forwarded to the Minister of Defense office for review and approval. The Minister of Defense can approve contracts below 20M Afs (\$344,000). If over 20M Afs (\$344,000), then the Minister of Defense endorses the contract package and forwards to the Special Procurement Committee (SPC) for approval.

5. Step Five SPC Approval - The SPC approves all procurements over 20M Afs (\$344,000). Those rejected by the SPC must be re-solicited.

6. Step Six Contract Administration and Award – All approved contract packages then return to the Acquisition Agency for award. The contract winner announced and the final contract forwarded to the vendor, end user, and MoF for signature and obligation of funds.

The average number of days at each step of the procurement process totals 155 days.

Requirement Analysis to Bid Evaluation = 58 days
Bid Evaluation to ATL Review = 18 days

AT&L Review to Minister of Defense Review = 18 days
Minister of Defense Review to SPC or Contract Administration = 1 day
Special Procurement Committee to Contract Administration = 32 days
Contract Administration to Award = 28 days

Contracts are fixed price, fixed quantity, and fixed delivery schedule; therefore, the entire quantity must be produced and delivered in one delivery. Perishable food is treated differently in the contract and is awarded for the full amount but deliveries occur weekly or monthly. Dry goods are delivered at one time.

Execution reflects the amount spent or paid in salaries or contract invoices. The percent executed is the percentage of the budgeted amount that was executed by the end of the solar year. The problem of poor execution is in operations and acquisitions (codes 22 and 25).

In the development of an integrated management plan, metrics for milestones are identified. In Ministerial Development Plans, these metrics determine if a change in CM is achieved. The nation's government should determine the specific details to achieve the Coalition metric. For procurement, multiple contract types will need to satisfy the flexibility for purchasing simple items to complex systems. The initial planning determines which contracting effort is considered for procurements. Effective contract transition planning ensures various contract types are taught and utilized but accomplished recognizing workload and capacity of the country.

SY1390					
	Total Budget (\$M)	GIRoA (\$M)	CSTC-A (\$M)	Execution (\$M)	% executed
Salaries, Food, Incentives	869.0	291.9	577.1	766.1	88%
Operations & Acquisitions (Code 22, 25)	108.6	34.4	74.2	70.9	65%
Total	977.6	326.3	651.3	837.0	86%
Salaries, Incentives	718.7	176.3	516.9	355.1	49%
Food (Code 21)	175.8	115.6	60.2	162.7	93%
Food, Operations & Acquisitions (Code 21, 22, 25)	284.4	150.0	134.4	233.6	82%
Goods & Services (Code 22)	86.7	29.0	57.7	59.6	69%
Acquisitions & Equipment (Code 25)	21.9	5.4	16.5	11.3	52%
SY1391					
	Total Budget (\$M)	GIRoA (\$M)	CSTC-A (\$M)	Execution (\$M)	% executed
Salaries, Food, Incentives	762.0	215.6	546.4	650.0	85%
Operations & Acquisitions (Code 22,25)	275.4	23.7	251.7	99.6	36%
Total	1037.4	239.3	798.1	749.6	72%
Salaries, Incentives	604.0	167.5	453.5	507.2	82%
Food, Operations & Acquisitions (Code 21, 22, 25)	433.4	95.5	337.9	242.4	56%
Food (Code 21)	158.0	71.8	86.2	142.8	90%
Goods & Services (Code 22)	217.3	21.3	196.0	76.8	35%
Acquisitions & Equipment (Code 25)	58.1	2.4	55.7	22.8	39%

Table 4-L. SY1390 and SY1391 budget and execution data

Note: Table 4-L illustrates the budget split between the U.S. CSTC-A and Government of the Islamic Republic of Afghanistan (GIRoA).

Section 4.5.1.3 Recommendation

Without considerable improvements in cost estimation, the same under budget execution problem experienced in FY1390 and FY1391 will continue. Simple cost estimation tools need developed for end users. A database of the actual prices for contracts would assist on routine purchases. New purchase items will require considerable research that Afghan end users currently lack experience. Using internet market research is a tool to institutionalize in current contracting courses and teach as supplemental training for those already supporting end users.

In addition, an independent cost estimate by the Acquisition Agency should be part of the procurement process for comparison to end users. Although the Acquisition Agency currently develops an estimate, it is neither part of the process nor used for any comparison. Greater than a fifteen percent difference between the end user estimate and the Acquisition Agency estimate should require a reconciliation between the two organizations before the requirement package is further processed. Identifying differences in assumptions of estimates and reconciliation affords more reliable estimates.

A management audit was accomplished to determine the timeframes for each of the steps based on end user and commodity, therefore establishing benchmarks. During budget execution meetings, the focus should be on contracts that have stalled at steps in the procurement process when compared with benchmarks for those steps. Problem identification and resolution should be the focus of budget execution meetings. In 2013, Afghan Budget Execution meetings merely stated the total for each budget element and the funds expended. Discussions into contract status did not occur.

Section 4.5.2 Management Audit of Afghan Procurement Process

As a recommendation from the evaluation of SY1390 and SY1391 contracting estimation, a management audit approach was applied to the Afghan MoD procurement process to determine shortfalls in the process and recommendations to meet expectation of DoD leadership and Congress for meeting accountable, transparent, and auditable processes. These shortfalls focused on reducing the timeframe for contract packages through the procurement process.

One counter-corruption method is to raise visibility of the packages through the process. In a paper-driven process, this becomes time-consuming tracking packages at each step. A single ledger is used to track all documents through an office; therefore, checking on status of any one document requires searching through numerous pages of the ledger. For hundreds of contract packages, this process is not practical.

Project auditing is part of project management. If the project is establishing a procurement process, then project auditing includes auditing the procurement process for measuring performance of the process and the areas that need modification. The PPU assessments are beneficial for the Afghans to evaluate internally, but this process relies on the PPU having an evaluation process that meets the scrutiny of the U.S. audit process since U.S. provides funding spent by the Afghan government.

The assessment of internal audit process is broader than the MoD and therefore initiatives under DoS and USAID should be coordinated as part of the integrated management plan for each organization's mission, thus supporting benefit of a network organization structure responsible for efforts crossing organizations for ministerial institutional building, such as procurement.

Definition of Critical Terms

To manage the expectations of stakeholders, common terms need defined for common understanding. The following terms are instrumental in this evaluation:

1. Management Audit – A systematic assessment of the methods and policies of an organization’s management in the administration and use of resources, tactical and strategic planning, and employee and organizational improvement. The objectives of a management audit are to (1) establish the current level of effectiveness, (2) suggest improvements, and (3) lay down standards for future performance. Management auditors (employees of the company or independent consultants) do not appraise individual performance, but may critically evaluate the senior executives as a management team.
2. Accountability – The obligation of an individual or organization to account for its activities, accept responsibility for them, and disclose the results in a transparent manner, including responsibility for money or other entrusted property.
3. Transparency – A minimum degree of disclosure to which agreements, dealings, practices, and transactions are open to all for verification.
4. Performance Audit – An appraisal of a firm’s internal controls, and the efficiency and effectiveness of its procedures and processes. It is not an evaluation of the firm’s financial performance.
5. Horizontal Audit – An evaluation for a given process or activity across more than one group or department within an organization. Such audits used to gauge the effectiveness of an otherwise similar process or activity when performed by different groups.

What Does Accountable, Transparent, and Auditable Mean to the Afghan Procurement Process (what are the measures):

1. Accountable – The procurement process should include steps to document rationale of selection of vendors, verify compliance of the process, and denote those accountable for the decisions through the review process. A tracking/reporting system that denotes the reviewers (including Procurement Committees, AMoD (AT&L), Minister of Defense, and SPC and their inputs to the contract package as it goes through the process is mandatory.
2. Transparent – The procurement process is visible to the pertinent people to ensure compliance of procurement laws and regulations. The tracking/reporting system is available to all pertinent people to review status and provide insight into concerns if packages held too long or manipulated. The tracking/reporting system should raise areas of concern for both integrity and performance of the procurement process.
3. Auditable – Process documented. Tracking must be accessible. Data must be accurate. Process must deep-dive into how data is collected and reports generated to ensure compliance and accuracy.

Section 4.5.2.1 Procurement Process Improvement

The average timeframe for each step of the procurement process was calculated and then reductions to the timeframe evaluated based on areas that had excessive time. Contract packages sitting at steps in the process become vulnerable to corruption; therefore, visibility is a counter-corruption method to reduce unnecessary delays of contract packages through the process.

Current Timeframe for Procurement Process: Based on SY1392, below depicts the average days at each step of the procurement process.

Requirement Analysis to Bid Evaluation = 58 days

Bid Evaluation to ATL Review = 18 days

AT&L Review to Minister of Defense Review = 18 days

Minister of Defense Review to SPC or Contract Administration = 1 day

Special Procurement Committee to Contract Administration = 32 days

Contract Administration to Award = 28 days

Total = 155 days

Proposed Benchmarks for Procurement Process for Operational Budget:

Requirement Analysis to Bid Evaluation = 31 days

Bid Evaluation to ATL Review = 15 days

AT&L Review to Minister of Defense Review = 7 days

Minister of Defense Review to SPC or Contract Administration = 3 day

Special Procurement Committee to Contract Administration = 29 days

Contract Administration to Award = 10 days

Total = 95 days

The following tables depict the compilation of data from the contract database. Initially, SY1390 and SY1391 were compiled through automation into excel spreadsheets with tabs depicting various compilations. However, for SY1392, the advisor had redeployed and current advisors at the Acquisition Agency were not familiar with the

database to extract pertinent data; therefore, the data for SY1392 was compiled from PDF files of the weekly reports. The data was compiled into an excel spreadsheet. This process took several weeks and could be significantly reduced by a data manager either in-country or reach-back capability in the states. The broader oversight role of a network organization would recognize the importance of data analysis for process improvement and ensure appropriate measures were included in the planning and execution.

Unfortunately, the one-year deployments drive short-term approaches in country. Most personnel focus on actions within their deployment. The senior acquisition advisor who established tracking in SY1390 was a visionary with a long-term need for data analysis. Other advisors maintained the process but were not data management savvy to analyze the data and improve process.

SY1392 Budget Execution Summary	
Unexecuted based on funds not obligated to contract package	\$243,706,618/\$724,936,135 = 34%
Unexecuted based on over cost estimate	\$83,149,201/\$724,936,135 = 12%
Unexecuted based on funds on contract package but not awarded	(Feb 6, 2014 report) \$443,119,655/\$724,936,135 = 61%
Feb 6 Report – 175 contracts awarded	(Contract Timeline Spreadsheet)
Contracts in WIP (contract spreadsheet) - 323	\$427,204,032/\$724,936,135 = 59%
Potential payoff agreement to MoD leadership by vendor prior to award of contract (increase in contract value during MoD approval process)	\$9,072,586 (Fuel)\$7,429,661 \$1,642,925
Total Budget for CSTC-A	
FC- 22 Goods & Services	\$522,859,877
FC- 25 Assets	\$33,508,653
Total Budget for Contracts-CSTC-A funded	\$556,368,530
Total Budget for GIRoA	
FC-22 Goods & Services	\$12,167,117
FC-25 Assets	\$2,971,826
Total Budget for GIRoA	\$15,138,943
Total Budget for Goods, Services, & Assets	571,507,473
Total for Food Budget (FC-21)	153,428,662
Total Available for Contracts	\$724,936,135
CSTC-A funded Wages & Salaries FC-21	\$704,158,009
GIRoA funded Wages & Salaries FC-21	\$241,099,440
Total for Wages & Salaries FC-21	\$945,257,449
Total	\$1,516,764,922

Table 4-M. SY1392 budget execution summary – budget execution metrics that define root cause for under budget execution

Through analysis of the contract estimation data, thirty-four percent of the funds unexecuted were due to not being obligated to a contract package, twelve percent of the funds not executed based on over cost estimation, and \$9,072,586 increase in contract value as contract packages went through the process. The following tables provide detail into these anomalies. There were 91 of 324 contract packages with anomalies, issues with the process were multiple bids, multiple reviews, and multiple cost estimates. These packages should be audited by the MoDIG as a matter of routine audit process. For SY 1392, these contract packages comprised 28 percent of the total packages. There were 48 contract packages with single source; single source is authorized but must be justified per Afghan procurement law. Although the Afghan procurement law allows single source, justification is required to ensure that contract award based on the benefit to the Afghan government and not personal preference. These contract packages should be checked to ensure that they meet justification of procurement law.

Uniform Contracts				
Contract Number	End User	Award Date	Afs	Dollars
G041-92	GSG4	11 Jun 2013	24,874,593	\$437,530.03
G102-92	GSG4	Not Awarded		
G105-92	GSG4	20 Aug 2013	855,204,193	\$15,042,558.29
G106-92	GSG4	17 Aug 2013	138,844,386	\$2,442,194.26
G107-92	GSG4	Not Awarded		
G108-92	GSG4	Not Awarded		
G121-92	GSG6	8 Oct 2013	9,850,000	\$173,255.93
G122-92	Intel	1 Aug 2013	9,009,000	\$158,463.22
G129-92	GSG5	Not Awarded		
G130-92	GSG3	Not Awarded		
G143-92	LMR	17 Aug 2013	28,168,750	\$495,472.39
G185-92	GSG4	28 Aug 2013	820,476,540	\$14,431,718.51
G197-92	GSG7	8 Oct 2013	1,070,000	\$18,820.70
G198-92	GSG7	12 Dec 2013	30,813,592	\$541,993.66
Total			1,918,311,054	\$33,742,006.99

Table 4-N. Contract packages for uniforms – these contract packages had descriptions with uniforms

The Berry Amendment restricted the purchase of uniforms to non-U.S. companies using U.S. funds. Material can be purchased in the U.S. with manufacturing

accomplished in Afghanistan. Table 4-N depicts the contracts that met the criteria for Berry Amendment but awarded or still in-process within the Afghan procurement process.

Table 4-O depicts the contracts that had cost estimation increases as the package went through the review process. This action can involve corruption through extortion of the winning vendor to provide compensation to the ministry leadership to approve the package at their step in the review process. Greater visibility of the review and approval process would reduce or eliminate this problem. Tracking of the packages through an electronic database would provide greater visibility and transparency.

Fortunately, a previous senior advisor had initiated the tracking process for contract packages. Had that senior advisor not had the insight and vision, this analysis would not have been possible. Reviewing hundreds of contract packages written in Dari would have been difficult and manpower intensive. Establishing this tracking process at the start for U.S. funding is necessary to provide greater transparency and accountability.

Contracts with Increase During Approval Review			
Contract Number	End User	Amount Increase	Award Date
G026-92	GSG4	\$56,000.12	31 Jul 2013
G044-92	LMR	\$6,508.09	4 Aug 2013
G078-92	GSG6	\$273,515.71	27 Aug 2013
G080-92	LMR	\$809.11	28 Sep 2013
G085-92	MEDCOM	\$7,041.05	14 Aug 2013
G103-92	GSG4	2,316,401.90	4 Dec 2013
G104-92	GSG4	5,113,258.66	4 Dec 2013
G147-92	MEDCOM	\$174,808.52	30 Sep 2013
G150-92	GSG7	\$18,184.98	26 Oct 2013
G152-92	MEDCOM	75,488.08	27 Nov 2013
G154-92	GSG6	\$34,229.04	28 Aug 2013
G155-92	GSG6	\$92,478.44	17 Nov 2013
G169-92	RCA	\$295,023.37	1 Dec 2013
G172-92	MEDCOM	\$60,454.89	12 Nov 2013
G180-92	MEDCOM	\$37,641.39	
G183-92	CPMD	\$83,373.92	16 Dec 2013
G248-92	LMR	\$10,377.77	1 Dec 2013
G260-92	MEDCOM	\$91,102.89	2 Dec 2013
G261-92	P&A	\$119,159.68	
G264-92	MEDCOM	\$61,009.99	2 Dec 2013
G299-92	GSG7	\$4,336.85	9 Dec 2013
G304-92	GSG4	334,199.26	
S088-92	CPMD	\$2,641.93	30 Jul 2013
S093-92	CPMD	\$1,280,380.14	30 Jul 2013
S160-92	GSG4	\$131.04	28 Sep 2013
W036-92	CPMD	\$35,619.66	
W356-92	CPMD	\$15,830.51	17 Nov 2013
Total of contracts awarded			\$9,072,586
Total of contracts to be awarded			\$518,759
Total			\$9,591,345

Table 4-O. Contracts with increase during approval review – these contract packages had increases in the cost estimate through the approval process

Table 4-P depicts incidents of price reduction through contract process. Afghan culture is to barter to achieve best price for product or service. It was routine during sealed bid conferences to ask vendors for a reduction or discount. Processes should accommodate cultural approaches, such as a two-step bid process allowing negotiation. Developing procedures that meet the cultural aspects of the nation but still meet transparency and accountability requirements create a win-win for the nation.

Steps through Process							
G023-92 MEDCOM	(1) Reqt Submission- 12 Jan 2013 738,056,516	(2) Bid Evaluation - 11 Mar 2013 no price *11 Apr report still no price	(3) MinDef Endorsement - 15 Apr 2013 441,656,627	(4) Negotiation - 27 Apr 2013 441,656,627 (enter value)	(5) MinDef Endorsement - 5 May 2013 440,056,627	(6) SPC Approval - 22 May 2013 440,056,627	(7) Award - 28 Jul 2013 440,056,627
W071-92 CPMD	(1) Reqt Submission - 5 Feb 2013 80,933,315 Afs	(2) Bid Evaluation - 23 Mar 2013 76,560,370 (29 Mar Report)	(3) Resolicitation - 6 Apr 2013 76,560,370 Afs (20 Apr Report)	(4) - Bid Evaluation - 18 May 2013 80,933,315 (17 May Report)	(5) MinDef Approval - 26 May 2013 75,625,670 Afs (14 Jun Report)	(6) Award - 15 June 2013 75,625,670 Afs	

Table 4-P. Example of Reduction in Price through Process

The current procurement process would not meet standards of accountable, transparent, and auditable even with the implementation of Afghan Financial Management Information System (AFMIS), which does not play into the activities of the above analysis. Contract data is entered in AFMIS once the contract awards and then invoices and expenditures tracked through AFMIS; therefore, all above steps of the procurement process occur before information is entered in AFMIS. A separate means for tracking the contract packages through the review and approval process should occur.

The senior advisor to the AMoD (AT&L) recommended to the AMoD (AT&L) the implementation of tracking documents in MoD offices using excel spreadsheet on computers already provided to offices. In many cases, these computers were not utilized because staff was not familiar. The AMoD (AT&L) agreed and assigned his Executive Assistant to coordinate effort. Unfortunately, with the constant turnover of Coalition advisors in AMoD (AT&L), advisors who took the project never stayed past one or two meetings with Executive Assistant. This initiative failed not because of the Afghan MoD but due to the limited advising resources and lack of interest of those advisors assigned.

Within the ISAF mission, priority for manpower was not consistent nor effective. At times, it is a balance between, quality and quantity but one person working with the

senior advisors to each of the MoD offices could have implemented the use of tracking documents through the computer and provided spreadsheets for senior level meetings.

In a project management approach, this step is tied to visibility required for counter-corruption initiatives. The integrated management plan would provide the summary tasks and eventually detail planning and metrics for status. The resource planning would generate a manpower need. With any delay in execution, the integrated management plan illustrates the tasks as yellow or red ensuring greater visibility of filling manpower hole.

In both Iraq and Afghanistan, a management process for identifying, prioritizing, and providing manpower resources did not exist. The oversight through a network organization would more effectively identify needs especially priority needs and appropriate resources throughout the U.S. government. This section on management audits exemplifies that quantity is not always the solution. One senior advisor with a strong background in project management and data analysis compiled the analysis providing shortfalls in the process and recommendations for improvements.

The original senior advisor who established the contract tracking was instrumental for any management audit conducted. In defense institutional building mission, one person with the right knowledge and skills can be more effective than many who lack the ability to establish processes, procedures, or methods from the start. Many civilian and military have acquired the knowledge of current U.S. processes, knowing what to do, but not why or how the process started or evolved.

Section 4.5.2.2 Recommendations to meet U.S. End State for Management Audit

The results of the management audit and the following recommendations were provided to ISAF organizations (MoD-MAG and CSTC-A) in February-March 2014 for improving the procurement process and oversight by U.S. command. The end state is an Afghan government that can self-sufficiently practice procurement of goods and services under an audit oversight role to ensure transparency and accountability of the Coalition donor funds to the government. Reach-back capability should be pursued to reduce the manpower required in country as part of longer term solution for end state sustainment.

The recommendations are

- (1) Weekly contract reports are critical for showing an auditable process tracked; however, there are shortfalls in the collection that need fixed.
- (2) An experienced data manager is required to review Acquisition Agency's excel spreadsheets and data collection for accuracy and run weekly reports. This person compiles monthly reports for areas of concern to provide to MoD-MAG and CSTC-A.
- (3) Management Audit Report be provided to CSTC-A (CJ8) to assist in their audit role for contracts using U.S. funds.
- (4) Report be provided to advisors for MoD IG to investigate and provide report of results to MoD-MAG and CSTC-A on explanations for anomalies, single source, and increases in contract values. The MoD IG report should include recommendations to the procurement process to ensure a reduction of future issues. This effort will assess MoD-IG's ability to investigate contracts with anomalies.

(5) Recommendation was to delegate an acquisition advisor specifically to work with Acquisition Agency to meet criteria for accountable, transparent, and auditable. This should include tracking by excel spreadsheet throughout the procurement process; therefore, the data can be collected by printing the sheet instead of transferring information and dates from one document to another which creates error and manipulation.

(6) Use reports for focusing budget execution meetings between CSTC-A and MoD. Preliminary meetings with each of the end users should be held at the working level to resolve problems early prior to the monthly meeting with senior leadership from MoD, General Staff, and CSTC-A.

Section 4.6 Gender Integration in Procurement

The Afghanistan National Development Strategy (ANDS) identifies gender equality as a cross-cutting issue and recommends a significant number of government entities promote gender equality through gender-sensitive policies, strategies, budgets and programs, increased expenditures on gender equity, and hiring technically capable gender experts (ANDS, 18). Through the World Bank's involvement in gender studies, it has focused on building opportunities where tangible gains are made through strengthening women's involvement in sectors that already have an acceptable presence. Progress has been made in the sectors of agriculture/rural development and human development (health, education, and employment and vocational training) (World Bank, 30).

Progress in gender integration starts with education. The literacy rate for women over the age of fifteen-years-old is 30 percent in Kabul; however, the rate is as low as one percent in Khost province of Afghanistan (World Bank, 30). Lack of education will impede gender integration and the benefits of women in governance and economic development for attaining stability in fragile nations.

There are certain areas more acceptable for employment of women. This was and will be prevalent within countries that have lower education and literacy levels. Employment as teachers, nurses, and manufacturing for some sectors has become acceptable for women. As cited in the MMDP, reaching the ten percent goal across the MoD deemed not attainable but focus on reaching that percentage within the areas accepted for women became the new metric. Growing positions in more acceptable areas and building on that acceptance is more culturally attainable than forcing acceptance into areas that took decades for western nations to evolve acceptance.

Even in the U.S., women in engineering fields did not become prevalent until into the 1990s. Women were accepted into teaching, financial management, and medical fields for many years before accepted in more male dominant areas as military and engineering careers. Women in other nations will experience a similar evolutionary approach.

Afghan Sewing Factory

The Afghan MoD has a sewing factory under the authority of the AMoD (AT&L). The sewing factory produces specialized uniforms, civilian clothing for military on trips out of the country, bedding sheets, pillow cases, medical gowns, and other fabric products. The sewing factory workforce of approximately 130 personnel is half women. To better accommodate working women, the sewing factory has a child care center staffed by three women. The Director for the sewing factory was interested in expanding capacity to produce the ANA basic uniform, previously contracted and produced out of the country.

Security benefits gender integration for expansion of the sewing factory. The ability to acquire large numbers of women reflects the secure location under the protection of the ANA, since it is part of the MoD. Working women are at greater risk since terrorists, particularly Taliban, view women's role as within the home and discourage women leaving the home let alone working outside the home. The security provided by the MoD affords women a safe zone drawing more women for employment than found in other areas.

Gender integration initiatives need to consider the security aspect since many cultures are still evolving acceptance of women's role outside the home and terrorist adopt the extreme perspective for marginalizing women's role. In Afghanistan, initiatives need focused within Kabul because gender integration is much more difficult in the rural

regions. In some regions, Afghan civilians working on a base will reside on the base; living outside the base and commuting into the base raises significant risk. This was also the case in Iraq at some locations. At one Afghan Corp headquarter, Afghan military were not permitted to travel into the nearby town because of abduction of Afghan special operation troops.

As noted in the MMDP, the Afghan National Military Strategy required the MoD/ANA to maintain a proportionate ethnic representation which included ten percent of the force as female. In November 2012, it was recognized that this objective was unachievable in the short term and it was modified to aim for ten percent women in fields where they are employed (Goodman, 5). This ten percent objective focused on military positions, but it does not matter whether they are military or civilian because the important objective is gender integration into the Afghan workforce.

There needs to be a certain level of acceptance for women into the workforce before acceptance will be possible in military positions. The focus of solely women in the military was a single linkage between the social system and military system. A U.S. political aspect also existed since Congress supported gender integration initiatives. A plan for phased gender integration across the entire defense institutional building effort would have recognized and focused expansion of gender integration in areas of greater acceptance.

After the maturity of these areas, further expansion occurs into areas that are currently less accepted. The U.S. government focuses gender integration within the military because gender in other careers, both government and industry, has matured. In Afghanistan, women in the workforce largely do not exist; therefore, evolution needs to

start with much more acceptable career fields than military. In Iraq, women in the military was accepted under Saddam Hussein regime, but security degradation created significant reductions over the eight years of war.

The perspective of women supporting the military mission is a four-dimensional (social, military, political, and economic) perspective involving the economic benefit from women in the workforce. The political aspect gained is the potential for cross-ministry efforts. The MoD could be the prototype for implementation of the expansion for ANA uniforms by the sewing factory. The lessons learned extended for Ministry of Interior and expansion of their sewing factory.



Figure 4-11. Afghan MoD sewing factory production floor

The long-term solution may afford contracting these products using internal companies but Afghan companies currently do not have the capability or capacity to compete. For the sewing factory (figure 4-11), fabric would be purchased outside the country because the capability does not exist within Afghanistan.

Fabric for ANA uniforms should be treated as controlled item; the fabric or end item uniforms are in demand by terrorist organizations for access to Afghan bases. In business case analysis calculation, a review of clothing allocation and allowances for the ANA

ensures the appropriate uniform requirement purchased for Afghan troops. Excess uniforms become a security risk.

The sewing factory has a childcare center providing additional benefits for working women to have their children within the safe zone. Figure 4-12 depicts the childcare center at the sewing factory. Although the building was older and some areas were difficult to keep warm in the winter or cool in the summer, the childcare center was kept at normal room temperature. The room kept clean in a dedicated area on the second floor. The children were very friendly. Childcare assistants had requested teaching materials to work with the children to provide value added experience for the children.

Under conflict environments, employment of women is reduced to areas that provide security. Most ministries provide this security and are typically within an area that is close to transportation and therefore accessible to lower income levels. The inclusion of gender integration in economics, education, and civilianization yields one initiative to cross several systems. A single approach with one person responsible for that initiative in the mission does not leverage the multiple connections available across a system of systems approach. Initiatives need focused on the linkages and not just the nodes of a system of systems analysis.



Figure 4-12. Child care center at the sewing factory

In Afghanistan, the acceptance of women in the workforce is a challenge; women felt insecure to bring their children to work. In Iraq, military men and women do not travel to their MoD jobs in uniforms, instead traveling in civilian clothes and changing into uniforms at their office.

Few U.S. personnel, whether military or civilian, knew this information. The need for Iraqi military to remain inconspicuous in civilian clothes traveling through Baghdad, even in personal vehicles, reflects the lack of security of the country. A joint task force approach for managing stability operations will never have the stability of workforce knowledge to comprehensively understand challenges.

Chapter 5 Factors for Success

Section 5.1 Systems Model

A black box models dynamic systems with inputs, outputs, and feedback loop. The key to understanding the behavior of the black box is measuring changes in variables of the inputs and outputs. In nation-building, inputs are the resources provided through external efforts or resources. An output measure needs to provide information on the effectiveness of the inputs. A composite index measures the outputs. Modeling is instrumental for gaining an understanding of what occurs inside the black box. Dynamic systems are nonlinear and therefore a single cause and effect relationship does not exist. Changes to one input may have no effect on output or a small change to input may have significant change to output.

Introduction of System Thinking, Network Theory, and Complexity Science

Nation building, in addition to elements of state building, creates a sense of national identity for which individuals will be loyal, superseding their loyalty to tribes, villages, regions, or ethnic groups. State building is the creation of government institutions such as armies, police, and ministries for serving the country. State building relies on tangible effects such as buildings, laws, processes and procedures. Nation building relies on intangible effects such as national traditions, symbols, shared historical memories, and common cultural points of reference. National identities are created through policies on language, religion, and education (Fukuyama, 185).

Nation building creates a means for individuals to associate with a national identity. The nation's military creates the connection for serving the nation versus serving the local community. Initiatives that tie individual perspective to both national identity and

local identity promote a dual perspective to achieve the benefits for both associations.

Critical thinking encompasses system thinking, network theory, and complexity science, requiring a new approach to managing large programs dependent upon the interconnectedness of activities or work.

A system is a set of things-people, cells, molecules, or whatever-interconnected in such a way that they produce their own pattern of behavior over time. The system may be buffeted, constricted, triggered, or driven by outside forces. But the system's response to these forces is characteristic of itself, and that response is seldom simple in the real world (Meadows, 2).

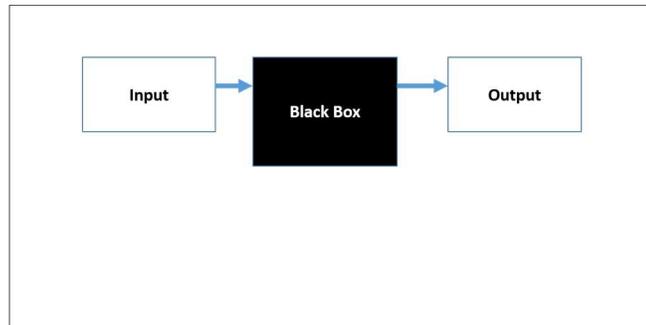


Figure 5-1. Open system (Gharajedaghi, 111)

In figure 5-1, an open system has an input, a process within the black box, and then an output from the black box. A savings account is an example of an open system with initial investment of 10,000, a yearly interest rate of ten percent, and an output of the \$1000 each year (Gharajedaghi, 111). The investment resides in the black box earning the \$1000 output each year.

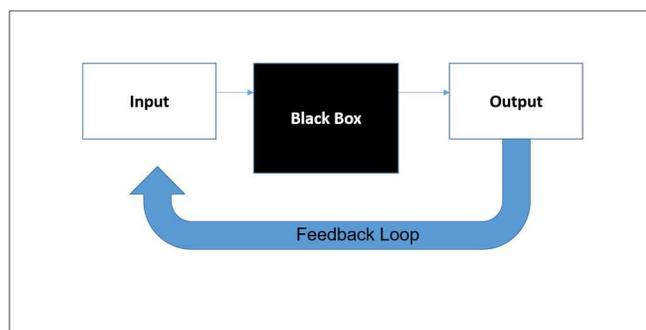


Figure 5-2. Closed system with feedback loop

Figure 5-2 illustrates a closed loop system with a feedback loop. The black box represents some process of the system. The feedback loop from the output provides additional input for the system after initial iteration. The system continues to operate based on the feedback loop response. Using the savings account example, \$10,000 put into the account with a ten percent interest applied yearly, produces \$1,000 at the end of a year which becomes input (feedback loop) to savings account and now account has \$11,000 to start the next iteration.

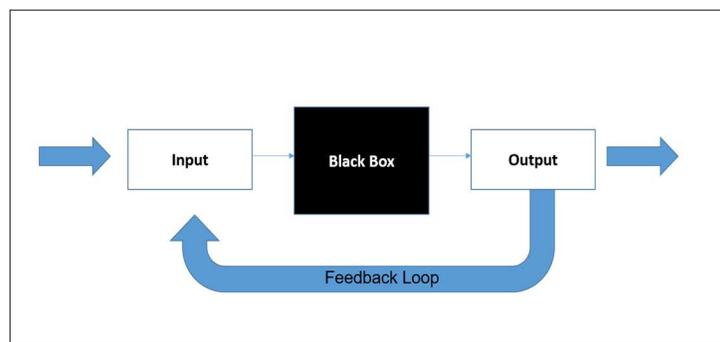


Figure 5-3. Open and closed system with feedback loop and additional inputs and outputs

Figure 5-3 illustrates an open and closed system with additional inputs and outputs to the feedback loop. The ability to represent the entire system has become more complex because of the inputs, outputs, and feedback potentially changing what is moving through the system at any point. Using the savings account example, \$10,000 invested at the beginning of the year with ten percent interest is derived at the end of the year. Some amount of interest is removed and the remainder is then invested into the account through the feedback loop; however, additional funds are invested throughout the year. The ability to gain compound interest changes the system from a linear to nonlinear model.

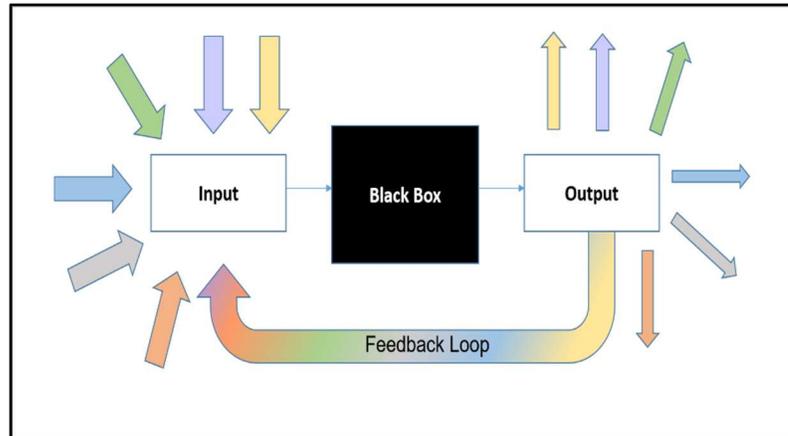


Figure 5-4. Multiple inputs, outputs, and feedback loop system

Figure 5-4 illustrates the system with multiple inputs into the black box, multiple outputs from the black box and multiple elements of feedback into the black box. How each element affects the system is not known; however, if a measure is taken at the same point, then the change can be measured. The more known about the input changes and output changes, the more known on the impact of the measure is understood.

The black box analogy defines the behavior of the whole system by measuring the boundaries of inputs and outputs.

This kind of black box analysis is useful for all sorts of physical systemic processes. But studies of human behavior typically take this form as well...Being a black box, the connections between the inputs and outputs are not clear, so in complex situations such as those involving human behavior, the uncertainty regarding what are relevant to what outcomes easily creates room for ongoing debate and leads to continual attempts to refine and correlate measurements. The absence of being able to directly observe connections, seeking statistically relevant correlations between variable inputs and outputs becomes a major feature of the social science application of this kind of analysis (Mobus, 236-237).

The timing of the feedback loop has significant effects on the system. Feedback loop delays cause the inputs to be out-of-cycle with the mechanisms in the black box. *When there are long delays in feedback loops, some sort of foresight is essential. To act when a problem becomes obvious is to miss an important opportunity to solve the problem*

(Meadows, 105).

Open systems are defined as *a system in exchange of matter with its environment, presenting import and export, building-up and breaking-down of its material components* (Bertalanffy, 141). Physical chemistry, such as kinetics and thermodynamics, historically were considered closed systems, but recently were evaluated as open systems (Bertalanffy, 141). Under certain conditions, open systems approach a time-independent state, a steady-state. In comparison to a system in equilibrium, a steady-state system can still do work. *If a steady-state is reached in an open system, it is independent of the initial conditions, and determined only by the system parameters, rates of reaction and transport. This is called equifinality as found in many organismic processes, such as in growth* (Bertalanffy, 142).

In closed systems, the same final state reaches equifinally through different initial conditions and different disturbances of the process. In other words, the system will eventually reconcile to the same end state regardless where it started or how it gets there. In chemical equilibrium, the state is independent of catalyzers accelerating the process; however, steady-state depends on catalyzers and their reaction constants. The stability state index for Botswana reflects a drop in 2008 based on refugee influx from Zimbabwe; however, the system self-corrected through exponential response to achieve same linear result in 2015.

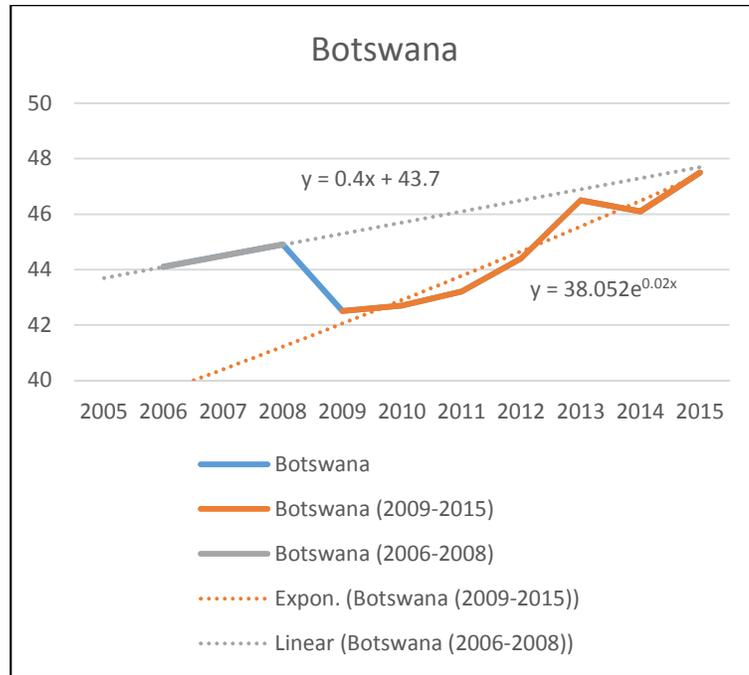


Figure 5-5. Botswana stability state index with focus on 2009-2015

If the linear performance ($y = 0.4x + 43.7$) experienced in 2006 to 2008 had continued, then the stability state index would have been 47.7 in 2015 versus the actual 47.5. In other words, the exponential performance experienced from 2009 to 2015 merely corrected to the initial linear performance path produced in 2006-2008 with the predicted exponential curve yielding 47.4 in 2015. This supports theory that a system in steady state *remains constant in its composition, in spite of continuous irreversible processes, import and export, building-up and breaking-down, taking place* (Bertalanffy, 142). The negative effect in 2008 did not deter the system from its original response; the system merely compensated through exponential performance ($y = 38.052e^{0.02x}$).

A deeper understanding required of this phenomenon relative to nation-building system (input, black box, output, and feedback loop) in comparison with other nations and changes in stability state index based on internal and external forces. The greatest reduction in sub-indicators from 2008 to 2009 was group grievance and refugee & IDP.

This internal strife created from the three million Zimbabwean political refugees seeking asylum in Botswana in 2008 (News Day, 1).

The phenomenon result, system responding by exponential performance to achieve initial linear result, denotes that the only affect on the system was the refugee problem. The other aspects of the system still were stable to support or drive exponential performance over the six-year period, possibly due to stocks, buffers or controller of the system.

An open and closed system relies on a combination of these two phenomena; therefore, little knowledge is understood. In open systems, phenomena of overshoot and false start occur driving performance in directions not predicted. In some cases, correlation between stability state sub-indicators is counter-intuitive presenting results not expected. The combination of open and closed systems drives complexity and the inability to understand system mechanics. The use of a stability state index for measuring national performance provides a comprehensive metric, instrumental to gaining understanding of the system.

Network theory focuses on the relationships between the nodes or linkages of a network rather than on the nodes themselves (Mitchell, 233). The linkages create the phenomena experienced in the internet and the ability to gain extensive knowledge in mere seconds. The nodes are the knowledge or documents of information; the linkages are the connections between the knowledge and documents of information. Social networks link people all over the world through some common ground (social network site), otherwise unknown to each other. Linkages have the power to create exponential performance.

Complexity science *explores highly interconnected systems mathematically, and develops models that shed light on how such interconnected systems work* (Colander, 6). Interconnected is the key word in all definitions, which drives complexity, uncertainty, but also nonlinear positive or negative performance. Understanding the interconnectedness of work or activities facilitates influencing the results. In complex systems, control is difficult since some interconnections are not known or understood. Linear performance results when the relationship of elements of the system have a cause that produces constant proportions for effect. Nonlinear performance results when the relationship of elements of the system produce non-proportional results.

Linear relationships are easy to think about: the more the merrier. Linear equations are solvable, which makes them suitable for textbooks. Linear systems have an important modular virtue: you can take them apart and put them together again-the pieces add up.

Nonlinear systems generally cannot be solved and cannot be added together...Nonlinearity means that the act of playing the game has a way of changing the rules...That twisted changeability makes nonlinearity hard to calculate, but it also creates rich kinds of behavior that never occur in linear systems (Meadows, 91).

Current military operational planning acknowledges the elements of system thinking, network theory, and complexity science in the system of systems analysis (SoSA) framework of political-military-economic-social-informational-infrastructure (PMESII) for the operational environment.

In order to envision developing and employing options for joint, interagency, intergovernmental, and multinational (JIIM) action, the commander must understand the series of complex, interconnected relationships at work with the Operational Environment (OE). One way of viewing these interrelated challenges for most military operational situations is from a systems perspective. In doing this systems analysis, it is critical to consider the systemic look-that is, the relationship between all of the aspects of the system. This is a different approach than the traditional systematic, or reductionist, approach of the past. While a reductionist approach can work for complicated problems, it is unlikely to

be effective in a complex situation, the environment of most campaigns
(CPH 2013, 30).

The current campaign planning approach does not incorporate nonlinear models for stability operations but implements linear methodology.

Case studies and examples used in the dissertation support foundational changes required for defense institutional building; Boeing's utilization of a network organization structure for the Boeing 777 commercial development merged centralized and decentralized activities among themselves and eight global customers, eighteen national companies, and twelve international companies. The backbone for the integrated design, utilized by the entire network, was the software program CATIA. The entire networked organization had access to the evolving design of the aircraft.

Exhibit 5-A describes the circumstances of September 11, 2001 and the synchronized, planned effort of four aircraft used as missiles to attack four separate buildings in at least two cities in the United States. The attack was a synchronized terrorist act. Each plane was a project with its own independent tasks or activities to complete its mission. The combination of the four aircraft (projects) was a program requiring information collection, training, etc. These tasks, integrated during the planning phase, required information across two or more of the aircraft missions/projects.

The planning was centralized; however, the execution was de-centralized with the four aircraft implementations independent. The act of surprise through synchronized concurrent timing improved probability of successful execution for all four aircraft. If the four aircraft had planned sequential rather than concurrent, allowing a period for lessons learned before executing the next project, then probability of full success is reduced with each project execution.

The various U.S. government organizations would have developed counter-measures. The element of surprise and the strength of synchronized, concurrent projects positioned the terrorist program plan for success. Only one of the four aircraft did not reach its intended target foiled by courageous passengers onboard.

American Airlines flight 11 was first in the air, departing from Boston on time at 8:00 a.m. United flight 175 followed at 8:15, ten minutes behind schedule. American flight 77, after a twenty-minute delay, left Washington-Dulles at 8:20 a.m. Delayed forty minutes by congestion at Newark, United flight 93 departed at 8:42 a.m.

The first sign that something was amiss for American flight 11 came less than fifteen minutes into the flight, when pilots stopped responding to input from air traffic controllers. For United flight 175, signs surfaced when the aircraft changed beacon codes, deviated from its assigned altitude, and failed to respond to New York air traffic controllers. American flight 77 departed from its assigned course at 8:54 a.m., and attempts to communicate with the plane were futile. The last flight, United flight 93, followed a routine trajectory until the aircraft dropped precipitously. The captain radioed "Mayday", and controllers heard sounds of a violent struggle in the cockpit.

All four planes had been hijacked by teams of al Qaeda terrorists who had managed to board the planes in spite of a security checkpoint system aimed at preventing such occurrences. In a meticulously planned scheme, the terrorists turned commercial aircraft into deadly missiles. Each aircraft was aimed at a high-profile target—New York's World Trade Center, the Pentagon, and the nation's Capital. One by one, the planes slammed into their targets with devastating force. Only United flight 93 failed to reach its objective. A heroic passenger effort to regain control of the plane failed but thwarted the terrorists' intentions to ram the White House or Capitol Building.

Why did no one foresee such a catastrophe? In fact, some had. As far back as 1993, security experts had envisioned an attempt to destroy the World Trade Center using airplanes as weapons. Such fears were reinforced when a suicidal pilot crashed a small private plane onto the White House lawn in 1994. But the mind-set of principals in the national security network was riveted on prior hijacks, which had almost always ended in negotiations. The idea of a suicide mission, using commercial aircraft as missiles, was never incorporated into homeland defense procedures.

America's homeland air defense system fell primarily under the jurisdiction of two government agencies: the Federal Aviation Administration (FAA) and the North American Aerospace Defense Command (NORAD). As the events of 9/11 unfolded, it became clear that these agencies' procedures to handle hijackings were inadequate. The controller tracking American 11, for example, began to suspect a hijacking early on and relayed the information to regional FAA headquarters, which began to follow its hijack protocol. As part of that protocol, a designated hijack coordinator could have requested a military fighter escort for the hijacked aircraft—but none was requested until too late.

At the same time, communication channels fell behind fast-moving events. Confusion at FAA headquarters resulted in a delay in informing NORAD about United 93. An interagency teleconference to provide coordination between the military and the FAA was hastily put together, but technical delays kept the FAA from participating. When NORAD asked for FAA updates, they got either no answer or incorrect information. Long after American 11 crashed into the World Trade Center, NORAD thought the flight was still headed toward Washington, DC.

In the end, nineteen young men were able to outwit America's homeland defense systems. We can explain their success in part by pointing to their fanatical determination, meticulous planning, and painstaking preparation. Looking deeper, we can see a dramatic version of an old story; human error leading to tragedy. But if we look deeper still, we find that even the human-error explanation is too simple. In organizational life, there are almost always systemic causes upstream of human failures, and the events of 9/11 are no exception.

Exhibit 5-A. Details of September 11, 2001 (Bolman, 23-25)

The Campaign Planning Handbook uses the term design for a similar purpose as this paper uses the term architecture.

Critical thinking captures the reflective and continuous learning essential to design. Creative thinking involves thinking in innovative ways while capitalizing on imagination, insight, past experiences, and novel ideas. Additionally, designers apply system thinking and lenses of strategic thinking (ethics, culture, and thinking in time). Systems thinking views problems as parts of an overall system, rather than reacting to present outcomes or events and potentially contributing to further development of the undesired issue or problem (CPH 2013, 21).

Design or architecture provides an organized method to think through a conceptual framework of planning and execution. Developing critical thinkers is rooted in developing people who understand and apply system thinking, network theory, and complexity science. Academic institutions develop critical thinkers. Knowledge in the areas of system thinking, network theory, and complexity science is required before thinkers can apply these areas to problems.

Unfortunately, the DoD acquisition education system is not designed to develop critical thinkers; it is designed to develop process experts: people who understand the DoD 5000 series regulations, policies and processes; who understand the various stakeholders and their particular roles in the process (Frisbee, 18).

The system of systems analysis (SoSA) with systems represented by political-military-economic-social-information-infrastructure (PMESII) used in campaign planning, requires a system thinking perspective to understand the linkages between the nodes within a system and across systems. The nodes represent elements such as people, facilities, forces, information, etc and the linkages represent the relationships such as behavioral, physical, or functional. If each node had a linkage to every other node within the system and every other node in every other system, the result would become a fully integrated system.

However, this result would require the campaign planning force to be equally knowledgeable and competent in every system and have the interdisciplinary perspective

across all systems. Figure 5-6 depicts the campaign planning force with common system of military.

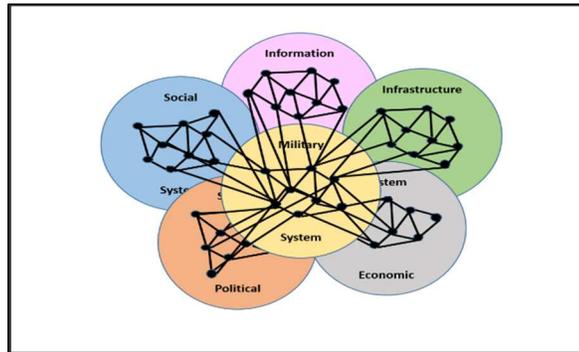


Figure 5-6. System of systems analysis (SoSA) military focus

Military officers have backgrounds in specific disciplines aligned with understanding various systems. The military career overlaps these disciplines resulting in seeing the social system from a military perspective, political system from a military perspective, economic system from a military perspective, infrastructure system from a military perspective, and information system from a military perspective. To leverage effectively all linkages of the nodes, an interdisciplinary approach is required.

Network theory recognizes the linkages between nodes are critical to understanding and managing activities. In the system of systems analysis in campaign planning, the result leads to network theory and tracing an initiative to all potential outcomes. Figure 5-7 illustrates how gender integration initiative in defense institutional building may start with its purpose under the social system but then has three paths to other system impacts (military, political, economic).

The elements (nodes) of systems will cross systems in the planning and execution of mission. Since the path to some nodes is only through other nodes, this example shows how taking a system of systems approach for gender integration will increase results due to dependencies of multiple systems. This network reflects that first order effects create

second and third order effects across the initiative. Not all effects may be desirable, second and third order effects can have undesirable effects.

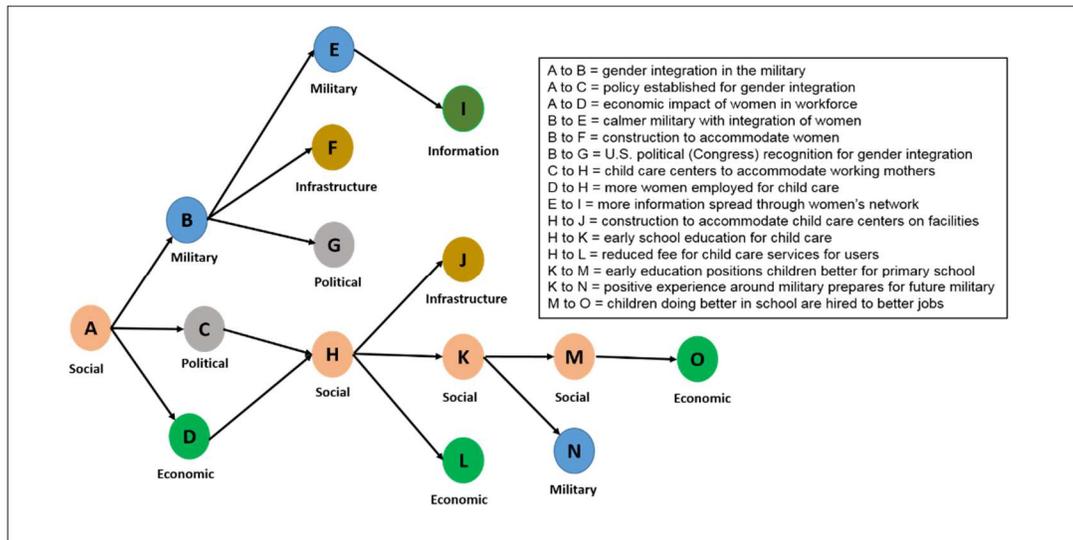


Figure 5-7. Network for tracing system of systems analysis linkages for gender integration

If the political system were not planned, then the middle branch would not have been started eliminating the benefits of nodes H, J, K, L, M, N, O. The S-curve (growth curve) for nation-building performance depends on systems approach and understanding the connections between the work of initiatives driving exponential results.

An integrated project schedule is a network schedule with interdependencies constructed in network form.

Network analysis can provide valuable information for planning, integration of plans, time studies, scheduling, and resource management. The primary purpose of network planning is to eliminate the need for crisis management by providing a pictorial representation of the total program (Kerzner, 496).

Therefore, it is foundational to understand networks to understand the integration of work.

Under simultaneous management in project management, the concept of loosening connections with activities that have high degrees of uncertainty results in reducing risk

in projects or programs.

Isolate tasks plagued by very high uncertainty and loosen connections between uncertain tasks. In both cases, you absorb uncertainty by selectively employing redundant resources. Divide large projects into independent subprojects and group tasks within projects according to uncertainty (Laufer, 75).

Redundancy in systems or projects improves reliability but results in inefficiency. In the development of hardware, systems that require high reliability will have redundancy built into the system. Systems in parallel create redundancy increasing the overall reliability of the system. Systems in series will reduce reliability for the overall system.

Simultaneous management applies this concept of reliability or probability to tasks within projects or programs to reduce risk to a task(s) or the probability of an event occurring which has undesirable consequences to one or many tasks; therefore, network theory is related to risk management.

Complexity is at the core of systems responsible for difficulty in determining how systems behave. Complexity transforms a linear system to a nonlinear system. A linear system defines single cause and effect relationships. These systems are easy to troubleshoot problems through tracing an effect to a single root cause. Complex systems have multiple cause and effect relationships resulting in difficulty understanding behavior. Operations research provides practical mathematical tools for understanding through modeling.

Mathematical modeling reflects performance of systems but becomes more difficult in nonlinear systems. Feedback loops in nonlinear systems may cause significant changes in the performance of the system not experienced in the initial system operation. Adaptive systems are composed of elements called agents that learn or adapt in response to

interactions with other agents.

Complex systems include all social systems and therefore behavior can not be predicted using a linear cause-and-effect science model (Williams, 205). *Complex systems are systems in which large networks of components with no central control and simple rules of operation give rise to complex collective behavior, sophisticated information processing, and adaption via learning or evolution* (Mitchell, 13).

Complexity science is the study of complex systems that have network structure.

Network thinking is used in technology for solving difficult problems such as how to do efficient research on the internet, how to control epidemics, how to manage large organizations, how to preserve ecosystems, how to target diseases that affect complex networks of the body, how to target modern criminal and terrorist organizations (Mitchell, 252).

Although these questions deal with very different knowledge bases, network-thinking approach provides common ground for understanding and resolving the problems. The study of network thinking produces insight into resilience and vulnerabilities of the networked system and the means to exploit to protect these systems. Cyber technology studies electronic communication determining methods for protection through understanding the vulnerabilities of a network communication system.

Section 5.1.1 Examples of Network Application

Based on research done in 2008 on the Google Scholar website, there were 14,000 academic papers written on network theory for small-world or scale-free networks, nearly 3,000 in 2008 alone. Scanning the first 100 documents results in papers covering eleven different disciplines from physics and computer science to geology and neuroscience (Mitchell, 247). Using network theory to understand the behavior in the world has become instrumental for solving problems of the world.

Duncan Watts, an applied mathematician and sociologist, and Steven Strogatz, an applied mathematician, discovered small-world networks as an extension of their experimentation on abstract networks in studying the synchronization of cricket chirps. The research started with a ring of nodes and computed the average path length, the average of all path lengths between all pairs of nodes. Path length is the number of links between two nodes. In figure 5-8, the average path length of model A is four and model B is 2.5.

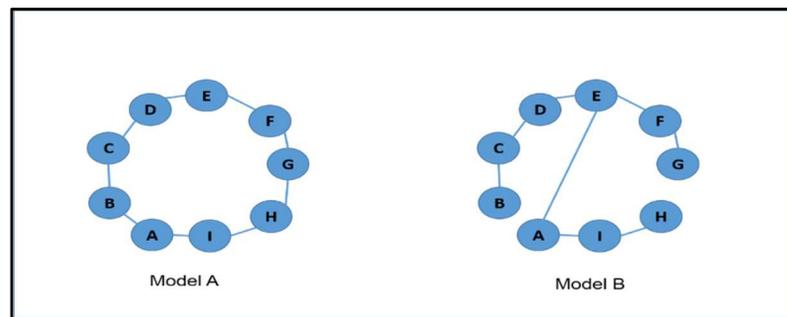


Figure 5-8. Basics of nodes and linkages – short and long connections

Table 5-A and 5-B display the calculations for determining node pairs and number of links. The node pairs are identical between the two tables but the number of links required for the pair's changes.

AB=1	BC=1	CD=1	DE=1	EF=1	FG=1	GH=1	HI=1	IA=1
AC=2	BD=2	CE=2	DF=2	EG=2	FH=2	GI=2	HA=2	IB=2
AD=3	BE=3	CF=3	DG=3	EH=3	FI=3	GA=3	HB=3	IC=3
AE=4	BF=4	CG=4	DH=4	EI=4	FA=4	GB=4	HC=4	ID=4
AF=5	BG=5	CH=5	DI=5	EA=5	FB=5	GC=5	HD=5	IE=5
AG=6	BH=6	CI=6	DA=6	EB=6	FC=6	GD=6	HE=6	IF=6
AH=7	BI=7	CA=7	DB=7	EC=7	FD=7	GE=7	HF=7	IG=7
AI=8	BA=8	CB=8	DC=8	ED=8	FE=8	GF=8	HG=8	IH=8
A = 36	B=36	C=36	D=36	E=36	F=36	G=36	H=36	I=36
Total number of links to node pairs / total number of nodes = 324 / 81 = 4 average number of links 36 + 36 + 36 + 36 + 36 + 36 + 36 + 36 + 36 = 324								

Table 5-A. Calculations for model A

AB=4	BC=1	CD=1	DE=1	EF=1	FG=1	GH=5	HI=1	IA=1
AC=3	BD=2	CE=2	DF=2	EG=2	FH=4	GI=4	HA=2	IB=5
AD=2	BE=3	CF=3	DG=3	EH=3	FI=3	GA=3	HB=6	IC=4
AE=1	BF=4	CG=4	DH=4	EI=2	FA=2	GB=5	HC=5	ID=3
AF=2	BG=5	CH=5	DI=3	EA=1	FB=4	GC=4	HD=4	IE=2
AG=3	BH=6	CI=4	DA=2	EB=3	FC=3	GD=3	HE=3	IF=3
AH=2	BI=5	CA=3	DB=2	EC=2	FD=2	GE=2	HF=4	IG=4
AI=1	BA=4	CB=1	DC=1	ED=1	FE=1	GF=1	HG=5	IH=1
A = 18	B=30	C=23	D=18	E=15	F=20	G=27	H=30	I=23
Total number of links to node pairs / total number of nodes = 204 / 81 = 2.5 average number of links 18 + 30 + 23 + 18 + 15 + 20 + 27 + 30 + 23 = 204								

Table 5-B. Calculations for model B

By randomly re-wiring one link as depicted in figure 5-8 model B, the average path length reduces by almost half to 2.5. Consequently, it takes fewer links to move from one node to another in model B than in model A without the number of links changing. To understand efficiency, model A links all pairs with 324 links and model B links all pairs with 204 links. If a link cost \$1.00, then model A costs \$324.00 and model B costs \$204.00.

Watts concluded, *only a few random links can generate a very large effect...on average, the first five random rewirings reduce the average path length of the network by one-half, regardless of the size of the network* (Mitchell, 238). The result is that the property of a small-world network will have a small average path-length relative to the total number of nodes achieved through a few long-distance connections (Mitchell, 238).

Logistic transportation problems are routed in network theory, reducing costs through reducing linkages between nodes.

Scale-free networks are a type of small-world network. Google Web search “PageRank” represents this network type with Web pages being nodes and hyperlinks between Web pages being links. The premise is there are large numbers of pages with small degrees or links but a small number of pages with large number of degrees or links. The Web has a skewed degree distribution that results in being scale-free; regardless of the scale used, the distribution does not change.

The brain is a network with neurons as nodes and synapses as links or entire functional areas as nodes and the larger-scale connections as links. Neuroscientists believe the neural connections of the brain have small-world properties resulting in more resiliencies in the system. Individual neurons die all the time but brain function is not affected; however, if the hubs of the brain are affected then a large-scale failure occurs such as a stroke. Researchers hypothesize that scale-free distribution provides an optimal compromise between two modes of brain behavior: processing in local, segregated areas versus global processing of information.

If every neuron were connected to every other neuron, or all different functional areas were fully connected to one another, then the brain would use up a mammoth amount of energy in sending signals over the huge number of connections. Evolution presumably selected more energy-efficient structures. In addition, the brain would have to be much larger to fit all those connections. At the other extreme, if there were no long-distance links in the brain, it would take too long for the different areas to communicate with one another. The human size brain-and corresponding skull size-seems to be exquisitely balanced between being large enough for efficient complex cognition and small enough for mothers to give birth. It has been proposed that the small-world property is exactly what allows this balance (Mitchell, 248).

Synchronization plays a major role through groupings of neurons repeatedly firing

simultaneously passing information in the brain more efficiently; the small-world connectivity structure facilitates this synchronization (Mitchell, 248).

The brain example illustrates that network structure influences the success of a system.

Understanding the structure can determine strengths and vulnerabilities of systems and system of systems as the brain is designed with areas having many, shorter connections and areas with fewer, longer connections. The combination of the two patterns creates the most optimal design. Figures 5-9 and 5-10 depict the difference between leveraging linkages to hubs and multiple linkages from each system to other systems.

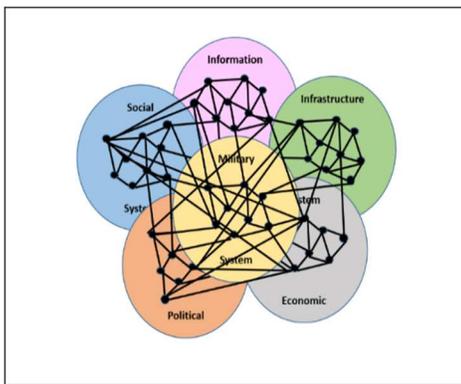


Figure 5-9. SoSA crossing multiple systems

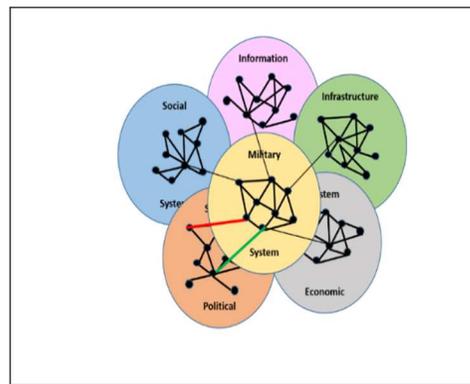


Figure 5-10. SoSA crossing multiple systems using hub

Figure 5-9 illustrates resolving the problem by attempting to connect every node to every other node across seven systems. If each link is an initiative or work, then this translates to large amount of funding to fund all the connections. Figure 5-10 illustrates focusing on hubs and the connections to hubs. The green line indicates that connecting to a hub (multiple links to other nodes) will be more effective than connecting a node with fewer connections.

Consequently, if the cost were the same for the red and green links, then the green link would produce greater results for the same amount of money than the red node. This

would result in nonlinear performance for the green link by gaining greater results with the same investment.

Through understanding the work (nodes and links) and investing in the right work, results are produced at lower cost; therefore, system thinking, network theory, and complexity science are necessary for managing complex work particularly under constrained resources (funding, manpower, equipment, facilities, etc.).

Section 5.2 Centralization in defense institutional building

Organizational structure can improve performance for an organization particularly when the work is complex and needs integration across multiple organizations. The work requires a unified means across all organizations and stakeholders for maximum benefit. If each organization operates independently, then the result is local efficiencies that do not equal global efficiencies. Stability operations result in complex system dynamics, local effectiveness does not equate to global effectiveness. With the measures of one organization, progress may appear to be occurring but comprehensive metrics such as stability state index may show no change or negative change.

The information revolution, the globalization of economies, the proliferations of events that undermine all our certainties, the collapse of the grand ideologies, the arrival of CNN society which transforms us into an immense, planetary village – all these shocks have overturned the rules of the game and suddenly turned yesterday's organization into antiques (Bolman, 6).

Nine years in Iraq and over fourteen years in Afghanistan has not led to success of the counter-insurgency mission. The Arab Spring added at least Libya, Syria and Yemen to broken countries with citizens looking for a better place to live. By mid-2015, the Middle East crisis became a refugee crisis with mass exodus to Europe. The following depicts the refugee statistics for this timeframe:

- 1.9 million = number of Syrian refugees in Turkey
- \$170 million = funds generated by Libya's migrant-smuggling business in 2014 for sea crossings alone
- 630,000 = number of illegal border crossings into Europe for nine months of 2015
- 100,000 = number of refugees the U.S. plans to take in 2017 which is up from current 70,000 a year
- 42,500 = average number of people displaced each day in 2014
- 3,000 = number of migrants who have died in the Mediterranean so far in 2015 trying to reach Europe

- 25 percent = percentage of Lebanon's population that are Syrian refugees
- 50 percent = the percentage of refugees that are children
- If the population of refugees, internally displaced persons, or seeking asylum were a country, it would be the 24th largest (Vick, 40-41)

These statistics represent the magnitude of the problem of instability in large regions of the globe. What has proven from the Arab Spring is that instability is a catalyst for producing more instability, uniting terrorist organizations and recruiting larger numbers never seen before due to the internet's ability to link terrorist recruiters to potential candidates.

Centralization allows the long range, integrated planning for stabilization for much of the world de-stabilized by actions over the past forty years. Strategic planning is turned into operational planning through an integrated management plan. Progress of execution monitored through the continuous updates and assessments to the integrated management plan.

A network organization structure represents the concept of lead from the center. A nucleus is the central and most important part of an object and forms the basis for activity and growth. Hierarchical organizations rely on top-down command and control protocols for managing. Matrix organizations align projects and workforce in a horizontal and vertical manner creating multiple managers for employees. When independent organizations are loosely connected through the work, local priorities drive results.

A network structure recognizes that multiple independent organizations need to work together creating a strong coordination and collaboration component. The role of the nucleus organization is ensuring coordination and collaboration with all other organizations. Building the integrated management plan through the nucleus ensures work is integrated and delays in one area can be recognized, risks and assumptions

identified, and risks mitigated.

Building complex integrated management plans is routine for large corporations integrating the work of all subcontractors and vendors. Integrated master schedule tools are developed for managing large, complex mega-programs.

Background

A hierarchical organization structure is the traditional structure for a top down management style. There is a clear chain-of-command starting at the top and working through the various levels of an organization. Companies found this structure restrictive for gaining the most efficiency from the workforce. It was difficult to optimize productivity since the work was not uniform within a project; any one person may be required at any point in time; therefore, some employees would have significant downtime while others over worked. Figure 5-11 depicts a hierarchical organization. With this structure, each manager their workforce; therefore, the single chain-of-command makes it clear who is in charge.

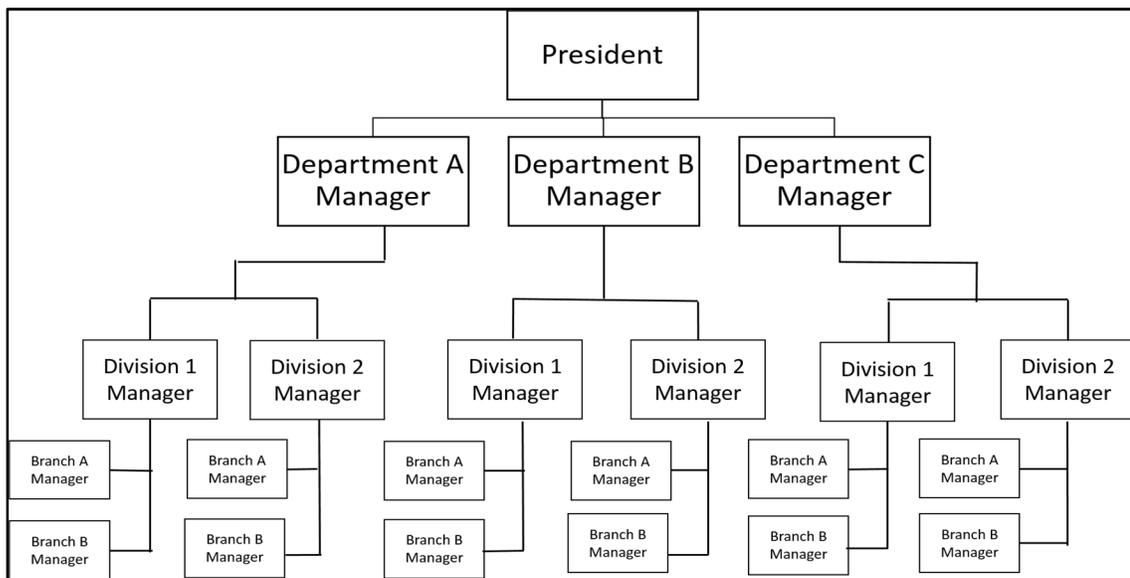


Figure 5-11. Hierarchical organizational structure

The solution for optimization of the workforce is a matrix organization achieving high utilization by taking advantage of pooled resources (Avraham, 469). Asea Brown Boveri, the electrical engineering giant, was one of the first to implement a matrix organization structure across a hundred countries with 65 business sectors. Each subsidiary reported to both a country manager and a business sector manager (Bolman, 58).

The typical complaint for matrix organizations is confusion, tension, and conflict with the workforce having multiple bosses and therefore multiple priorities. Aesa Brown Boveri initially handled this problem by incorporating a structural cohesion at the top through a small executive committee, developing global managers, and requiring English as the primary means of communication even though this was a second language for most employees. This structure was effective throughout the 1990s but challenged in the 2000s through the global business downturn.

Network structure is an extension of a matrix organization loosening work connections within a single organization to be across multiple organizations. If managing a matrix organization was difficult, managing a network is even more complex.

If a network structure is the best means for managing work requiring a system perspective, complexity of interdependencies, and naturally aligning with a network understanding, then successful implementation requires leadership for transformation. *Scholars have argued that under conditions of economic globalization, it is natural to expect more global and transnational institutions to manage interdependence, leading to a relative decline of the nation state* (Hale, 19).

Network Structure

In a network structure, a prime organization takes on the role of integrator and links

the work accomplished by several organizations. The integrator can be a contractor or Government. For defense technology development, the Government has spent most of the last twenty years contracting a prime Contractor to integrate the work across multiple contractors to achieve an integrated effort of many complex pieces. There are cases of success and failure using this approach. Large contracts typically handled as cost plus type contracts can significantly run over predicted estimates.

Defense organizations are now looking to take on a larger part of the work. In many cases, this means a robust effort in re-developing technical skills that have diminished with the focus of contracting out the work. An over emphasis on contracting services creates a workforce of generalists who have breadth but lack depth to understand details of technical challenges such as risk, scheduling work, and cost factors. For organizations to be effective, a balance between generalists, specialists, and polymaths are required.

Developing a technical base is an investment of years. For organizations that have significantly reduced their in-house work, they should expect to take several years to regain that technical base. Figure 5-12 illustrates this model with the Government contracting a single integrator who then contracts with multiple sub-contractors to accomplish the program.

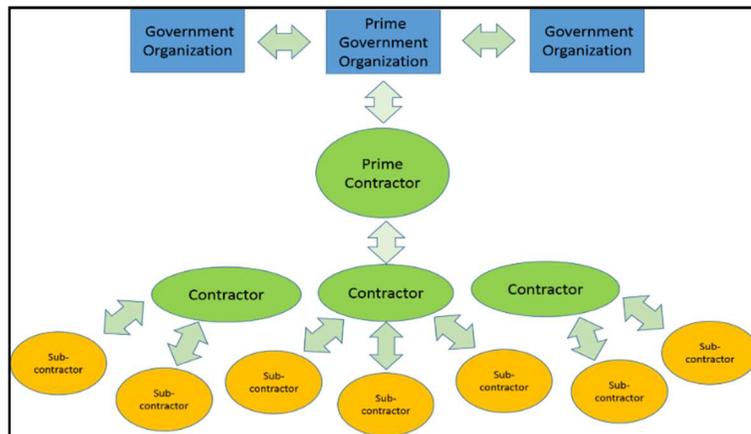


Figure 5-12. Hierarchy structure with prime contractor as integrator (Goldsmith, 80)

Figure 5-13 depicts the Government as the integrator network model acting as a prime integrator synthesizing the work of multiple contractors and sub-contractors. The Government as the customer may be in the best position to understand trade-offs between the work across the network to make decisions throughout the program. Boeing's use of airline customer's in the development of the Boeing 777 aircraft recognizes that customer's involvement was critical for designing products that meet the customer's expectations.

The customer must be part of the trade-offs throughout development to appreciate trade-space. Development of major weapon systems requires decisions throughout the entire period on trade-offs between the cost, schedule, and performance. The customer must be included in these trade-offs; Boeing 777 program understood importance from the beginning of development.

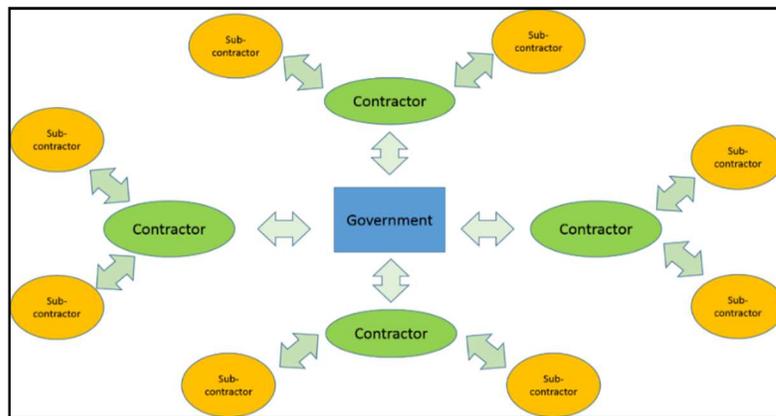


Figure 5-13. Network as government integrator with contractor (Goldsmith, 77)

Figure 5-14 illustrates the Government as the prime integrator integrating the work of both Government and Contractors. This approach requires versatility since agreements between other Government agencies and Contractors will be different.

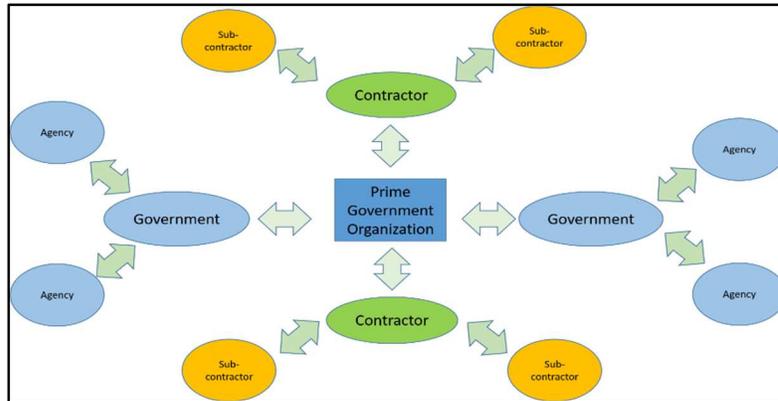


Figure 5-14. Network as government integrator with other government and contractors (Goldsmith, 77)

Network structure is effective and efficient, reducing redundancy by optimizing the best parts of the network for their specialty. Redundancy creates a larger need for highly competent personnel with multiple skills. The network approach allows the integrator to utilize the agencies and contractors that are most effective for the specific skills.

The structure depends on a strong collaborative approach and therefore leadership across the network requires highly collaborative skills. Priority for network effectiveness outweighs the efficiency or effectiveness of any sub-element or organization to achieve success. The concept is described in the book, *Critical Chain* by Eliyahu Goldratt, he explains the paradigm with project performance that focus on projects isolates them from company performance.

The project team lead looking for what is best for the project may be undermining the best interest for the company. If a project has scheduled time for using a test facility within the company, it is in the project's best interest to utilize the equipment during that timeframe. The project lead built the overall integrated master schedule around this timeframe and changes would add risk to the project schedule.

However, the company may have another project with a more pressing need for the equipment, which could result in significant future business for the company from a new

customer if the company can meet an urgent delivering schedule. The greater benefits to the company outweigh the benefits to the project. The project lead needs to stay balanced between benefits to the project and the organization, inspiring the team to balance the benefits. Organizations, whether government or industry, require improvement in this area. Metrics are highly focused on individual or team performance without links to the overall performance of the organization.

Table 5-C illustrates the factors determining a choice between a network model and a hierarchical model. Not every organization or combination of organizations gains benefit from a network structure. If the work is stable and uniform, then a hierarchy structure is most suitable. Globalization, network communication systems, and technological acceleration are driving more organizational structures to be network versus hierarchical.

Number	Factors favoring a Network Model	Factors favoring Hierarchical Model
1	Need for flexibility	Stability preferred
2	Need for differentiated response to clients and customers	Need for uniform, rule-driven response
3	Need for diverse skills	Only a single professional skill needed
4	Many potential private players available	Government predominant provider
5	Desired outcome or outputs clear	Outcome ambiguous
6	Private sector fills skill gap	Government has necessary experience
7	Leveraging private assets critical	Outside capacity not important
8	Partners have greater reach or creditability	Government experienced with citizens in this area
9	Multiple services touch same customer	Service is relatively stand-alone
10	Third parties can deliver service or achieve goal at lower cost than government	In-house delivery more economical
11	Rapidly changing technology	Service not affected by changing technology
12	Multiple levels of government provide service	Single level of government provides service
13	Multiple agencies use or need similar functions	Single agency uses or needs similar functions

Table 5-C. Comparison of factors for network or hierarchical organization model (Goldsmith, 51)

Managing a network requires not only a strong understanding of how to manage an organization, but skills above that knowledge. As cited in Governing by Networks,

A government manager's job used to be relatively straightforward-you managed a program or service. Although finessing politics, negotiating with unions, and dealing with angry citizens could be trying and difficult,

your work and your workforce was largely stable, and the larger your staff and budget, the more prestige you had. You got ahead by advising on policy issues or by excelling at managing government employees. Professionalism meant applying rules in a systematic, standardized, and highly structured manner (Goldsmith, 157).

Managing in a network requires a different set of competencies and capabilities. The authors, Stephen Goldsmith and William Eggers, further explain these skills:

In addition to planning, budgeting, staffing, and other traditional government duties, it requires proficiency in a host of other tasks, such as activating, arranging, stabilizing, integrating, and managing a network. To do this, network managers must possess at least some degree of aptitude in negotiation, mediation, risk analysis, trust building, collaboration, and project management (Goldsmith, 157-158).

Using the analogy of an orchestra as cited in the book, network governance requires a symphony conductor who can conduct the orchestra but also be a business manager defining the terms of the engagements in collaboration with the musicians, and a marketer focused on attracting audiences to the performance. Expanding the analogy to include the whole orchestra and the concept of organic and contracted capability, half the orchestra would be employees while whole sections like the violins were contracted.

These highly trained musicians would contribute ideas for improving not only their areas but across the entire orchestra including the performance of their colleagues. This is a very different concept for individuals focused merely on individual and team performance, the team representing a specific section of the orchestra.

Self-directing, multifaceted, and multi-skilled managers are rare and extremely rare in the public sector. Establishing this expertise requires significant changes in the current perspective on human resource management. Figure 5-15 depicts the main elements of network management.

Human resource management requires change in leadership requirements. Individual

sections or departments of an organization focus on specific skills needed for that area and not developing capability for working across departments and sections, as well as, other organizations.

Big-picture thinking
Coaching
Mediation
Negotiation
Risk analysis
Contract management
Ability to tackle unconventional problems
Strategic thinking
Interpersonal communications
Project and business management
Team building

Figure 5-15. Main elements of network management, (Goldsmith, 158)

Executives should develop cross-organizational experience. Cross-organizational experience, as well as, cross-functional experience is different from spending three months in a developmental assignment to gain awareness.

The timeframe should be reflective of ability to accomplish significant performance; the amount of time is independent and more reflective of the individual. Some people are naturals for “hitting the ground running” and others need years before they are comfortable for volunteering ideas and implementing in a different environment. Table 5-D illustrates the capabilities and competencies needed for network management.

New roles or different roles need established to effectively manage in a network. The Chief Relationship Officer is responsible for understanding the customer needs in the larger context of the network and not just a specific organization. Managing customer’s needs and expectations across multiple organizations is more an art than a science since each customer will expect their needs to be top priority. DoD leadership in time of conflict requires this perspective and the need to re-structure to operate more like a

network with flexibility to alter priorities across the network in time of war.

Position	Hierarchical Responsibilities	Network Governance Responsibilities
Chief executive officer, elected official, cabinet official	Allocate resources Explain to external stakeholders Communicate vision internally and externally	Maximize public value Identify core government values and talents Communicate vision internally and externally
Chief operating officer, director	Protect boss Limit downstream discretion and mistakes	Develop and manage relationships and strategy Understand customer needs (Chief relationship officer)
Manager	Enforce rules Monitor inputs	Manage teams Manage projects and outcomes (Network manager)
Line worker	Follow rules	Solve customer problems
Procurement worker	Prescribe rules Enforce impersonal tight processes	Negotiate Solicit and incorporate best ideas Contract for outside advice
Chief information officer	Direct purchasing, strategy and maintenance	Manage the collection and dissemination of knowledge and information

Table 5-D. Capabilities and competencies needed for network management (Goldsmith, 159)

Governing through networks is very effective but also very difficult to implement. Table 5-E illustrates the key risks and mitigation strategies for implementing a network structure. Defining the roles and responsibilities for each of the organizations is critical. These risks and mitigation strategies are centered around conflict management and the problems to maintaining relationships. Agreements need to be drafted and contractual relationships need to be defined with terms for outcomes should partners not maintain their terms of agreement. Terms for responsibility of cost overruns and penalties need to be part of agreements and reflected in contractual terms.

Risk	Mitigation Strategy
Failure to perform	Establish dispute resolution mechanisms, service-level agreements and penalties, and contractual “off-ramps” to allow for exit from contract on reasonable grounds”.
Termination of continuity	Ensure options exist for maintaining the continuity of the operations in the event a partner fails to perform, becomes insolvent, or must leave the project for some other reason.
Transfer of critical skills and knowledge to network	Understand what skills will be performed by the network and retain in-house or third-party consultants with skills and knowledge necessary to monitor service.
Disruption to operations	Understand and prepare for transition operational challenges. Place responsibility for successful transition on partners.
Inability to scale	Agree on anticipated growth in service demand and plan for capacity and pricing.
Loss of reputation	Ensure that network activities improve both customer satisfaction and the reputation of the government by establishing customer satisfaction incentives at the outset of the relationship.
Cost overruns, time delays	Structure incentives so cost overruns are borne by partner and penalties are assessed for delays.

Table 5-E. Risk and mitigation strategies for networks (Goldsmith, 142)

Section 5.2.1 Example of Success in Network Governance – Office of the Director of National Intelligence

The Office of the Director of National Intelligence (ODNI) started operations on April 22, 2005 resulting from the September 11, 2001 attack and a post-9/11 investigation proposing sweeping change in the Intelligence Community (IC), including the creation of a National Intelligence Director. The Intelligence Reform and Terrorism Prevention Act (IRTPA) of 2004 was signed into law on December 17, 2004 (ODNI website, FAQ). The mission of ODNI is to lead intelligence integration and forge an IC that delivers the most insightful intelligence possible. The vision of ODNI is a nation more secure through a fully integrated IC.

The Director of National Intelligence (DNI) serves as the head of the Intelligence Community (IC), overseeing and directing the implementation of the National Intelligence Program (NIP) budget and acting as the principal advisor to the President, the National Security Council, and the Homeland Security Council for intelligence matters related to the national security. Working together with the Principal Deputy DNI (PDDNI), the Office of the DNI's goal is to effectively integrate foreign, military and domestic intelligence in defense of the homeland and of United States interests abroad (ODNI, FAQ).

As outlined in IRTPA of 2004, the DNI is responsible to

- Ensure timely and objective national intelligence is provided to the President, the heads of departments and agencies of the executive branch, the Chairman of the Joint Chiefs of Staff, senior military commanders, and Congress;
- Establish objectives and priorities for collection, analysis, production, and dissemination of national intelligence;
- Ensure maximum availability of and access to intelligence information within (IC);
- Develop and ensure the execution of an annual budget for the NIP based on budget proposals provided by IC component organizations;
- Oversee coordination of relationships with the intelligence and security services of foreign governments and international organizations;
- Ensure the most accurate analysis of intelligence is derived from all sources to support national security needs;

- Develop personnel policies and program to enhance the capacity for joint operations and to facilitate staffing of community management functions; and
- Oversees the development and implementation of a program management plan for acquisition of major systems, doing so jointly with the Secretary of Defense for DoD programs, that includes cost, schedule, and performance goals and program milestone criteria.

Seventeen organizations comprise the IC: Air Force Intelligence, Army Intelligence, Central Intelligence Agency (CIA), Coast Guard (CG) Intelligence, Defense Intelligence Agency (DIA), Department of Homeland Security (DHS), Department of State (DoS), Department of the Treasury, Drug Enforcement Administration (DEA), Marine Corp Intelligence, National Geospatial-Intelligence Agency (NGA), National Reconnaissance Office (NRO), National Security Agency (NSA), and Navy Intelligence as illustrated in figure 5-16.

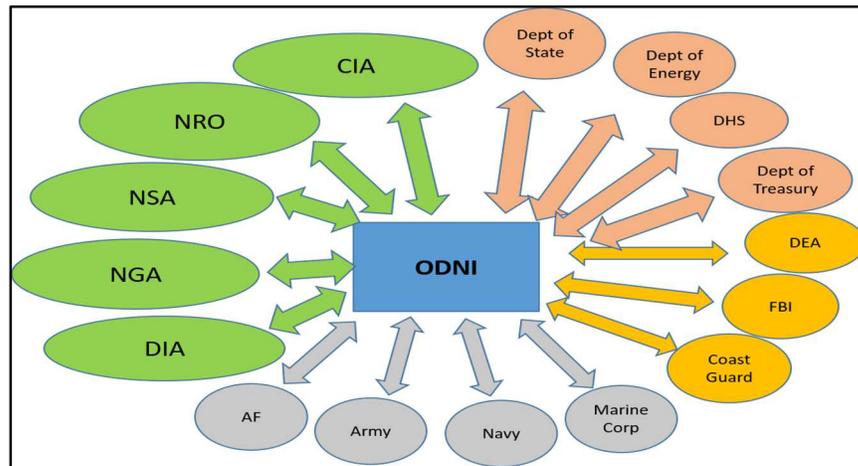


Figure 5-16. Intelligence Community network with ODNI as nucleus

There are six basic intelligence sources or collection disciplines: signals (SIGINT), imagery (IMINT), measurement and signature (MASINT), human-source (HUMINT), open-source (OSINT), and geospatial (GEOINT). SIGINT is derived from signal intercepts comprised of communications (COMINT), electronic (ELINT), and foreign instrumentation signals (FISINT).

The NSA is responsible for the collection, processing, and reporting of SIGINT.

IMINT is the representation of objects reproduced electronically or by optical means on film, electronic display, or another media. Imagery is derived from visual photography, radar sensors, and electro-optics. NGA is the manager for all IMINT activities, both classified and unclassified, within the government which includes requirements, collection, processing, exploitation, dissemination, archiving, and retrieval.

MASINT comprises technically derived intelligence data not classified as SIGINT or IMINT. The data results in intelligence to locate, identify, or describe distinctive characteristics of targets and requires a multi-discipline group to include nuclear, optical, radio frequency, acoustics, seismic, and materials science. The Director for MASINT and Technical Collection resides at DIA. Examples of MASINT are distinctive radar signature of specific aircraft systems and chemical composition of air and water samples.

HUMINT is derived from human sources and to the public is synonymous with espionage and clandestine operations; however, HUMINT collection is largely performed by overt collectors such as strategic debriefers and military attaches. OSINT is the collection of public available information appearing in print or electronic form including radio, television, newspapers, journals, internet, commercial databases, videos, graphics, and drawings. Although OSINT role is spread across the IC, ODNI's Open Source Center (OSC) and the National Air and Space Intelligence Center (NASIC) are the major collectors. GEOINT is the analysis and visual representation of security related activities on earth produced through an integration of imagery and geospatial information.

The integration of intelligence information within specific sources or disciplines, as well as, across sources and disciplines creates the ability to link actions and events that might otherwise be considered independent. Figure 5-17 illustrates intelligence discipline

integration.

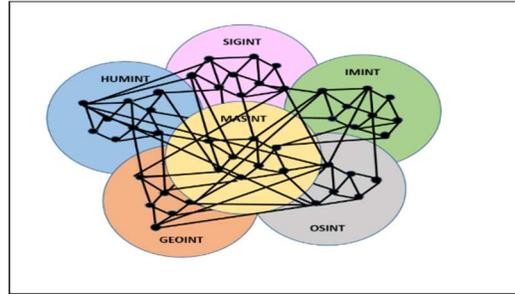


Figure 17. Intelligence discipline integration

The U.S. Intelligence budget has two components: NIP and Military Intelligence Program (MIP). NIP includes all programs, projects, and activities of the IC to include other IC programs designated jointly by the DNI and the head of department or agency, or the DNI and the President. MIP is devoted to intelligence activity within the military departments and agencies in the DoD that support tactical U.S. military operations. NIP budget request for 2017 is \$53.5M, includes all organizations request to support national intelligence security goals and capabilities.

These funds sustain key investments in the collection and critical operational capabilities to support counterterrorism, counterintelligence, and counterproliferation. Table 5-F illustrates the U.S. IC budget from 2006 to 2017. *The IC continues to strengthen collection and lead operations to defeat al-Qa'ida and other violent extremists, including the Islamic State of Iraq and the Levant; identify and disrupt counterintelligence threats; prevent the proliferation of weapons of mass destruction; and provide strategic warning to policymakers on issues of geopolitical and economic concern* (ODNI website).

The 2017 budget request also includes funds to further increase intelligence sharing and advance IC integration through enterprise-wide capabilities and use of cloud technology to facilitate greater efficiency and improve the safeguarding of information

across the IC information environment. *The IC is working to ensure that intelligence information flows anywhere and anytime it is required by any authorized user, from the President to troops on the ground* (ODNI website).

The 2017 budget request also supports Overseas Contingency Operations (OCO) to provide situational awareness to support force protection and targeting. Operational planners rely on IC for adversary plans, intentions, and capabilities. The budget request balances these immediate needs of U.S. military forces engaged in operations and enduring intelligence requirements for potential future military and security needs. *The IC identifies resources for strategic priorities, including advanced technology to improve strategic warning, enhance collection and exploitation capabilities, and increase resiliency* (ODNI website).

ODNI manages across the IC to ensure appropriate breadth and depth of IC capabilities drives efficiencies to achieve savings through operational and infrastructure investments focused enterprise-wide. A deliberative requirement and budget building process ensures programs are focused for the most impact and highest priority.

\$ Billions					
Fiscal Year	NIP Budget Request	NIP Budget Appropriated	MIP Budget Requested	MIP Budget Appropriated	Total Appropriated
2017	53.5		16.8		
2016	53.9		17.9		
2015	50.4	50.3	16.6	16.5	67.9
2014	52.2	50.5	14.6	17.4	67.6
2013	52.6	49.0	19.2	18.6	67.6
2012	55.0	53.9	--	21.5	75.4
2011	--	54.6	--	24.0	78.6
2010	--	53.1	--	27.0	80.1
2009	--	49.8	--	26.4	76.2
2008	--	47.5	--	22.9	70.4
2007	--	43.5	--	20.0	63.5
2006	--	40.9	--	--	--

Table 5-F. U.S. Intelligence Community budget (<http://www.dni.gov>)

ODNI's role for integration creates a common picture for intelligence collection and analysis, information, and policy. ODNI influences the sixteen other intelligence organizations through influencing the budget for each organization. MIP funds comprise 25 percent of the total budget; therefore, DoD organizations receive a combination of NIP and MIP. NIP used for the national common efforts and MIP used for specific service mission. Figure 5-18 depicts the integration of the IC into a common database for information.

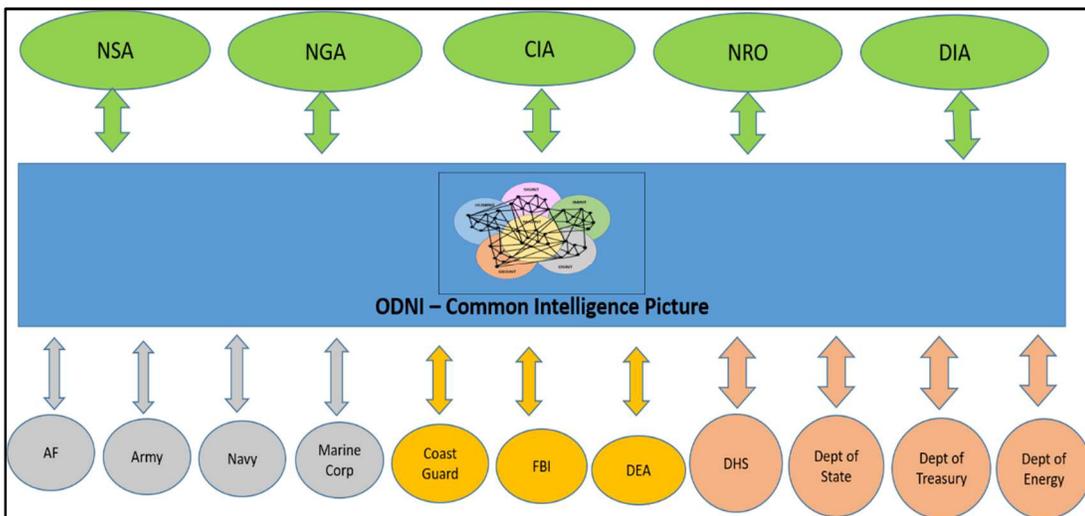


Figure 5-18 Common Intelligence Picture

Threat Prevention

ODNI acknowledges considerable progress gained toward *breaking down the information-sharing, technical, and cultural barriers across the IC that were identified in the wake of the 9/11 attacks* (ODNI Fact Sheet). In threat prevention, ODNI led the IC's integrated effort in the location and removal of Osama bin Laden, considered the most successful intelligence operation ever achieved through integrated intelligence.

ODNI fused domestic and foreign intelligence to disrupt homeland threats posed by alleged extremists such as Najibullah Zazi, David Headley, and Abdulhakim Mujahid Muhammad accomplished through fusion of counterterrorism information to state, local,

tribal, and private partners through the Federal Bureau of Investigation and the Department of Homeland Security.

ODNI through its National Counterproliferation Center (NCTC) strengthened the watchlist criteria after the attempted bombing of the Northwest Flight 253 in December 2009. The NCTC developed an infrastructure to integrate threat information. As the budget holder of NIP, ODNI surges intelligence support to Mexico at critical times to help combat drug cartels and their impact on Mexican governance and U.S. border security.

ODNI employed IC resources and capabilities to address emerging transnational public health emergencies. The IC produced assessments and projections on the spread and impact of the H1N1 virus, on foreign government responses to the pandemic, and political and economic impacts to virus migration. The DNI created a Senior Advisor for Global Health Security and a Program Director for Global Health to lead the IC's response to biological events.

The Rapid Technology Transition Initiative (RTTI) of ODNI funded more than 80 new technologies for interagency intelligence operations. The Biometric QuickCapture Platform program combines electronic fingerprints collection, satellite communication, and database interoperability technologies to assist law enforcement agents to immediately identify a suspect as a known terrorist or international criminal. After the WikiLeaks compromise, ODNI developed a blueprint and guidelines for insider threat detection.

Increased Information Sharing and Integration

ODNI has significantly increased information sharing and integration. ODNI

established the Deputy Directorate for Intelligence Integration (DDNI/II) to lead the core mission for centralized collection and analysis requirements across the IC to develop Unifying Intelligence Strategies (UIS) for geographic and topic areas. ODNI also created the IC Executive Committee (EXCOM) to ensure full coverage of key intelligence priorities and eliminate duplication of efforts. The cross-community Analytic Production Board produced faster and more targeted policy advice, improved liaison among the IC elements, and improved integration through greater transparency.

The IC Joint Duty program promotes integration across the IC through established joint duty assignments to external agencies to gain a better understanding of scope and complexity of the IC and integrate and engage the IC resources to support national security mission. Joint Duty program was the winner of the Harvard University's 2008 Innovations in American Government Awards and has become a requirement for senior leadership level positions. More than 12,000 intelligence personnel have earned or are earning Joint Duty credit to gain critical cross-agency perspectives. The NCTC leads the Joint Duty program for participation with nearly 50 percent of its personnel detailed from other agencies.

ODNI transformed analysis through the development of online collaborative tools such as Intellipedia and A-Space using a common platform to post information, conduct research and analysis, and easily collaborate with colleagues. Intellipedia and A-Space were used during the 2008 Mumbai terrorist attacks when adhoc groups across the IC linked on these classified sites posting video, photos, and satellite imagery real-time discussing the events as they unfolded. Time Magazine praised these collaborative tools as one of the best inventions of 2008. Analysts used intelligence information posted on

the site in previous months to identify the perpetrators of the attack as an al-Qaida-affiliated extremist group.

IC Directive 501 requires *each IC element responsible for making information collected and analyzed discoverable electronically* (ODNI Fact Sheet). The Library of National Intelligence (LNI), a virtual card catalog, offers access to over ten million analytic products to more than 100,000 IC employees. The *Strategic Intent for Information Sharing* published in August 2011 clarifies the role of the IC Information Sharing Executive to lead the community-wide effort to improve information sharing capabilities.

ODNI established the monthly Federal Partners Intelligence Forum to address complex national security issues through a “whole of government” approach. The forum focuses on educating and enhancing relationships across the IC between federal departments and agencies.

The DNI improved information sharing between national, state, and local creating fusion centers through granting personnel with federal security clearances access to select Secret Internet Protocol Router Network (SIPRNet) websites with classified homeland security-related information. The agreement was established between the DHS and DoD brokered by ODNI.

National Intelligence Managers (NIM) were established to integrate IC-wide analysis and collection for high-priority intelligence targets for a country and specific issue. For example, ODNI designated a NIM South Asia/Afghanistan-Pakistan to enable the IC to bring wide-ranging resources and capabilities against one of the Administration’s most urgent national security challenges.

Through ODNI, supply chain threat information sharing has increased across the U.S. Government and with the private sector through technical and analytical initiatives. Initiative deployed includes an acquisition risk assessment system to inform agencies' procurement decision-makers, a Threat Information Sharing Working Group to share threat information across the IC, and provide threat briefings to IC and non-IC government organizations, policymakers, and the private sector.

ODNI has led the synchronization and alignment of interactions between IC senior leadership and foreign partners. Improved collaboration and coordination has occurred through the IC senior leadership delivering a unified and harmonized message on any given issue across foreign partners strengthening these relationships.

ODNI, in its collaborative role, coordinated DoD, the Office of Personnel Management (OPM), and the Office of Management and Budget (OMB) for security clearance reform. *Clearance Reform Strategic Plan* established key policy and technology projects to improve timeliness, quality, and reciprocity across the IC through the ODNI's role as Security Executive Agent, described in Executive Order 13467. Results immediately achieved when in the first half of 2011, 25 of the 51 policy and technology projects were completed. The IC Badge Interoperability program established an IC badge for easier access to facilities outside parent organization including DoS, DHS, and Department of Treasury.

ODNI created *Intelligence Today* for senior policymakers who do not receive the President's Daily Brief (PDB) access to IC analytical insights on key national security decisions. *Intelligence Today represents the first time that intelligence products from each IC organization are consolidated in one web-based platform and disseminated to*

senior customers and their staffs, similar to how information is distributed via online news publications (ODNI Fact Sheet).

ODNI developed new capabilities to enhance IC e-mail service with features of encryption; improved directory services and standardized user naming conventions; and IC-Login, a system to allow IC members with appropriate clearance to access information at other IC organizations.

The ODNI established policy for improved IC financial management strengthening controls and reporting to achieve a qualifiable audit of their financial statements by 2016. The ODNI established best practices for the IC releasing the first IC financial management guidelines and reporting standards to comply with federal management laws and regulations; standardized financial reporting, corrective action plans, and quarterly reports to Congress; and published a workforce planning guide and appendix in Intelligence Community Directive (ICD) 610 for establishing financial and performance management competencies.

Improved Intelligence Capabilities

The ODNI established several initiatives for improving intelligence capabilities. The ODNI revamped the President's Daily Brief (PDB) to consolidate IC information to provide diverse perspectives which encompass breadth and depth of IC expertise. The revised PDB process balanced the briefing result with short-term timely information and strategic, long-term issues.

The Foreign Intelligence Surveillance Act (FISA) balances foreign intelligence collection while protecting the privacy and civil liberties of U.S. citizens and legal residents. ODNI established the Civil Liberties and Privacy Office on policy and

guidance for performance of intelligence duties within legal requirements and in such a way to ensure confidence that individual's rights are properly protected and meet congressional oversight expectations.

For fiscal year 2010, ODNI developed the first performance-based budget for NIP. Through the National Intelligence Priorities Framework (NIPF), ODNI created the framework for aligning collection and analytic resources across the IC to ensure adequate resources reach the most complex national security challenges and emerging threats.

Through the Intelligence Advanced Research Projects Agency (IARPA), ODNI funds high-risk, high-payoff research and development projects in such areas as quantum computing, biometrics, multimedia analytics, and computational linguistics to address cross-IC challenges for the future. IARPA is modeled after the DoD Defense Advanced Research Projects Agency (DARPA). IARPA's Coherent Superconducting Qubits program was recognized in Science magazine's 2010 *Breakthrough of the Year* with measurements of the world's first quantum mechanical vibrating device.

ODNI developed "Analysis 101" course for the IC for instruction on critical-thinking in a joint training environment. In addition, ODNI assumed the role for standards definition and evaluation of IC analytic products. ODNI strengthened the National Intelligence Estimates (NIEs) process through a formal review of the strengths, credibility, and reliability of all intelligence sources used in developing critical judgments; ensuring subject matter experts from outside IC review every NIE to challenge analysts' assumptions, and include analysis as a means for identifying opportunities for policymakers.

ODNI augmented language capability and cultural expertise across the IC through

three initiatives: Heritage Community Liaison Council, the Boren Program, and STARTALK.

The IC Heritage Community Liaison Council is comprised of first and second generation citizens representing mission critical heritage communities. ODNI works with council leaders to improve outreach and recruitment in their respective communities. The Boren Program, which has enabled 80 undergraduate or graduate students a year to study abroad, has created a pipeline of candidates with very high language proficiency, many of whom are now employed by intelligence organizations, Departments of Defense and State, and supporting contractors. STARTALK, a summer language study program that started in 2007, has taught more than 5,000 middle and high school students mission-critical languages, such as Chinese, Arabic, Hindi, Farsi, and Turkish, and will soon be expanded to reach students in all 50 states (ODNI Fact Sheet, 7).

ODNI has enabled the IC to attract, recruit, and retain individuals with specific language skills and cultural expertise through the IC Centers of Academic Excellence (CAE). Approximately 60 percent of scholars accepted into program traveled overseas and 70 percent traveled to countries where a critical language is spoken, ensuring strategic language expertise.

CAE worked with academic partners to develop national security studies baccalaureate programs to produce future national security professionals. ODNI sponsors IC-wide Virtual Career Fairs to reach a greater number of potential recruits. At the first fair launched in March 2010, more than 5,000 registered reporting proficiency in critical languages to national security.

ODNI under the leadership of the Director ensures intelligence integration across the IC, efficiency of intelligence workforce recruitment and development, effective science and technology development to ensure no gaps between IC organization missions, and creating a common IC picture in collection and analysis to leverage the entire IC for

identifying linkages between independent events or pieces of information. ODNI controls the NIP budget therefore shaping the priorities for IC organizations. Although MIP funds are used by DoD for tactical intelligence, the efforts in some cases supplement and in others complement specific missions.

Section 5.3 Synchronized versus Integrated Activities

synchronization and integration are not synonymous. Synchronized and integrated are often used interchangeably; they have separate meanings. Campaign planning utilizes synchronized activities for combat activities. The timing of events is significant in synchronized activities whereas integration relates to the dependencies and interdependencies of activities. At times, the terms are used interchangeably to mean merged activities but synchronized activities focus on a dependency of relative time factor.

Integrated activities provide the leverage for exponential results through merged efforts producing a greater result than the sum of the factors. The synchronized activities of September 11, 2001 were independent activities with the dependency of time creating maximum effect. If the activities were sequential, then counter activities would have foiled plans.

Definition of Synchronized Activities

Synchronization of the plan takes place once all of the supporting concepts are built. Synchronization is the art of arranging all activities (military and otherwise) in the right sequence and place, with the right purpose, to produce maximum effect at the decisive points. Synchronization will continue after development of the plan, through brief-backs, rehearsals, and execution. A synchronized and fully integrated CONOPS becomes the Base Plan, and all of the plan's annexes. For Level 2 plans, this is the end development, other than coordination (CPH 2013, 93).

Although this definition for synchronization mentions integration in the concept of operations (CONOPS), it lacks detail on how integration occurs. The definition more infers integration being synonymous with incorporation and lacks acknowledgement of dependencies and interdependencies between the activities of the plan. The paragraph describes the planning of activities to be executed independently relying on coordination

as means across the organization. Managing the dependencies and interdependencies are core to success as described in Boeing 777 program example and use of integrated-level teams to oversee work of design-build teams.

Synchronization refinement is the adjustment of plans or orders *based on the results of force planning, support planning, deployment planning, shortfalls identification, revised Joint Intelligence Preparation of the Operation Environment (JIPOE), changes to strategic guidance, or changes to the commander's guidance from continuous design of the campaign* (CPH 2013, 96). Fragmentary Orders (FRAGOS) transmit revisions to plans. Synchronization focuses on combat mission and flow-down on strategic guidance to develop independent operation at the tactical level.

National Security Presidential Directive (NSPD)-44, Management of Interagency Efforts Concerning Reconstruction and Stabilization (R&S) established the Whole-of-Government Planning initiative:

- *Designated the State Department's Office of the Coordinator for Reconstruction and Stabilization (S/CRS) as US-government lead to coordinate the development of civilian capability to plan, prepare for, and conduct Reconstruction and Stabilization (R&S) operations. The S/CRS has since been dis-established and its role and purpose subsumed by the Bureau of Conflict and Stability Operations in Department of State (DoS).*
- *Directed by DoS and DoD to work together to integrate Reconstruction and Stability (R&S) capabilities.*
- *Established an R&S Policy Coordinating Committee (PCC) to manage these efforts.*
- *Established an R&S DoD working group to coordinate and synchronize support and assistance to DoS.*
- *Though NSPD-44 refers to R&S operations, its principles have wider application, particularly to steady-state operations. The DoD applied the directives contained in NSPD-44 in the FY 2008 Guidance for the Employment of Force (GEF). Specifically, the GEF directs the DoD components to*
 - *develop planning for steady-state activities that align with wider USG policy and complement and synchronize with parallel inter-agency activities,*

- *ensure military activities will support USG objectives,*
- *analyze the roles of other US federal agencies, coalition military partners, local populations, host nation and other foreign-government partners, and key, private, security actors to integrate with military activities, and*
- *develop criteria to shift responsibilities between DoD supported and supporting roles (CPH 2013, 15).*

Since 2001, strategic organizational structure keeps changing still not finding the right approach for success. Counterterrorism is not primarily a diplomatic mission; it is a defense mission based on the ability of other countries to maintain a certain level of security to maintain stability. DoD needs fully engaged in political-military-economic-social-information-infrastructure (PMESII) of the system of systems analysis and not just the military system to invoke stability through a security role.

In a network organization structure, the nucleus organization delegates authority and responsibility where needed but retains the flexibility to shift or assume responsibility, when necessary. The critical role of the nucleus organization is managing the connections and interactions across the network.

This latest change through NSPD-44 eliminated the State Department's Office of the Coordinator for Reconstruction and Stabilization and moved the responsibilities into the Bureau of Conflict and Stability Operations under the Department of State. Through reports from Government Accountability Office, DoD Inspector General, Special Inspector General for Afghanistan Reconstruction, Special Inspector General for Iraq Reconstruction, and independent studies such as RAND Corporation, no organization currently achieving effective performance.

The stability state index for Iraq and Afghanistan confirms the conclusions of reports; significant funds invested with no significant improvement in nation's stability. Merely

changing office titles and re-structuring these offices without major changes of **how to manage** the complex effort results in little change.

Defense institutional building is a mega-program requiring the ability to apply program management, integrate the work, measure performance, adjust the integrated plan based on performance measures, develop systems and processes to accommodate the nation, develop workforce capable of achieving exponential results, and leadership for the game-changing transformation. Project management is not merely administrative management. Project management requires special skills; for complex work, it requires advanced skills. Synchronizing activities (work) across multiple organizations is not the same as integrating the activities (work).

The complexity of research and development for large-scale programs promotes the defense acquisition model under the Under Secretary of Defense (Acquisition, Technology, & Logistics). The complexity of defense institutional building work parallels the complexity of research and development of technology; therefore, similar tools and techniques are applicable.

The State Department lacks the corporate knowledge of managing complexity involved in research and development; therefore, selecting the nucleus office under DoS will impede understanding of planning, monitoring, and executing the work that needs accomplished. The State Department owns a significant piece of **what** to do in nation-building for governance, economic growth, and civil cooperation.

In addition, for countries in the alert and warning category, security is the foundational element requiring the DoD planning with other organizations aligning with their initiatives within the security realm. As experienced for several years in Iraq, security

was the priority with other efforts severely diminished because of the lack of stability achieved. Defense institutional building success relies on **how** to accomplish.

Definition of Integrated Activities

In the Boeing 777 program case study, CATIA software permitted integration of design. This design integration tool attributed to success of the commercial program through visibility to entire Boeing 777 team and the ability to understand the impacts of design across the entire aircraft.

In project management, scheduling software provide the integration of tasks or activities. Project management software packages include methods for planning, tracking, and monitoring of tasks and resources. The network typology usually based on critical path method (CPM), program evaluation and review techniques (PERT), and precedence diagram method (PDM).

A baseline is developed to document the tasks, timeframes, and costs; the baseline is tracked against the actual timeframes and costs to determine how well the project is executing against the plan. These software packages also include several standard reports in various formats. The information from the project plan can generate reports supported by Gantt charts, network diagrams, tables, and graphics (Kerzner, PM, 531).

Critical chain project management applies theory of constraints methodology recognizing that resource constraints can be a driving factor for problems in projects. The **critical chain** is the longest chain of dependent events where the dependency is either task or resource related, resulting in the greatest negative impact on the overall project timeframe (Kerzner, PM, 535). Before this concept, the critical path emphasized the tasks requiring closer management. **Critical path** is the longest path through the network

that equates to the shortest timeframe to accomplish the project.

The DoD requires acquisition contractors to use integrated master schedules and earn value management as means for measuring performance for acquisition programs above \$20 million (DFARS section 234.201). The contractor is required to conduct an integrated baseline review on performance measurement baseline within six months of contract award. This review provides a mutual understanding of the schedule and methods for measuring performance.

For large Acquisition Category (ACAT) programs, the integrated master schedule is expected to be several thousand lines by the integrated baseline review, encompassing the entire program using summary planning tasks. Detailed planning occurs in three to four month increments called rolling waves. This approach allows the entire program planning with details only planned within the three to four-month current window, providing greater flexibility in execution.

Linking the entire schedule activities ensures that a change in one task reflects a change in project completion date if that task is on a critical path. The schedule is baselined with a parallel actual schedule used for comparison between baseline and actual. Schedule risk assessments determine the impact of program risks to the schedule and completion dates.

Since a slip in schedule usually relates to an increase in cost, a cost risk assessment also is conducted. This approach captures all program work for contractor and sub-contractors in one integrated management plan, the performance measurement baseline.

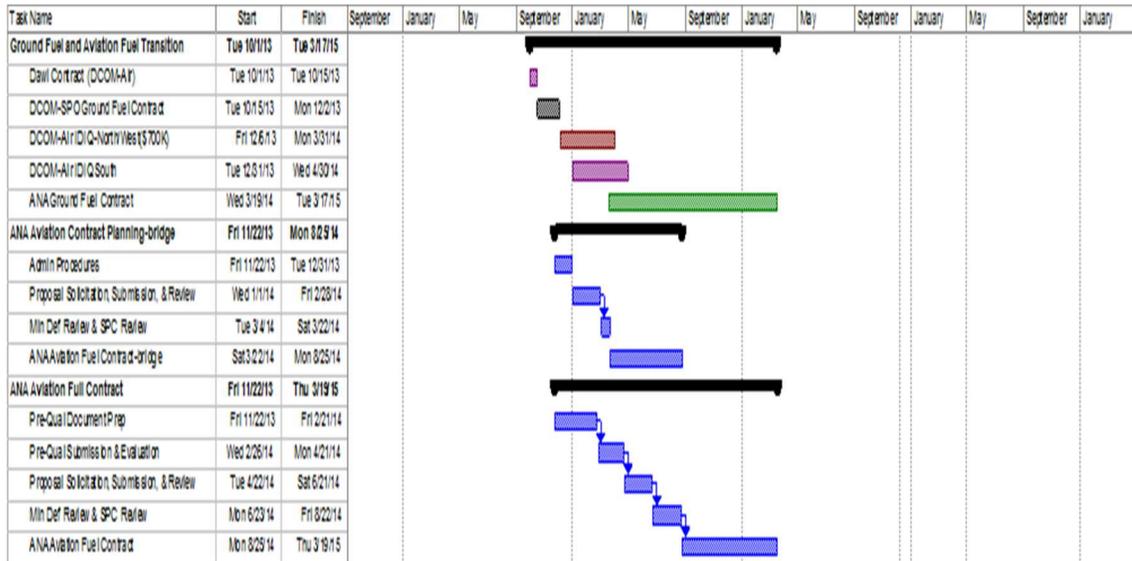


Figure. 5-19 Schedule for the U.S. aviation fuel transition to Afghan Ministry of Defense

Figure 5-19 illustrates the schedule for transition of purchase for aviation fuel from U.S responsibility to Afghan MoD. The schedule depicts the Coalition aviation fuel efforts, which were different depending on Afghan regions. Deputy Commanding General – Support covered some areas and was in the process of transferring ground fuel to the Afghan MoD. Deputy Commanding General – Air Force was assuming Coalition responsibility temporarily for the North, West, and South as a contingency plan.

The schedule shows that an MoD fuel bridge contract planned as risk mitigation while the full fuel contract package was processed. The plan included both risk mitigation and contingency planning based on the criticality of ensuring aviation fuel for the Afghan MoD.

The three summary planning tasks synchronized for successful completion of the U.S. contract alignment with the MoD bridge contract and MoD full contract. Risk mitigation discussed was overlap of the Coalition contracts to ensure that any delay would not result in fuel shortage. Flexible contract methods such as basic purchasing agreements (BPA) provide a bridge during transition periods. Although typically bridge contracts are

discouraged in DoD, this approach supports defense institutional building with need for flexibility of changing requirements. Flexibility in funding source also need incorporated.

This planning should have been part of the original transition plan but instead became crisis management when U.S. contracts were ending and the MoD planning was disconnected from the U.S. contracting effort. The result was the MoD not prepared for fuel transition. The MoD full fuel contract linkages are dependencies between each step. The completion of the prior task is required before the next task can start. The relationship is predecessor and successor to denote if the task is required before or after the step.

Figure 5-20 illustrates a recommended project schedule example provided in a brief on improvements for the advisory mission. Project scheduling was not adopted due to majority of advisors not familiar with the tool.

It reflects the review of the Afghan MoD Organization and Function Manual by advisors for changes, task Director to review sections and make recommendations, then Assistant Minister of Defense (AMoD) review recommended changes for approval, and submission to MoD Organization & Function manual owner to incorporate changes. Lines (3) to (6) depict a sequential predecessor to successor integration. Line (3) must finish before line (4) can start; line (4) must finish before line (5) can start; and line (5) must finish before line (6) can start.

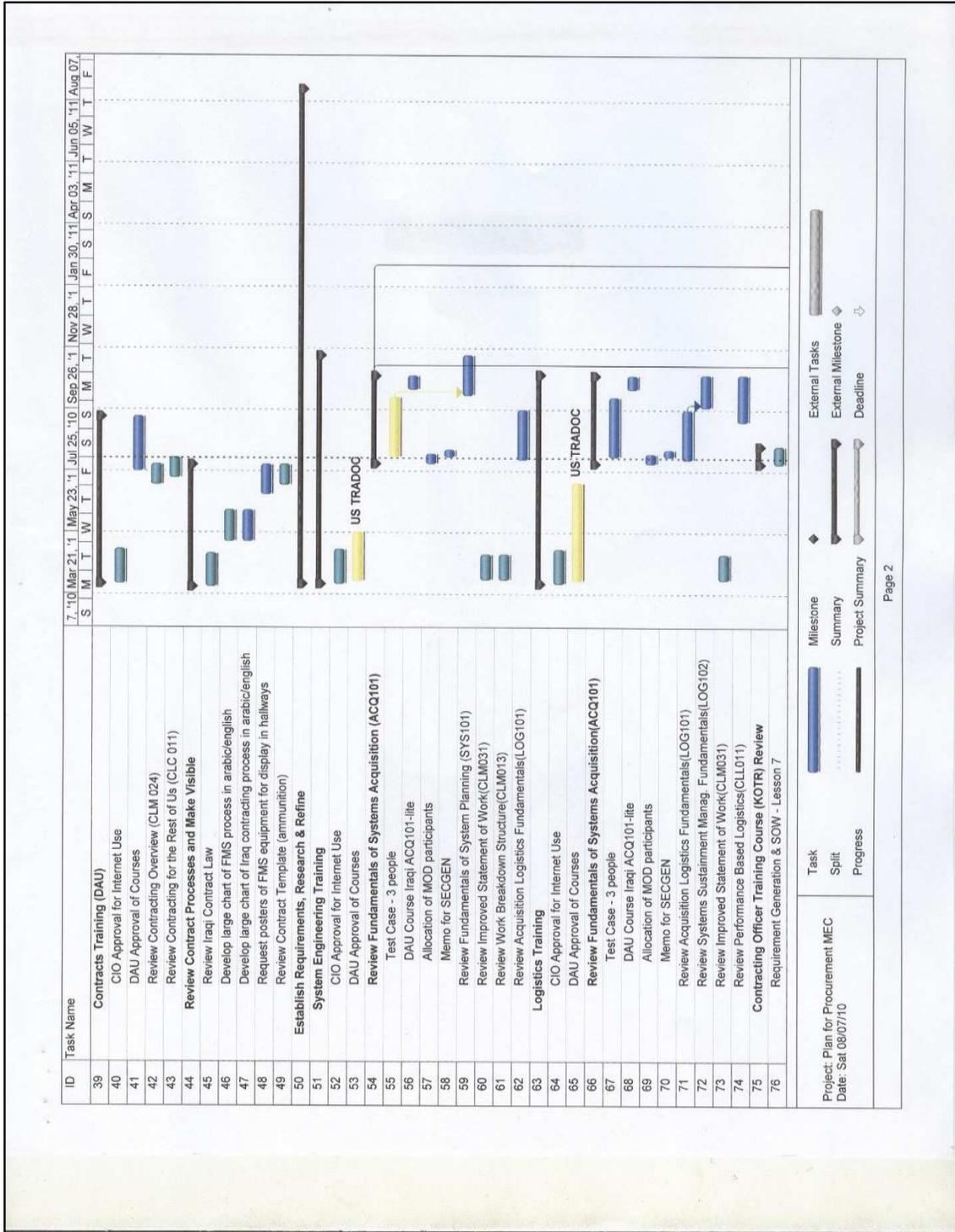


Figure 5-21 Integrated management schedule for ministry development

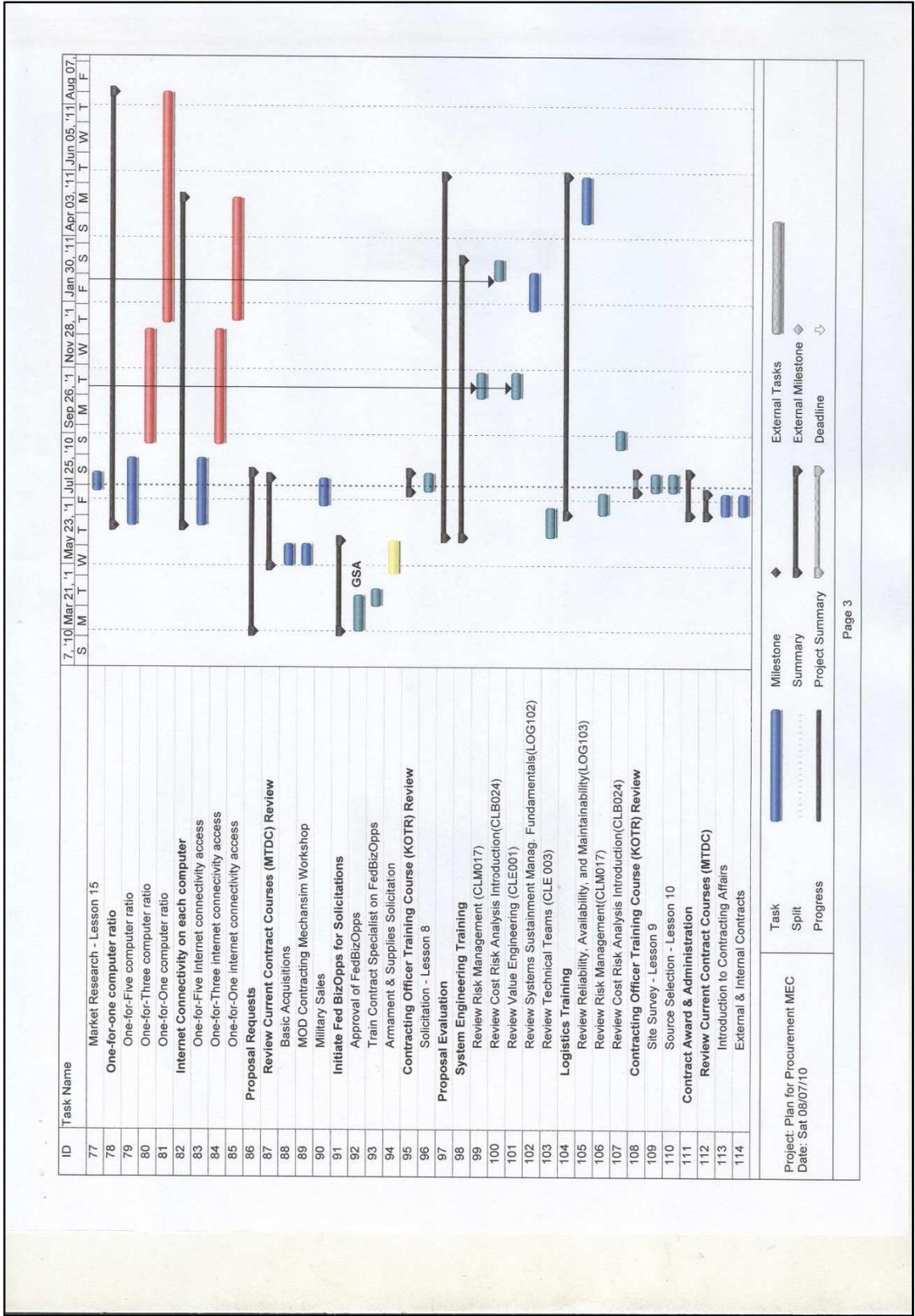


Figure 5-22 Integrated management schedule for ministry development (continued)

Title: Proposal for the Iraqi MOD to utilize U.S. Government Federal Business Opportunities (fedbizopps) website for soliciting products/systems.

Problem: Iraqi MOD lacks an efficient and effective means of soliciting products/systems from outside of Iraq in a full and open competition setting.

Solution: Allow Iraqi MOD to utilize the U.S. Government <http://FedBizOpps.gov/> website to solicit products/systems based on the stated requirements posted on the website.

Supporting Information: The website is merely a vehicle for an agency to post their requirements with attachments to allow industry the opportunity to submit: material information, hardware, proposals for development, etc. based on the solicitation request. The marketing groups of companies peruse this website routinely looking for potential business. This takes the “leg work” off the Iraqi MOD personnel to have to literally search out products/systems to test and evaluate. It meets the full and open competition policy championed by the U.S. contracting regulations because it allows anyone to submit information. Currently, the United Kingdom Defence Procurement Office is the only non-U.S. agency listed as user. FedBizOpps program manager has agreed to allow the Government of Iraq (GOI) to use the website for sources sought and solicitations. A tutorial on the website provides information to the users on how to post information on the site. Once the Iraqi MOD utilized this website for some period, they could establish their own website for posting solicitations, if desired. This approach would give the Iraqi MOD some experience with using web-based solicitations before establishing their own. During the transition period, information for the new Iraqi website could be posted to allow companies to become familiar prior to the switchover. The use of the website could be expanded across other ministries in the GOI.

Exhibit 5-B. Proposal for Iraqi Ministry of Defense use of fedbizopps website

Exhibit 5-B is a proposal submitted for Iraqi MoD to use fedbizopps website.

Although the General Services Administration program manager had agreed, the program manager changed positions shortly later and the new program manager chose not to pursue. Both Iraqi Director Generals for procurement provided personnel for training.

The use of U.S. fedbizopps website for solicitations would be a win-win for the U.S. and assisted countries providing the means for market research and external contract solicitations. Fragile and failed nations lack advanced market research methods but want to maintain autonomy in government processes.

Section 5.3.1 Boeing 777: Case Study on Success due to Integration of the Work

This case study describes the success of the Boeing 777 program utilizing innovative integration tools for the team. Integrated Product Team (IPT) approach merged Boeing, subcontractors, and customers in teams for determining requirements, designing aircraft, and establishing manufacturing protocols.

Boeing Corporation launched the development of the Boeing 777 commercial airline to compete with Airbus. Airbus had just launched two new 300-seat wide-body models, the two-engine A330 and the four-engine A340 (Kerzner, 81). The executive Vice-President, at the time, Philip Condit met with United Airlines Vice President Jim Guyette and discussed the approach of developing a new aircraft through modifications to Boeing 767 model, through stretch design and upgrades.

Guyette urged Boeing to develop a new commercial airline to compete with Airbus. Frank Shrontz, then Chief Executive Officer (CEO) decided the new design approach was the better long-term solution and in December 1989 put Philip Condit in-charge of management of the program. *Boeing has launched the 777 project in 1990, delivered the first jet in 1995, and by February 2001, 325 B-777s were flying in the services of the major international and U.S. airlines* (Kerzner, 81).

Condit's innovative approach merged technological and managerial methods in aircraft design, manufacturing, and assembly. Commercial aircraft manufacturing is a high-risk venture with a significant reduction in competitors to four during the 1980s: Boeing, McDonnell Douglas, Airbus, and Lockheed.

Developing a new jetliner required an up-front investment of up to \$15 billion (2001 dollars), a lead time of five to six years from launch to first delivery, and the ability to sustain a negative cash flow throughout the development phase. Typically, to break even on an entirely new jetliner,

aircraft manufacturers needed to sell a minimum of 300 to 400 planes and at least 50 planes per year (Kerzner, 82).

It had become the norm for Boeing to require subcontractors to share the development risk; these subcontractors would perform detailed design work and assemble major subsections of the new plane. The airframe integrators designed the aircraft, integrated the systems and equipment, assembled the entire aircraft, marketed it, and provided customer support (Kerzner, 82-83). This became the standard for the aircraft industry to focus on integration of systems and use subcontractors to design and produce the components and subsystems. Engine building had become a specialty for prime engine manufacturers: General Electric, Pratt and Whitney, and Rolls Royce.

In assessing the life cycle cost of the aircraft and engine, *the price of the engine and its replacement parts was equal to the entire price of the airplane (Kerzner, 83).*

Technology advances occurred in composite materials with properties of lightweight but great strength. Semiconductors changed avionics through miniaturization and enhancement to computers for communication, navigation, instrumentation, and testing (Kerzner, 83).

Boeing 777 program was the largest project since the completion of the 747 at an estimated \$6.3 billion and total number of employees assigned to the project peaking at nearly 10,000 (Kerzner, 86). Companies taking on mega-projects risk corporate stability through high debt and low cash flow; these ventures can break the company if assumptions are wrong and results do not meet expectations.

Boeing was positioned for the challenge. *With a 21 percent rate of return on stockholder equity, a long-term debt of just 15 percent of capitalization, and a cash surplus of \$3.6 billion,* Boeing was positioned to gamble a large investment for a large

payoff. (Kerzner, 86). Assumptions that played into the decision were *a forecasted greater than a 100 percent increase in the number of passenger miles traveled worldwide and a need for about 9,000 new commercial jets* (Kerzner, 87).

Boeing CEO Frank Shrontz took a high-risk gamble in approaching the Boeing Board of Directors for a decision with only one customer, United Airlines to start the venture. Typically, aircraft manufacturers will wait until a minimum number of orders are attained. The development effort focused on customer satisfaction including the customer in the design phase. Eventually, eight carriers from around the world joined the development team and provided representatives full-time to Seattle, Washington: United, Delta, American, British Airways, Qantas, Japan Airlines, All Nippon Airways, and Japan Air System (Kerzner, 87).

Boeing called the approach “Working Together” and emphasized interaction at the design-level. Customers could influence the design based on their knowledge of what airline passengers wanted. In addition, the airlines knew what problems they experienced and could influence design to eliminate these in the next generation aircraft.

Among changes made by Boeing was a redesigned overhead bin that left more stand-up headroom for passenger; flattened side walls that provided the occupant of the window seat with more room; overhead bin doors that opened down and made it possible for shorter passengers to lift baggage into the overhead compartment; a redesigned reading lamp that enabled flight attendants to replace light bulbs, a task formerly performed by mechanics; and a computerized flight deck management system that adjusted cabin temperature, controlled the volume of the public address system, and monitored food and drink inventories (Kerzner, 89).

The Boeing 777 also designed in flexibility of interior cabin allowing “flexible zones” for tailoring specific customer needs.

To accommodate airlines with significant inventory of Boeing 747 aircraft, a shared

cockpit design created commonality and ability to have a pool of pilots for 747 and 777 flights. Airline carriers also emphasized an increase in avionics to accommodate enhanced in-flight entertainment. *About 40 percent of the 777's total computer capacity was reserved for passengers in the cabin* (Kerzner, 89).

Boeing also included the fly-by-wire (FBW) technology, Boeing's first application, utilizing electronic technology versus mechanical technology for flight control. Airbus had introduced this technology to the world in their Airbus A-320 in 1988 (Kerzner, 89).

Boeing's customers were even involved in engine design, with United Airlines and All Nippon Airlines assigning service engineers to work with representatives of Pratt & Whitney. Three conferences were held reviewing design with full-scale mockup of the Boeing 777 engine to discuss maintenance concepts.

The Boeing 777 project required complexity not previously experienced in aircraft design.

Twelve international companies located in ten countries, and eighteen more U.S. companies located in twelve states, were contracted by Boeing to help manufacture the 777. Together, they supplied structural components as well as systems and equipment. Among the foreign suppliers were companies based in Japan, Britain Australia, Italy, Korea, Singapore, and Ireland; among the major U.S. subcontractors were Grumman Corporation, Rockwell, Honeywell, United Technologies, Bendix, and Sundstrand Corporation.

Of all foreign participants, the Japanese played the largest role...A consortium made up of Fuji Heavy Industries, Kawasaki Heavy Industries, and Mitsubishi Heavy Industries produced 20 percent of the value of the 777's airframe. A group of 250 Japanese engineers had spent a year in Seattle working on the 777 alongside Boeing engineers before most of its members went back home to begin production. The fuselage was built in sections in Japan and then shipped to Boeing's huge plant at Everett, Washington for assembly (Kerzner, 91).

Boeing operated in a network structure being the nucleus and managing the interactions of all customers and subcontractors.

Besides network organization structure with inclusive approach of customers and subcontractors for managing the project, Boeing also developed the family of planes concept through a flexible design. All derivatives of a model shared maintenance, training, operating procedures, and replacement parts and components. The balance of commonality and flexibility reduces costs and risk through accommodating variants for future requirements.

Another revolutionary approach was the use of digital design through computer-aided design (CAD). CAD had become successful in industries of car manufacture, building construction, machine production, and other industries; however, the 777 aircraft was the first application for Boeing. Boeing bought CATIA computer program from Dassault Aviation, a French fighter aircraft builder, and contracted for IBM to improve image manipulation, supply eight mainframe computers, and connect 2,200 computer terminals for Boeing to distribute among the 777 design teams (Kerzner, 93-94).

Boeing utilized a two-team concept: integrated level teams organized around large sections of the aircraft and design-build teams around small parts and components. In both cases, teams were cross-functional. The teams included personnel from functional areas of manufacturing, tooling, planning, engineering, finance, and materials working together in small teams.

Self-managing teams contributed to the success. John Monroe, a senior project manager stated: *The team is totally responsible. We give them a lump of money to go and do the job. They decide whether to hire a lot of inexperienced people or to trade numbers for resources. It's unprecedented. We have some \$100 million plus activities led by non-managers* (Kerzner, 95).

As cited in the section on advanced program management concepts, intensive communication is instrumental. All employees of the 777 program were expected to attend a special orientation session on teamwork and quality control. Once a quarter, the entire 10,000-member team met offsite to hear briefings on aircraft status, discuss problems, and resolve them.

Management also embraced empowerment for employees allowing assembly line workers to appeal management decisions. Bar charts were used to measure and track performance computerizing this method for the 777 program. Visibility of the factory floor performance was recognized in industry for several decades, but emphasis was integration of inspectors in manufacturing ensured quality throughout the manufacturing process.

The significant shift in management style from a culture that was secretive, formal, and stiff to open communication, sharing, and trust required leadership for transformation. *Condit introduced a three-way performance review procedure whereby managers were evaluated by their supervisors, their peers, and their subordinates* (Kerzner, 97). Management embraced the concept “Working Together” and employed in all aspects of the program. Condit stated, *to create a high-performance organization, you need employees who can work together in a way that promotes continual learning and the free flow of ideas and information* (Kerzner, 97).

The CATIA software program had learning pains associated with it. The 3-Dimension (3D) digital design process required 60 percent more engineering resources than the older method. Computing time was slow often-lasting minutes. Companies on the leading edge of technology will experience working through problems until tools have become more

mature through lessons learned. In addition, changing the culture and personnel thinking is also a challenge.

The Director for 777 program engineering, Ron Ostrowski, expressed that people challenges can be as much or more difficult than technology challenges, *to convert people's thinking from 2D to 3D took more time than we thought it would* (Kerzner, 99). This was the pivotal point for Boeing moving from paper to digital method.

However, the gamble paid off. In digital design, the original goal of the program was to reduce change, error, and rework by 50 percent; however, the engineers building the first three aircraft reduced modifications by 60 to 90 percent (Kerzner, 98). CATIA helped engineers to identify more than 10,000 interferences otherwise missed until assembly or first delivery (Kerzner, 98). Identifying problems early is basic in project management and instrumental to success. *In 1993, the Smithsonian Institution honored the Boeing 777 division with the Annual Computerworld Award for the manufacturing category* (Kerzner, 98).

For the Boeing 777 program, a typical configuration change took only seventy-two hours compared to three weeks in competing aircraft. Using customer airline representatives in the aircraft design made the aircraft more marketable across all current and future customers.

In 1992, the Industrial Design Society of America granted Boeing its Excellence Award for building the 777-passenger cabin, honoring an airplane interior for the first time (Kerzner, 98). *No matter how you gauge the success of Boeing's 777, whether in terms of sales, profitability, safety, versatility, longevity or derivatives, few can argue the remarkable impact the twinjet has made on the industry since entering service almost 20 years ago* (Norris, 1).

A survey of nearly 6,000 European airline passengers who had flown both the 777 and

the A330/A340 found that the 777 was preferred by more than three out of four passengers (Kerzner, 101). The success of management approach led to the success of aircraft preference by passengers and therefore success of achieving more customers, resulting in Boeing enhanced profitability.



Figure 5-23. Boeing 777 aircraft

Condit's leadership created the transformation for the Boeing 777 program. Condit went on to become CEO in 1996. He resigned in 2003 under allegations involved in an \$18 billion defense deal with the Pentagon (Lunsford, WSJ)). In a deal coordinated with senior acquisition manager, Darleen Druyan, for the Air Force to acquire 100 Boeing 767 tankers, and Boeing Chief Financial Officer Michael Sears, allegations of ethics violations prompted several investigations.

In 1998, Boeing came under attack for acting improperly with possessing 35,000 pages of Lockheed Martin Corporation documents during a 1998 competition for a military rocket-launch contract (Holmes, Bloomberg). Boeing was suspended indefinitely from bidding on future rocket contracts pending a review on ethics. These high-profile cases and the lull in Boeing's investments in the space industry led to Condit's resignation.

Executives at the top are vulnerable to elevating themselves above all others and becoming susceptible to integrity issues. Congress has had several members resign over

ethics and conflict of interest violations. Even those that made great accomplishments must diligently be humble to refrain from compromising their positions for their personal gain.

Corruption of senior officials is epidemic in defense institutional building missions. The “checks and balances” included in standard operating procedures ensure that no one person gains absolute power to abuse it. Coalition senior leaders need to ensure that these “checks and balances” are incorporated to discourage greed and criminal behavior. The Boeing case study reflects that innovation drives success but can quickly be undone through corruption.

Section 5.4 Importance of Women in Stability Operations

On October 31, 2013, United Nations Secretary-General Ban Ki-moon spoke to a conference in Israel on the importance of women in developing stable nations.

The adoption of resolution 1325 was a landmark; it recognized that women's experiences of war are different than men's. It underscored that women are a powerful yet often untapped force for peace...Implementing resolution 1325 means that women must be central-from negotiating peace to delivering justice, from promoting reconciliation to shaping societies after conflict. It also means that we must put an end to gender-based violence, discrimination and exclusion. Forty-three countries have adopted national action plans to implement our commitments...Empowering women and girls for development and peace is the smartest and most overdue investment the international community can make (Secretary General Ban Ki-moon, 1).

The role of women is two-fold: gender integration within the assisted nation and utilizing women, both military and civilian, in stability operations. An International Journal of Scientific and Research Publications article titled, *The Changing Role of Women in Stability Operations*, concludes *there is little advancement within the international peacekeeping environment to actively recruit women. It is evident that there is a positive experience by utilizing women's participation, which can further enhance the various peacekeeping operations (Patrick, 3).*

In 2001, following the year United Nations Security Council Resolution 1325 adoption, there was an average of 5.5 percent women serving in NATO countries (Patrick, 3). NATO is striving to meet a 50/50 balance of men and women by 2015. Since 2013, there were no female heads of mission out of 18 operations and only one-woman deputy in Afghanistan (Patrick, 3).

Only one percent of the military personnel serving in peacekeeping operations are women (Patrick, 3). The article raises the importance of women administering stability

operations, as well as, establishing gender equality within the assisted nation. Current recruiting practices and perspectives of senior leadership overlook the importance of integration of women into roles within the Coalition mission.

In 2006 the UN Security Council formally requested that member states, including the U.S., implement UNSCR 1325 through National Action Plans (Scanlon, 1). The U.S signed its National Action Plan on Women, Peace, and Security (NAP on WPS) in December 2011; however, the U.S. DoD signed its Implementation Guide for NAP on WPS in December 2013 (Scanlon, 1). As cited in NAP for WPS, Rwanda was the first nation with women making up more than half of Parliament securing 56.25 percent seats in 2008 (NPS on WPS, 14).

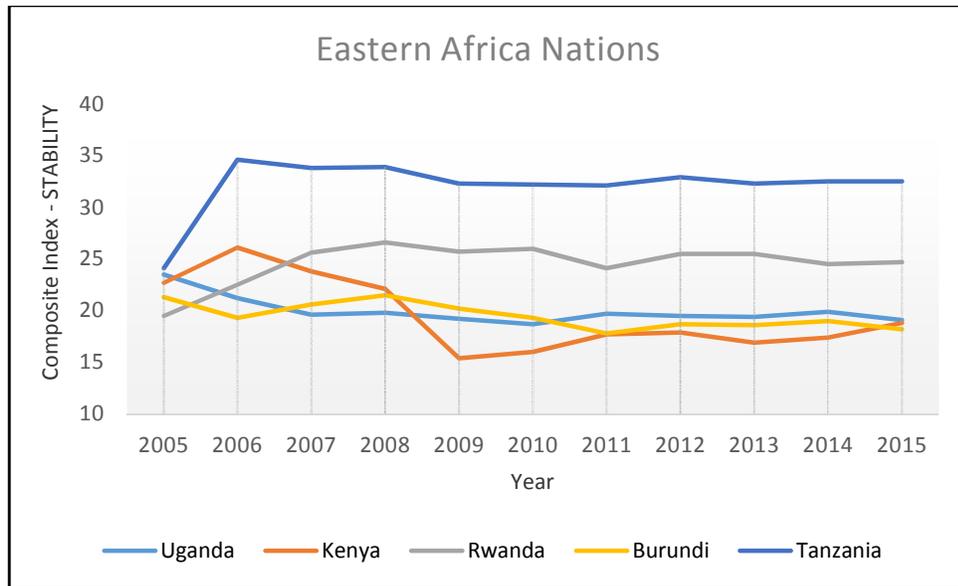


Figure 5-24. Eastern Africa nations stability state index

Although the country still struggles with stability, Rwanda exhibits better stability than neighboring nations, Kenya, Uganda, and Burundi, as depicted in figure 5-24. In 2015, Rwanda achieved top ranking for the most women in a single or lower house of parliament at 63.8 percent with a significant increase from 4.3 percent in 1995 (Inter-Parliamentary Union (IPU), Annex). Rwanda also had the most significant change for the

period at 59.5 percent and a woman Parliamentary Speaker (IPU, 16).

Forty-three countries have a woman Speaker of Parliament including Bosnia and Herzegovina, Botswana, Dominican Republic, Rwanda, and Zimbabwe (IPU, 16). A comparison of these nations stability index is depicted in figure 5-25. The situation of women Speakers of Parliament for these nations may represent an improvement in the social system, recognizing greater equality among genders.

A deeper dive into the relationship of women in government and the stability sub-indicators may provide greater understanding in how the role of women can make significant improvements in a short period stimulating exponential-like performance.

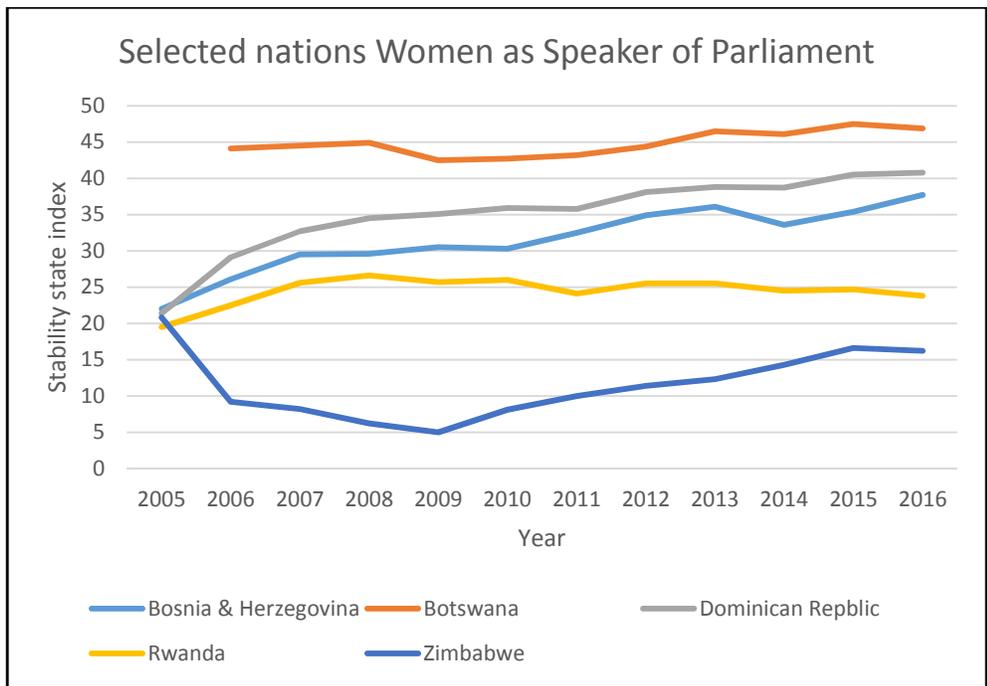


Figure 5-25. Selected nations with Women Speaker of Parliament

The U.S. NAP targets the following five high-level objectives: (1) national integration and institutionalization, (2) participation in peace processes and decision-making, (3) protection from violence, (4) conflict prevention, and (5) access to relief and recovery.

Exhibit 5-C, taken from the NAP provides a description for each objective. Appendix 5-

A depicts framework for objectives and agencies responsible for implementation. Framework lacks detail for the integration of these activities and the ability to create synergy and nonlinear performance.

In the article for Stabilization and Reconstruction series, *The Role of Women in Stabilization and Reconstruction*, a matrix of recommendations applies the role of women to cross-functional areas of institutional building, security, governance and participation, justice and reconciliation, and economic and social well-being (Conaway, 3). The initiatives across multiple functional areas create the multiplicative benefit for maximizing the role of women in nation-building.

These recommendations institutionalize the role of women within U.S. government structures and mechanisms for nation-building missions to guarantee an effective women's role.

The U.S. government must take genuine steps to ensure that women are visible among leadership of these operations as ambassadors, heads of missions, special envoys, senior staff, members of delegations to donor conferences, and leaders of negotiating and mediating teams. The mere presence of a woman at the table may allow the participation of local women in certain cultures and contexts. As of June 2005, there were two women leading stabilization and reconstruction missions, in Georgia and Burundi. Leading by example is a critical step the U.S. government can take to maximize its leveraging to encourage women's participation in postwar stabilization and reconstruction (Conaway, 5).

The Afghanistan National Development Strategy recognizes the integration of multiple initiatives to achieve stability. *Cross-cutting issues involve (i) regional cooperation, (ii) counter-narcotics, (iii) anti-corruption, (iv) gender equality, (v) capacity development and (vi) environmental management (ANDS, 18).* Each nation will have common and specific cross-cutting issues. Centralization of nation-building leverages common solutions while recognizing differences in strategy.

In May 2015, women were selected for positions of Minister of Defense of Georgia, as well as, Deputy Minister of Defense. The selection of senior advisors to support women in nation's leadership positions is critical. These advisors need to exemplify respect, collaboration, competence, and compromise in their rapport. Lead by example is a powerful tool for nation-building mission; however, the U.S. DoD and DoS have not embraced the importance of women's role in stability operations and nation building missions fully ensuring their representation across the mission. Appendix 5-B depicts the matrix of recommendations for peacekeeping missions.

- **National Integration and Institutionalization:** Through interagency coordination, policy development, enhanced professional training and education, and evaluation, the United States Government will institutionalize a gender-responsive approach to its diplomatic, development, and defense-related work in conflict-affected environments
- **Participation in Peace Processes and Decision-making:** The United States Government will improve the prospects for inclusive, just, and sustainable peace by promoting and strengthening women's rights and effective leadership and substantive participation in peace processes, conflict prevention, peacebuilding, transitional processes, and decision-making institutions in conflict-affected environments
- **Protection from Violence:** The United States Government will strengthen its efforts to prevent—and protect women and children from—harm, exploitation, discrimination, and abuse, including sexual and gender-based violence and trafficking in persons, and to hold perpetrators accountable in conflict-affected environments
- **Conflict Prevention:** The United States Government will promote women's roles in conflict prevention, improve conflict early-warning and response systems through the integration of gender perspectives, and invest in women and girls' health, education, and economic opportunity to create conditions for stable societies and lasting peace
- **Access to Relief and Recovery:** The United States Government will respond to the distinct needs of women and children in conflict-affected disasters and crises, including by providing safe, equitable access to humanitarian assistance

Exhibit 5-C. Objectives of NAP

A centralized organization responsible for integration of these efforts leverages a

system approach. Metrics aligned with the sub-indicators for the stability state index can measure progress allowing refinements, and minor or major changes.

When women play a greater role in development of their families, communities, and nations, their countries tend to perform remarkably better and show greater stability. Investing in women and girls is part of the solution to building a sustainable future for a nation. Women are more inclined to support activities such as education and health care that are critical components of post-conflict recovery. Educated women are a multiplier effect on the levels of education, health of families, and productivity for sustained economic growth for the people and nation.

When girls and women are educated, they become agents of change, thus allowing them to become part of the solution to the economic crisis instead of merely suffering from its consequences (International Women's Day). They also play a critical role in supporting reconciliation and the reintegration of armed groups into communities (Solomon's Island Regional Assistance Mission).

UNSCR 1325 reaffirms the importance of the role of women in the prevention and resolution of conflicts and peace-building, and stresses the importance of equal participation and full involvement of women for the maintenance and promotion of peace and security. The document expresses the need to increase the role of women in the decision-making process regarding conflict prevention and resolution (UNSCR 1325).

UNSCR 1820, adopted in 2008, expresses the inter-agency initiative "United Nations Action against Sexual Violence in Conflict" that creates awareness about sexual violence in armed conflicts and post-conflict situations. The resolution requests the UN Secretary-General to develop effective guidelines and strategies to enhance the ability of UN

peacekeeping operations to protect civilians from all forms of sexual violence (UNSCR 1820). To the extent that post-conflict development policies can support the development and involvement of women, they are more likely to be successful.

Based on research for effects on including or excluding women in post-conflict decision-making, the study concluded that the inclusion of women in this process is pivotal to creation of a more justified, sustainable, and durable peace. Gender equity is an integral, not peripheral, aspect of peace (Caprioli, 25). Women's equality increases Gross Domestic Product (GDP) per capita and negates nationalist calls to violence based on gender inequality (Caprioli, 25).

Women's involvement in negotiations creates a more cooperative approach to dispute resolution, are less likely to support violence, and solidify conflict resolution. *Close examination of various cases confirms that women generally affect positive outcomes for peace duration and social indicators, and that peace agreements are more durable when women formally participate in their negotiations* (Caprioli, 25).

Table 5-G, based on Uppsala Conflict Data Program of 2008, illustrates the success of formal or strong informal involvement of women in negotiations. Of the seven countries with no involvement of women, only two sustained the agreement. Of the fifteen countries that involved women, only two had significant unrest or violence continue after the agreement. Awareness of this information is critical for changing defense institutional building approach and establishing recruiting efforts to involve more women, both military and civilian, in efforts.

The current initiatives within the U.S. and the United Kingdom to allow women into combat missions should result in some advisory positions allocated to women or certain

percentage filled by women, a measurable objective for DoD, DoS, and USAID tracking annually to ensure the U.S. presents a “lead by example” approach to policy implementation.

	Formal or Strong Informal Involvement of Women	No Involvement of Women
Peace agreements still in force	Burundi (2000-2003) East Timor (1999) El Salvador (1992) Indonesia (2005) Kenya (2008) Liberia (1996-2003) Mozambique (1992) Northern Ireland (UK) (1998) Philippines (1996) Rwanda (2002) Sierra Leone (1999-2000) South Africa (1991-1996) Uganda (2002)	Bosnia (1995) Tajikistan (1997)
Some significant unrest or violence continued	Afghanistan (2002) Democratic Republic of the Congo (2002-2003)	Angola (2002) Cambodia (1991) Ethiopia (2000) Guinea (2002) Nepal (2003-2006)

Table 5-G. Involvement of women and peace sustainment (Caprioli, 25)

Peter Senge in the book, The Fifth Discipline, describes a meeting in 2004, hosted by Saudi Aramco in Hawar, which included twenty companies from around the Gulf, founders of Non-Governmental Groups (NGOs), schools, and academics to discuss issues confronting the Middle East. The group included men and women; for some attendees, it was the first time in their lives to attend a meeting with both genders. The countries conveyed similar problems: large, growing unemployed youth population; stagnant or falling Gross Domestic Product (GDP) per capita; and economies overly dependent on oil. He conveys that several men had approached him to say that they had never talked about such topics with women. He further states,

My sense was that, in some ways, the women were more ready for serious dialogue. Excluded by law from professional activities in many of the Gulf countries, they form networks to mentor and support one another.

Like other excluded groups finally invited to the table, they had been waiting for this day, and they were not shy. They spoke with fire and conviction, articulate about the pressing issues facing their societies, and relentlessly positive about possibilities for change (Senge, 258-259).

The defense institutional building effort can most effectively implement the role of women through “lead by example” for women in advisor positions. This practice acknowledges that the Coalition’s words are backed by their actions. Initiatives to integrate women into the MoD are more adoptable when women are among the advisory roles, as role models, and working with the MoD leadership. Actual interaction of women in the workforce on a regular basis can change perspective.

Description of the Role of Women in Iraq

Iraq’s population is 31.9 million with 16 percent unemployed and 25 percent living below the poverty level (CIA factsheet, 10). The median age is 21.3 years old with 56.8 percent of the population below age twenty-four (CIA factsheet, 3).

The following two paragraphs, from the book Understanding Arabs, describe the role of women in Iraq prior to the first Persian Gulf War and then afterwards.

Iraqi women have always been among the most liberated in the Middle East, and are thoroughly integrated into the workforce as professionals. Within a span of twenty years, thousands of women became lawyers, physicians, professors, engineers, writers, and artists. In 1959, Iraq became the first country in the Middle East to have a female minister and four female judges, as well as women scientists and politicians. The 1959 Code of Personal Status gave women equal political and economic rights, and extensive legal protections.

The ruling Baath Party was secular, and promulgated laws specifically aimed at improving women’s status. It set up the General Federation of Iraqi Women, which coordinated more than two hundred and fifty rural and urban centers for job training, education, and social programs. Women were granted equal opportunities in the civil service sector, maternity leave, and freedom from harassment in the workplace. In 1976, women constituted 38 percent of those working in education and 15 percent of the civil servants.

The status of women has worsened dramatically because of the two Gulf Wars. After the first Gulf War, Saddam decided to embrace Islamic and tribal

traditions as a political tool in order to consolidate power. Many steps toward women's advancement were reversed. There were changes to the personal status laws and the labor code. As the economy grew worse, women were pushed out of the labor force to ensure employment for men. All state ministries were required to enforce restrictions on women working. Freedom to travel abroad was restricted, and co-educational high school were changed to single-sex only (Nydell, 171-172).

In the 1950s and 1960s, Iraq recognized the need for advancement of women. This significantly eroded through Saddam Hussein and the aftermath of first Persian Gulf War but eroded more since the U.S. invasion in 2003.

Based on a report dated November 2009 generated by the Iraqi Director for Defense Relations Section with Arab and Neighboring Countries, under the Director General for Defense Policy and Requirements of MoD, there was significant erosion in the role of women in Iraq since the U.S. invasion in 2003. Prior to 2003, there were 2,514 women working in the Iraqi MoD. This included 18 Brigadier Generals, 32 Colonels, 15 Lieutenant Colonels, eight Majors, and seven Lieutenants. From 2005 to June 2009, the number dropped to 858 women.

By November 2009, the total number of women working in the Iraqi MoD dropped to 487 with 142 being military. This is an 81 percent reduction in the presence of women in the Iraqi MoD directly attributed to the U.S. invasion. As significant reductions were occurring within the Iraqi MoD, the United States Forces-Iraq (USF-I) Commanding General (CG)-9 Women's Initiative was halted in November 2009 with no active U.S. DoD involvement in gender integration after 2009. Prior to November 2009, a joint effort between DoD and DoS was supported by two DoD military officers. In November 2009, this effort was stopped by USF-I. Any initiative discontinued should be based on achieving capability through assessment; however, figure 5-26 does not reflect this result.

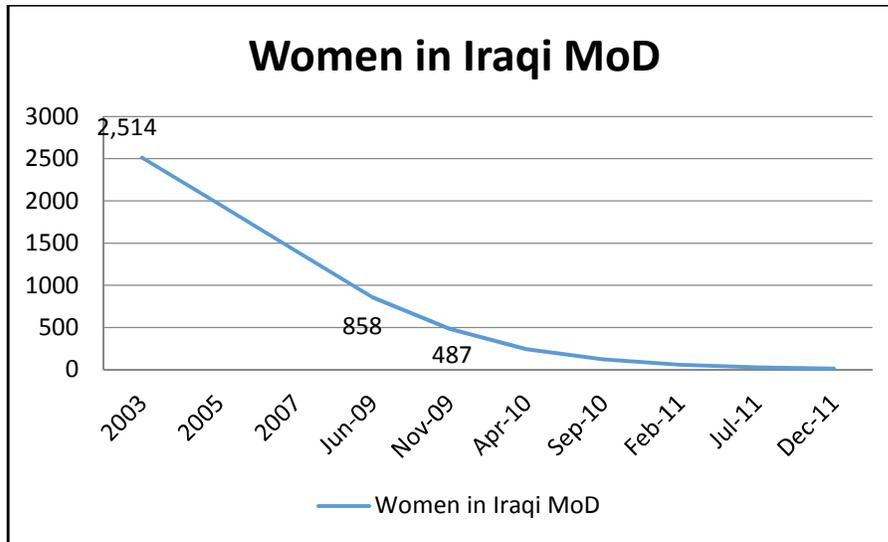


Figure 5-26. Number of women in Iraqi Ministry of Defense

During a 2004 conversation on the conditions of Iraqi citizens post-U.S. invasion and particularly with respect to women, King Abdullah II of Jordan stated, *they're ten times worse...when you had a secular regime under Saddam, men and women were pretty much the same* (Warrick, 149). As early as 2004, the disparity in the treatment of women was recognized and yet the DoD halted their gender integration effort in 2009 while a significant reduction in women within the Iraqi MoD was occurring.

A joint DoD/DoS initiative was started for promoting the role of women and supporting UNSCR 1325 stipulating the importance of the role of women in the prevention and resolution of conflicts, peace negotiations, peace-building, humanitarian response, and post-conflict reconstruction with equal participation and full involvement.

The Security Council adopted [resolution \(S/RES/1325\)](#) on women and peace and security on 31 October 2000. The resolution reaffirms the important role of women in the prevention and resolution of conflicts, peace negotiations, peace-building, peacekeeping, humanitarian response and in post-conflict reconstruction and stresses the importance of their equal participation and full involvement in all efforts for the maintenance and promotion of peace and security. Resolution 1325 urges all actors to increase the participation of women and incorporate gender perspectives in all United Nations peace and security efforts. It also calls on all parties

to conflict to take special measures to protect women and girls from gender-based violence, particularly rape and other forms of sexual abuse, in situations of armed conflict. The resolution provides a number of important operational mandates, with implications for Member States and the entities of the United Nations system (UN, womenwatch).

The U.S., as an international leader and the DoD should promote and maintain a robust initiative in the advancement of Women's Rights and the support of UNSCR 1325. Termination of the DoD involvement two years before the mission completion date of December 2011 was counterproductive for returning the numbers of women to the MoD employed prior to the U.S. invasion. This move impeded the ability for initiatives to institutionalize or results be lasting.

NATO continued to work initiatives with the Director for the Iraqi National Defense University (NDU) focused on women's issues in the military. In March 2011, the U.S. offered to pay for ten women from each of the MoD and MoI to attend the International Women's Conference in Washington, DC. MoI sent ten women but MoD sent none because the MoD Secretary General would not allow women to leave the country.

The Secretary General's office twice provided an attendees list and both times the list contained only men. The Secretary General, who had to approve all MoD members for international travel, refused efforts involving women leaving the country for training. His belief was that if women left then they would not return. This limited the promotion opportunities for women because external training significantly increased one's ability to receive promotions.

Cultural misperceptions, such as effectiveness of women advisors in Muslim countries, by U.S. leadership impede defense institutional building performance. The presence of women as advisors had a positive effect on male senior leadership. In 2010,

there were six advisors to Iraqi Director Generals with three being women. From 2009 to 2011, the Director General (Armament & Supply) had five different advisors, the only one he did not reject was the woman advisor.

In 2010, the Director General (Armament & Supply) created two additional directorates for lawyers and linguists and selected a woman as the Director for Linguists. The Director General (Programs & Budget) had asked his woman advisor to be a mentor to women in his directorate and establish routine meetings with them.

In the spring of 2011, the Secretary General started re-locating women from the MoD headquarters to positions in the outskirts of the city of Baghdad. Many women raised this issue to their leadership with concern for their safety, removal from the secure area within the International Zone.

In the case of one Director General, he strongly disagreed with the Secretary General framing his argument that selection and retention of his staff should be his responsibility. This argument had little impact with the Secretary General and the Director General boycotted the Secretary General's meetings or any interaction with him to demonstrate his disagreement with the decision.

System thinking links multiple systems together with some linkages being direct and others being indirect. These systems are not independent, therefore requiring management as a combination of activities with interdependencies. Complexity introduced in these interconnections and interdependencies results in the inability to adjust one variable and understand those effects on the entire system. Women role models are women advisors; without this involvement, any planned social results for gender integration will be ineffective.

System thinking introduces the idea of second and third order effects of decisions that typically are understood and implemented based on their first order effects. These linkages between systems can work to benefit the system of systems analysis by leveraging the crossing of systems. Figure 5-27 illustrates this example for gender integration for the military affecting other systems of social, political, economic, infrastructure, and information.

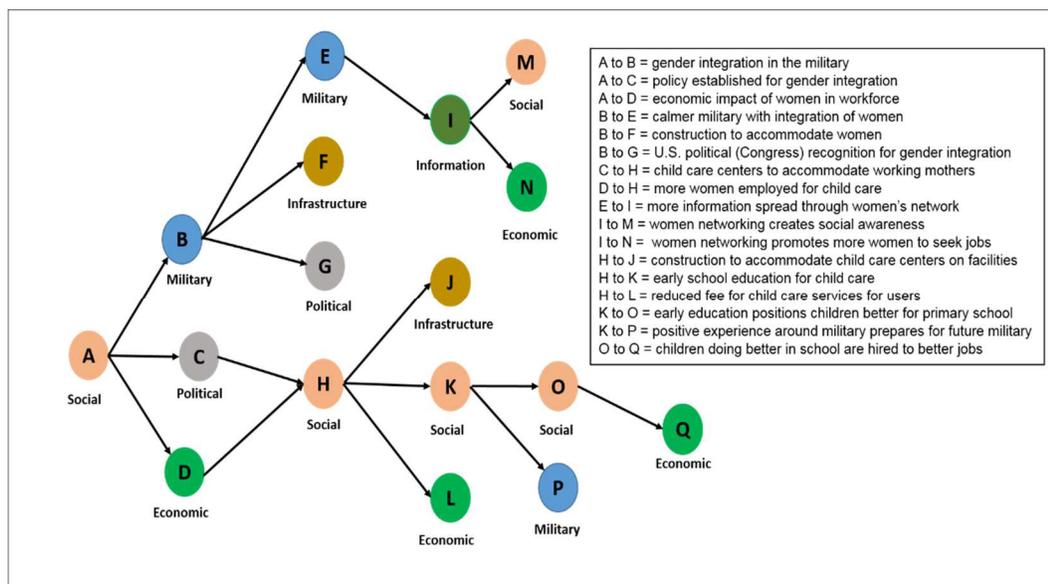


Figure 5-27. System of systems analysis for gender integration of MoD

The initiative of increasing women in the MoD considered a social initiative with two implementation paths: more women employed as military or civilian. There are consequences to both for all other systems: political, infrastructure, economic, information, and even social. The mapping of these impacts should occur to understand the benefits gained but also the costs and risks associated. To set goals for initiatives, the thresholds should be to meet pre-war standards with objectives to exceed those standards providing improvements between pre-war and post-war environment directly affecting the nation's stability.

In the case of Iraq, the threshold would be pre-war number of women in MoD and the objective would be to exceed by some percentage. Instead of achieving the 2,514 women prior to invasion, the forecast for number of women reduced to 15 based on the trend in 2009 maintaining an exponential decay. The State Department can not undo this exponential decay with no means for providing security, probably the most important element for women staying or entering the military. The sharp decline between 2003 and 2009 parallels the sharp increase in violence within Iraq from the U.S. invasion. If there were efforts by the U.S. to increase women in the Iraqi military, they were unsuccessful.

A path exists between the decision for the removal of the three senior advisor women and the result of re-location of Iraqi women in the MoD through the common denominator of the Secretary General. The senior executive as the Director for Iraq Training & Advising Mission – Ministry of Defense (ITAM-MoD) was collaterally the advisor to the Secretary General; therefore, the linkage exists for actions of the Director for ITAM-MoD to influence the actions of the Secretary General.

System thinking emphasizes understanding these connections and managing understanding the potential second, third, and fourth order effects and not just first order effects. In campaign planning, these are considered undesired effects or unintended consequences. Front-end planning ensures understanding how actions and decisions create undesired effects or unintended consequences.

System thinking underlies defense institutional building structure because actions can have monumental counter-productive effects to the mission by people who do not have the insight to understand, let alone anticipate, the ramifications, including general officers and senior executive personnel. In this situation, the Secretary General could view the

removal of the three women senior advisors from direct interaction with Director Generals as the accepted behavior of the U.S. and therefore took actions to remove women and re-locate them.

In the case of the Iraqi women, the re-location was in a significantly less secure environment than what they had in the MoD headquarters within the International Zone. This action probably led to more women quitting their jobs for security concerns.

If the motive of the Secretary-General was to reduce or eliminate women from the workforce, then his actions resulted in that outcome. Whether his actions were related, proper decision analysis requires tracing second, third, or fourth order, if necessary, actions to understand the full consequences of any decision as important as removal of all women senior advisors to Director Generals.

This action, especially by a single person who is the senior advisor to the second most powerful person in the Iraqi MoD, raises a concern of perception. In this situation, a cause and effect relationship is traceable through the Secretary General and therefore at least the issue of perception substantiated.

An added twist to this situation, the Director General, who had a woman reassigned to a location outside the International Zone by the Secretary General, raised his disagreement citing he should have the right to manage his own people. The Secretary General did not change his mind and the Director General boycotted the Secretary General by not attending meetings or any interaction with him.

This action may seem irrational to the U.S. approach of conflict resolution but in a culture where emotions tend to drive behavior, the action may be very rational. Defense mechanisms motivate people's actions and may culturally motivate responses because of

culture development created through years of historical conflict. In other words, for a culture that typically responds with disagreement in violence, avoidance may be a very coping response to escalating disagreement and violence.

The U.S. implements many laws merely to ensure that a perception problem does not occur. In stability operations, DoD military leadership on the ground lack the corporate knowledge or big picture understanding to determine and evaluate second, third, and fourth order effects from decisions and actions. Even senior executives do not have the knowledge or experience to manage the complexity in a conflict or post-conflict environment.

Defense institutional building mission needs institutionalized in the U.S. providing authority to an organization that is not merely policy-focused, but can use a network governance approach to maximize the use of current resources in the DoD and develop the elite workforce needed to successfully accomplish. This effort will cross government organizations particularly with DoS and USAID.

Success of Women in Defense Institutional Building

In Iraq, women reflected the ability to make contributions and accomplishments not possible through male soldiers. The U.S. had purchased backhoes and bulldozers for the Iraqi Defense Forces. The Iraqi MoD had also purchased backhoes and bulldozers; the attachments shipped separately.

The attachments for the U.S. purchased equipment were received at the same logistics center as the equipment; however, for the equipment purchased by the Iraqi MoD through foreign military sales (FMS), the attachments were not received at the logistic center. The Iraqi MoD videotaped the equipment sitting in a field without attachments for over a

year and provided the tape to the Minister of Defense.

Responsibility for locating the missing attachments seemed to fall through the cracks of the U.S. command responsibility. The MoD Armament & Supply Directorate brought it to the attention of the senior advisor for acquisition under Iraqi Training & Advising Mission Ministry of Defense (ITAM-MoD); however, the direct supervisor felt the issue a logistic concern and resolution by the Iraqi Training & Advisory Mission-Army (ITAM-Army) Command within the Deputy Commanding General (Advise & Train) DCG (A&T).

ITAM-Army was responsible for the purchase of U.S. funded equipment and therefore did not see this issue within their responsibility. International Security Assistance Mission (ISAM) was responsible for facilitating FMS within Iraq. The equipment purchased through FMS became the responsibility of Iraq once it left the United States. ISAM did not see it as their responsibility to find the equipment. Meanwhile, as U.S. commands within Iraq were pointing fingers for responsibility; the equipment was still sitting useless in a field near the Baghdad airport.

The senior advisor raised the issue in a situational awareness report citing the videotape reviewed by the Minister of Defense. The situational awareness report submissions triggered the Commander for ITAM-Army to direct his logistics director to find the equipment, although it did not fall under their responsibility. Through an investigation, five hundred unopened shipping containers were found on the Iraqi Logistics Base in Taji.

A concerted Army LtCol, who happened to be a woman, gathered a U.S./ Iraqi team to inventory all 500 containers within three weeks. The buckets and blades were found in

the containers, along with other missing equipment documented in shipping discrepancy reports. The two primary persons responsible for cooperation with the Iraqi men were U.S. women, the senior advisor working with the MoD and the logistics officer working with the Iraqi logisticians to find and inventory the 500 containers.

Although the senior advisor's persistence located the attachments, the supervisor for the senior advisor did not support the pursuit of resolution and it was noted in her performance evaluation *recommended that she expand her advice to the Iraqis to a more process-oriented, strategic-level; less ISAM assistance, i.e. less effort within U.S. commands for resolving discrepancies, finding bulldozer parts, etc.*

There was little desire within U.S. commands for resolving problems across commands and the lack of an integrated plan generated numerous gaps across commands. The Iraqis were not part of establishing the end-to-end processes established by the U.S. (budget, procurement, logistics, requirement generation, institutional training) and lacked the knowledge and understanding to resolve many issues on their own when these processes were transitioned.

Although the role of women in contingency operations is recognized, *women represented three percent of total military contingents in 2010* (Norville, 4). In response to the Marine deployment of an all female engagement team of 40 soldiers deployed to Afghanistan, Secretary of the Navy Raymond Mabus summarized the results:

As the first deployment of the U.S. Marine female engagement team came to an end, one of the commanders of the relieving unit brought all the patrol leaders from the Marine brigade with seven months of experience into a room and asked them what they needed to make the deployment more successful...He expected the answer to be more guns, more ammunition, or more logistical support, but the number one answer from these young infantry corporals and sergeants was instead more female engagement teams (Norville, 4).

Centralization of planning allows this strategic initiative for leveraging women into contingency operations that currently does not exist at all levels. The expansion of the MoD sewing factory for soldiers' uniforms is a multi-system initiative for political, military, economic, social, and information benefits.

Chapter 6 Conclusion

Section 6.1 Introduction

The attack of September 11, 2001 changed national security from defense against nations to defense against terrorist groups. The expansion of the Islamic State to acquiring territory changed threat assumptions from nomadic terrorist groups to terrorist nation-states. Diplomacy will never be the political approach with these groups. As cited in the book Democracy's Arsenal by Dr. Jacques Gansler, instability in the Middle East was predicted before the events of September 11, 2001:

In his 1993 book, Out of Control: Global Turmoil on the Eve of the Twenty-First Century, Zbigniew Brezinski (national security advisor under President Jimmy Carter) warned that in the greater Middle East an impoverished, shapeless Islamic cluster was permeated with anger at the West but lacked sufficient cohesion either to lift itself into modernity or to strike forcefully at the West. The result, he predicted, would be a vast region of chronic instability that is caught between competing impulses of traditionalism and modernism (Gansler, 79).

Dr. Gansler further discusses the changes then-Secretary Robert Gates tried to drive in 2008 and 2009 to move the DoD from traditional means of combatting an enemy through costly weapon systems to a military better trained in elements of national power for economic and diplomatic might (Gansler, 80). He further cites the recognition of the Chairman of the Joint Chiefs of Staff that a *future operating environment will be characterized by uncertainty, complexity, rapid change, and persistent conflict* (Gansler, 80).

The actions of the expansive spread of the Islamic State in 2014-2015 in Syria and Iraq to terrorist cells in other areas of the Middle East, Africa, and Asia support the prophecies seen by some in the 1990s. Counter-terrorism will be a national security priority for decades until the problems of unstable nations can be resolved.

The crisis of the state in developing countries and the unintended impact of global aid in weakening those states have undermined their sovereignty...Transformation of states into organizations that provide human security and prosperity for their citizens and act as responsible members of the international community requires a new approach from both domestic and global leadership...Instead of the many different interventions-humanitarian projects, security, development, trade-agreeing on a long-term, state-building strategy tailored to specific contexts and designed to achieve a fully functioning state should be an organizing principle for the international community. Above all, this requires harnessing collective energies and capital (Ghani, 169).

The dissertation addressed the question: **How can defense institutional building successfully be conducted to counter the accelerating threat of terrorism?** The significance of this solution over previous research and recommendations is “how”. Previous research focuses on “what” efforts to resolve the problem.

Investigations and studies focus on assessing the performance of current mission effectiveness largely citing shortfalls in achieving goals and objectives. This paper explains how to conduct defense institutional building differently for success through proven strategies, techniques, and tools, many borrowed from defense acquisition model and include case studies on industry successes.

The solution is (1) a network organizational structure leveraging centralized governance with an organization responsible for managing (planning and monitoring), facilitating, and influencing all institution building activities across U.S. government, NATO and partner nations, non-Governmental organizations (NGOs), and assisted nations.

(2) Recognize the defense institutional building mission is a mega-program with project management planning focused on integration of activities versus campaign planning and synchronization of activities. Project management tools such as risk and

assumption management expand capability beyond contingency planning. Modeling nation performance as a system and manage through applying system methods of network theory and complexity science.

(3) Tailoring processes for the assisted nation through an understanding of their strengths and weaknesses to better position the country for successful implementation of those processes.

(4) To accomplish step 3, the institution building workforce needs to be interdisciplinary, emphasizing a combination of depth and breadth of knowledge and experiences across multiple disciplines.

(5) This cross-knowledge and experience enables versatility and ability to create new ideas and solve new problems; establish new processes, procedures, and guidelines; understand and leverage the connections across multiple disciplines to create cross-functional initiatives and exponential performance; and create leaders for transformation in the most challenging environment.

Policy is the underlying framework to convert current approach to recommended approach for organizations to determine their specific strategic plans to align with comprehensive nation-building strategy. Figure 6-1 illustrates the defense institutional building architecture. The key to managing the Global War on Terrorism is integrating the work. The approach uses management tools but transformation through a leadership approach.

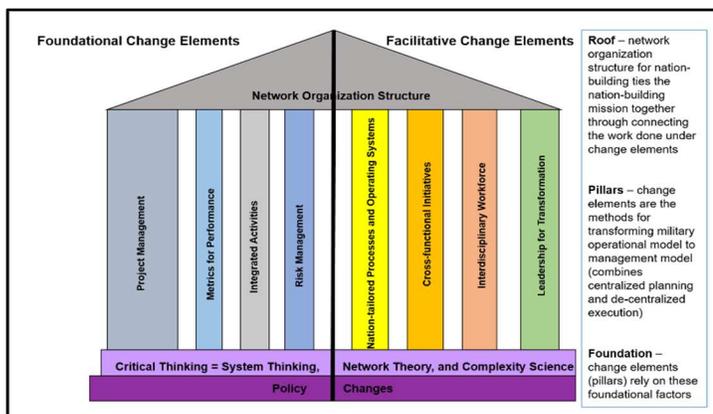


Figure 6-1. Defense institutional building architecture

Critical thinking, which encompasses system thinking, network theory, and complexity science, is the management foundation for applying a significantly different approach than previously implemented. Although military operational planning includes the concept of systems and system of systems analysis, the actual execution under concepts of network theory and complexity science is missing.

Complexity is not interested as much in the agents as nodes in the system, as in patterns of their interconnections and how that generates meaning or purpose in the system as a whole... Complexity is interested in how the elements interact and how this interaction develops into the system as a whole having new capacities that did not exist within the individual elements (Williams, 198).

DoD needs to lead stability operations with core being defense institutional building. DoD holds significant investment in approach between military operational policy and planning and acquisition planning. The shortfalls in current operations of Iraq and Afghanistan did not leverage DoD's internal knowledge, policy, organizations, and personnel, constrained through the Goldwater-Nichols DoD Reorganization Act of 1986.

General Dunford acknowledged that changes are needed in the 1986 Goldwater-Nichols Act. *Proposals from the congressional armed services panels include giving the Joint Staff more a warfighting planning mission and reducing the roles of the geographic*

combatant commanders because most recent combat has been directed by specially created joint task forces (Kreisher, 1). Both Iraq and Afghanistan planned and implemented through a joint task force, further de-centralized to a transitory workforce operation in country for one-year deployments.

Figure 6-2 depicts the destruction that comes with the combat portion of stability operations. After destruction of buildings, facilities, governing institutions, etc, reconstruction and nation-building needs accomplished. Even in countries without combat operations, internal war has destroyed much of the infrastructure requiring re-building. Some countries have never started down the path to establish the infrastructure and will need support and guidance.



Figure 6-2. Destruction at Saddam's Victory over America palace

The Costs of War Project by the Watson Institute for the International Studies at Brown University concludes *the United States gained little from the war while Iraq was traumatized by it. The war invigorated radical Islamist militants in the region, setback women's rights, and weakened an already precarious healthcare system. The \$212 billion reconstruction effort was largely a failure with most of that money spent on security or lost to waste and fraud (Trotta, 2).*

Even utilizing current resources, the shortfall for DoD and any other organization

networked with DoD in stability operations is managing through system thinking, network theory, and complexity science to understand system dynamics. Although military operations have revised policy and planning accommodating an information age and the evolution of network centric warfare, changing any culture takes generations.

For traditional theories of warfare, such as that of Clausewitz, they substituted new constructs such as systems theory, chaos and complexity theory, and nodal warfare. Each of the services also saw the net as a means to empower commanders and units with information. Service initiatives, including Army digitization and Force XXI, the Air Force's Effects-Based Operations, the Navy's Cooperative Engagement, and Marine Corps Sea Dragon, all sought to move from the Industrial Age warfare toward what Alvin and Heidi Toffler term "Third Wave Warfare" ...If the Army expects to operate in a nonlinear, noncontiguous operational environment, Army leaders may need to examine everything from culture to equipment to combat support to combat service support units (Fortenot, 414-415).

Defense institutional building will require an adjustment of funds currently budgeted. Although some costs are a re-alignment of funds, the overall budget for defense institutional building, reconstruction and nation building, and building partner capacity may initially need to increase. Applying a project management approach ties cost to specific implementation plans to understand better actual cost of work to benefits gained. A flexible funding source allows tailoring of work performed by organizations as required or just-in-time.

The overall cost increase is managed aligning with development projected for each assisted nation. Improvements in defense management of programs are required, which reduces waste. As cited by Mark Easton, Deputy Chief Financial Officer, *we apply rigor and discipline to operational missions (e.g., nuclear power, flight safety). Our goal is to apply similar discipline to business operations, but size complexity, and culture are challenges* (Easton, slide 22). This same rigor and discipline applies to development of

institutions for other nations.

Throughout the new U.S. doctrine for joint operations, the Chairman of the Joint Chiefs of Staff warns planners that they will likely have to consider the entire range of military operations in each conflict at the same time. This is referred to as the three-block war. On one block of the city, there can be humanitarian relief operations with military forces assisting or supporting international nongovernmental organizations (NGOs) delivering relief supplies. On the next block over, the same unit of military force is conducting stability operations with a different set of rules of engagement. And on the adjacent block, they can be fighting house to house in a full-scale conventional conflict with yet a third set of rules of engagement (Mowle, 41).

This section discusses the skill sets required for stability operations. *Stabilization and reconstruction operations typically take place in complex, fluid environments that require not only physical stamina, but also mental agility, intellectual capability, and a skill set different from that of conventional warfighting (Binnendirk, 90).* The United States Institute for Peace compiled a list of skills based on interviews from senior leaders in Bosnia & Herzegovina for stabilization and reconstruction operations as depicted in figure 6-3.

Adherence to principle and the ability to maintain fairness and evenhandedness for all parties
Vision of the politico-military environment
Ability to interact with those outside the military and build consensus
A broad intellectual background
Interpersonal skills
Understanding historical and cultural contents
Warfighting skills in the event conflict escalates and to avert potential conflict
Courage to take risks
Confidence to delegate authority and the need for trust
Confidence in crisis decision-making and in doing things that have never been done before
Increased Decision-making skills
Ability to adapt or adjust to a new environment

Figure 6-3. United States Institute of Peace skills list for stabilization and reconstruction operations (Binnendirk, 90-91)

The book, *Transforming for Stabilization and Reconstruction Operations*, recognizes that nation-building has become a national security and international political imperative for the U.S. military. Recommendations of the book include using a liberal arts education model to supplement instruction in doctrine and core competencies with culture, sociology, psychology, history, language, international and domestic law, ethics, media, and negotiation skills.

All competencies are key for developing intellectual skills and capability to deal with a complex and changing strategic environment. The merging of these competencies creates capability. This education should be part of basic enlisted and officer training program to provide a more capable military force in counterinsurgency operations.

However, specifically for defense institutional building a more robust program covering all areas above is required, particularly for senior advisors. Exceptional performance is imperative at the top-level to produce flow-down results across the country. Citizens of the country will expect from senior government leadership results because the government provides so much of their basic needs. In Iraq, all utilities (electricity, water, sewer), healthcare (doctor, hospital, medicine), and education are provided by the government. Unfortunately, these countries developed with dependency on the government, enabling a dictator regime.

Leadership is the instrument for conversion of the current approach to a project management-based recommendation. Leadership of organizations in the network will plan and execute for success. It is necessary to understand the difference between centralized and de-centralized efforts in the architecture of organizations and network.

DoD has the full complement of organizations to support defense institutional building

with policy and doctrine development, materiel development and support, war colleges for wargaming, research and development commands for leveraging academia and initiatives such as engineers without borders, medical commands for interaction with doctors without borders, etc. Other U.S. government organizations supplement to develop a full network of capability. The network nucleus is responsible for communication and means to establish the electronic database to provide the integrated management plan and all enclosed documents.

Leadership is not just required for the nucleus organization but all organizations of the network to ensure that the workforce focus is not on their own local responsibilities but on the total network structure and institution building mission. As the case of ODNI, controlling the budget has significant influence on organizations of the network. Initiatives such as joint duty assignment program influence organizations to share their workforce across the Intelligence Community.

Figure 6-4 illustrates the mechanism of a nation for political-military-economic-social-information-infrastructure contained within the black box. The external factors can have the following effects on the mechanism: effectively support, create undesirable effects, or have no impact. The change in the outputs can shed some understanding on how inputs are affected by the black box. The use of a performance measurement, such as the stability state index can measure the stability of a nation through sub-indicators. The measure gauge reflects the stability state index for nation-building system. Effective defense institutional building yields improvements in sub-indicators increasing overall index performance.

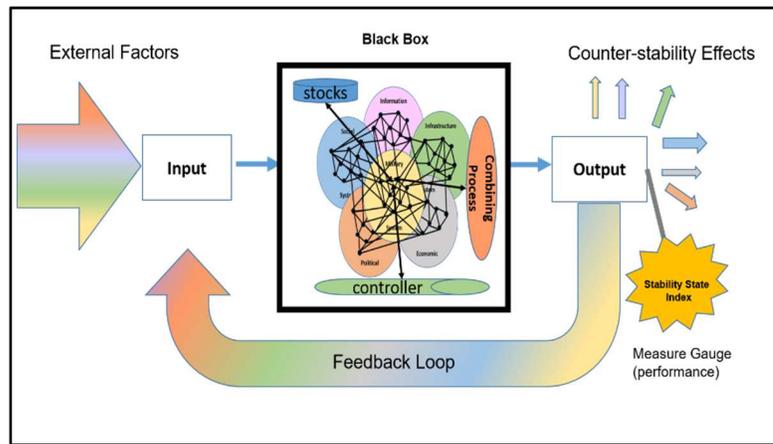


Figure 6-4. Nation-building system approach for assisted nation

Based on results of stability state sub-indicators, adjustments to inputs are made.

Figure 6-5 portrays the management approach. The recommended changes translate into foundational and facilitating change elements. The stability state index tracked over time can represent trends in the stability performance of a nation.

Many nations have expended significant donor funds with no change or experience negative change in stability; however, other nations have experienced linear or nonlinear performance with consistency to reflect a mathematical model of performance.

Performance forecasts occur by merely extending the linear or nonlinear profile. Funding alone does not correlate to improved stability as shown in Iraq and Afghanistan with huge investments resulting in marginal short-term improvements eroded when the U.S. military departs.



Figure 6-5. Managing the Global War on Terrorism

Figure 6-6 portrays root cause of problem of nation fragility, solutions, and measures of performance alignment. Multiple lines from the root cause to solution to measure of performance result in complexity but also create the benefit of yielding nonlinear performance. The concept of chaos within a system is the result of a small change having a large impact on what is perceived as non-related events.

The limitation on most complex systems is the lack of understanding of the system of systems analysis and therefore a defined cause and effect relationship. Complex systems rarely can be controlled but can be influenced without fully understanding the “nuts and bolts” of the mechanics of the system or black box.

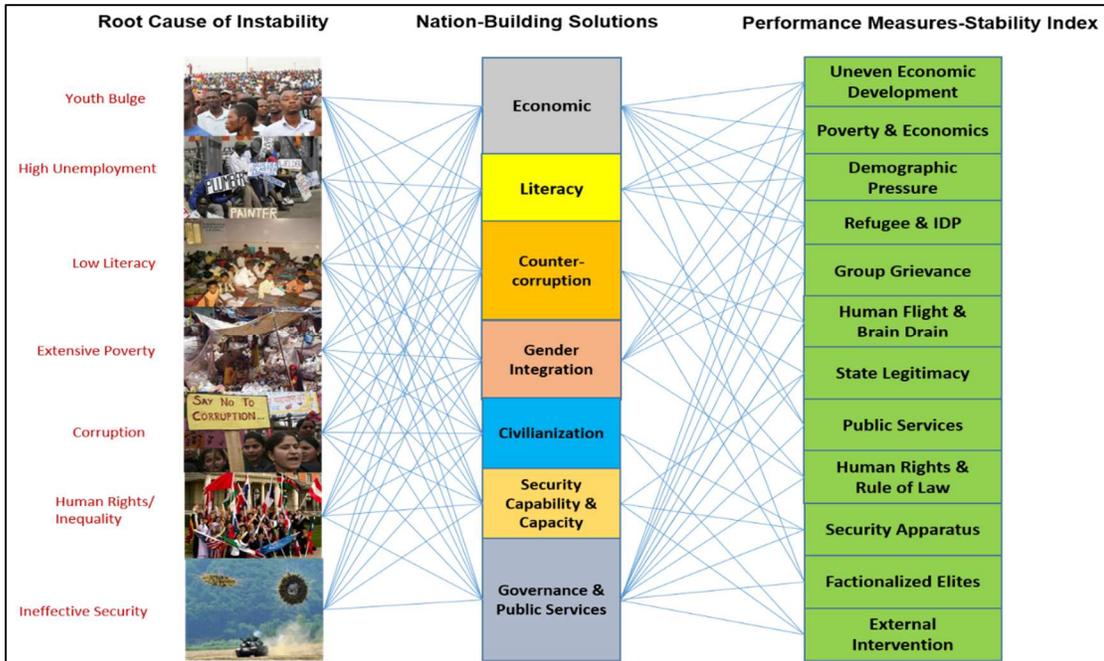


Figure 6-6. Root cause – solution – performance measure

Efficiencies gained through a network organization structure can reduce the cost. Current developed documents such as the base service contract spreadsheets, base service templates, and acquisition guides developed for Iraq and Afghanistan can be used for other efforts. Specifications should be developed for generic equipment which can be used in other defense institutional building missions.

Currently, these documents were individually developed, not institutionalized, therefore lost when the personnel deployed. Any new effort will require wasted time and money to develop again by an unknowledgeable and untrained group. Even the MMDP and Ministerial Development Plans developed for Afghanistan can be modified for other nation efforts.

Combatant commands are not positioned to retain and improve these documents within a mission and across missions for other nations. A network organization would allocate this effort to an organization within the service to manage at a fraction of the cost

to re-create. The use of an electronic library across all organizations of the network links documents and plans for sharing information. Currently, the electronic databases within countries are limited to use within the country. De-centralization serves inefficiency and ultimately ineffectiveness of regional stability missions when multiple nations are not improving with significant investment.

The use of web-based management information systems brings visibility of the human resource management system, procurement system, financial management system, and logistic system stateside where management is accomplished by a better-trained workforce. Data review can still occur in country.

Allowing nations to use U.S. tools, such as Federal Business Operations (FEDBIZOPPS) website for requesting proposals and information from U.S. contractors, is a win-win for U.S. Government, companies and nations. Most fragile nations lack the means to gain market research or solicit proposals from international community.

One third of the world's 1.8 billion young people are currently neither in employment, education, nor training. Of the one billion more youth that will enter the job market in the next decade, only 40% are expected to be able to get jobs that currently exist. The future of work is changing, and the global economy will need to create 600 million jobs over the next 10 years to keep pace with projected youth employment rates (Khokhar).

Resolving the complex problem of expanding youth population with shortage of jobs creates increased poverty and instability. Security, counter-corruption, gender equality, and education elements need integrated in a comprehensive strategy to resolve the continued progression of global unrest and instability. Metrics for measuring stability at the nation-level and then integrated at the global-level provides status of progressive initiatives. The Arab Spring exemplifies that stability changes have been unpredictable and volatile.

Section 6.2 Counter-corruption Initiatives

Corruption is a cancer eroding confidence in the nation's government. With the huge influx of funds from donor nations into Afghanistan, the country consistently ranks in the top five list of most corrupt nations in the world. Transparency International's corruption perception index for 2015 ranked Afghanistan third after a tie for first place between Somalia and North Korea (Ellyatt, 1). Other nations on the list include Sudan, South Sudan, Angola, Libya, Iraq, Venezuela, and Guinea-Bissau.

The country lacked institutional laws, policies, and enforcement to handle the money coming into the country. Bribery and extortion were not new to Afghanistan with many of the governing leadership being previous warlords prior to the Taliban control. The influx of funds without institutional laws, policies, and enforcement allowed proliferation of corruption. Donor nations need to provide counter-corruption initiatives, including audits and provide feedback into stability operations for adjustments in efforts and funds to ensure countering not feeding corruption. The DoD, as the largest investor, needs to lead the counter-corruption effort.

DoD Inspector General report DODIG-2014-102 *Government of the Islamic Republic of Afghanistan Needs to provide Better Accountability and Transparency Over Direct Contributions dated August 29, 2014* concluded that the Government of the Islamic Republic of Afghanistan's (GIRoA) Ministries of Defense and Interior lacked controls to ensure a transparent and accountable fiscal process for U.S. direct funding under Afghan Security Forces Fund (ASFF) of \$3.3 billion (DoDIG-2014-102, i). The findings cited involved GIRoA and CSTC-A:

- *Ministry of Finance (MoF) could not provide a current cash balance for direct contributions or account for currency gains of at least \$110.4*

million made on Afghanistan Security Forces Fund (ASFF) direct contributions.

- *MoF could not provide support for \$17.4 million and MoI could not support \$9.9 million withheld from ANSF salaries.*
- *MoD and MoI controls over the payroll payments that appeared improper.*
- *MoD and MoI incorrectly charged \$82.7 million of ASFF direct contribution funds.*
- *This occurred because GIRoA did not develop the ministerial capability and capacity to manage and oversee ASFF direct contributions and Combined Security Transition Command-Afghanistan (CSTC-A) had not held GIRoA accountable for not implementing controls and improper handling of ASFF direct contribution funds.*
- *CSTC-A could not verify that GIRoA used ASFF direct contributions properly or for their intended purposes. The \$13 billion in additional direct contributions DoD plans to provide to the ANSF between FY2015 and FY2019 may be subject to wasteful spending and abuse (DODIG-2014-102, i).*

Afghanistan was not alone in its problems with corruption. A Government Accountability Office (GAO) report cited that corruption *poses a major challenge to building an effective Iraqi government and could jeopardize future flows of international assistance* (GAO-07-308SP, 44). A 2006 survey by Transparency International ranked Iraq as second most corrupt government in the world between January 2005 and August 2006, fifty-six officials in Iraq's ministries convicted on corruption charges or subject to arrest warrant (GAO-07-308SP, 44).

The huge influx of money in both countries promotes corruption; however, the difference between Iraq and Afghanistan is that Iraq was arresting government officials. Vendors became proactive in raising accusations. In 2010, the Director General for Budget & Programs in the Iraqi MoD arrested with other senior officials for extorting funds from a vendor to influence award of a contract.

Both major contracting areas of the MoD were diligent to ensure following procedures in reviewing bids and awarding contracts. In Afghanistan, the culture did not actively

pursue corruption cases by the GIRoA, even by Inspector Generals (IG).

GIRoA Ministry Inspectors General did not identify areas of high risk and did not conduct compliance audits. The MoD and MoI did not adequately oversee the contract management process. This occurred because the IGs did not: identify areas of high risk within the process, conduct compliance audits or inspections, or investigate senior ministry officials (DoDIG-2015-082, 18).

If the Inspector Generals are not willing to pursue investigating corruption, then the entire organization becomes complacent and corruption becomes rampant. In the latter half of 2013, the Coalition and particularly the U.S. put pressure on defense ministries by linking spending performance to commitment letters for funds. In addition, Afghan Parliament monitored the budget execution rates to ensure funding provided to the country was spent; otherwise, unexecuted funds would be offset in future years.

One Minister of Defense held an unprecedented meeting with senior leadership of the ministry and a few specific Coalition counterparts to discuss problems of corruption and the need for stronger measures to counter. Unfortunately, the culture does not act to fight corruption but merely moves people to positions that are more difficult or less visible to conduct corrupt activities. Continued linkage of funds to counter-corruption performance yield results but constant turnover of Coalition compromises effective execution. Coalition officials need consistent and continued pressure for counter-corruption initiatives linked to results.

Figure 6-7 compares state legitimacy and public service for Iraq and Afghanistan.

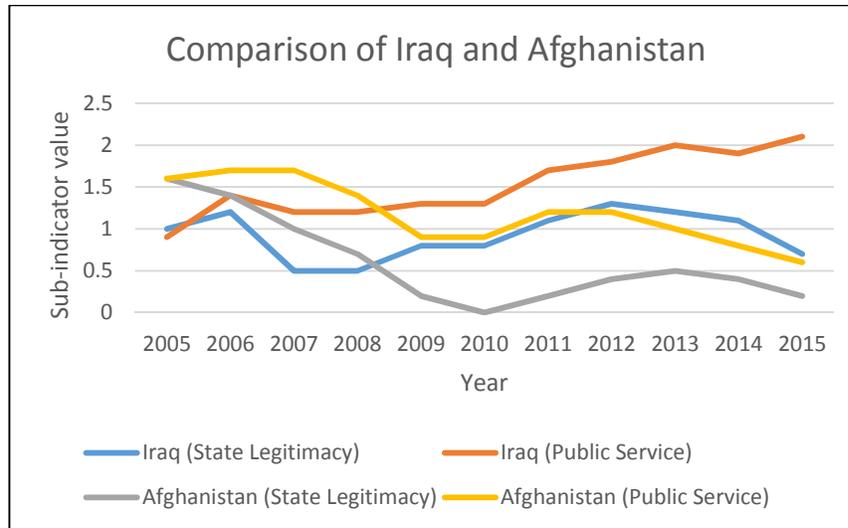


Figure 6-7. Comparison of Iraq and Afghanistan for state legitimacy and public service

From 2008 to 2015, Iraq showed an improvement in public service and from 2008 to 2012 in state legitimacy. State legitimacy reduction in 2012 aligns with U.S. withdrawal in December 2011 and responsibility of Iraqi government with limited support from the State Department mission post-2011. Afghanistan, however, reduced in both areas from 2006 to 2010, then increased from 2010 to 2012-2013, but has reduced the past two years. Governmental corruption compromises factors in both sub-indicators and ability for the public to have faith in their government.

The United Nations (UN) Convention against Corruption (UNCAC) is an international anti-corruption treaty adopted by the UN General Assembly in October 2003. By 2010, there were 145 countries agreeing to abide by the provisions. The preventive policy measures for both public and private sector are covered by Chapter II of the Convention and include *transparent procurement and sound financial management, a merit-based civil service with clear conflict of interest regimes, effective access to public information, auditing and other standards for private companies, independent judiciary, active involvement of civil society in efforts to prevent and combat corruption, and measures to*

prevent money-laundering (U4 Brief, 1).

Chapter III of the Convention covers criminalization and law enforcement requiring nations to *criminalize bribery (both giving and receiving bribes of public officials), embezzlement, obstruction of justice and concealment, conversion or transfer of criminal proceeds* (U4 Brief, 2). The Convention encourages the criminalization for *acceptance of bribes by foreign and international public officials, trading in influence, abuse of function, illicit enrichment, bribery and embezzlement within the private sector, money laundering and the concealment of illicit assets* (U4 Brief, 2).

Chapter IV of the Convention deals with International Cooperation requiring countries that have signed and ratified the agreement to assist each other in cross-border criminal matters. This provision includes *gathering and transferring evidence of corruption for use in court. Cooperation in criminal matters is mandatory; however, it must only be considered in civil and administrative matters* (U4 Brief, 2).

Chapter V of the Convention addresses asset recovery and the right to recover stolen public assets. *The UNCAC provisions lay a framework for countries to adapt both their civil and criminal law in order to facilitate tracing, freezing, forfeiting, and returning funds obtained through corrupt activities* (U4 Brief, 3).

Chapter VI of the Convention covers technical assistance and information exchange. This section is valuable to signatory nation's struggling with educational development in law and law enforcement. Provisions cover *training, material and human resources, research and information sharing on topics such as investigative methods, planning and developing strategic anti-corruption policies, preparing requests for mutual legal assistance, public financial management, and methods used to protect victims and*

witnesses in criminal cases (U4 Brief, 3).

UNCAC provides the framework for countries to develop internal anti-corruption governance policies. For countries that rely on donor funds as public assistance, donor countries should link funding to implementation of UNCAC initiatives both in policy, practice, and measures of effective execution. Nations should develop internal auditing methods, as well as, donor nations to ensure that counter-corruption initiatives are effective.

UNCAC Annex 1 contains information on transparency and participation standards for the UNCAC review mechanism. The availability of information to the public is key for transparency covered in Articles 5, 10, 13, and 63 of UNCAC: *enhancing the transparency of and promoting the contribution of the public in decision-making processes and ensuring that the public has effective access to information; and respecting, promoting and protecting the freedom to seek, receive, publish, and disseminate information concerning corruption* (Dell, 9).

In 2009, UNCAC agreed to a mechanism for the review of implementation requiring a multi-stage peer review. The process is divided into two five year cycles to encompass all countries. The first review cycle covered Chapters III and IV, while Chapter II and V assessed compliance in the second cycle. The first year of the review process was conducted in 2011 with Transparency International and produced a report on the findings. *A majority of States parties had not adopted specific measures to criminalize both active and passive bribery of foreign public officials and officials of public international organizations* (Dell, 6).

In addition, many of the countries' reports lacked statistics on enforcement

(investigations, prosecutions, etc), incomplete data, or a lack of public access to information on the data (Dell, 6). Lack of independence or non-interference of the investigation were also cited in the report (Dell, 7).

The U.S. should continue to support UNCAC but also establish its own policies for counter-corruption with respect to U.S. funds provided for assistance. Audits provide the best means to ensure funds are appropriately used and not misused. The procurement case study provides examples for management audits in Afghanistan.

Coalition advisors should conduct or facilitate management audits with focus on process effectiveness. In the case of procurement, audits on specific contracts by a separate U.S. organization ensure U.S. funds are appropriately spent. Coalition advisors to the MoD Inspector General should be part of both type audits since the Inspector General's office is the investigative component of government.

It is inappropriate to have coalition advisors, with the role of assisting the nation, conduct investigative audits. Coalition advisors conduct project or program audits, as part of project management process with emphasis on assessing performance. However, communication between all groups, coalition advisors, Inspector General advisors, and U.S. and other country auditors should be established with routine interactions and meetings.

Donor funding is critical for developing stability but it also can be the means for impeding progress within a country through corruption.

The generosity of the world's peoples in the aftermath of the tsunami in Indonesia was overwhelming, but the mismanagement and failure in the administration of this bounty was shocking. The UN agencies responsible for coordinating the disaster response have yet, almost three years later, to provide a full accounting of the funds. Just as failing states do not consider themselves obligated to publish regular internal audits, neither

do most international organizations.

In 2006 the residents of Banda Aceh had significant questions about the quality of construction, delivery of services, lack of town planning, and the transparency of NGOs and UN agencies regarding expenditures of money and whether these expenditures had achieved objectives. Scandals are now besetting much of the aid community who participated in the disaster relief effort. Until we have a clear vision of how to orient policy and utilize donor and taxpayer money more effectively, there is a clear risk that good will could turn into disaffection and isolationism (Ghani, 29).

Mismanagement of international efforts whether deemed reconstruction and nation building, defense institutional building, stability operations, or building partner capacity will have adverse effects on mission and ability to develop stability in nations. Some form of centralization will provide the structure needed to ensure better management.

The network organizational structure provides the centralization required for overall management but de-centralization for execution. The balance between centralization and de-centralization ensures balance for effectiveness and efficiency of the mission.

Conclusion on Procurement Case Study for Counter Corruption

The result of assessment on Afghan contract estimation was provided to the Minister of Defense and the AMoD (AT&L). During budget execution meetings, the problem of over estimating contract price was discussed by the AMoD (AT&L). This created situational awareness on the Afghan MoD that MoD advisors had the ability to scrutinize Afghan operations through data collection and analysis. MoD was amiable to including better estimation tools in training but as of April 2014, none were developed by the U.S. to incorporate into curriculum. Tracking estimates to actuals for the next several years would indicate if awareness alone has made a difference.

The results of the management audit were provided in March 2014 to the Minister of Defense senior advisor, the new senior advisor for the AMoD (AT&L), the MoD

Inspector General senior advisors, the Director of the MoD MAG, the CSTC-A auditors, and the visiting DoD Inspector General personnel. The new senior advisor for the Acquisition Agency recommended discontinuing collection of contract data after December 2013 and the new senior advisor for the AMoD (AT&L) agreed with the recommendation; therefore, the data used for the management audit is no longer available in Afghanistan for continuing to track contract performance.

Unfortunately, the nature of one-year turnover creates no consistency in U.S. process and procedures in country. Within three months of the dissemination of the management audit results, all senior advisors except for Acquisition Agency and AMoD (AT&L) had redeployed and new personnel with no history had taken over. The lack of U.S. corporate knowledge for defense institutional building greatly impedes progress. The combination of an integrated management plan and centralized planning and monitoring within the states would provide the consistency required for executing in country.

In the DoD Inspector General report DODIG-2015-082 *The Government of Islamic Republic of Afghanistan's Control Over the Contract Management Process for U.S. Direct Assistance Need Improvement (Project No. D2014-D000JB-0213.000)* dated February 26, 2015, the objective of investigation was to determine if GIRoA's MoD and MoI had established effective controls over the contract management process. The following findings cited:

GIRoA MoI and MoD did not have effective controls over the contract management process for U.S. direct assistance funding provided to sustain the Afghan National Security Forces. Specifically, the ministries did not adequately develop, award, execute, or monitor individual contracts funded with U.S. direct assistance. This occurred because the Ministry of Finance (MoF) did not sufficiently oversee MoD and MoI's planning, accounting, and expenditure of U.S. direct assistance funding, and MoD and MoI did not develop internal compliance functions within the

ministries to ensure adherence to the Procurement Law and Bilateral Financial Commitment Letters (commitment letters).

MoD and MoI Inspector General did not adequately oversee the contract management process. This occurred because the Inspectors General did not: identify areas of high risk within the process, conduct compliance audits or inspections, or investigate senior ministry officials.

Furthermore, CSTC-A has not fully developed the capacity of the ministries to operate effectively, independently, and transparently. This occurred because CSTC-A did not hold the ministries accountable for not instituting the necessary controls over the contract management process and did not enforce the requirements within the commitment letters.

As a result, future direct assistance funds are vulnerable to increased fraud and abuse because GIRoA had numerous contract award and execution irregularities and Procurement Law and commitment letter violations. Until CSTC-A mitigates these challenges, GIRoA will continue to depend on Coalition-provided capabilities (DoDIG-2015-082).

The report cites same problems documented in procurement case study for management audit accomplished a year before by the advisor to the AMoD (AT&L).

Although the PPU under the MoF had evaluated the Acquisition Agency and granted temporary certification, PPU criteria is not as stringent as needed for ensuring accountability and transparency as the U.S Government requires over the expenditure of U.S funds. The DoS's senior advisor to the MoF provided guidance to the MoF on contract law and any recommendations for improvements in the law and policy. DoD and DoS advisors did not have routine communications and operate jointly to share lessons learned and develop common practices.

The shortage of manpower for MoD acquisition advisors compounded ability for advising especially with the travel restrictions and number of personnel required for movement. At times, the acquisition advisors did not have the required number to travel to the Acquisition Agency. Figure 6-8 illustrates the organization chart and the number of

vacancies for AMoD AT&L advisory mission. In December 2012, there were ten advisors with seven advising the Acquisition Agency and three covering AMoD AT&L top leadership and logistics area.

There were seven additional advisors requested for the Acquisition Agency and two additional advisors for the Logistics area. The additional advisors for the Acquisition Agency were at the request of the senior advisor to the Acquisition Agency prior to redeploying; these included an advisor for the financial management role with Ministry of Finance and the Resource Management area of AMoD AT&L department.

A logistic advisor requested to work with Logistic Command and the linkage between procurement and inventory control. This linkage would initiate checking current inventory to ensure a need before initiating the procurement process at the Acquisition Agency. A full-time advisor for the MoD Inspector General positioned at the Acquisition Agency to review contract packages and conduct audits was also requested.

Over the next six months, five advisors would leave and five advisors arrived over staggered schedules. The additional Acquisition Agency advisor positions requested never were filled. Two advisors sent to increase the number of logistics advisors were re-directed to the acquisition agency by senior advisor due to insufficient military or civilian personnel to support movement. Contractors were not allowed to drive armored vehicles or man passenger seat for tactical communication and navigation, thus impeding the ability to fully support advisory mission.

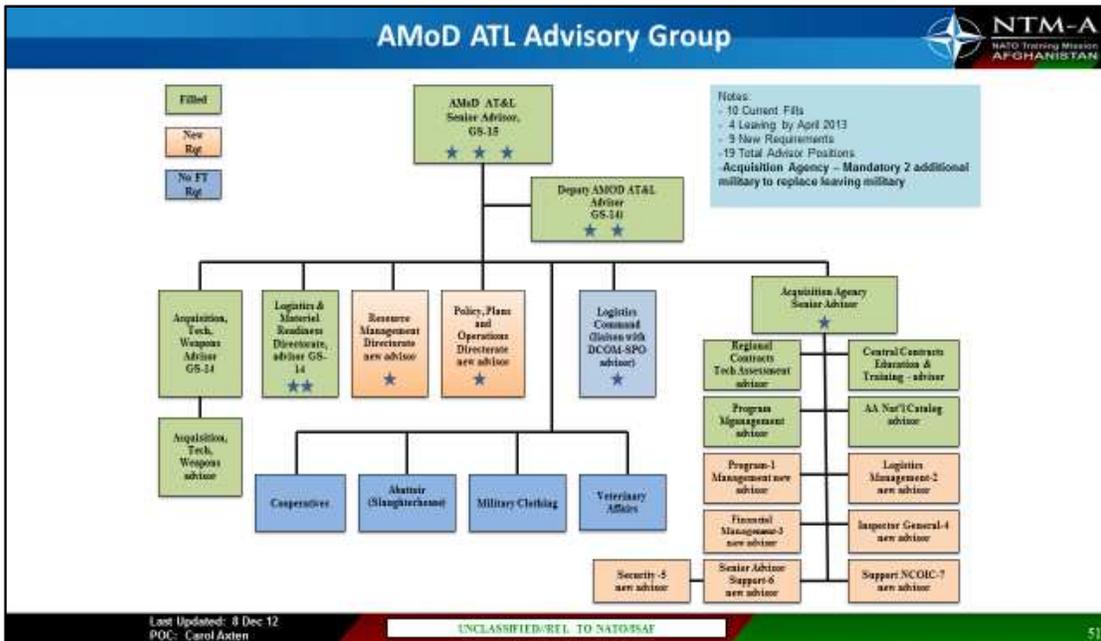


Figure 6-8. Afghan AMoD (AT&L) organization and alignment with advisory mission

With the wave of contracts being transitioned from Coalition responsibility to Afghan responsibility, it was justified for additional manpower; however, the human resource system for U.S. army did not respond for urgent, justified needs. The rating for CM-1B in Capability Milestone (CM) for the Acquisition Agency triggered the automatic reduction of advisory positions. Although the CM rating was increased two levels (meaning a reduction in capability) in December 2012, six months after reduction, the system was stagnant to respond with a schedule driven ISAF mission and the desire to transition the mission from DoD to DoS.

In a network organization structure, the nucleus organization retains consistency for responsibility and management. Empowerment to other organizations can occur based on the level of stability of the nation for initiatives being planned and executed; however, nations not reaching stable status (below stability state index of 40) would remain under the management oversight of the nucleus of the network.

Corruption depletes resources within the black box that do not become part of the feedback loop benefiting the nation and improving the stability state index. In the system of systems operation, the problem of corruption will have effects on other systems and efforts resulting in negatively affecting those areas and producing an overall integrated negative effect. The black box is full of complexity and the lack of understanding for how initiatives and results are dependent and interdependent can bring unexpected results and consequences.

Section 6.3 Sustainable State Status

Nations that achieve sustainable stability state status have reached a steady-state in the mechanics of the nation (political-military-economic-social-information-infrastructure). A system in steady-state will stay in steady-state until a force acts upon it. Systems typically migrate to steady-state unless external factors create countering forces. The system remains in a steady-state mode when no external factors affect the input and black box or loss generate through output. It takes a very significant action to disrupt the perfect balance in the black box and drive the system from steady-state.

The most effective way of dealing with policy resistance is to find a way of aligning the various goals of the subsystems, usually by providing an overarching goal that allows all actors to break out of their bounded rationality. If everyone can work harmoniously toward the same outcome (if all feedback loops are serving the same goal), the results can be amazing. The most familiar examples of this harmonization of goals are mobilizations of economies during wartime, or recovery after war or natural disaster (Meadows, 115).

In nations that achieved sustainable status, steady-state represented a flat line for the stability state index. The system will continue to operate at steady-state until a force acts upon it (political, military, economic, social, information, or infrastructure).

The refugee problem will have impacts to even sustainable nations. Comparing the sub-indicators for Germany, the problem area causing reduction in linear performance occurred in 2015 with refugee and individual displaced persons, a 22 percent reduction in this sub-indicator. Figure 6-9 reflects the Syrian refugee path through Europe targeting Germany. Eventually, other systems are affected and will be reflected in sub-indicators creating a larger comprehensive impact.

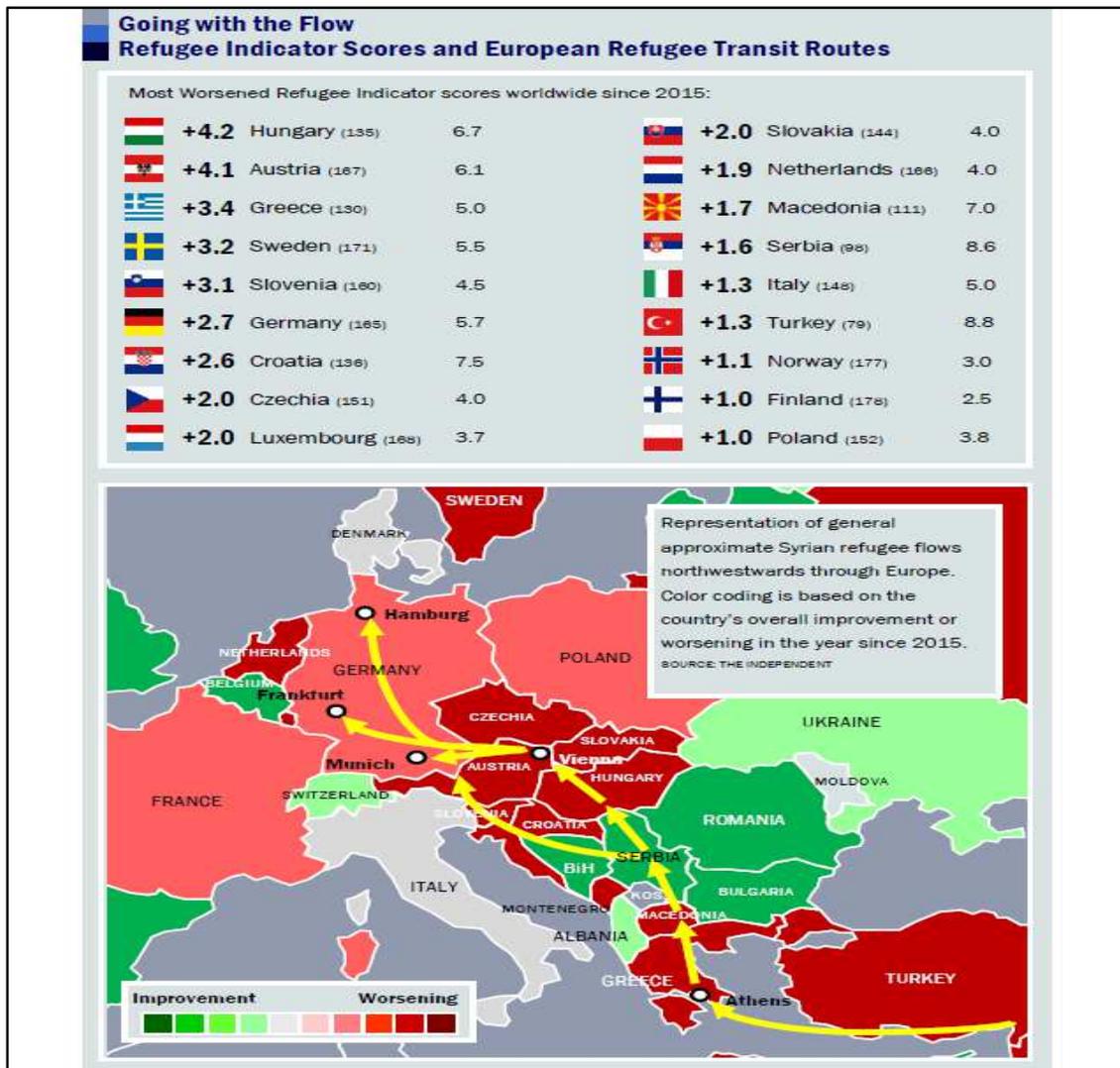


Figure 6-9. Countries impacted by the Syrian refugee crisis (www.fundforpeace.com, 2016)

Should a significant natural disaster (force) hit the country driving significant changes to all systems (political, military, economic, social, information, and infrastructure), the balance within the black box would change driving losses at output (public service, state legitimacy, poverty & economics, group grievances, etc). Those output changes are measured through the gauge or stability state index. The output losses diminish the feedback loop causing greater instability. Inputs to the black box are needed to correct the system and move back to steady state. Changes within the black box need to compensate for the new inputs. For example, a great influx of funds would drive greater corruption

and require changes to policy to compensate and counteract.

In the aftermath of the tsunami in Indonesia, people's generosity was overwhelming; however,

the mismanagement and failure in the administration of the bounty was shocking...scandals are now besetting much of the aid community who participated in the disaster relief effort. Until we have a clear vision of how to orient policy and utilize donor and taxpayer money more effectively, there is a clear risk that good will could turn into disaffection and isolationism (Ghani, 29).

In other word, spending in non-effective methods impedes results not just creating no effect. This is the result of a system and non-linear relationship. Linear relationships reflect defined cause and effect relationships.

Fragmentation of effort through joint task force with high turnover of workforce creates instability of management of the effort and instability of the defense institutional building system. Investigative studies and reports by the GAO and DoD Inspector General, target specific evaluations and recommendations of those areas. The DoD taking actions to resolve those specific deficiencies does not recognize the entire system and the interdependencies; therefore, actions may not achieve expected results. A network nucleus needs to manage the entire effort to ensure the nation's system performance is correctly planned and monitored.

Section 6.4 Organizational Structure Implications

The legitimacy of security assistance and defense institutional building mission is addressed in the U.S. National Security Strategy (NSS) for 2010. As stated in the NSS:

the United States and the international community cannot shy away from the difficult task of pursuing stabilization in conflict and post-conflict environments. In countries like Iraq and Afghanistan, building the capacity necessary for security, economic growth, and good governance is the only path to long term peace and security. But we have also learned that the effectiveness of these efforts is profoundly affected by the capacity of governments and the political will of their leaders. We will take these constraints into account in designed appropriate assistance strategies and will facilitate the kind of collaboration that is essential-within our government and with international organizations-in those instances when we engage in the difficult work of helping to bring conflicts to an end (NSS, 26-27).

The NSS specifically addresses the need that development is a strategic, economic, and moral imperative requiring focus on assisting the developing countries and their people to manage their security threats, introduce global economic expansion, and establish accountable and democratic institutions that support basic human needs (NSS, 15). This objective recognized in both security assistance efforts in Iraq and Afghanistan.

As cited in the MMDP, *the Ministerial Advisory Group (MAG) will develop the capabilities and capacity of the Ministry of Defense and General Staff in order to establish enduring institutions, which can direct and sustain Afghan-led security operations (Goodman, 13).*

As cited by Stuart Bowen, Jr., Inspector General for the Office of the Special Inspector General for Iraq Reconstruction at a hearing before the Subcommittee on International Organizations, Human Rights, and Oversight of the House Committee on Foreign Affairs:

The topic of today's hearing recognizes an important goal: the need to prevent repeating past errors of the Iraq reconstruction program in present and future stabilization and reconstruction operations (SRO)...The key issues that need to be addressed is who should be accountable for planning and executing SROs and what needs to be done to ensure that the necessary systems and resources are in place to achieve desired results. The stewardship of the Iraq program's money was less than optimal, to put it diplomatically. Reforms are necessary to prevent future waste. Thus, the Congress should consider implementing comprehensive reform of the U.S. approach to SROs so as to provide clear responsibility for planning and execution and clear accountability for outcomes. The current system provides neither. Six years of SIGIR oversight work has produced a body of evidence that supports the argument for reforming the U.S. approach to SROs (Bowen, testimony February 24, 2010, 1)

The SIGIR report *Applying Hard Lessons*, recommends the establishment of the U.S. Office for Contingency Operations. (Bowen, testimony February 24, 2010, 3). This report cites

the lack of a clear point of accountability and responsibility for the preparation and execution of SROs. No single agency now has the purview over the full spectrum of civilian-military stabilization and reconstruction operations, and thus meaningful accountability is missing. Rule of Law programs are divided between Defense, State, and Justice. Governance is handled by USAID, State, and Defense. Economic development is divided among State, Commerce, USAID, Agriculture, and even DoD, which has a special program to promote economic development (Bowen, testimony February 24, 2010, 3).

DoDD 3000.05 puts responsibility for nation-building in stability operations on the DoD:

Military-civilian teams are a critical U.S. Government stability operations tool. The Department of Defense shall continue to lead and support the development of military-civilian teams. Their functions shall include ensuring security, developing local governance structures, promoting bottom-up economic activity, rebuilding infrastructure, and building indigenous capacity for such tasks. Participation in such teams shall be open to representatives from other U.S. Departments and Agencies, foreign governments and security forces, International Organizations, NGOs, and members of the private Sector with relevant skills and expertise. Assistance shall be provided to and sought from the

Department of State and other U.S. Departments and Agencies, as appropriate, for developing stability operations and capabilities (DoDD 3000.05-Nov 28, 2005, 3).

This position re-emphasized in the 2009 version of DoDD 3000.05 Stability Operations:

Stability operations are a core U.S. military mission that the Department of Defense shall be prepared to conduct with proficiency equivalent to combat operations. The Department of Defense shall be prepared to (1) conduct stability operations activities throughout all phases of conflict and across the range of military operations, including in combat and non-combat environments... (2) support stability operations activities led by other U.S. Government departments or agencies, foreign governments and security forces, international governmental organizations, or when otherwise directed. (3) Lead stability operations activities to establish civil security and civil control, restore essential services, repair and protect critical infrastructure, and deliver humanitarian assistance until such time as it is feasible to transition lead responsibility to other U.S. Government agencies, foreign governments and security forces, or international governmental organizations. In such circumstances, the Department will operate within U.S. Government and, as appropriate, international structures for managing civil-military operations, and will seek to enable the deployment and utilization of the appropriate civilian capabilities.

The Department shall have the capability and capacity to conduct stability operations activities to fulfill DoD Component responsibilities under national and international law. Capabilities shall be compatible, through interoperable and complementary solutions, to those of other U.S. Government agencies and foreign governments and security forces to ensure that, when directed, the Department can: (1) establish civil security and civil control, (2) restore or provide essential services, (3) repair critical infrastructure, and (4) provide humanitarian assistance. Integrated civilian and military efforts are essential to the conduct of successful stability operations. The Department shall (1) support stability operations planning efforts of other U.S. Government agencies. (2) Collaborate with other U.S. Government agencies and with foreign governments and security forces, international governmental organizations, nongovernmental organizations, and private sector firms as appropriate to plan, prepare for, and conduct stability operations. (3) Continue to support the development, implementation, and operations of civil-military teams and related efforts aimed at unity of effort in rebuilding basic infrastructure; developing local governance structures; fostering security, economic stability, and development; and building indigenous capacity for such tasks.

The Department shall assist other U.S. Government agencies, foreign governments and security forces, and international governmental

organizations in planning and executing reconstruction and stabilization efforts, to include: (1) disarming, demobilizing, and reintegrating former belligerents into civil society. (2) Rehabilitating former belligerents and units into legitimate security forces. (3) Strengthening governance and the rule of law. (4) Fostering economic stability and development (DoDD 3000.05 Sept 16, 2009, 2-3).

Current U.S. policy directs the DoD as the lead organization for stability operations acknowledging that it will be a coordination effort across other U.S. government departments and agencies, as well as, other foreign governments, public and private organizations. The establishment of the Department of State Coordination for Reconstruction and Stability Office (SRO) re-allocated this DoD responsibility to the State Department.

The Department of State, Department of Defense, and U.S. Agency for International Development share responsibilities for responding to stabilization and reconstruction operations. None of the three, however, clearly has charge of planning, executing, or overseeing them. Duties are diffused among the three agencies. Processes for SRO management remain opaque or undefined. In Iraq, no U.S. government office possessed sufficient authority to lead the reconstruction program. The U.S. approach amounted to an adhococracy, which failed to coalesce into a coherent whole. Some lessons learned were applied along the way, but those were temporary fixes. The Iraq reconstruction program's improvised nature, its constant personnel turnover, and its shifting management regimes forced U.S. strategy to change speed and course continually, wasting resources along the way and exposing taxpayer dollars to fraud and abuse. Management and funding gaps caused hundreds of projects to fall short of promised results, leaving a legacy of bitter dissatisfaction among many Iraqis (Bowne, 121).

The U.S. Congress adopted a greater role in oversight addressing guidance for the DoD, State, and USAID due to lack of cohesive, central leadership for Iraq reconstruction and nation building effort. Congress took incremental steps to resolve problems in U.S. initiatives under Iraq reconstruction.

This further exasperated U.S. ability to plan and manage the effort with Congress,

DoD, State, and USAID independently identifying problems and solutions. Figure 6-10 depicts Congress' guidance on specific actions such as contract award fees, databases, subcontracting, capital project requirements, and risk management.

(1) create database of information on the integrity of persons awarded contracts linking contract award fees to outcome
(2) link contract award fees to outcomes
(3) ensure asset-transfer agreements with commitments to maintain U.S-funded infrastructure be implemented before certain funds are used
(4) make funds for civilian assistance available such that Iraqi entities are used
(5) end "contracting with the enemy" in Iraq and Afghanistan (including the subcontractor level)
(6) ensure the Defense, State, and USAID have capability to collect and report data on contract support for overseas contingency operations
(7) Defense, State, and USAID contracts discourage subcontracting more than 70 percent of the total cost of work performed (or excessive tiering of subcontractors)
(8) Defense, State, and USAID assess and plan to mitigate operational and political risks associated with contractor performance of critical function
(9) designation of a "lead Inspector General" in SROs to oversee and report who are independent of their respective agencies' acquisition offices
(10) Defense, State, and USAID assess whether the host country wanted proposed capital projects (and could sustain them) before obligating funds for them

Figure 6-10. U.S. Congress Guidance on Iraq Reconstruction and Nation Building (Bowen, 122-123)

Security is foundational for stability initiatives; therefore, DoD should be lead organization shaping the role as facilitator and coordinator among multiple other organizations to align with the network governance structure for success. On June 9, 2003, there were 369,000 soldiers deployed overseas with 140,000 of those from reserve components (Fontenot, XV). *These soldiers were serving in 120 countries, conducting missions ranging from combat to deterring adversaries, to training the nation's allies, to protecting the nation's vital assets* (Fontenot, XV).

DoD military and civilians have the large workforce to support stability operations complemented with other U.S. government organizations and international partners. The need exists for easier means of tapping into external resources. Effective planning relies on quality and not quantity of the workforce. Military operations focus on quantity of force. The correlation between troop density and success in Bosnia and the lower troop

density and greater struggle in Iraq and Afghanistan reflects that physical military presence is the security piece of stability operations.

The Boeing 777 case study proves that centralized strategic planning and decentralized execution can yield impressive results across a complex organization structure called “Working Together”. The prime success factors were integrated teams, involving the customer into design of the base aircraft, utilizing CATIA as the integrated design tool, and flexible configuration design. All participants in the development had access to the same design foundation.

Applying these same factors to defense institutional building results in involvement from the partner nation in design of government processes and operating systems at the beginning, use of common integrated management plan for all organizations to have access to scheduled activities and progress, and establish core operating systems with flexibility for tailoring to each nation’s situation.

For example, development of a single, standard logistic management system for both maintenance and supply management with scalability for growth or a procurement database for tracking the procurement process from requirement package initiation through contract award to payment of final invoice applied in various nations.

Both examples are instrumental for counter-corruption and achieving transparency and accountability. Web-based systems allow stateside monitoring providing a much-reduced cost to long-term sustainability and support to these nations by the U.S government. Global operations require a change in thinking merely to use contractors’ in-country to support operating systems. Nation-building and stability operations need to be recognized as an “inherently U.S. Government function” requiring accountability and transparency

of funding and work.

Current de-centralized approach lacks skilled manpower to develop these processes, databases, and operating systems in contingency operations. Even when established, the lack of consistent skilled manpower results in processes, databases, and operating systems discontinued based on short-sighted perspective. Contracts were awarded in Iraq and Afghanistan to develop the operating processes with no intention of developing commonality across multiple nations. Web-based systems allow reach-back capability management and oversight at facilities within U.S. reducing manpower and costs overseas.

A network organization structure is proposed to provide the linkage across all organizations chartered to provide foreign assistance, reconstruction, nation building, building partner capacity, defense institutional building, and stability operations. To apply a phased approach, a prototype should be established using U.S. Central Command or U.S. Africa Command area of responsibility (AOR) with a network structure. The recommendation is for the Defense Security Cooperation Agency (DSCA) to be the network nucleus responsible for planning and monitoring with execution accomplished by the combatant commands, as illustrated in figure 6-11.

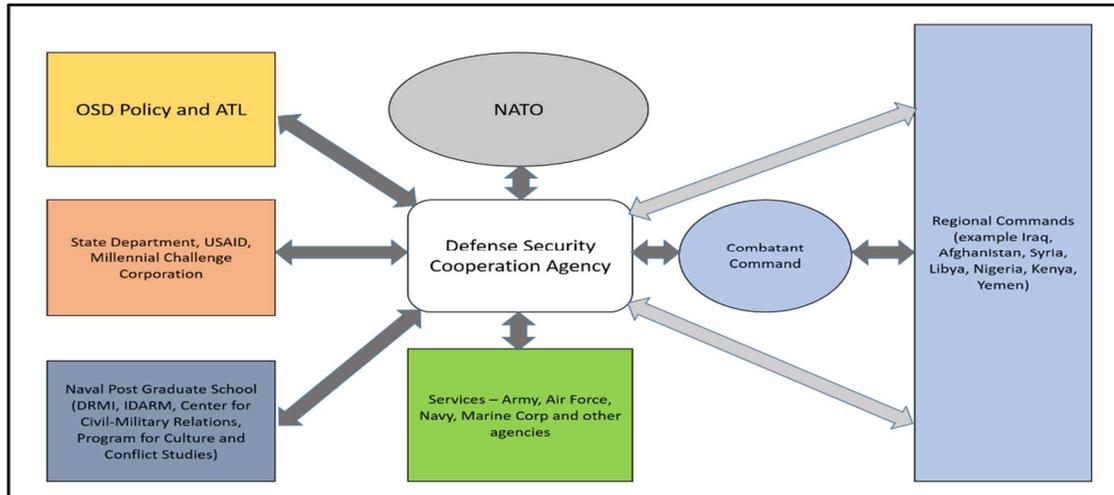


Figure 6-11. Nation building proposed network with Defense Security Cooperation Agency as the nucleus

DSCA is responsible for directing, administering, and providing DoD-wide guidance for execution of responsible programs. The DSCA Vision 2020 provides a plan for DSCA to enable the approach through the security cooperation enterprise (SCE), focusing on three interlocking areas: (1) synchronizing security cooperation activities, (2) meeting customer expectations, and (3) ensuring effective and efficient use of community resources (DSCA Vision 2020, 4).

In the DSCA Vision 2020 plan, one goal is to

establish and implement community-wide standards for knowledge management...knowledge management is the use of information technology, business processes, and organizational design to facilitate the collection, storage, and integration of information and distributed knowledge across a network so that the nodes of the network can simultaneously contribute to and benefit from a common operating picture that informs decision making (DSCA Vision 2020, 11).

This establishment could fulfill the requirement for shared database across the entire network. This approach develops standards for each organization to use as means for access to each organization's data. If fully achieved, then it would provide substantial visibility across the security assistance network not currently possible. Vision 2020

focuses on the synchronization of activities throughout the security community. This is only part of the entire effort because some efforts will need more than synchronized; they also will need fully integrated. Vision 2020 lacks this full integration approach in the planning.

DSCA as the knowledge center would leverage efforts across DoD, DoS, U.S. USAID, Non-Governmental organizations (NGOs), and Coalition partners. Although Joint Operation Planning Process (JOPP) for campaign planning recognizes the need for coordination across all U.S. Government agencies, the combatant commander or Joint Task Force Commander, lack the consistent, skilled personnel to carry out the complex planning using an interdisciplinary workforce prepared to identify initiatives that cross-functional and organizational boundaries.

The rationale for a DoD selected organization is the security focus. Development cannot occur without a certain level of stability through security. Until this is accomplished, funding efforts for development are at high risk to success. Wasted funds jeopardize future funding by the U.S. and donor nations.

DSCA can gain significant lessons learned from the ODNI network example for intelligence community. Funding leverages streamlining of operations requiring combination of local and strategic priorities for organizations and collaboration in an integrated environment.

Stability operations are comparable to level of complexity found in acquisition and development of high-technology, weapon systems requiring extensive strategic planning by the DoD, detailed planning by the prime contractors, and then monitoring by the DoD. The bulk of the \$1.7 trillion was spent by the DoD in contingency operations (DoD-

\$1.562 trillion, DoS-\$101 billion, and USAID-\$17 billion). The central organization needs flexibility to adjust funding wherever best spent to achieve the objective results. The DoD funding will drive most contingency operations due to the vulnerability of security within the partner nation.

If 92 percent of funding for contingency operations provided to the DoD, then the organization selected as the nucleus of network needs to be within DoD. The significant portion of funding for DoD reflects the resources required for both combat and non-combat mission.

The total budget needs identified independent of Department organizations. Flexibility is required to fund defense, state, USAID, Millennium Challenge Corporation, other Government organizations, or NGOs to achieve results both in planning and execution. The stability state index predictability provides early warning for problem areas. Identifying these situations early and acting to counter limits sequential actions that occurred in the Arab Spring.

Bosnia & Herzegovina case study proves that once a certain level of security is achieved, such as through the NATO peacekeeping mission, the funding contributed to the country has significant results for all other sub-indicators of the stability state index, achieving the exponential performance within a mere few years of war's end. Iraq and Afghanistan have proved that if that certain level of security is not achieved, all funding spent is susceptible to waste. The quick decline of the stability state index in Iraq and Afghanistan following the major reduction in U.S. and NATO troops reflects that neither country had achieved the level of security to drive stability.

The Coalition organizational structure needs to accommodate a critical alignment with

the MoD leadership to establish this foundation together with the alignment accomplished through the MAG. A program management office (PMO) structure, typically used in DoD for acquisition and development of weapon systems, encompasses three primary elements: (1) matrix of projects and competency support, (2) an integrated management plan, and (3) hierarchy milestone reviews. The MAG can assume the role of PMO with responsibility for the integration of all tasking across the command.

Figure 6-12 depicts the generic coalition security assistance force (CSAF) structure with the MoD-MAG as the PMO, the enduring mission functions of force management and force development are aligned with the Commander, CSAF to ensure long-term perspective is planned, designed, implemented, and monitored. Eventually, as maturity of the assisted nation occurs, other commands will diminish and close. The MoD-MAG will remain as the enduring function. This organizational structure would require no re-organization throughout the mission, just reduction and elimination of functions and commands at completion.

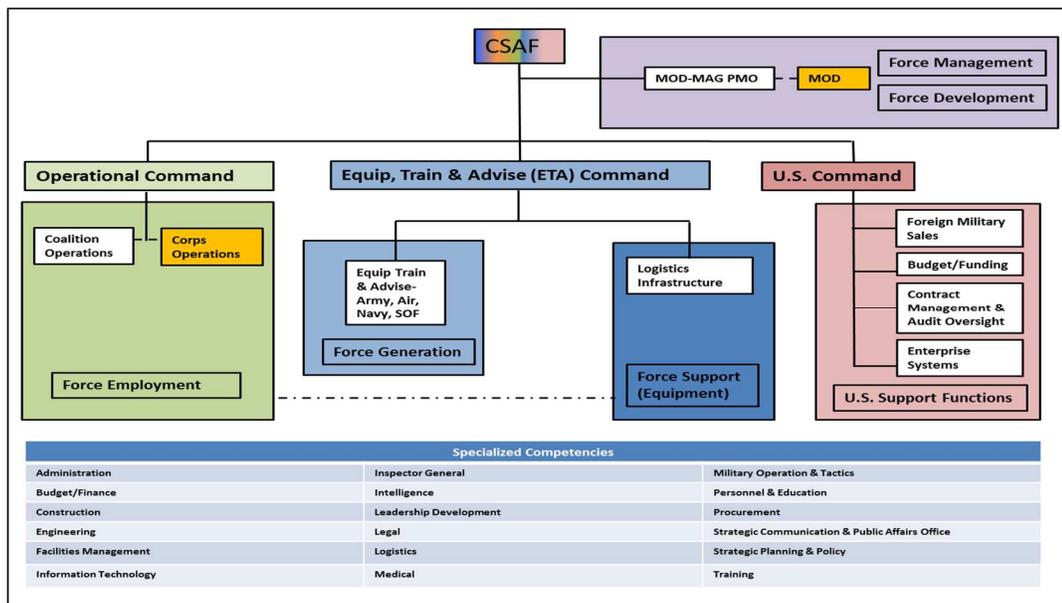


Figure 6-12. Coalition Security Assistance Force (CSAF) organization with application of program management office (PMO)

A project management office manages a single project; a program management office (PMO) manages multiple projects. A portfolio management office manages several programs and is typical of a DoD Program Executive Office (PEO). Management attention between the office types changes from a focus of execution within a project and tools of basic project management to management across multiple programs and the breadth and complexity of meeting the organization's mission and multiple stakeholders' objectives.

With the incorporation of multiple PMOs, the mission at the CSAF level becomes a PEO. The complexity in the role of a PEO is driven by the increase in external focus on impacts, constraints, consequences, and results. To better manage these multi-faceted elements, knowledge areas such as strategic management, governance management, performance management, communication management, and risk management become critical to effective portfolio management.

An integrated management plan details the tasking for each CSAF force functional command (FFC) and the relationships or linkages that exist creating the integration piece. The PMO manages the integration of several projects for establishing the core capability of the MoD. As a minimum, these are the foundational processes or systems for managing the assisted nation's military force: strategic planning & policy, human resource management, budget/financial, procurement, logistics, and institutional training.

Figure 6-13 depicts defense insitutional building matrix with initiatives such as economic, counter-corruption, gender integration, literacy, and civilianization applied across a comprehensive approach in planning and implementation. These cross-cutting initiatives cross projects, FFCs, and competencies creating a fourth dimension to the

structure and execution.

	Joint Command	ETA-Army	ETA-Air Force	ETA-Navy	ETA-SOF	ETA-Logistics	US Command
	Columns with Competencies						
Project 1 Strategy & Policy	X	X	X	X	X	X	X
Project 2 HRM	X	X	X	X	X	X	X
Project 3 Budget/ Finance	X	X	X	X	X	X	X
Project 4 Procurement	X	X	X	X	X	X	X
Project 5 Logistics	X	X	X	X	X	X	X
Project 6 Institutional Training	X	X	X	X	X	X	X

Figure 6-13. Four-dimensional matrix structure with project-FFC-competency-initiative

Utilizing a project management approach to institutional building ensures continuity of execution through the integrated management plan built with summary planning tasks. Detailed planning tasks occur in six month rolling wave increments. Project management elements of risk management apply to manage the uncertainty inherent in building the nation’s defense government base while at war.

Risks of availability of electricity, internet connectivity, culturally differing perspectives are identified and mitigated using standard risk management techniques. This approach allows for budgeting of summary planning tasks and tracking of cost performance associated with those tasks in addition to schedule performance. Re-allocation of resources effectively managed based on the ability to meet capability parameters in some areas and respond to challenges in others.

An integrated management plan provides continuity to reduce the inefficiency caused by turnover of personnel. Few companies could stay in business with 100 percent turnover every year and possibly 50 percent turnover every six months. An integrated

management plan with summary planning tasks scoped with the nation would lay the foundation for detailed planning occurring in six-month increments. Especially with multi-national support, good planning can reduce the friction created from ambiguous objectives and the need to “reinvent the wheel” throughout the mission.

To evaluate the progress of the nation, metrics need developed using quantitative measures to the greatest extent. Qualitative measures can be applied based on understanding the limitations on interpretation. Significant movement in a rating capability presented to an Executive Ministerial Development Board (EMDB) (figure 6-14) chaired by the Director for the PMO with leadership of all FFC would ensure a deliberate assurance that the capability was achieved. The EMDB would collectively determine if a CM was achieved.

In the case when consensus is not reached, the Chairman has the final decision. At the beginning of the effort, the EMDB would be Coalition-led participation. As the nation’s leadership reached pre-planned levels of capability, the participation would include the nation and eventually shift to co-Chairing the EMDB with joint participation in reviews and decisions. What better method for illustrating to the nation’s leadership that they have attained leadership capability than leading a joint committee with the Coalition in the subordinate role.

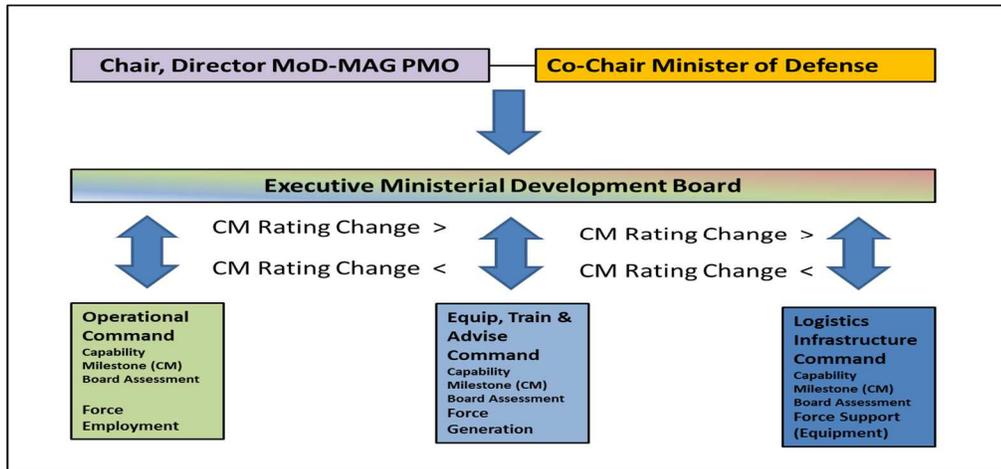


Figure 6-14. Assessment review boards

In the early stages, quarterly reviews conducted by the Director of the PMO to the ministerial leadership: Minister of Defense, First Deputy Minister, Chief of General Staff, and Vice Chief of General Staff convey the progress and areas of concern. As progress occurs in ministerial development leadership capability, the shift occurs to the Minister of Defense ultimately briefing the Director for the PMO. The integrated management plan should include the roadmap in transition of responsibility of the EMDB as part of the PMO's summary planning tasks.

Each FFC would track the progress of the tasks, including how each of their areas are doing on counter-corruption, economic, gender integration, literacy, and civilization both CSAF and partnering assisted nation to meet the capability milestone. Building infrastructure is often part of building the capability in a developing government. Establishing institutional training includes the physical building (*construction*), curriculum (*training*), and administration management (*administration*). Integrated management plan includes the tasks of the CSAF for infrastructure projects, tasks associated with nation, and linked to nation's capability milestone.

The nation is required to provide land for the building; this would be a planning task

assigned to the nation with linkages to CSAF's design and construction of building. This link creates the bond between the CSAF and the nation in truly creating a partnership, one side cannot achieve success without the other. An integrated management plan can predict cost and schedule results for the entire project or program at any point in time.

The initiatives of counter-corruption, economic development, gender integration, literacy, and civilianization would be included in integrated management plan tasks and capability milestone rating for all projects, FFCs, and competencies. This method creates a comprehensive approach for initiatives to drive synergistic results to achieve security and stability of the nation; synergistic results equate to the whole being greater than the sum of the parts.

In the report Learning from Iraq: A Final Report from the Special Inspector General for Iraq Reconstruction, there were seven Final Lessons for Iraq summarized:

1. *Create an integrated civilian-military office to plan, execute, and be accountable for contingency rebuilding activities during stabilization and reconstruction operations.*
2. *Begin rebuilding only after establishing sufficient security, and focus on small programs and projects.*
3. *Ensure full host-country engagement in program and project selection, securing commitments to share costs (possibly through loans) and agreements to sustain completed projects after their transfer.*
4. *Establish uniform contracting, personnel, and information management systems that all Self-Regulatory Organizations (SRO) participants use.*
5. *Require robust oversight of SRO activities from the operation's inception.*
6. *Preserve and retire programs developed in Iraq, like the Commander's Emergency Response Program and the Provincial Reconstruction Team program that produced successes when used judiciously.*
7. *Plan in advance, plan comprehensively and in an integrated fashion, and have the backup plans ready to go (Bowen, 129-132).*

As cited in the above lessons learned, the need for a comprehensive approach, an

integrated plan, and the participation in planning with the assisted nation are primary elements to success of the CSAF mission. The PMO will collaterally compile and manage the integrated management plan while executing ministerial development leadership.

Management of complexity requires the balance of centralization of some efforts and de-centralization of others to achieve optimization of the system. When a subsystem's goals, defined through current agencies operating independently, dominate at the expense of the total system's goals, the result is sub-optimization. The opposite problem is too much central control, which causes detriments of subsystems not being able to react to their specific conditions.

To be highly functional system, hierarchy must balance the welfare, freedoms, and responsibilities of the subsystems and total system-there must be enough central control to achieve coordination toward the large-system goal, and enough autonomy to keep all subsystems flourishing, functioning, and self-organizing. Resilience, self-organization, and hierarchy are three of the reasons dynamic systems can work so well. Promoting or managing for these properties of a system can improve its ability to function well over the long term-to be sustainable. But watching how systems behave can also be full of surprises (Meadows, 85).

Optimization is the balance between central and de-central planning, executing, monitoring, and adjusting through the feedback component for maximum achievement. Imbalance of central and de-central operations creates inefficiencies which produce ineffectiveness. Corruption in nation-building not only produces inefficiency but ineffectiveness through donors reducing or eliminating funding causing the loss of initiatives.

Section 6.5 Future Work

The ability mathematically to model a nation's stability through the stability state index provides some insight into how initiatives affect result. More analysis on the internal mechanisms of the black box provides insight into what appears to work, when it works, why it worked, what does not work, when it does not work, and why it does not work. Professor Forrester argues that modeling the mathematical equations within the system is best approached through integration versus differentiation.

Since much of the conclusions throughout this paper reflect performance gained through integration, more analysis in the integration of fragile state sub-indicators would provide a better understanding for why the combination of twelve indicators produces linear, exponential, logarithmic, polynomial, and S-curve performance in nations.

The S-curve is the growth curve reflecting exponential growth until a point when resources become exhausted or leverage is maximized changing the curve to logarithmic function and plateaus at a limiting factor. The boundaries for $f(x)$ are zero to 100 as the pre-established limits for the stability state index. What is different is the relationship that causes the plateau (steady-state) to occur at different values.

Countries that have achieved sustainable have a steady-state that appears extremely resilient to external factors. As depicted in figure 6-15, the U.S. fighting two wars had very little effect on the stability of the country, staying within the range of 70 to 72.5 from 2006 to 2015. The rise in the national debt due to the increased spending during the war could potentially have adverse effects in years to come reaching a tipping point driving economic instability and a significant reduction in stability state index. Interest on expenses for the Iraq war could amount to about \$4 trillion over the next forty years

(Trotta, 2). The DoD system of systems analysis and Fund for Peace sub-indicators have similarities; these relationships need further explored.

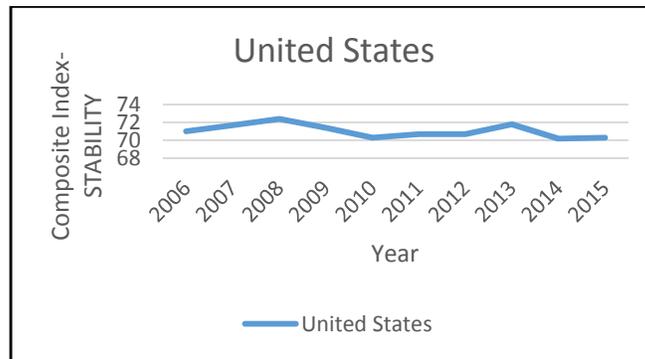


Figure 6-15. United States stability state index

Djibouti is a nation in a strategic location currently on a degraded path. A prototype approach for nation-building to integrate all efforts across U.S. government agencies and facilitate through one central organization through a system of systems analysis. Tracking the performance through changes in inputs and outputs would provide the insight into the mechanics of the internal nation's black box.

The facilitating organization can leverage all capability whether governmental, non-governmental, industry, or academia. Funding or funding requirements need centralized to ensure appropriate activities are integrated and leveraged. Based on the performance model ($y = -0.0629x^2 + 0.0038x + 33.927$) in figure 6-16, the curve downward will have a greater increase in the next few years with alert status reached in 2021.

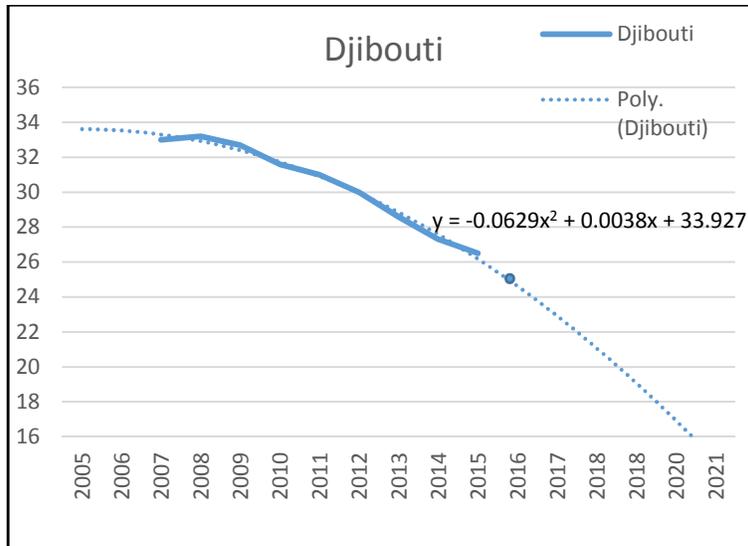


Figure 6-16. Djibouti stability state index performance

Djibouti is bordered by Eritrea in the north, Ethiopia on the west and southwest, and Somalia in the south as illustrated in figure 6-17. The country is located bordering the Gulf of Aden and the Red Sea in the east. This location is instrumental for ensuring water passage between the Arabian and the Mediterranean Seas through the Suez Canal. The neighboring countries are struggling with stability creating risk to Djibouti.

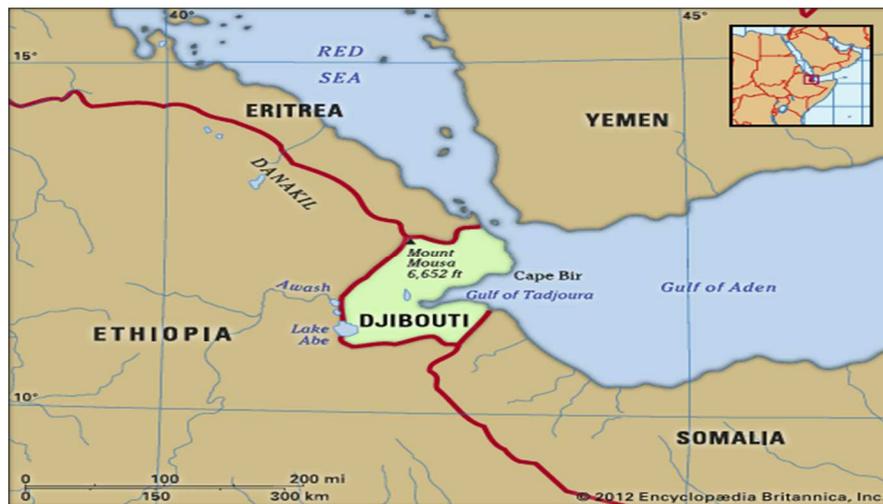


Figure 6-17. Map of Djibouti (<https://www.britannica.com/place/Djibouti/>)

Figure 6-18 depicts the stability sub-indicator scores for Djibouti. Economic development peaked in 2010; however, poverty and economics gradually increased over

the next two years but then started a decline in 2012. Further analysis of the sub-indicators for correlations guides determining and leveraging initiatives.

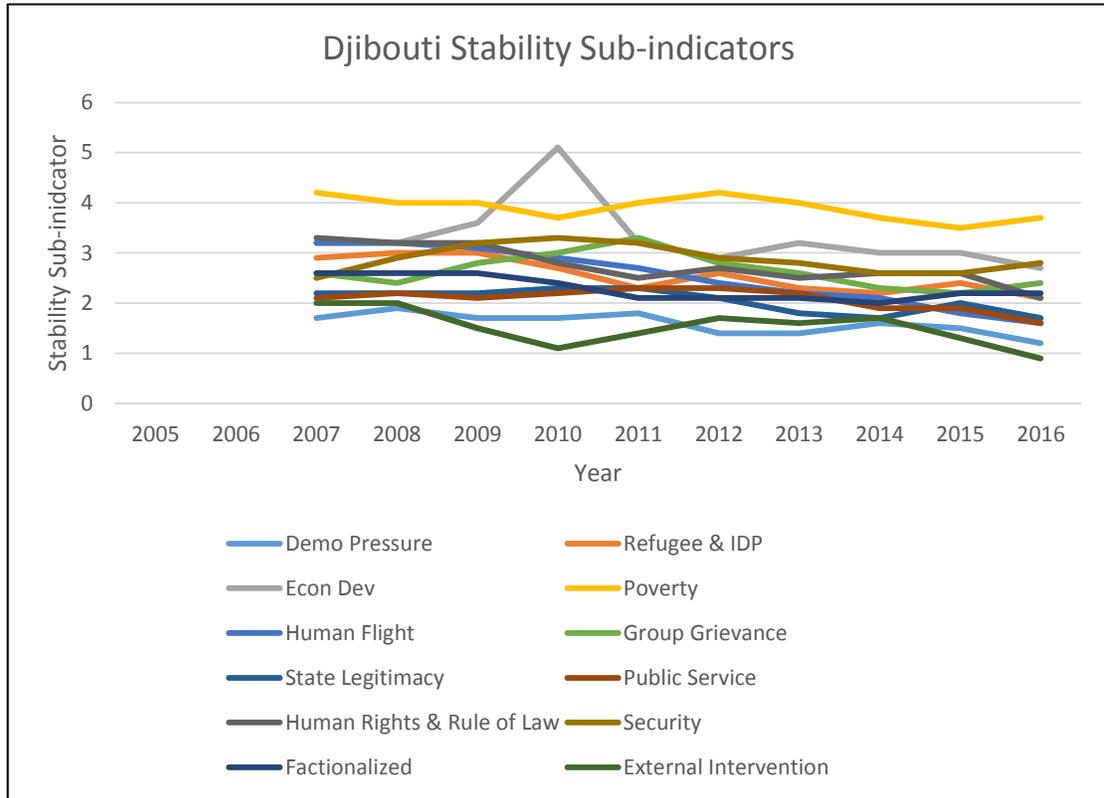


Figure 6-18. Djibouti stability sub-indicators

As figure 6-19 illustrates Djibouti is the most stable nation in the neighborhood. With Yemen across the passage between the two bodies of water, the country is positioned for the current trend to continue or accelerate.

Djibouti is significantly decreasing in stability with a polynomial ($y = -0.0629x^2 + 0.0038x + 33.927$) representation for negative stability state index performance. With a value of 25.1 in 2016, performance is still tracking to negative profile. Almost across all sub-indicators, there is a reduction, reflecting a significant event or events effecting all systems in analysis.

If you can imagine a land vulnerable to a wide range of natural and man-made hazards that is constantly exposed to extended annual and seasonal droughts; a country facing water scarcity, urban fires fueled by droughts and exacerbated by precarious construction materials; frequent and intense flash floods; active volcanic activity and recurrent earthquakes of high magnitudes usually ranging between 4 and 5 on the Richter scale; a land where a third of the population lives in environmentally high-risk urban settings; a country that has 35% of its economy vulnerable to natural hazards; a land where 71% of the total population lives in cities, of which 58% live in the overcrowded capital city, with overstretched infrastructure and services, as well as scarce job opportunities, then you can easily picture Djibouti (Farah, 1).

The environmental pressures are cross-cutting social, political, economic, and infrastructure creating internal unrest. Djibouti is strategically located with a deepwater port on the Red Sea. Unemployment plagues the country at nearly 60 percent (CIA factsheet 2016, 1). Imports, exports, and re-exports are primarily coffee from the landlocked neighbor Ethiopia, representing 70 percent of the port activity at Djibouti’s container terminal (CIA Factsheet 2016, 1).

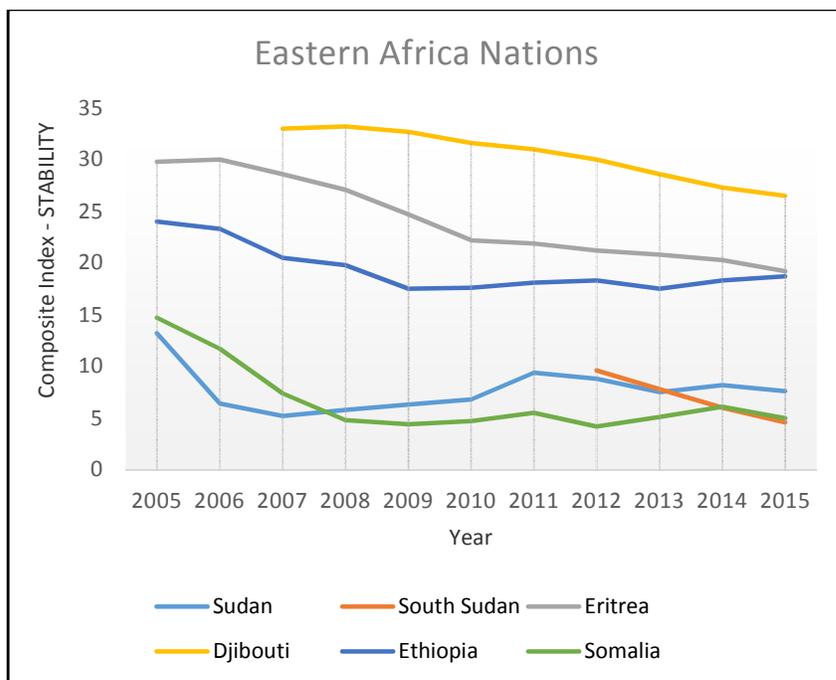


Figure 6-19. Eastern Africa stability state indices

This Eastern Africa grouping largely declined in stability over the eleven-year period with some experiencing sharp decreases such as Somalia, Sudan, South Sudan, and Eritrea. This grouping substantiates the premise that instability spills over from one nation to another causing a neighborhood of nations to decline.

South Sudan became independent from Sudan in 2011 with the intent of resolving internal conflict between cultural groups. South Sudan is largely Christian while the remainder of Sudan is largely Muslim. The population of South Sudan is 65.7 percent below the age of twenty-five years old (7.6 million) with 27 percent literacy rate and 50.6 percent of population below poverty level. The country has continued a decline since its independence.

South Sudan's economy, based on oil exports, has once again ground to a halt with signs that outside investors, including China, are growing weary with having their investments and infrastructure constantly under siege (Fund for Peace 2015, 16). As of May 2014, over a million people were displaced with over 10,000 dead, 80,000 sheltering in United Nation camps, and 300,000 having crossed into Ethiopia, Sudan, and Uganda for escape (Fund for Peace 2015, 16). Although some professionals had returned after the end of civil war and separation of the countries, they are now fleeing, creating brain drain and hampering economic growth.

Sudan's population is 61 percent below the age of twenty-five years old with 71.9 percent literacy rate and 46.5 percent of population under the poverty level. Sudan is the largest country in Africa and between 1956 and 1972 had a reputation for the best civil service in Africa, one of the finest universities in the region, and highly trained public servants and military officers (Ghani, 71). What caused such a significant change?

A combination of military officers and political ideologues attempted to impose Islamism on the country by employing divide-and-conquer tactics. Claiming that the Muslim north was superior to the animist south, plunged the country into a prolonged conflict. Culturally, the response in the south was a massive movement toward Christianity; politically, it was the launch of a series of militant movements (Ghani, 71).

According to a report on the Continental Early Warning System (CEWS) for the African Union (AU), progress has occurred in the capacity to monitor, analyze, and provide warning of impending conflict situations in Africa (Noyes, 42). The AU's CEWS established in 2002 under Article 12 of the protocol creating the AU's Peace and Security Council (PSC). *Article 12 calls for the establishment of a monitoring unit at the AU, the Situation Room, as well as monitoring and observation units based at the Regional Economic Communities (RECs) that will feed directly into the Situation Room* (Noyes, 43). Progress has been made in operationalizing the Situation Room but coordination and implementation gaps exist with the RECs.

CEWS uses three tools for data collection and analysis: Africa Media Monitor (AMM), the Africa Reporter, and Live-Mon (Noyes, 44). The AMM uses big data analytics approach to capture data from the continent real-time processing 40,000 articles simultaneously in four languages while updating every 10 minutes (Noyes, 44).

The Africa Reporter gathers data from the different field mission and liaison officers of the AU and produces risk scores on conflict situations (Noyes, 44). Live-Mon is a geo-coded tool that automatically displays news events on a map in the Situation Room as these events develop (Noyes, 44). CEWS supplements their in-house data collection with private analytical sources such as the Economic Intelligence Unit, Oxford Analytica, and BBC Monitoring (Noyes, 45).

A further understanding of the application of the tool and alignment with this paper's

stability index prediction may provide a more insightful perspective on conflict and escalating factors. Harvard University offers a graduate-level course on Preventative Measures: International Peace and Security Challenge. The course focuses on conflict early warning and response systems, particularly CEWS of the AU. The stability state index provides a means of predictability not recognized through this and other conflict assessments or indicators. The stability state index also affords the evaluation of initiatives to improve the nation.

Appendix

Appendix 2-A. Charts for Stability of Nations Comparison

Composite Index Comparison

Nation	Cast Assessment System Tool (CAST) FFP-2006 Score = (120-x)/100/120 (6.4 - 85.7)		State Weakness-2006 Score = 10x (5.2 - 94.1)		Heritage 2006 Score = x (4.0 - 88.0)		CAST FFP-2013 Score = (120-x)/100/120 (5.1 - 84.7)		Worldwide Governance Indicator (World Bank)-2013 Score = 50 + 20x (5.4 - 86.9)		State Fragility Index 2013 Score = (25-x)/4 (4.0 - 100.0)		CAST FFP-2014 Score = (120-x)/100/120 (6.0 - 84.1)		Peace & Conflict Insolvency Ledger (UMD)-2014 Score = (100-x) (72.5 - 99.9)	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Sudan	1	6.4	6	32.9	N/A	N/A	3	7.5	4	17.7	3	12	5	8.2	26	90.3
Congo, D.R	2	8.2	3	16.7	N/A	N/A	2	6.7	7	18.6	2	8	4	8.1	6	79.2
South Sudan	N/A	N/A	N/A	N/A	N/A	N/A	4	7.8	9	20.1	5	16	1	6.0	14	85.5
Cote D'Ivoire	3	9.0	10	36.6	57	56.2	12	13.7	34	32.3	21	36	14	15.2	12	83.6
Iraq	4	9.0	4	31.1	N/A	N/A	11	13.4	11	22.9	8	24	13	14.8	18	86.6
Zimbabwe	5	9.2	8	34.4	4	33.5	10	12.3	15	23.5	18	32	11	14.3	29	90.7
Chad	6	11.7	16	39.0	19	50.0	5	9.1	19	24.5	8	24	6	9.4	21	88.4
Somalia	6	11.7	1	5.2	N/A	N/A	1	5.1	1	5.4	6	20	2	6.1	7	80.0
Haiti	8	12.8	12	37.6	18	49.2	8	11.8	27	28.7	29	40	9	13.0	19	87.7
Pakistan	9	14.0	33	52.3	67	57.9	13	14.2	24	27.5	21	36	10	14.1	10	82.4
Afghanistan	10	16.8	2	16.5	N/A	N/A	7	11.0	6	18.3	3	12	7	11.2	1	72.5
Guinea	11	17.4	23	46.7	32	52.8	14	15.5	22	26.3	12	28	12	14.4	4	76.9
Liberia	11	17.4	9	36.4	N/A	N/A	23	20.7	42	34.2	21	36	24	21.3	26	90.3
Central African Republic	13	18.7	7	33.3	44	54.2	9	12.2	5	18.5	1	4	3	7.8	13	84.9
North Korea	14	18.8	15	38.7	1	4.0	23	20.7	3	17.3	79	68	26	21.6	52	94.4
Burundi	15	19.3	5	32.1	15	48.7	20	18.6	26	27.8	12	28	21	19.0	5	77.3
Sierra Leone	16	19.4	13	37.7	10	45.2	33	23.9	51	36.2	29	40	35	25.0	11	83.5
Yemen	16	19.4	30	51.8	30	52.6	6	10.8	14	23.3	8	24	8	12.1	48	93.9
Myanmar (Burma)	18	19.5	N/A	N/A	5	40.0	26	21.1	15	23.5	8	24	25	21.3	51	94.2
Bangladesh	19	19.7	48	56.4	34	52.9	29	22.8	31	31.6	36	48	29	22.6	20	88.3
Nepal	20	20.4	22	46.1	41	53.7	30	23.4	38	33.5	33	44	32	24.1	23	88.9
Uganda	21	21.2	27	48.6	99	63.9	22	19.4	59	38.0	12	28	22	19.9	29	90.7
Nigeria	22	21.2	28	48.8	15	48.7	16	16.0	23	27.0	18	32	17	16.9	15	85.9
Uzbekistan	22	21.2	36	53.0	15	48.7	44	27.5	20	25.0	42	52	48	28.0	95	98.4
Rwanda	24	22.5	24	46.8	32	52.8	38	25.5	99	47.6	18	32	34	24.5	79	97.3
Sri Lanka	25	22.9	56	59.4	72	58.7	28	22.5	77	42.9	50	56	30	22.7	55	95.2
Ethiopia	26	23.3	19	44.6	21	50.9	19	17.5	32	31.8	6	20	19	38.7	35	92.2
Columbia	27	23.4	47	56.3	80	60.4	57	30.0	83	43.9	62	60	59	30.6	63	96.0

Kyrgyzstan	28	24.7	73	63.9	84	61.0	48	28.5	41	34.1	42	52	58	30.0	63	96.0
Malawi	29	25.1	46	56.0	49	55.4	40	25.6	74	41.7	21	36	38	25.6	31	90.8
Burkina Faso	30	25.1	44	55.1	55	55.8	35	24.7	69	40.2	21	36	39	25.7	33	91.6
Egypt	31	25.3	78	65.0	35	53.2	34	24.6	32	31.8	42	52	31	24.1	91	98.2
Indonesia	32	25.6	77	64.9	25	51.9	76	34.7	78	43.0	42	52	82	35.9	61	95.9
Kenya	33	26.1	50	56.5	76	59.7	17	16.9	54	36.5	62	60	18	17.4	28	90.6
Syria	33	26.1	59	61.4	22	51.2	21	18.6	2	16.3	29	40	15	15.3	110	99.2
Bosnia and Herzegovina	35	26.1	113	76.3	50	55.6	83	36.1	90	45.2	113	84	86	33.6	108	99.1
Cameroun	36	26.2	29	51.2	46	54.6	27	22.0	30	31.4	21	36	27	22.3	39	92.8
Angola	37	26.3	11	37.2	6	43.5	43	27.3	27	28.7	21	36	43	27.1	41	93.3
Togo	37	26.3	26	48.0	12	47.3	42	26.7	29	30.7	36	48	42	26.7	45	93.5
Bhutan	39	26.6	94	70.8	N/A	N/A	62	31.7	115	53.1	79	68	64	32.5	16	86.0
Laos	39	26.7	45	55.3	13	47.5	58	30.1	39	34.0	42	52	56	29.6	85	97.8
Mauritania	41	26.7	37	53.0	53	55.7	31	23.5	35	32.8	21	36	28	22.4	58	95.7
Tajikistan	42	26.8	42	53.5	30	52.6	51	28.9	21	26.0	50	56	55	29.4	46	93.7
Russia	43	27.3	65	62.0	28	52.4	80	35.6	49	35.8	88	72	85	36.1	65	96.2
Niger	44	27.4	21	46.0	29	52.5	18	17.4	47	35.7	12	28	20	18.3	8	81.5
Turkmenistan	45	28.1	35	52.7	7	43.8	81	35.9	11	22.9	71	64	75	34.7	104	98.8
Guinea-Bissau	46	28.7	18	41.6	11	46.5	15	15.7	13	23.2	12	28	16	16.1	2	73.7
Cambodia	47	29.1	34	52.7	60	56.7	41	26.6	45	35.3	50	56	40	26.1	42	93.4
Dominican Republic	47	29.1	91	70.1	N/A	N/A	95	38.8	87	44.3	104	80	95	38.7	60	95.8
Papua New Guinea	49	29.4	40	53.2	N/A	N/A	53	29.1	56	37.5	50	56	57	29.8	34	91.7
Belarus	50	29.5	81	66.3	13	47.5	81	35.9	36	33.3	113	84	90	37.4	132	99.7
Guatemala	51	29.6	60	61.5	73	59.1	70	32.6	57	37.6	79	68	66	33.0	58	95.7
Equatorial Guinea	52	29.9	25	47.7	23	51.5	47	28.1	18	23.9	42	52	52	28.8	83	97.7
Iran	52	29.9	66	62.5	9	45	37	25.1	25	27.6	50	56	44	27.2	100	98.7
Eritrea	54	30.0	14	38.4	N/A	N/A	25	20.8	10	20.4	29	40	23	20.3	53	94.5
Serbia and Montenegro	54	30.0	108	74.3	N/A	N/A	134	54.4	111	52.2	127	92	131	53.4	100	98.7
Bolivia	56	30.8	64	61.9	66	57.8	67	33.0	63	39.0	62	60	70	34.1	36	92.4
China	57	31.1	74	64.1	38	53.6	66	32.5	64	39.1	98	76	68	34.0	113	99.3
Moldova	57	31.1	88	68.9	68	58.0	83	36.1	86	44.1	62	60	89	37.3	89	98.1
Nicaragua	59	31.2	72	63.7	96	63.8	72	33.9	65	39.4	62	60	73	34.5	74	96.8
Georgia	59	31.3	90	69.9	102	64.5	55	29.7	116	54.1	88	72	63	31.0	54	94.7
Azerbaijan	60	31.6	80	65.4	35	53.2	73	34.3	50	35.9	62	60	76	35.0	92	98.3
Cuba	61	31.6	62	61.7	2	29.3	101	39.2	59	38.0	104	80	107	40.8	132	99.7
Ecuador	63	32.2	85	67.8	46	54.6	74	34.4	62	38.4	79	68	79	35.4	49	94.0
Venezuela	63	32.2	70	63.3	8	44.6	89	37.1	17	23.8	62	60	84	35.9	81	97.6
Lebanon	65	32.8	93	70.2	64	57.5	46	28.0	46	35.6	98	76	46	27.5	65	96.2

Zambia	66	33.5	32	52.3	61	56.8	45	27.7	91	45.5	36	48	49	27.7	38	92.6
Israel	67	33.7	N/A	N/A	101	64.4	67	32.5	127	62.3	79	68	67	33.6	118	99.4
Peru	68	33.9	92	70.1	81	60.5	103	39.6	89	45.1	98	76	97	39.1	68	96.5
Philippines	68	33.9	58	60.8	59	56.3	59	30.9	82	43.6	50	56	53	28.8	68	96.5
Vietnam	70	34.4	83	66.6	20	50.5	97	38.9	68	39.7	88	72	98	39.3	118	99.4
Tanzania	71	34.6	55	59.4	71	58.5	65	32.3	71	40.9	50	56	65	32.5	40	93.0
Algeria	72	35.0	57	60.7	53	55.7	73	34.3	37	33.3	33	44	71	34.2	55	95.2
Saudi Arabia	73	35.5	N/A	N/A	93	63.0	102	39.3	84	43.9	71	64	96	38.9	132	99.7
Jordan	74	35.7	118	77.4	95	63.7	87	36.8	96	46.8	79	68	83	35.9	67	96.3
Honduras	75	35.9	69	63.3	63	57.4	75	34.6	52	36.3	88	72	76	34.9	73	96.7
Morocco	76	36.1	96	71.1	23	51.5	93	37.9	80	43.1	88	72	92	37.8	89	98.1
El Salvador	77	36.4	95	71.0	119	69.6	95	38.8	98	46.9	113	84	100	39.8	79	97.3
Macedonia	78	37.3	114	76.6	74	59.2	112	43.2	103	48.9	127	92	116	44.5	100	98.7
Thailand	79	37.4	79	65.0	94	63.3	90	37.3	85	44.0	88	72	80	35.7	78	97.2
Mozambique	80	37.5	39	53.2	25	51.9	59	30.9	67	39.6	36	48	50	28.3	16	86.0
Mali	81	37.7	52	58.5	43	54.1	38	25.5	39	34.0	12	28	36	25.1	9	82.1
Turkey	82	37.8	98	71.8	62	57.0	86	36.6	101	48.4	79	68	94	38.1	75	96.9
Gambia	83	38.1	51	57.9	N/A	N/A	62	31.7	58	37.8	33	44	60	30.6	68	96.5
Gabon	84	38.5	63	61.8	56	56.1	99	39.1	69	40.2	50	56	99	39.7	24	89.7
Mexico	85	38.9	120	78.3	103	64.7	97	38.9	96	46.8	104	80	105	40.6	68	96.5
Ukraine	86	39.1	107	73.8	45	54.4	117	44.9	47	35.7	98	76	113	43.8	83	97.7
Paraguay	87	39.8	75	64.4	50	55.6	104	40.0	55	37.1	71	64	102	40.2	76	97.0
Kazakhstan	88	39.9	89	69.2	78	60.2	109	41.7	53	36.4	71	64	111	42.7	104	98.9
Armenia	89	40.3	105	73.4	122	70.6	105	40.4	95	46.6	88	72	104	40.4	42	93.4
Benin	90	40.8	71	63.6	42	54.0	78	34.9	81	43.2	62	60	74	34.7	21	88.4
Namibia	91	40.9	82	66.6	82	60.7	108	41.2	120	57.0	104	80	103	40.3	49	94.0
Cyprus	92	41.1	N/A	N/A	126	71.8	115	44.0	145	69.9	121	88	112	43.2	132	99.7
India	93	41.2	67	62.8	27	52.2	79	35.3	78	43.0	42	52	81	35.8	32	91.2
Albania	94	42.7	111	75.9	79	60.3	119	45.5	92	45.6	127	92	123	46.8	87	98.0
Libya	95	42.7	86	68.0	3	33.2	54	29.5	8	20.0	42	52	41	26.7	100	98.7
Botswana	96	44.1	102	72.7	118	68.8	121	46.5	131	63.3	121	88	121	46.1	68	96.5
Jamaica	97	44.2	101	72.6	109	66.4	118	45.2	107	50.4	121	88	119	45.7	81	97.6
Malaysia	98	44.7	N/A	N/A	87	61.6	116	44.7	122	57.8	98	76	117	44.7	92	98.3
Senegal	98	44.7	68	62.8	57	56.2	64	32.0	93	46.2	71	64	62	30.9	36	92.4
Tunisia	100	45.3	112	76.1	64	57.5	83	36.1	87	44.3	104	80	78	35.3	85	97.8
Brazil	101	47.2	99	72.2	83	60.9	126	48.1	106	49.5	104	80	125	48.6	61	95.9
Romania	102	47.6	121	79.1	69	58.2	130	52.0	114	52.9	113	84	130	52.4	92	98.3
Bulgaria	103	48.1	127	83.8	100	64.1	132	54.0	112	52.5	127	92	133	54.4	87	98.0
Croatia	104	48.2	131	86.7	40	53.6	135	54.7	124	58.6	127	92	136	55.7	110	99.2
Kuwait	105	49.1	N/A	N/A	111	66.5	127	50.1	102	48.6	121	88	128	50.6	123	99.5
Ghana	106	49.4	84	67.2	50	55.6	110	42.2	109	51.5	50	56	108	40.9	47	93.8
Panama	107	50.1	122	79.4	107	65.6	131	53.3	108	51.2	104	80	132	53.4	98	98.6
Mongolia	108	51.1	97	61.6	90	62.4	129	51.6	94	46.4	88	72	129	51.4	97	98.5

Latvia	109	53.0	136	90.8	112	66.9	140	59.8	132	64.1	147	100	142	59.8	95	98.4
South Africa	110	57.3	110	75.0	95	63.7	113	43.5	118	54.6	79	68	115	44.3	55	95.2
Estonia	111	57.3	N/A	N/A	132	74.9	145	62.0	146	71.7	147	100	147	62.1	118	99.4
Slovakia	112	58.2	141	94.1	120	69.8	145	62.0	133	64.1	140	96	146	62.0	132	99.7
Lithuania	113	58.3	N/A	N/A	126	71.8	150	63.9	139	66.5	140	96	149	63.7	129	99.6
Costa Rica	114	58.4	130	86.5	108	65.9	139	59.2	128	62.8	140	96	140	59.3	123	99.5
Poland	115	59.8	135	90.1	75	59.3	153	65.7	140	66.7	147	100	152	64.7	129	99.6
Hungary	116	60.8	140	94.1	105	65.0	141	60.1	130	63.0	147	100	141	59.5	132	99.7
Oman	117	63.2	128	84.6	95	63.7	136	56.4	113	52.6	104	80	135	55.5	113	99.3
Mauritius	118	64.8	133	87.9	114	67.4	148	62.7	136	66.2	140	96	145	61.3	113	99.3
Czech Republic	119	64.9	N/A	N/A	110	66.4	154	66.5	143	67.2	140	96	154	66.9	118	99.4
Uruguay	120	65.4	132	87.6	106	65.3	155	67.7	135	65.5	121	88	155	68.1	113	99.3
Greece	121	65.5	N/A	N/A	77	60.1	138	57.6	119	56.2	127	92	137	56.4	123	99.5
Argentina	122	65.7	N/A	N/A	38	53.4	144	61.3	75	42.8	127	92	144	60.3	77	97.1
South Korea	123	66.5	N/A	N/A	115	67.5	157	70.2	134	65.0	147	100	156	69.4	104	98.9
Germany	124	66.6	N/A	N/A	123	70.8	165	74.9	156	79.3	147	100	165	74.2	146	99.8
Spain	125	68.6	N/A	N/A	117	68.2	149	62.7	135	66.2	147	100	150	63.8	132	99.7
Slovenia	126	69.1	N/A	N/A	88	61.9	163	72.8	141	67.1	147	100	163	72.5	146	99.8
Italy	127	70.5	N/A	N/A	89	62.0	147	62.6	126	60.0	147	100	148	63.6	132	99.7
United States	128	71.0	N/A	N/A	141	81.2	159	71.8	151	74.2	121	88	159	70.2	110	99.2
France	129	71.1	N/A	N/A	85	61.1	161	72.5	148	73.1	140	96	160	70.7	132	99.7
United Kingdom	130	71.2	N/A	N/A	140	80.4	160	72.0	154	78.0	147	100	161	71.1	132	99.7
Portugal	131	72.5	N/A	N/A	92	62.9	162	72.5	144	69.1	147	100	162	72.1	146	99.8
Chile	132	73.0	139	93.5	137	78.0	152	64.5	150	73.5	127	92	153	64.7	123	99.5
Singapore	133	74.0	N/A	N/A	144	88.0	158	71.4	159	80.8	127	92	158	69.8	123	99.5
Netherlands	134	76.3	N/A	N/A	N/A	N/A	166	77.3	162	83.6	147	100	166	75.9	146	99.8
Japan	135	76.4	N/A	N/A	131	73.3	156	69.6	152	76.1	147	100	157	69.5	129	99.6
Austria	136	77.9	N/A	N/A	125	71.1	166	77.3	158	80.6	147	100	167	75.9	146	99.8
Denmark	137	79.0	N/A	N/A	134	75.4	174	81.4	165	85.6	147	100	176	80.7	146	99.8
Belgium	138	78.4	N/A	N/A	126	71.8	164	74.0	153	77.4	127	92	164	73.0	118	99.4
Canada	139	71.5	N/A	N/A	136	77.4	152	64.5	161	82.0	147	100	153	64.7	123	99.5
Australia	140	81.3	N/A	N/A	139	79.9	169	78.5	160	81.3	127	92	169	77.8	132	99.7
New Zealand	141	83.5	N/A	N/A	142	82.0	173	80.8	166	86.1	127	92	173	79.6	132	99.7
Switzerland	142	84.1	N/A	N/A	138	78.9	175	81.8	164	84.6	140	96	174	80.3	132	99.7
Ireland	143	84.2	N/A	N/A	143	82.2	170	79.0	155	78.3	147	100	170	77.9	146	99.8
Finland	144	84.5	N/A	N/A	130	72.9	178	84.7	169	86.9	147	100	178	84.1	146	99.8
Sweden	144	84.5	N/A	N/A	124	70.9	177	83.2	166	86.1	147	100	177	81.8	146	99.8
Norway	146	85.7	N/A	N/A	116	67.9	176	81.8	168	86.2	127	92	175	80.5	132	99.7
Antigua & Barbuda	N/A	N/A	N/A	N/A	N/A	N/A	128	51.5	136	66.2	N/A	N/A	127	50.6	N/A	N/A
Bahamas	N/A	N/A	N/A	N/A	N/A	N/A	133	54.2	140	66.7	N/A	N/A	134	54.7	N/A	N/A

Barbados	N/A	N/A	N/A	N/A	129	71.9	137	57.4	147	72.9	N/A	N/A	138	56.9	N/A	N/A
Belize	N/A	N/A	117	77.1	103	64.7	114	43.8	105	49.2	N/A	N/A	114	44.0	N/A	N/A
Brunei	N/A	N/A	N/A	N/A	N/A	N/A	123	47.1	129	62.9	N/A	N/A	124	46.8	N/A	N/A
Darussalam																
Swaziland	N/A	N/A	41	53.3	86	61.4	49	28.6	66	39.5	N/A	N/A	51	28.4	98	98.6
Cape Verde	N/A	N/A	N/A	N/A	N/A	N/A	94	38.4	125	59.9	104	80	93	38.1	108	99.1
Dibouti	N/A	N/A	38	53.1	35	53.2	50	28.6	44	35.0	N/A	N/A	45	27.3	3	74.5
Fiji	N/A	N/A	76	64.7	70	58.4	67	32.5	59	38.0	98	76	69	34.0	113	99.3
Grenada	N/A	N/A	129	84.8	N/A	N/A	118	45.5	123	58.1	N/A	N/A	104	40.2	N/A	N/A
Iceland	N/A	N/A	N/A	N/A	135	75.8	171	78.1	157	79.5	N/A	N/A	170	82.1	N/A	N/A
Luxembourg	N/A	N/A	N/A	N/A	133	75.3	172	79.2	163	84.1	147	100	164	76.3	156	99.9
Maldives	N/A	N/A	100	72.5	N/A	N/A	88	37.0	76	42.8	N/A	N/A	88	37.0	N/A	N/A
Malta	N/A	N/A	N/A	N/A	113	67.3	151	63.9	149	73.3	N/A	N/A	143	59.3	N/A	N/A
Micronesia	N/A	N/A	103	72.8	N/A	N/A	91	37.7	110	51.7	N/A	N/A	97	38.6	N/A	N/A
Qatar	N/A	N/A	N/A	N/A	90	62.4	143	60.5	133	64.8	N/A	N/A	139	59.0	146	99.8
Samoa	N/A	N/A	125	82.1	N/A	N/A	110	42.1	121	57.7	N/A	N/A	96	38.3	N/A	N/A
Sao Tome & Principe	N/A	N/A	61	61.7	N/A	N/A	91	37.7	72	41.6	N/A	N/A	87	36.7	N/A	N/A
Seychelles	N/A	N/A	126	82.3	N/A	N/A	121	46.5	117	54.3	N/A	N/A	122	46.7	N/A	N/A
Suriname	N/A	N/A	109	74.9	47	55.1	109	41.0	103	48.9	N/A	N/A	95	38.3	42	93.4
Timor-Leste	N/A	N/A	43	55.1	N/A	N/A	32	23.7	43	34.3	N/A	N/A	33	24.1	25	89.9
Trinidad & Tobago	N/A	N/A	N/A	N/A	121	70.4	126	48.7	72	41.6	N/A	N/A	115	43.5	100	98.7

Appendix 2-B. Calculations for Linear and Nonlinear Relationships

Linear Relationships

For linear equation correlation, the least square fit method was used with calculations in table 5-a.

Georgia – Least Square Fit Method for Linear Correlation				
x=year	y=	x ²	y ²	xy
1	23.4	1	547.56	23.4
2	24.6	4	605.16	49.2
3	27.9	9	778.41	83.7
4	29.2	16	852.64	116.8
5	29.7	25	882.09	148.5
6	31.0	36	961	186
7	33.8	49	1142.44	236.6
$\Sigma x = 28$	$\Sigma y = 199.6$	$\Sigma x^2 = 140$	$\Sigma y^2 = 5769.30$	$\Sigma xy = 844.2$

Table 5-a. Calculations for Least Square Fit Method for Linear Correlation for Georgia

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{(\sqrt{n(\Sigma x^2) - (\Sigma x)^2}) \sqrt{n(\Sigma y^2) - (\Sigma y)^2}} \text{ (Brase, 272)}$$

$$r = \frac{7(844.2) - (28)(199.6)}{(\sqrt{7(140) - (28)^2}) \sqrt{7(5769.3) - (199.6)^2}}$$

$$r = \frac{5909.4 - 5588.8}{(\sqrt{980 - 784}) (\sqrt{40385.1 - 39840.16})}$$

$$r = \frac{320.6}{(\sqrt{196}) (\sqrt{544.94})}$$

$$r = \frac{320.6}{(14)(23.3)}$$

$$r = \frac{320.6}{326.2} = 0.9828 \text{ or } R^2 = 0.9660$$

Nonlinear Relationships

Bosnia & Herzegovina (Goodness of fit test for S-curve performance)						
Year	X=Year	Expected (E) $y=59/(1+1.45e^{-0.25x})$	Observed (O)	O - E	(O - E) ²	(O-E) ² / E
1998	1	27.8	29.4	1.6	2.56	0.09
1999	2	31.4	45.1	13.7	187.69	5.98
2000	3	35.0	36.6	1.6	2.56	0.07
2001	4	38.5	37.4	-1.1	1.21	0.03
2002	5	41.7	40.6	-1.1	1.21	0.03
2003	6	44.6	44.7	0.1	0.01	0.01
2004	7	47.1	48.8	1.7	2.89	0.06
2005	8	49.3	50.0	0.7	0.49	0.01
2006	9	51.2	54.4	3.2	10.24	0.2
2007	10	52.7	53.9	1.2	1.44	0.03
2008	11	54.0	53.1	-0.9	0.81	0.02
2009	12	55.0	56.2	1.2	1.44	0.03
2010	13	55.9	57.5	1.6	2.56	0.05
2011	14	56.5	57.3	0.8	0.64	0.01
2012	15	57.1	57.3	0.2	0.04	0.01
2013	16	57.5	58.4	0.9	0.81	0.01
2014	17	57.8	59.0	1.2	1.44	0.02
2015	18	58.1	59.0	0.9	0.81	0.01
Total						6.64

Table 5-b. Chi Square Goodness of Fit Test for Bosnia & Herzegovina

Bosnia & Herzegovina (Goodness of fit - logarithmic performance test)						
Year	x=Year	Expected (E) $y = 5.4978\ln(x) + 22.207$	Observed (O)	O - E	(O - E) ²	(O-E) ² / E
2005	1	22.2	22	-0.2	0.04	0.01
2006	2	26.0	26.1	0.1	0.01	0.01
2007	3	28.2	29.5	1.3	1.69	0.06
2008	4	29.8	29.6	-0.2	0.04	0.01
2009	5	31.1	30.5	-0.6	0.36	0.01
2010	6	32.1	30.3	-1.8	3.24	0.10
2011	7	32.9	32.5	-0.4	0.16	0.01
2012	8	33.6	34.9	1.3	1.69	0.05
2013	9	34.3	36.1	1.8	3.24	0.09
2014	10	34.9	33.6	-1.3	1.69	0.05
2015	11	35.4	35.4	0	0	0
Total						0.40

Table 5-c. Chi Square Goodness of fit test for logarithmic performance (Stability State Index)

Dominican Republic (Goodness of fit-logarithmic performance test)						
Year	x=Year	Expected (E) $y = 7.1193\ln(x) + 23.272$	Observed (O)	O - E	(O - E) ²	(O-E) ² / E
2005	1	23.3	21.4	-1.9	3.61	0.15
2006	2	28.2	29.1	0.9	0.81	0.03
2007	3	31.1	32.7	1.6	2.56	0.08
2008	4	33.1	34.5	1.4	1.96	0.06
2009	5	34.7	35.1	0.4	0.16	0.01
2010	6	36.0	35.9	-0.1	0.01	0.01
2011	7	37.1	35.8	-1.3	1.69	0.05
2012	8	38.1	38.1	0	0	0
2013	9	38.9	38.8	-0.1	0.01	0.01
2014	10	39.7	38.7	-1.0	1	0.03
2015	11	40.3	40.5	0.2	0.04	0.01
Total						0.44

Table 5-d. Chi Square Goodness of fit test for logarithmic performance (Stability State Index)

Political System Points of Analysis

Political analysis of a foreign country begins with an assessment of the basic principles of government, governmental operations, foreign policy, political parties, pressure groups, electoral procedures, subversive movements, as well as, criminal and terrorist organizations. It then analyzes the distribution of political power – whether it is a democracy, an oligarchy, a dictatorship, or has political power devolved to multiple interest groups such as tribes, clans, or gangs. Analysis must focus on determining how the political system really operates, not the way it is supposed to operate.

Basic Governmental Principles. The starting point of political analysis is the formal political structure and procedure of a foreign nation. Analysts must evaluate:

- Constitutional and legal systems.
- Legal position of the legislative, judicial, and executive branches.
- Civil and religious rights of the people.
- People's national devotion to constitutional and legal procedures.

Governmental Operations. Governments are evaluated to determine their efficiency, integrity, and stability. Information about how the government actually operates and/or changes its method of operation gives the intelligence user clues about the probable future of a political system. When assessing governmental operations, analysts should consider the following:

- Marked inefficiency and corruption, which differs from past patterns, may indicate an impending change in government.
- Continued inefficiency and corruption may indicate popular apathy or a populace unable to effect change.
- Increased restrictions on the electoral process and on the basic social and political rights of the people may mean the government is growing less sure of its position and survivability.

Foreign Policy. Analysis of a target country's foreign policy addresses the country's public and private stance toward the US, foreign policy goals and objectives, regional role, and alliances. Analysts gather foreign policy data from various sources, to include:

- Diplomatic and military personnel.
- Technical collection systems.
- Official foreign government statements.
- Press releases.
- Public opinion polls.
- International businessmen.
- Academic analyses.

Political Parties. Analysts study special interest parties and groups (e.g., labor, religious, ethnic, industry) to evaluate their:

- Aims.
- Program.
- Degree of popular support.
- Financial backing.
- Leadership.
- Electoral procedures.

Pressure Groups. With few exceptions, most states have some type of formal or informal pressure groups. Examples include political parties, associations, religious or ethnic organizations, labor unions, and even illegal organizations (e.g. banned political party). The analyst must identify these pressure groups and their aims, methods, relative power, source of support, and leadership. Pressure groups may have international connections and in, some cases, may be almost entirely controlled from outside the country.

Electoral Procedures. Elections range from staged shows of limited intelligence significance to a means of peaceful, organized, and schedule revolution. In addition to the parties, personalities, and policies, the intelligence analyst must consider the circumstances surrounding the actual balloting process and changes from the historical norm.

Subversive Movements. In many countries there are clandestine organizations or guerilla groups whose intention is to overthrow or destroy the existing government. When analysts report on subversive movements, they should address:

- Organizational size.
- Character of membership.
- Power base within the society.
- Doctrine or beliefs system.
- Affiliated organizations.
- Key figures.
- Funding.
- Methods of operation.

Criminal and Terrorist Organizations. Criminal organizations in some countries are so powerful that they influence or dominate national governments. Analysts must examine the organization's influence or forceful methods of control. Most terrorist organizations are small, short-lived, and not attached to any government. Analysts should determine if external factors or even the area's government assists the terrorist group.

Political System Questions

National Political Structure:

What is the type of governmental system in place?
Where does it draw its legitimacy from?
Are the sectors stable or in transition?
Does the electoral process affect them?
Where do they draw their power?
What is the source of their knowledge and intellectual income?
Who are the leaders? Where do they draw their power from?
Does a core bureaucracy staff them?

Government department or agencies (D/A)

Who are the key leaders? How are they linked within the power network?
Are the departments or agencies stable or in transition?
Are new departments of agencies being created? If so, what is the cause of this transition?
Societal/cultural/educational? Technical? Economic?
By departments or agencies – What is the source of its workforce?
Who are the leaders? Is it staffed by a core bureaucracy? What skill level?
External dependencies – societal/cultural/educational.

National Political Demographics Structure:

Ethnic and religious Groups having political power:

Are these groups regionalized?
How do they exercise political power?
What is their legislative representation?
Is there a paramilitary structure?

How do these ethnic and religious groups wield power within urban society? Rural society?

Political Parties

What are the political parties? Externally or internally supported
Are they associated with ethnic, religious, or cultural groups?
Who are the leaders? Their allies?
What is their political opposition? Their allies?

Political Action Groups

Whether do they draw their power? Societal, cultural, technical, economic?
Where do they draw their intellectual capital?
What is the source of their leadership? Knowledge?
What are their external organs? Expatriate communities?
What is their relationship with the government?

Regional Political Relationships:

Regional – Non-adversarial and adversarial? How are relations maintained – through economics, religion, culture, ideology, common needs?

International – Non-adversarial and adversarial? How are relations maintained – through economics, religion, culture, ideology, common needs?

Potential Allies during a conflict – National resolve to engage in conflict? Military resolve to engage in politically motivated action?

Other Considerations:

Public confidence in government and in society.

Factionalism or regionalism within the governmental structure. Challenges faced by the Government.

Political effects caused by Organized Groups.

Government Political Response to Group pressures.

Political effects upon Internal and External Security – relates to Military.

Government Response to Diplomatic Overtures.

National Economic Goals affecting the Political structure.

Police Mechanisms.

Military System Points of Analysis

The analysis of the adversary's military will focus on its leadership, capabilities, dispositions, and morale/commitment to its government, to include:

Key military leadership, including their training and previous experience in senior leadership.

Installation and facilities of a military significance (both primary and secondary purpose).

Infrastructure in place to support identified installations and force structure.

Military units, including personnel and chain of command.

Assigned equipment.

Current and projected weapons system capabilities.

Military System Questions

Military Environment:

Will the national leadership use military means to achieve objectives?

Does the leadership intend to forge or enhance military ties with another state that poses a threat to regional security or US interests?

Does the leadership intend to enhance national military capabilities in a way that could be regionally destabilizing?

Are the national leader's political goals a cause for concern?

Key leadership – residence, office, wartime CP, telephone, email, political patronage, religious affiliations, ethnic affiliations, personal assets, non-military activities, influences.

Soldiers – ethnic/religious composition by region of regular forces and elite forces, pay, training, morale, benefits, gripes/issues.

Capabilities.

Equipment imports: what, from whom, where based, points entry.

Support (spare parts, maintenance, and operational training).

Indigenous production and assembly.

Raw materials, natural resources.

Supply – production, movement, storage.

Days of supply on-hand of key supplies (Petroleum/Oil/Lubricants, ammunition)

Transportation.

Road capacity, primary lines of communication (LOCs), organic transportation assets.

Rail (same as roads).

Water – inland? Intra-coastal?

Bridges – classification, construction materials, length, bypass.

Tunnels – height/width restrictions, bypass.

Organizations.

Garrison locations, brigade or larger combat, battalion or larger combat support (CS) and combat service support (CSS).

Naval port facilities, home stations.

Airfields.

Fixed fields, home station, associated dispersal/highway strips.
 Number and type aircraft at base.
 Intelligence, Surveillance, and Reconnaissance (ISR).
 Assets and capabilities by echelon.
 National level/controlled assets.
 Associated ground stations/downlinks.
 Centralized processing and dissemination facilities.
 Center of excellence/HQ for each intelligence discipline.
 Commercial sources for imagery, dissemination capability, mapping, other.
 Military Communications.
 Fixed facilities.
 Mobile capabilities.
 Relay/retransmission sites Commercial access.
 Integrated Air Defense
 Early warning.
 Target acquisition and tracking, guidance.
 Fixed launch sites.
 Mobile AD assets.
 Centralized C2.
 Airfields associated with counter-air assets.
 Airborne warning aircraft (e.g. AWACS).
 Electrical power requirements.
 Theater Ballistic Missile/Coastal Defense missiles.
 Fixed launch sites.
 Mobile assets.
 Meteorological stations supporting.
 C2 decision makers.
 Target acquisition.
 Target guidance/terminal guidance.
 Power requirements.
 Weapon of Mass Effects Capabilities.
 Number and type.
 Production, assembly, storage, delivery means.
 Imports required – source and mode transport.
 C2 decision maker.
 C2
 Rivalries – personal and inter-service.
 Decision making – dissemination/transmission means, direct or through chain of command.
 Special Capabilities
 Special Operations Forces (SOF)
 Weapons of Mass Destruction (WMD).
 TBM.
 Human Intelligence (HUMINT).
 Submarines.
Military Situation: Under what conditions does the military execute its missions?

Internal Conflict: Is there internal conflict within the military that could destabilize this country?

Rivalry/Factionalism: Are there emerging or increasing rivalries or factionalism within the military?

Power Struggle: Are there emerging or increasing power struggles within the military?

Deteriorating Morale/Increasing Dissention: Is there deteriorating morale or increasing dissention within the ranks or in the officer corps?

Civil-Military Relations: How loyal is the military to the current regime? Are there cultural or religious factors that might cause frictions and dissension? Are there changes or developments in civil military relations that could destabilize the country?

Government – Military Relations: Will the senior military leadership support and defend the government against internal resistance and insurgency? What factors might cause a loss of confidence and/or support? What factors might cause a military coup to occur?

Civil-Military Conflict: Is there increasing conflict between the civilian and military leaders? Is there a difference in views between junior and senior leaders toward service to the government? To the peoples/constitution?

Constitutional/Legal Conflict: is there increasing civil military conflict over constitutional/legal matters?

Socio-Military Conflict: Are there growing tensions/conflicts in socio-military relations that could destabilize the country?

Internal Security Role: Is the military assuming a new internal security role or increasing its involvement in internal security affairs?

Military Activities: Are military operations/activities having an increasingly adverse impact on society?

Criminal Activities: Is the military involved in criminal activity that are contributing to increased tensions/conflict between the military and the public?

External Military Threat: Is an external military threat emerging or increasing?

Limited/Covert Military Action: Is an adversary engaging in or increasing limited/covert military action?

Conventional Military Action: Is an adversary preparing to engage in conventional military action against this country?

WMD/Advanced Weapons: Is an adversary trying to acquire or is in the process of deploying WMD or advanced weapons?

Operational Status/Capability: Are there changes or developments in the military's operational status or capabilities that suggest pending military action?

Activity Levels/Patterns: Is there unusual change or a sudden increase in activity levels/patterns?

Personnel Status: Are there changes or developments in personnel status?

Force capabilities: Are there significant changes or developments in force capabilities?

Economic System Points of Analysis

Analysis focuses on all aspects of the adversary's economy that have the potential for exploitation. Among these are industrial production, agriculture, services and armament production. Concentration will be on those elements of the economy that are factors in foreign trade and factors on the internal economy that can have an impact on the political decision making process and popular support for the government. Both the official and underground (black-market) economies must be examined.

Concentration will be on the adversary and the regional and global countries with which it has its major trade and exchange linkages. Certain specific nations and regional economies alliances could be highly dependent upon adversary exports, and the impact upon these must be considered. The focus will be on critical elements of the trading partners that may be exploited and not their economy as a whole.

In the economic system, a great deal of information is available from open source. The initial task is to develop a baseline of information on the adversary's economy, such as gross domestic product, growth rates, unemployment rates, money supply, economic plans, inflation, and national debt. Analysis may include:

Sources of National Wealth:

Natural Resources.
Products (Agriculture & Manufacturing).
Foreign Aid.
Foreign Trade.
Import/Export.
Trading Partners.
Domestic Consumption.
Management of the Economy.
Government Role.
Private Sector Role.
Corruption.
Slush Funds, Leaders' Bank Accounts.
Counterfeiting.

Economic System Questions

What are the key indicators of the economic health of the country(ies) of interest (COI)?

Which external factors have the most impact upon the economy? What areas of the economy are most susceptible to foreign influences and exploitation?

What is the impact of foreign economic assistance? What would be the impact of its reduction/removal?

What percentage of the economy should be classified as "black/gray" market? Are we able to quantify activities in this sector? Can we influence this sector?

What are the governmental rules on foreign investment? Who do they favor?

Which nations have the most to gain or lose from damage to, or a collapse of the economy? What are the most likely areas of economic growth?

Will there be growth in the private sector share of the economy? Who would benefit the most from this change?

How effective will be steps to diversify the economy?

What is the inflation rate? To what extent will steps to control inflation be successful?

Will government subsidies of selected products for domestic use continue? What would be the impact of their reduction/removal?

What is the anticipated trend in demand for foreign (particularly US) currency?

What is the prognosis for food production? Are they dependent on imports? Will rationing of essential goods continue? Which items are most likely to be rationed?

How will demographic factors (e.g. birth rate, adult/child ratio, rural migration to urban areas, etc.) affect the economy in the future?

What is the impact of the drug trade on the overall economy? Regional economies?

Will imports of military spending/hardware increase? Who are the most likely suppliers?

Will these be cash transactions, or will a barter system be established?

What is this nation's standing within the International Monetary Fund and World Bank?

Is trade with European Union member nations expected to increase? If so, in what specific areas?

Have any key members of the economic sector leadership been educated in the West or China? If so, have they maintained contacts with their former colleagues?

Are changes to the current system of state-owned monopolies anticipated? If so, what will be the impact?

What are the key industries of the state(s)?

What are the major import/export commodities?

What is the trade balance? Is this strength or vulnerability?

What is the labor situation (e.g., unemployment statistics, labor sources, unions, etc.)?

Who/what are the key government economic leaders/agencies?

Who are the principle business leaders in the country?

Social System Points for Analysis

Analysis must study the way people, particularly the key leadership and natural leaders, organize their day-to-day living, including the study of groups within society, their composition, organization, purposes and habits, and the role of individuals in society. For intelligence purposes, analysts study seven sociological factors. The detailed list should be viewed as a guide for developing the necessary information to develop the Sociological Systems Summary for the target countries.

Population. Intelligence data derived from censuses and sample surveys describe the size, distribution, and characteristics of the population, including rate of change. Most countries now conduct censuses and publish detailed data. Analysts use censuses and surveys to evaluate an area's population in terms of:

Location.

Growth Rates.

Age and Sex.

Structure.

Labor Force.

Military Manpower.

Migration.

Characteristics of People. Analysts study social characteristics to determine their contribution to national cohesion or national disintegration. Social characteristics evaluated by analysts include:

Social Stratification.

Number and Distribution of Languages.

Prejudices.

Formal and Informal Organizations.

Traditions.

Taboos.

Nonpolitical or Religious Groupings and Tribal or Clan Organizations Idiosyncrasies.

Social Mobility.

Public Opinion. Key indicators of a society's goals may be found in the attitudes expressed by significant segments of the population on questions of national interest. Opinions may vary from near unanimity to a nearly uniform scattering of opinion over a wide spectrum. Analysts should sample minority opinions, especially of groups capable of pressuring the government.

Education. Analysts concentrate on the general character of education and on the quality of elementary through graduate and professional schools. Data collected for these studies include:

Education Expenditures.

Relationship between education and other social and political characteristics

Education levels among the various components of society.

Numbers of students studying abroad.

Extent to which foreign languages are taught.

Subjects taught in schools.

Religion. Religious beliefs may be potentially dangerous friction factor for deployed US personnel; this was experienced in the Middle East with Fundamentalist Islamic Sects. Understanding those friction factors is essential to mission accomplishment and the protection of friendly forces. Analysts evaluate data collected on an area's religions, which includes:

Types.

Size of denominations.

Growth or Decline Rates.

Cooperative or confrontational relationships between religions, the people they represent, and the government.

Ways the government deals with religious organizations.

Roles religious groups play in the national decision making process.

Religious traditions and taboos.

Public Welfare. To evaluate the general health of a population, analysts must identify:

Health delivery systems.

Governmental and informal welfare systems.

Social services provided.

Living conditions.

Social insurance.

Social problems that affect national strength and stability (e.g., divorce rate, slums, drug use, crime) and methods of coping with these problems.

Narcotics and Terrorism Tolerance. A population's level of tolerance for narcotics and terrorist activities depends on the relations between these organizations and the population as a whole. Analysts should determine if the tolerance is a result of the huge sums of money trafficker's pump into the economy or a result of trafficker's use of force. Terrorists may be accepted and even supported by the local populace if they are perceived to be working for the good of the local people. The intelligence analyst must evaluate the way these organizations operate.

Sources. Due to the nature of the social focus area, the preponderance of information is envisioned to be open source. The initial is to develop a baseline of information on the target nation. Basic data, such as those listed in paragraph above, will be collected and analyzed. Numerous studies, sponsored by the US Government, as well as, academic treatises are available. A more difficult problem will be making the essential linkages within the sociological area and with other focus areas, particularly political and economic.

Social System Questions

What are the general perceptions of social stability?
Who are the population's most respected figures, why are they so respected, and how do they maintain the public focus?
What are the government's most effective tools for influencing the masses?
What dominant areas of society are emerging and causing instability or areas of conflict? Are any of these areas linked to political factors? Ethnic/racial?
What are the predominant economic areas that are contributing to, promoting, or exacerbating social instability?
How can interrelationships be established between religious and ethnic minorities in the country of interest? How can we effectively manipulate these relationships to affect a desired outcome?
What are perceptions of public safety primarily attached to? How is the level of violence defined by society? What elements may make it appear excessive?
What psychological effects does an increased level of violence have on a person's notion of safety?
What are the effects of increased criminal activity: on the family, the town, the region, and nationality?
How can the Coalition increase the psychological perception that the global economy is surpassing the country of interest?
How can the Coalition stimulate the notion that the government is failing to provide for basic elements, or is slow to produce results?
Examine the adverse effects of increased organized criminal activity upon society by industrial component. White collar or financial crime. Drugs and drug smuggling. Proliferation of weapons: Note the types of weapons and to whom they are going. Gang related activity: Is there a predominant ethnic group asserting themselves in this arena, and are they utilizing any particularly violent tactics to assert themselves?
What are the significant effects of increased public health problems? What public health issues have increased and how effectively is the government?
Identify how extensive the division of wealth is between ethnic and religious groups and their potential for promoting tension or conflict?
What are the effects of environmental problems having on society?
Identify the key groups adversely affected by increasing poverty rates.
Identify primary tools used by the government for influencing the masses. How do the masses validate information obtained by the government? Do they feel they need to validate information?
Who are the key opposition leaders? How do they influence the masses? How are they funded and by whom are they primarily funded?
Who are the key opposition groups? How do they influence the masses? How are they funded and by whom are they primarily funded? Identify any common themes to unite them, identify areas that may divide them.
How do opposition groups recruit? Do they target a specific social group? Is there a hierarchical structure? How are members dismissed from the ranks?
How do these groups affect one another? How do they affect similar groups in neighboring countries? Do they have external support?

What are each faction's mechanisms for influencing the others? How do they communicate officially and unofficially? What factions are armed? Where do they get their weapons?

Are actors' civil disobedience increasing? Is the level of violence employed by the government to quell civil disobedience increasing? Are acts of vigilantism on the rise? How are disturbances quelled? What tools are brought to bear?

Identify consumer goods that are most valued by the country of interest's populace. Who controls supply? How are they networked? Any increase in a particular product?

What are the "hot button" issues dividing the various factions of the society?

What networks and mediums can be used to subvert and confuse each faction? What are the capabilities of regional allies to polarize these factions?

How are rumors spread most effectively?

What is the social perception of the military's ability to meet that threat? The states' ability to meet the threat? The state's ability to provide overall security in a micro/macro context?

How are troops conscripted? What are the incentives for service? What unofficial groups/associations exist within military? How do they recruit or dismiss people?

Is criminal behavior increasing within the military? What types of criminal activity occur within the military?

Identify the hierarchical structure of the military. Is there a dominant ethnic group assuming more leadership roles? What ethnic groups stay the most connected in the military, which groups are more apt to include outsiders?

Which ethnic and religious minorities feel the most repressed? How do they express their discontent? Do any organizations exist to channel their feelings? How responsive do they feel the government is to their issues?

How does the population view outside assistance? How likely is the government to ask for assistance? How is the need for assistance determined?

How are relief organizations viewed within the country? Are they busy? How effective are they at solving problems and meeting the needs of those they serve?

Problems with immigrant flows? How are refugees treated?

What consumer goods are in short supply? How are those goods brought to market, and who controls the flow of such goods? Is there a dominant ethnic group controlling the flow? How effective is the black market in producing hard to obtain goods?

What goods dominate the black market? Who are the primary producers and end receivers of goods? Is there a particular group emerging as the leader of the black market?

How are minority laborers networked with minority leaders? What are the links between labor groups and minority activists? What ethnic group(s) compose the majority of the skilled labor force? How is skilled labor kept from going abroad?

Infrastructure System Points of Analysis

Infrastructure analysis focuses on the quality and depth of the physical structures that support the people and industry of the state. In developed countries, it is the underlying foundation or basic systems of a nation state; generally physical in nature and supporting/used by other entities (e.g., roads, telephone systems, and public schools).

Infrastructure System Questions

Lines of Communications: Where are the key ports, airfields, rail terminals, roads, railroads, inland waterways, etc. located? Where are the key bridges, tunnels, switching yards, scheduling/control facilities, depots/loading stations, switching yards, etc.?

Electrical Power: Where are the power plants, transformer stations, and relay and power transmission lines located? Where are the key pumping stations, control valves, and distribution line junctures?

Potable Water: Where are the water treatment plants, wells, desalination, bottling plants, and pumping stations? Where are the key pumping stations, control valves, and distribution line junctures?

Telecommunications: What are the location and architecture of the domestic telephone system, cable, fiber-optic, microwave, internet, and cell phone networks and satellite stations? Where are the key control points and junctures?

Petroleum and Gas: Where are the gas and petroleum fields, gathering sites, pumping stations, storage areas, refineries, and distribution lines? Where are the key pumping stations, control valves, and distribution junctures?

Broadcast Media: What are the location, frequency, power, and radius of effective range (coverage) of the am/fm radio and TV stations? Where are the studios, antenna, and relay towers located? How are they powered? Where are the key control points and junctures?

Public Health: What are the location of the hospitals and clinics? Are they adequately staffed, supplied, and equipped? Is the equipment well maintained? Is the staff well trained? Do they depend on foreign or domestic sources for their supplies, medications, and spare equipment parts? Where are the key control points and junctures?

Schools: What are the location of the public, private, and religious primary and secondary schools and universities? Where are the key control points and junctures?

Public Transportation: What are the public (bus/streetcar/taxi/etc.) transportation routes? Where are the key control points and junctures?

Sewage Collection and Treatment: Where are the collection systems, pumping stations, treatment facilities, and discharge areas located? Where are the key control points and junctures?

Common Infrastructure Questions

How are key facilities linked? (Physically, electronically, etc.)

What are the key nodes? Where are they? Where are the disabling yet non-lethal/non-destructive infrastructure nodes?

What are their alternatives? What are the alternatives for the above and how are they linked to the key facilities and each other?

Are there indigenous capabilities? What indigenous capabilities could be used? How are they linked and organized? What are the critical nodes?

What is the security surrounding the nodes?

What is the security posture at these facilities? Who controls the forces? How are security forces/police/paramilitary networked? What training do they receive? What is their level of proficiency? Are they augmented as alert status (national or local) changes? What are the ground/naval/air defense capabilities at/near these facilities? How are they networked? What groups are likely to conduct industrial sabotage? How are they tasked, linked, supported?

Who owns and who controls the infrastructure? Who owns and/or controls all of the above entities? Is ownership by private, corporate, or governmental entities? What organizations have regulatory oversight/control?

What is the capability to repair damage to the system and restore it to service? Is maintenance and repair an integral part of the organization? What are their capabilities and limitations? Which contractors are normally used and for what purpose? Are repair/restore materials readily available or is there a long lead-time for critical supplies/components? Who are the key engineering contractors for these facilities? Can/will they share plans, blueprints, schematics, etc.?

What would be the second-order effects of influencing the infrastructure?

Information System Points of Analysis

Analysis of Information Systems and Operations includes:

Telecommunications capabilities and level of sophistication, tele-density rates, radio and television broadcast coverage including television, landline, cellular, internet, and radio, etc.

Interconnectivity of communications via ISDV, fiber optic, satellite, and microwave.

Primary nodes and trunks of telecommunications infrastructure including government, non-government, citizen, and military use of information operations.

Knowledge of country of interest key leaders' style and decision making habits, advisors' perception, and cultural influences.

Understanding governmental use of media influence, public affairs, and civil affairs interrelationships.

Knowledge of military, non-governmental organization, and law enforcement interrelationships.

Understanding of effects on adversary under psychological, computer network attack and defense, electronic warfare, and space operations.

Locations and purpose of physical infrastructure of communications and broadcast towers, cables, and supporting operations centers are included within the infrastructure focus.

Development of and use of computer network operating systems, IT industry skill sets, and software applications.

Media affiliations, perceptions and sympathies to include censorship and self-censorship in news and entertainment print, and broadcast industries.

Information System Questions

How effective are the country of interest's network defense capabilities? What reactions could be expected following an incident? What recovery procedures are routinely exercised?

What is the organizational structure of the telecommunications industry? How effective is the country of interest at managing physical security of infrastructure and implementing network security practices?

What interrelationships exist between civil law enforcement, military, commercial and non-governmental agencies that would enhance the country of interest response to an emergency?

What redundancies exist within the country of interest's network to eliminate or reduce network down time? Cellular, satellite, landline, power back up? How effective is their exchange, backbone, architecture in providing redundancies?

What would cause a slow-down of country of interest network? In what ways can the effect be localized? (Geographic, logic, by agency, etc.)

What bandwidth issues within the country of interest's communications industry? How well, and in what ways, does the government manage its allocation?

What type of OPSEC practices does the country of interest routinely exhibit to deny exploitation?

In what ways have military/civil/corporate operations centers improved their practices/tactics in keeping with the country of interest's technological improvements? Do they rely more heavily on computers/cellular/networks than in the past? What are the indicators, if they exist, that the country of interest has developed a more focused vision and strategic plan for using technology than it had in the late '90s? What effect has technology had on productivity, transportation, logistics, etc. in government, commerce, corporate, private sectors? How does the country of interest perceive their use of technology from a governmental perspective? From the citizens' perspective? Military? Business? Legal? Law enforcement? Non-governmental organizations? What is known about the country of interest's assessment of Blue network vulnerabilities and defense measures? Do regional and neighboring countries or satellites broadcasts (television, radio, and internet) have an audience in the country of interest's population? Which broadcasts are popular with citizens and what is the audience's demographic and statistic data? What programs or broadcasts are popular with minority political parties, resistance movements, academia, etc.? What is the topology design the country of interest networks utilize? Which exchanges and trunks are co-located within government-controlled facilities? Are government-commercial partnerships used to provide network services? What is known of current and planned technology projects: fiber optic cabling? ISDN access expansion? Satellite leases and launches? What is the operational status and capability of the country of interest's Low-Earth- Orbit satellites? What internet domains are accessible to the population? Is reliable language interpretation software available? What licenses does the government require for web hosting? What governmental directives address network security in supporting national security objectives? What messages might be effective in the country of interest? What themes are prevalent in the media? What advances in communications technology have enabled improvements in military hardware employment? Describe the use of telecommunications technology in law enforcement operations. To what degree and direction are telecommunications infrastructure investments impacting military readiness? Describe the state of international telecommunications connectivity to the country of interest? Which current telecommunications and internet security operations have been exercised? Is there a national crisis action plan? What practices and policies does the government use in monitoring information-related media (TV, radio, internet, etc.)? What enforcement methods have been employed? Which print media and on-line content do citizens turn to for news? Entertainment? Do censorship policies or self-censorship trends exist in the country of interest? Is there a market and distribution pipeline for recorded or intercepted news or entertainment programs? In what ways does law enforcement interact in this market? What is known about country of interest's network operating systems? What IT skill sets are known to be high demand?

Is software piracy prevalent? Counterfeiting? Drug smuggling? Organized crime?
Identity theft?

Appendix 4-A. Checklist for Meeting Minimum Requirements Set Out by Article 9 (1) of United Nations Convention against Corruption (UNCAC, 48-53)

A. Introduction

Article 9(1) of UNCAC sets the general parameters for shaping national legislation on procurement. It outlines selected measures which can be used to comply with the Convention's call for appropriate systems of procurement "based on transparency, competition, and objective criteria in decision-making that are effective, inter alia, in preventing corruption".

Article 9(2)-(3) of UNCAC set out the general parameters for shaping national legislation to reflect transparency and accountability in the management of public finances. These provisions of UNCAC focus primarily on identifying a number of measures which can be used to comply with the requirement.

In order to assess the effectiveness of national public procurement legislation in curbing corruption, this appendix provides a set of questions that will assist States' parties in determining whether their procurement system is in compliance with article 9(1) of UNCAC.

In order to assess the effectiveness of national measures taken to promote transparency and accountability in the management of public finances, this annex also provides a set of questions that will assist States parties in determining whether the public finance management system of a party to UNCAC is in compliance with article 9(2)-(3) of the Convention.

B. Checklist for meeting minimum requirements set out by article 9(1) of UNCAC General

(1) Is the State's national public procurement legislation based on other international texts in the area of public procurement (e.g., the UNCITRAL Model law)?

The UNCITRAL Model Law on International Commercial Arbitration was prepared by UNCITRAL, and adopted by the United Nations Commission on International Trade Law on 21 June 1985. In 2006 the model law was amended, it now includes more detailed provisions on interim measures.

(2) Is the State a party to an international text on public procurement (in particular the World Trade Organization (WTO) Agreement on Government Procurement (GPA) or the European Union (EU) Directives)? Is it in conformance?

(3) Is the State's procurement system in conformance with procurement guidelines drafted to combat corruption, such as those published by the Organization for Economic Co-operation and Development (OECD)?

Public distribution of information and publication of conditions for participation (article 9(1)(a)-(b))

- (4) Are the existing laws, regulations and policy guidelines on public procurement publicly available?
- (5) Do contract opportunities have to be publicly published? If so, are there any restrictions for low-value procurement?
- (6) What is the minimum content of an invitation to tender?
- (7) What is the minimum content of tender documents?
- (8) Is a procuring entity only allowed to enter a contract on the basis of pre-disclosed criteria?
- (9) Is there any obligation to set out the manner of application for the selection and award criteria in the invitation to tender or the tender documents?
- (10) Is there any obligation that minimum, selection and award criteria must be relevant and appropriate in the light of the subject matter of the procurement?
- (11) Does your country's procurement law address the consequences for when a bidder is insolvent, bankrupt or in the process of being wound up or has not fulfilled its obligation to pay taxes or social security contributions?
- (12) Does your country's procurement law address the consequences for when a bidder submits information that is false, inaccurate or incomplete?
- (13) Are the minimum requirements and the terms and conditions of the procurement required to be disclosed in advance?
- (14) Is it permissible to use the description of a particular procurement a trademark or trade name, patent, design, or type?
- (15) How is the involvement of a bidder in the preparatory stage of a public contract dealt with?
- (16) What is the minimum deadline for the submission of requests for proposals (in a two-stage tender procedure) and submission of bids?
- (17) Are there reasons specified as to why (minimum) timelines may be shortened?
- (18) Do bidders have the right to request clarification of tender documents?
- (19) Do bidders have the right to attend bid opening sessions?
- (20) Are procuring entities permitted to make use of electronic communication?

- (21) Do bidders have the right to correct an error regarding a submitted bid?
- (22) Are there any rules on non-responsive tenders?
- (23) Does your country's procurement legislation list grounds for the rejection of tenders (e.g., the bidder is not qualified)?
- (24) Is the procuring entity allowed to cancel a procurement procedure? If so, does the procurement legislation list possible grounds for such a cancellation?

Use of objective and predetermined criteria for decision-making (article 9(1)(c))

- (25) Is there a default method of procurement?
- (26) Is there any obligation to justify reasons for using procurement methods other than open tender procedures?
- (27) Is it permissible to enter into a contract without any prior call for competition? If so, under what circumstances?
- (28) What is the procedure in the event that no responsive bids were submitted?
- (29) Is it permissible to negotiate the contract in the course of the tender procedure? What are the prerequisites for such negotiations?
- (30) Does your public procurement legislation set out selection criteria and award criteria or any weighting a particular criterion must have (for instance, the price)?
- (31) Are there any rules regarding technical specifications?
- (32) Does your country's public procurement regime allow for price preferences and domestic-only procurement?
- (33) Is it permissible to change the tendering rules or the selection/award criteria during the procuring procedure? If so, are there any limits to such changes?
- (34) Is it possible to reject abnormally low tenders due to the risk of non- or substandard performance?
- (35) Is a procuring entity required to disqualify a tender if the bidder offers to bribe or bribes any public official of the procuring entity?
- (36) Is the procuring entity required to disqualify a tender if the bidder is convicted by final judgment of corruption or fraud?

(37) Can a contract be renegotiated after the contract award? If so, are there any limits as to what extent a contract may be subsequently changed?

(38) Are procuring entities required to keep a record of each procurement? If so, what is the minimum content of such procurement record? How long must procurement records be preserved and who has the right of access to these records?

(39) Is there any obligation to provide reasons for the rejection of a tender?

(40) To whom are the decisions of a procuring entity to be disclosed (for instance, a decision to reject a bidder or the award decision)? Is there any minimum content of such decisions (for instance, the price or the relative advantages of the bid of the winning bidder)?

Effective systems of domestic review (article 9(1)(d))

(41) Does your country's procurement system establish or designate at least one administrative or judicial authority responsible for review in public procurement?

(42) Does your country's system of review in public procurement include a system of appeal of the official decisions of the review body of first instance?

(43) Is an application for review of a public procurement decision heard by a body which independent of the procuring entity?

(44) Which decisions of a procuring entity are subject to review?

(45) Who has the power to file an application for review? Does it include any supplier who has, or has had, an interest in a particular contract?

(46) Does your country's system of review in public procurement set out any deadlines within which a supplier must prepare and submit a challenge?

(47) Does your country's system of review in public procurement require a supplier to pay any fee to file a complaint and to have a review body decide? If so, what is the amount of such fee?

(48) Which remedies are provided for in your country's system of review in public procurement (interim measures, corrective measures, damages)?

a. If both corrective measures (e.g., setting aside or annulling a procurement decision) and damages are provided for, is it possible for both types of remedies to be awarded?

b. may compensation be limited (e.g., either to the cost of the preparation of the tender or the cost relating to the challenge or both)?

The responsibilities of procurement personnel (article 9(1)(e))

(49) Does your country's system of public procurement lay down any measures regulating matters regarding procurement personnel?

a. Are there any screening procedures regarding procurement personnel? If so, do such screening procedures apply during the selection of the personnel and/or throughout their employment?

b. Are there any requirements as to the training of procurement personnel? Does this training cover how to award contracts in line with the relevant public procurement legislation or how to award a contract in line with the relevant anti-corruption laws?

c. Are procurement personnel required to declare any interests in a particular public procurement (e.g., due to a possible conflict of interest)?

(50) Are codes or standards of conduct for correct, honorable and proper performance by procurement personnel required by law?

C. Checklist for meeting minimum requirements set out by article 9 (2)-(3) of UNCAC

Adoption of the budget (article 9 (2) (a))

(1) What is the timetable for preparing and presenting the budget to the legislature? Does the legislature have a legal deadline in which to pass the budget?

(2) What are the voting procedures (e.g., aggregate ceilings voted on before individual appropriations)? To what extent, if at all, and when can the legislature amend the budget?

(3) What laws and procedures specify the format of the budget or the type of information required as part of the submission to the legislature? Does the legislature have budget analysis staff?

(4) Which government operations are not funded through appropriations?

(5) What is the accounting treatment of quasi-activities such as government participation in private enterprises, guarantees of third-party obligations and securities holdings?

(6) Is there a requirement for the disclosure of personal financial interests, recusal from budgetary proceedings, and divestiture of conflicted interests of officials?

Timely reporting of revenues and expenditures (article 9(2)(c))

(7) Which budgetary and financial documents must the executive release to the legislature and/or the public? Is there a mandatory schedule for publication and sanctions for failing to meet the deadlines?

(8) What are the sources of revenues for the government? How are they assessed and collected?

(9) Are the laws and regulations on taxation, custom duties and other assessments available to the public? How do the laws define the tax evasion? What are the penalties for committing or aiding and abetting tax evasion?

(10) How are tax agents and collectors paid, evaluated, and trained?

(11) What are the requirements for committing and releasing funds? Are payments made out of central treasury account(s) or directly through individual agency accounts? Which institution serves as the central government's fiscal agent?

(12) What are the limits on transfers across appropriations, allotments or other expenditure accounts?

(13) Do top and mid-level officials have special borrowing or contracting powers apart from appropriations and procurement regulations? What are the limits on spending and time limits on the agency's emergency expenditures and credit cards?

Accounting and auditing (article 9(2)(c))

(14) Does your country have proprietary and budgetary accounting systems? Are these systems cash or accrual based?

(15) How are accountants and auditors accredited and trained?

(16) How are compensation, training and operations of internal and external auditors funded? Who supervises and evaluates the performance of the auditors? What are the hiring and firing procedures for auditors?

(17) What procedures and laws govern communications between: (a) the internal auditors and the external auditors; (b) the auditors (internal or external) and the legislature?

(18) What are the security protocols for assessing financial information systems? What are the means of certifications (stamps, signatures, etc.) and who maintains them? How are documents authenticated?

(19) Is there civil and/or criminal liability for false statements to the auditors and/or legislature during audits, investigations and hearings?

Internal controls and risk management (article 9(2)(d))

(20) Who designs, implements and reviews the agency's internal controls? How often and by what means do agencies update the controls and provide trainings?

(21) Do managers have to personally certify payment orders, financial reports, etc? What is the extent of their liability for financial wrongdoing by subordinates, and vice versa?

(22) Are the internal auditor's office, systems and files segregated from the rest of the agency? Do they share common services?

(23) Are there anonymous channels, whether inside or outside the agency, to report suspected wrongdoing? Who processes the reports that are received? How is it decided which reports will trigger internal investigations? What are the protections, incentives, and immunities for whistle-blowers or cooperating witnesses?

(24) What are the legal bases and procedures for enacting supplemental budgets and other emergency appropriations? How are responsibilities and powers allocated between the executive and the legislature in this regard?

(25) How does the government classify risks? Which contingent liabilities, if any, does the government's financial report disclose? How much of the annual budget does the government set aside for contingencies?

(26) Does the budget have any built-in fiscal rules (e.g., balanced budget) mandated by law?

Corrective action (article 9(2)(e))

(27) Are there legal deadlines for corrective action? What is the actual time lag between the issuance of auditor's reports and the initiation of corrective action by the agencies?

(28) Does the central government keep track of the number of instances in which the particular agency follows or does not follow the auditor's recommendations?

(29) Do laws or regulations provide for sanctions against individuals and agencies that refuse to adopt corrective action?

(30) Which laws, if any, provide for investigation of executive agencies by the legislature and its committees? What powers (subpoena, hearing, production of documents, etc.) are available to the legislature in these investigations?

Integrity of public records (article 9(3))

(31) Is there a national archiving institution that oversees record keeping?

(32) Does the government have a general schedule of records retention and disposition? What are the controls and security standards for government records?

(33) What are the government's policies on electronic records, cyber-security and new technologies?

(34) What are the rights and remedies available to the public to access information from the government? Is there a dedicated staff and budget for processing public requests for information?

(35) Is there civil and/or criminal liability for tampering with documents, falsifying documents or intentionally destroying bookkeeping documents? What are the penalties for the violation of any of the related criminal offenses?

Appendix 5-A. National Objectives and Action Framework

Outcome	Action	Implementing Department or Agency
Outcome 1.1: Agencies establish and improve policy frameworks to support achievements in gender equality and women's empowerment throughout our diplomacy, development, and defense work.	Incorporate NAP objectives in strategic and operational planning, such as Bureau and Mission Strategic and Resource Plans (BSRPs and MSRPs) and Operational Plans, as appropriate Disseminate guidance to all operating units on gender integration	State, USAID
	Establish comprehensive, revised Agency-level policy on gender integration and women's empowerment by the end of 2011 through existing Gender Policy Task Team	State
	Incorporate NAP objectives into appropriate DoD strategic guidance and planning documents	DoD
Outcome 1.2: Agencies enhance staff capacity for applying a gendersensitive approach to diplomacy, development, and defense in conflict-affected environments.	Ensure all relevant U S personnel and contractors receive appropriate training on Women, Peace, and Security issues, including instruction on the value of inclusive participation in conflict prevention, peace processes, and security initiatives, international human rights law and international humanitarian law, protection of civilians, prevention of SGBV, prevention of sexual exploitation and abuse (SEA), and combating trafficking in persons (C-TIP). Training mechanisms may include: Pre-deployment and in-theater training for members of the U S military and civilians, as well as Professional Military Education, including Commanders' courses, and intermediate and senior service schools Introductory gender and C-TIP training for all USAID Foreign Service and Civil Service Officers, Personal Service Contractors, and Foreign Service Nationals and specialized training in gender analysis to personnel posting to conflict-affected countries or working on conflict issues Training for State foreign service and civil service personnel, including senior management, and envoys and mediation team members Training for CDC personnel working in conflict-affected countries to mainstream gender considerations into the design, implementation, and monitoring and evaluation of CDC research and programs	State, USAID, DoD, CDC
	Provide technical assistance to decision-makers in headquarters and in the field on how to develop gender-sensitive programs	State, USAID, CDC
Outcome 1.3: Agencies enhance mechanisms to promote accountability for implementation of their respective gender-related policies in conflict-affected environments.	Designate one or more officers, as appropriate, as responsible for coordination of implementation of the NAP	State, DoD, USAID
	Establish an annual award to honor individuals or operating units performing exceptional and innovative work to address gender equality and female empowerment in conflict-affected environments, and to promote the principles embodied in UNSCR 1325	State, USAID, USUN
	Incorporate an assessment of gender integration into after action reviews (for USAID, those after-action reviews pertaining to crisis response), and establish processes for addressing cases where gender issues are not being adequately considered in crisis response and conflict prevention environments	State, USAID, CDC
Outcome 1.4: Agencies establish processes to evaluate and learn from activities undertaken in support of WPS initiatives.	Utilize innovations in foreign assistance coordination and tracking systems where appropriate, including gender cross-cutting indicators, sector-specific gender-sensitive indicators, and revised gender key issue definitions to support budgeting, operational planning, and performance management related to the NAP	State, USAID, CDC
	Develop and improve data collection mechanisms to track and report progress on WPS objectives, assess lessons learned, and identify best practices from existing programs	DoD, USUN
	Identify and share with U S Government agencies lessons learned and best practices from multilateral development banks' experiences in post conflict and transitioning countries	Treasury
Outcome 2.1: More women are effectively engaged in peace negotiations, security initiatives, conflict prevention, peace-building-including formal and informal processes-and decision-	Assist partner governments in improving the recruitment and retention of women, including minorities and other historically marginalized women, into government ministries and the incorporation of women's perspectives into peace and security policy	State, USAID, USUN
	Advocate for the inclusion of women in senior UN positions	State, USUN
	Support the participation and leadership roles of women from all backgrounds, including minorities and women with disabilities, in peace negotiations, donor conferences, security sector reform efforts, transitional justice and accountability processes, and other related decision-making	State, USAID, USUN

making during all phases of conflict prevention and resolution, and transition.	forums including those led by the UN and other international and regional organizations, and including capacity building for such actors as female candidates, female members of government, women in the security sector, and women in civil society	
	Assist partner governments in improving the recruitment and retention of women, including minorities and other historically marginalized women, into government ministries and the incorporation of women's perspectives into peace and security policy	State, USAID, DoD
	Provide assistance to support women's political participation and leadership in fragile environments and during democratic transitions, including capacity building for such actors as female candidates, female members of government, women in the security sector, and women in civil society	State, USAID, USUN
	Provide common guidelines and training to assist partner nations to integrate women and their perspectives into their security sectors	State, DoD, USUN
	Provide support for NGOs to track, analyze, and advocate on behalf of the engagement of women and women's organizations in peace processes	State, USAID
	Expand emphasis on gender analysis and support to local organizations, including women's peacebuilding organizations, in conflict mitigation and reconciliation programming	State, USAID, USUN
	Leverage the participation of female U S military personnel to encourage and model gender integration and reach out to female and male populations in partner nations	State, DoD
	Increase partner nation women's participation in U S funded training programs for foreign police, judicial, and military personnel, including professional military education (PME), as well as exchange programs, conferences, and seminars	State, DoD
	Mobilize men as allies in support of women's leadership and participation in security-related processes and decision-making	State, USAID, USUN
	Outcome 2.2: Laws, policies, and practices in partner states promote and strengthen gender equality at national and local levels.	Through high level diplomacy and technical assistance, encourage nations to develop laws that promote and protect women's rights, including through the criminalization of violence against women and girls and adoption of effective procedural laws, as well as through laws and policies that advance women's participation in parliaments, the judicial sector, and other political, peace, and/or security decisionmaking bodies, including those calling for affirmative measures, where appropriate
Provide diplomatic, development, and technical assistance to build the capacity of legislative, judicial, and law enforcement actors to develop, implement, and enforce laws that promote and protect women's rights; and civil society to advocate for the development and implementation of such laws		State, USAID, Justice
Assist partner nations in building the capacity of their Defense Ministries to develop, implement, and enforce policies and military justice systems that promote and protect women's rights		DoD
Outcome 3.1: Risks of SGBV in crisis and conflict-affected environments are decreased through the increased capacity of individuals, communities, and protection actors to address the threats and vulnerability associated with SGBV.	Work to improve the capacity of the UN system and key protection and humanitarian actors, including members of the Humanitarian Cluster system, to prevent and respond to SGBV in conflict affected and crisis settings, to include development and implementation of training, guidance, and other operational tools; and promote better coordination and sharing of information across UN country teams in order to develop and implement holistic strategies on SGBV	State, USAID, CDC, USUN
	Advocate for UN peacekeeping missions to have strong mandates on protection of civilians (POC), including on sexual and genderbased violence (SGBV), and provide diplomatic support for initiatives in the UN General Assembly Special Committee on Peacekeeping Operations (C-34) and budget committees to build the capacity and provide operational tools for POC and prevention of SGBV	State, USUN
	Incorporate modules on protection, rights, and specific needs of women in conflict into training provided to partner militaries and security personnel	DoD
	Require USG humanitarian assistance implementing partners to have Codes of Conduct consistent with the Inter-Agency Standing Committee's (IASC) core principles on protection of beneficiaries from sexual exploitation and abuse, and monitor and promote partner compliance	State, USAID
	Support education and awareness initiatives for U S Government civilian contractors and aid workers on the prevention of sexual exploitation and abuse in crisis and conflict-affected environments	State, USAID, DoD

	Support research, programming and learning on the use of technology with the potential to improve the safety of women and girls in conflict settings (e.g. solar lighting, solar or methane-conversion cook stoves, provision of cell phones as part of an early warning system, and mobile justice mechanisms), consistent with available best practices and international guidelines	State, USAID, USUN
	Provide support for a range of appropriate services and tools to assist and empower vulnerable women and girls, including medical services, psychosocial services, and legal services, as well as opportunities for livelihood training, education, and rest and recreation (e.g. athletics, art, and play); promote equitable access to these services for women and girls with disabilities	State, USAID
	Issue updated public guidance for U.S. Government partners on addressing SGBV in humanitarian assistance programming, including proposal guidance for SGBV prevention and response programming in disaster situations	USAID
	Collaborate with U.S. personnel abroad, embassy staff, and non-governmental and governmental international partners, as appropriate, to combat exploitation and violence against women and girls by sharing training resources, public awareness tools, and victim referral assistance	DHS
	Develop an evidence base for context-specific risk factors for SGBV using robust, scientific, qualitative and quantitative methods; and translate research findings into programs and policies	CDC
	Evaluate the impact of programs and policies to prevent and respond to SGBV to ensure that available resources are being implemented as efficiently and effectively as possible	CDC
Outcome 3.2: Laws, policies, and reconciliation, transitional justice, and accountability mechanisms designed to combat exploitation, abuse, discrimination, and violence against women and girls are developed and implemented at national and local levels.	Support the development of effective accountability and transitional justice mechanisms that address crimes committed against women and girls and reduce impunity	State, USAID, DoD, Justice
	Support through diplomatic efforts and development and technical assistance the creation of effective measures to investigate SGBV promptly, effectively, independently, and impartially; and to bring those responsible for SGBV to justice. Support the establishment of mechanisms for survivors and witnesses of SGBV so that they can make complaints safely and confidentially, and build capacity so that there can be appropriate follow-up to these complaints. Where appropriate, support compensation or reparations for survivors and their families.	State, USAID, Justice
	Use public diplomacy and outreach capabilities to help ensure that survivors of SGBV understand the accountability options available to them and to disseminate the message that perpetrators of SGBV are held accountable and that impunity will not be tolerated.	State
	Assist multilateral and international organizations in developing appropriate mechanisms for sexual assault prevention, response, and accountability, and combating sexual exploitation and abuse (SEA) among their own personnel. Establish standard operating procedures for USG to follow up on cases of SEA by international personnel to ensure accountability.	State, USAID, DoD
	Collaborate with foreign law enforcement counterparts, as appropriate, in joint efforts to disrupt and dismantle transnational criminal organizations engaged in human smuggling and trafficking, including but not limited to forced child labor, and engaged in other forms of exploitation and abuse of women and children.	DHS, Justice
Outcome 3.3: Interventions are improved to prevent trafficking in persons and protect trafficking survivors in conflict and crisis-affected areas.	Engage with international and/or civil society organizations to ensure that standard operating procedures are in place to prevent human trafficking, especially among refugees and internally displaced persons (IDPs), including appropriate assistance and procedures for unaccompanied minors, to identify potential trafficked persons, and to refer survivors to appropriate service providers. As appropriate, provide support to international and civil society organizations to set up emergency care services for trafficking survivors.	State, Justice
	Advocate for the inclusion of language in UN peacekeeping operations mandates directing a responsibility to report on trafficking, as appropriate.	State, USUN
	Engage with international and/or civil society organizations to ensure that standard operating procedures are in place to prevent human trafficking, especially among refugees and internally displaced persons (IDPs), including appropriate assistance and procedures for unaccompanied minors, to identify potential trafficked persons, and to refer survivors to appropriate service providers. As appropriate, provide support to international and civil society organizations to set up emergency care services for trafficking survivors.	State, Justice
	Advocate for the inclusion of language in UN peacekeeping operations mandates directing a responsibility to report on trafficking, as appropriate.	State, USUN

	Promote establishment of local coalitions or taskforces comprised of relevant government authorities and civil society organizations to combat human trafficking as part of the justice reform measures in post-conflict areas	State, USAID
	Implement the USAID Counter Trafficking Code of Conduct holding personnel, contractors, sub-contractors, and grantees to the highest ethical standards with regard to trafficking, and develop a new Trafficking in Persons Policy with a focus on increasing anti-trafficking initiatives in conflict-affected areas	USAID
	Implement agency-wide training to educate staff on ethical standards related to the USAID Counter Trafficking Code of Conduct and provide technical assistance to personnel to design, implement, monitor and evaluate effective anti-trafficking interventions, including in conflict-affected areas	USAID
	Maintain a zero-tolerance policy with regard to trafficking in persons for U S military and civilian personnel	DoD
	Advance collaborative efforts to prevent trafficking in persons by sharing training and public awareness resources with U S personnel abroad, embassy staff and other international partners, and by additionally sharing investigative resources with foreign law enforcement counterparts as appropriate	DHS
	Coordinate implementation of the anti-trafficking-related items of the NAP with the ongoing work of the U S Presidential Interagency Task Force to Monitor and Combat Trafficking in Persons and the Senior Policy Operating Group on Trafficking in Persons	State, DOD, Justice, DHS, USAID
Outcome 3.4: Men and boys are themselves better protected from SGBV, and are mobilized as partners in the prevention of SGBV and other risks of harm, exploitation, and abuse in their communities.	Provide support for advocacy campaigns and programs designed to reduce family and community level violence	State, USAID
	Increase attention to the needs of male survivors in SGBV prevention and response programs	State, USAID
	Develop programs that address harmful norms and practices contributing to SGBV and other forms of exploitation and abuse, through the engagement of a broad range of potential allies, including religious and tribal leaders, youth, the business community, and men and boys	State, USAID
Outcome 4.1: Conflict early warning and response systems include gender-specific data and are responsive to SGBV, and women participate in early warning, preparedness, and response initiatives.	Integrate protocols and support opportunities to share best practices for gender analysis in conflict mapping and reporting, including for mass atrocity prevention and stabilization funding Review conflict early warning systems and conflict assessment methodologies, including the Interagency Conflict Assessment Framework, to assess and strengthen the integration of gender in these tools	State, USAID, DoD
	Ensure the inclusion of a broad range of perspectives from women and youth to inform policy, strategy and programming decisions	State, USUN
	Share and utilize relevant data from the Women's Agriculture Empowerment Index and the Demographic and Health Survey in support of conflict prevention, early warning, and response activities	USAID
	Actively engage women in planning and implementing disaster and emergency preparedness and risk reduction activities, including regarding how police can better interact with women in their role as first responders	USAID, DoD
	Provide diplomatic and development support for community-based early warning and response activities, such as empowering local communities to develop strategies to prevent and respond to outbreaks or escalations of violence and conflict	State, USAID, CDC
	Provide diplomatic and development support for women's coalitions working to mitigate conflict and related activity, helping to ensure active participation by minorities and other particularly marginalized women	State, USAID
	Identify and share relevant multilateral development bank databases, such as the World Bank's Gender Stats, a one-stop source of information on gender at the country level, drawn from national statistics agencies, UN databases, World Bank surveys, and other sources	Treasury
Outcome 4.2: Women and girls participate in economic recovery, and have increased access to health care and education services.	Provide diplomatic and development support to advance women's economic empowerment, including through cash for work programs, increased access to land, credit, and other enterprise support activities	State, USAID
	Promote access to primary, secondary and vocational education for children and youth in countries affected by violence or conflict, with special incentives for the attendance and retention of girls, taking into account related special protection needs	State, USAID
	Support women's and girls' increased access to health services, including reproductive and maternal health care	State, USAID, CDC

	Advocate for the operationalization within the multilateral development banks of the relevant information from the 2011 and 2012 World Development Reports on the role women can play both in preventing conflict and in promoting stability in post-conflict situations	Treasury
	Create and strengthen private sector activities and new market opportunities through U S trade and investment programs, such as preference programs and Trade and Investment Framework Agreements, to assist women entrepreneurs grow their businesses	USTR
Outcome 5.1: Gender and protection issues are explicitly and systematically integrated and evaluated as part of responses to crisis and disaster.	Promote women's, men's, and children's equal access to aid distribution mechanisms and services, including establishing or strengthening protocols for the safe and equitable delivery of humanitarian assistance	State, USAID
	Support capacity building for local and international NGOs and multilateral organizations involved in disaster and crisis response to address the specific protection needs of women and girls, including preventing and responding to SGBV	State, USAID, CDC
	Support access to reproductive health in emergencies and humanitarian settings	State, USAID, CDC
	Promote access to education in emergencies consistent with international guidelines and best practices	State, USAID
	Support measures for the social and economic empowerment of women as part of crisis and disaster response, including support for livelihood activities	State, USAID
	Ensure that U S Government crisis response and recovery teams have access to appropriate gender expertise, such as a designated gender advisor, to integrate gender considerations in U S Government supported relief and recovery efforts	State, USAID
	Ensure that USAID Disaster Assistance Response Team (DART) members deployed to crisis situations have been trained on the protection of women and girls in humanitarian operations	USAID
	Advocate that multilateral development banks' post-conflict assessments, country assistance strategies, and operational programs in countries prone to or emerging from conflict reflect sound gender analysis and address the specific needs of women and girls	Treasury
Outcome 5.2: Relief and recovery assistance includes enhanced measures to prevent and respond to SGBV in conflict and post-conflict environments.	Provide support for survivors of conflict, torture, and sexual violence, to include persons with disabilities, their families, and communities, through direct services, including trauma-informed services and sexual and reproductive healthcare	State, USAID, CDC
	Encourage international organization and NGO partners to provide gender and SGBV training to staff members on existing international guidelines, such as the IASC Guidelines on GBV in Humanitarian Settings, the Sphere Project, and Standards Recommended by the IASC Task Force on Protection from Sexual Exploitation and Abuse (PSEA) in Humanitarian Crises	State, USAID, CDC
	Make available to the public information and analysis on U S Government-supported gender-based violence programming in disaster contexts, post-conflict situations, and political transitions in order to promote learning and dissemination of best practices	USAID
	Provide humanitarian protection through the administration of immigration benefits programs and other immigration mechanisms, as appropriate, to eligible individuals, including women and girls, in need of relief from persecution or urgent circumstances	DHS
Outcome 5.3: Reintegration and early recovery programs address the distinct needs of men and women.	Support return and reintegration programs for refugees and internally displaced persons (IDPs) that address the needs of female returnees	State, USAID
	Support demobilization, disarmament, and reintegration (DDR) programs, including sustainable livelihood alternatives, that address the distinct needs of male and female ex-combatants and those associated with armed forces in other capacities	State, USAID, DoD, USUN

Appendix 5-B. Matrix of Recommendations for Peacekeeping

Institutionalizing Women, Peace, and Security	
1. Build Internal Capacity	a. Ensure women’s leadership as ambassadors, heads of missions, special envoys, senior staff, delegations to donor conferences, and leaders of negotiating and mediating teams.
	b. Provide ample funding and internal support for women’s offices and gender focal points.
	c. Ensure that women, peace, and security are not only addressed in a single office or through gender focus point, but are integrated into all aspects of intervention and reconstruction.
	d. Train staff on international mandates to promote women’s participation in peace and security and the rationale of the efficiency of women’s involvement; provide them with implementation tools, mechanisms, and best practices. Institutionalize this training as part of the standard curriculum of the Foreign Service Institute at entry, mid-, and ambassadorial levels.
	e. Build the internal capacity of the U.S. military, in particular, to recognize and address gender issues during war and in postwar reconstruction. Provide human rights and gender training, including the mandates of UN Security Council Resolution 1325, to all members of the armed forces through the war colleges and as a component of standard military training prior to deployment.
	f. Extend the mandate of women’s participation to contracting agencies and funding recipients in all aspects of stabilization operations, including aid disbursement, disarmament, demobilization and reintegration programs, elections planning and monitoring, the design and implementation of transitional justice mechanisms, the rebuilding of physical infrastructure, and the re-establishment of education and health care systems.
2. Improve Information Gathering	a. Collect and utilize gender-disaggregated data and information on women’s experiences in conflict and postwar situations in needs assessments, fact-finding reports, initial appraisals, situation reports, program designs, implementation plans, status reports, and monitoring mechanisms for all sectors.
	b. Conduct gender budget analyses of humanitarian assistance and postwar reconstruction programs to ensure that women benefit directly from resources mobilized through multilateral and bilateral donors, including donor conferences.
	c. Conduct a baseline literature review to determine the existing resources within the U.S. government on women, peace, and security.
	d. Fund the collection of best practices and utilize, disseminate, and share relevant information and experiences with other international agencies and branches in order to develop solid institutional memory on women, peace, and security. Develop a coordination mechanism to serve as a clearinghouse for this information.
3. Establish Connections with Women’s Organizations	a. Require field staff to foster contact with local women’s organizations by inviting them to relevant meetings, events, and conferences. Formulate a contact list and maintain regular updates on their activities; ensure that this information is transferred to relevant offices at headquarters.
	b. Invite key women leaders to headquarters to provide direct input at critical decision-making points.
	c. Make sure meetings public, when appropriate, to provide women with a measure of protection and raise their profile in their home countries.

	<p>d. Connect with other bilateral and multilateral agencies and donors to gather and share information on women’s organizations.</p> <p>e. Ensure that women’s organizations are equally represented as recipients of financial and technical resources during times of war and peace.</p>
Security	
1. International Intervention	a. Provide training on human rights and gender, including the requirements of UN Security Council Resolution 1325, to international military forces and civilian staff in advance of deployment.
	b. Increase the recruitment of women as military observers, peacekeeping troops, and civilian police.
	c. Incorporate gender perspectives explicitly into the mandate of international missions; ensure that gender units are established and well-resourced within the mission.
	d. Recognize and address sexual violence and exploitation by international and regional troops with aggressive policies of zero tolerance, justice appropriate to international law, and support to victims.
2. Protection of Civilians	a. Protect women and girls under threat of physical violence by training the military and police to prevent and address gender-based violence, cooperating with local women’s groups to provide safe havens for victims, and conducting public information campaigns. Condemn violations of their rights and call upon all parties to adhere to international humanitarian and human rights law.
	b. Consult with women’s organizations to collect information on the impact of armed conflict and address the specific needs of women and girls.
	c. Include women in the design and implementation of aid programs.
3. Ceasefire and Peace Agreement	a. Ensure that women leaders are involved throughout the peace process included in donor conferences, in formal and informal negotiations, and in implementation mechanisms and structures.
	b. Provide technical and financial resources to women’s organizations to maximize the impact of their initiatives and their access to all major actors.
	c. Support the creation of a women’s monitoring commission to oversee and promote gender equality in the implementation of all aspects of the peace agreement with access to all relevant actors.
4. Disarmament, Demobilization, and Reintegration (DDR)	a. Include gender experts to work with agencies designing and implementing DDR programs.
	b. Assume that women and girls are part of fighting forces-as combatants, supporters, and family members-and plan for their participation accordingly by creating secure housing centers for women and girls, addressing reproductive and psychosocial healthcare, and providing child care during training and educational courses.
	c. Ensure the security of women and girls in assembly areas through regular patrols, fences where appropriate, and awareness-raising programs on violence prevention.
	d. Consult with women’s networks to devise incentives and strategies to encourage people to surrender their weapons.
	e. Include women leaders in training and education on weapons safety and responsibility.
	f. Support women’s efforts at the community level to design creative weapons collection programs, educate their families about the dangers of weapons and landmines, rehabilitate victims, and educate youth and community leaders in conflict resolution.

	<p>g. Specify the percentage of women’s involvement in reintegration programs in the terms of reference for contracting organizations; the figure should be appropriate to the estimated number of women and men engaged as combatants and supporters to the fighting force.</p> <p>h. Increase resources and training for community groups to ensure sustainability of reintegration programs.</p> <p>i. Prepare communities, through awareness-raising projects, for the issues that former combatants, particularly women, child soldiers, and girls, may face upon their reintegration; support local efforts to reconcile and re-establish relationships.</p>
5. Security Sector Reform	<p>a. Ensure that new defense ministries and police forces promote women’s full participation, and consult with women’s organizations to include gender-sensitive training for forces and a gender perspective in new mandates.</p> <p>b. Provide training to the police force specifically on the prevention and treatment of gender-based violence.</p> <p>c. Encourage open forums to ensure that public opinion regarding security threats is addressed and the security sector begins to gain legitimacy and credibility with the public; ensure that the priorities of women for safety and security are voiced through consultations with women’s organizations.</p> <p>d. Conduct capacity-building programs at national, provincial, and community levels to enable women to participate effectively in security sector reform.</p>
Governance and Political Participation	
1. Transitional Administration	<p>a. Ensure that women’s organizations are consulted regarding the design of a transitional administration, including its laws, mechanisms, and mandate.</p> <p>b. Identify and support means and mechanisms to ensure that women participate equally in all committees, commissions, temporary ministries, and other structures of the interim administration, and that they participate in all relevant meetings with international mediators and representatives overseeing the process. Tools may include quotas, reserved seats, political parties, women’s advisory committees, or other innovative mechanisms.</p> <p>c. Recognize that this interim period is a “window of opportunity” to advance the role of women in society; utilize the platform to encourage their participation, advance women’s rights, and promote gender equality.</p>
2. National Constitution Process	<p>a. Ensure that women participate in all mechanisms related to the formulation of a new constitution, including constitutional commissions, constituent assemblies, national conventions, and public consultations.</p> <p>b. Encourage the “engendering” of the constitution to ensure equality between men and women, drawing from international legal instruments such as the Universal Declaration of Human Rights and the Convention on the Elimination of All Forms of Discrimination Against Women.</p> <p>c. Recognize and support women’s creative solutions to merge traditions, beliefs, and customs with legal guarantees of women’s rights.</p>
3. Executive Branch and Ministries	<p>a. Ensure that women’s networks are consulted to determine how their needs and concerns are best addressed: by a women’s ministry, by mainstreaming throughout the executive branch, a combination of both, or through other innovative mechanisms. Fully support whatever system is chosen.</p> <p>b. Promote the appointment of women to high-level positions within the government.</p>

	<p>c. Promote the institution of “gender budgeting” to develop the national budget based on a system of expenditures responsive to the needs of women and men.</p> <p>d. Train women for employment in public service.</p>
4. Legislative Branch	<p>a. Provide national, provincial, and local for a for women’s organizations to convene and formulate a strategy to ensure their participation in legislative assemblies: through a quota, served seats, political parties, indirect elections, or other innovative mechanisms. Support their efforts for equal political participation.</p> <p>b. Consider the possibility that women candidates may face gender-based threats to their participation and provide security as required to facilitate their involvement.</p> <p>c. Support the creation of a cross-party women’s caucus or committee.</p> <p>d. Fund and develop capacity-building and mentoring programs to train women candidates on issues including leadership, decision making, public speaking, and campaigning.</p> <p>e. Provide training for all legislative members on critical issues of concern to women and what legal provisions are needed.</p>

5. Local Governance	<p>a. Promote the participation of women leaders in local governance structures by encouraging political parties, instituting quotas or reserved seats, and/or training candidates.</p> <p>b. Conduct training for women on municipal legislation, budgeting and taxation, service delivery systems, poverty alleviation methods, community and environmental management, and communication skills.</p> <p>c. Support the efforts of civil society to encourage women candidates, including the establishment of women councilor associations, mentoring and exchange programs, and capacity-building projects.</p>
6. Forming Political Parties	<p>a. Encourage political parties to put forth women candidates from among their ranks for national and local elections and to develop initiatives to allow women to participate fully in all internal policymaking structures and appointive and electoral nominating processes.</p> <p>b. Promote a party platform that endorses gender equality and women’s rights.</p>
7. Planning Elections	<p>a. Consider creative means to qualify women as voters, as many may be internally displaced or may not have access to legal identification and citizenship documents.</p> <p>b. Plan the polling sites and voting hours with women’s safety and security needs in mind.</p> <p>c. Ensure that women participate fully as election administrators, poll workers, election observers, and members of a national election body through quotas, reserved seats, political parties, women’s advisory committees, or other innovative mechanisms.</p> <p>d. Conduct sex-segregated voter education training to ensure that women are fully apprised of the process.</p>
8. Strengthening Civil Society	<p>a. Support a constitutional and legal framework that enables the establishment of a vibrant civil society, including the right to assembly, free speech, and freedom of the press.</p> <p>b. Target resources at mass-based women’s groups and gender-sensitive mainstream organizations engaged in non-violent conflict resolution and peace education, particularly those that represent and reach across ethnic, religious, or party lines. In addition to financial resources, technical training should be offered in management principles, budgeting,</p>

	fundraising, grant applications, human resources, media outreach, networking, and advocacy.
	c. Within the international mission, establish a well-resourced civil society liaison office.
	d. Encourage civil society-government dialogue to ensure informed policymaking on issues of critical importance in the postwar period, such as the new constitution, transitional justice mechanisms, and security sector reform.
9. Media	a. Fund newspapers, magazines, and radio programs to educate and inform citizens of their rights and responsibilities and to highlight women's contributions to society, emphasize human rights, and present role models for women.
	b. Facilitate women's ownership of media and support the establishment of women's radio networks, TV, and mobile media.
	c. Train women leaders in media strategies and the basics of media, including press releases, public speaking, interviews, and electronic media.
	d. Connect local women's groups to international women's media networks.
	e. Support women's efforts to utilize media creatively to establish a culture of peace.

Justice and Reconciliation	
1. Community Rebuilding	a. Recognize and support local groups, including women, who serve as links from official transitional justice and reconciliation processes to the grassroots level.
	b. Financially and technically support women's organizations that promote reconciliation and psychosocial healing at national and local levels, particularly those that work across conflict lines.
	c. Encourage and support local mechanisms for dispute resolution, confidence building, dialogue, healing, and reconciliation.
2. Transitional Justice Mechanism	a. Conduct a national consultation process that includes women's organizations and gender-sensitive analysis to determine the most appropriate form of transitional justice mechanism: international tribunal, national courts, truth commissions, amnesty, reparations, lustration, institutional reform, traditional options, or a combination of these.
	b. Ensure women are equally represented in all processes at all levels: as designers, judges, commissioners, prosecutors, defense attorneys, witnesses, and observers.
	c. Document and monitor violations of women's human rights and institutionalize a process within the transitional justice system to address them. Ensure that crimes against women are addressed consistent to international standards.
	d. Design mechanisms to gather evidence, protect witnesses, and report proceedings that meet the specific needs and concerns of women.
	e. Draw on the expertise of women's groups to train international, national, and local staff that will implement transitional justice on gender issues, including rape and sexual assault.

3. Ensuring Human Rights	a. Encourage the formal recognition by new governments of the Universal Declaration of Human Rights and the Convention on the Elimination of All Forms of Discrimination Against Women.
	b. Support women’s groups in their efforts to monitor and defend human rights and to educate the public on their rights.
	c. Translate and disseminate key international and national human rights instruments to the general public as part of an awareness-raising campaign to transform the culture of violence.
4. Reform of the Judicial System	a. Ensure that civil society, including women, is included in consultations regarding judicial, legal, police, and penal reform.
	b. Train judges, lawyers, and court personnel specifically on international and national laws and processes that affect women.
	c. Ensure that prison staff is adequately trained on the specific needs of female perpetrators and that they are separately housed with appropriate facilities.
	d. Conduct information campaigns to educate the public on their rights, specifically reaching out to women in rural and remote areas and to local authorities and leaders who enforce rights and responsibilities.
5. Rewriting Laws	a. Ensure that violence against women, including domestic violence, is prohibited under criminal law, punishable with the same severity as other crimes, and does not require additional evidence or testimony. Support the establishment of witness protection programs and the provision of adequate legal redress and support services for victims.
	b. Conduct a national review of existing laws to ensure gender, racial, religious, and ethnic equality throughout legislative and policy reforms. The principles of nondiscrimination, equality, freedom, and security should be reaffirmed.
	c. Ensure that women are granted equal rights in new laws regarding national and citizenship and that they can pass these rights on to their children.
	d. Encourage formal family laws to articulate the equality of men and women in marriage, provide voluntary consent of both parties to enter into marriage agreement, require the same minimum age for marriage, and ensure equal rights of divorce and fair divorce proceedings.
	e. Support efforts to monitor the implementation of new laws.
Economic and Social Well Being	
1. Management of Refugees and Internally Displaced Persons (IDPs)	a. Ensure that women are leaders in camp design and management.
	b. Provide security for women and girls in camps through regular patrols, fences where appropriate, separate and safe facilities, and awareness-raising programs on violence prevention.
	c. Consult with women when designing plans for repatriation and resettlement.
2. Physical Infrastructure	a. Ensure that women’s priorities for infrastructure are included in early discussions and throughout the life of the project.
	b. Explore creative mechanisms to include women in public works projects, such as partnering with women’s organizations or the women’s ministry to recruit women as laborers or cooks.
3. Food Security	a. Consult with women regarding the design and implementation of emergency food aid programs.
	b. Ensure that the food provided is complementary to the cultural and traditional context and recognize that women are often agricultural workers.
	Include adequate provisions for women’s ownership and participation in land reform and reallocation.

4. Public Health	a. Ensure that reproductive health supplies and equipment are part of the emergency medical package.
	b. Train medical staff to address women's health issues, sexual violence and adequately equip facilities to provide reproductive health care.
	c. Ensure that HIV/AIDS prevention and treatment programs include women and girls and address their specific needs and concerns.
	d. Consult with women regarding water and waste management and capitalize on their knowledge and skills to implement projects.
5. Educational System	a. Ensure that girls are recruited into new classrooms equally with boys. Provide adequate security and offer incentives to families and communities for girls' attendance, especially past the age of puberty.
	b. Develop a curriculum that respects diversity and promotes gender equality.
	c. Develop an adult literacy campaign that targets women as well as men.
	d. Support women's groups that are promoting peace education to youth at local and national levels.
6. Labor and Equipment	a. Support the reform of labor laws to ensure women have equal access to employment opportunities.
	b. Conduct vocational training programs for women; select the project or field based on the input of women, rather than cultural or traditional assumptions.
	c. Prioritize the recruitment and employment of women in international development programs. Design innovative mechanisms to transfer the trained and knowledgeable personnel back into the national system as the international community departs.
7. Property Rights	a. Support legal reforms to ensure that women have equal legal rights to attain, own, transfer, and inherit land and personal property.
8. Business Ownership	a. Support the reform of business ownership laws and statutes to ensure women's equal access.
	b. Target women with micro-enterprise loans and grants as well as more substantial projects, including funds and training for small, medium, and large-scale businesses.
9. Long-term Development	a. Ensure that economic policymaking includes women's input and that national budget processes reflect women's needs and concerns.
	b. Encourage macroeconomic policies that prioritize the public provision of food, water, sanitation, health, and energy-the key sectors in which provide unpaid labor.
	c. Include a requirement in contracts with implementing agencies that mandates women's participation in reconstruction projects.

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