

# **Business Sector Development: A Critical Component of an Operational Approach to Stability Operations**

**A Monograph  
by  
Major Travis J. Lindberg  
U.S. Army**



**School of Advanced Military Studies  
United States Army Command and General Staff College  
Fort Leavenworth, Kansas**

**AY 2010-2**

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> <i>OMB No. 0704-0188</i>		
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>					
<b>1. REPORT DATE (DD-MM-YYYY)</b> 30-11-2010		<b>2. REPORT TYPE</b> SAMS Monograph		<b>3. DATES COVERED (From - To)</b> January 2010 – November 2010	
<b>4. TITLE AND SUBTITLE</b> Business Sector Development: A Critical Component of an Operational Approach to Stability Operations			<b>5a. CONTRACT NUMBER</b>		
			<b>5b. GRANT NUMBER</b>		
			<b>5c. PROGRAM ELEMENT NUMBER</b>		
<b>6. AUTHOR(S)</b> Major Travis J. Lindberg, United States Army			<b>5d. PROJECT NUMBER</b>		
			<b>5e. TASK NUMBER</b>		
			<b>5f. WORK UNIT NUMBER</b>		
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> School of Advanced Military Studies (SAMS) 250 Gibbon Avenue Fort Leavenworth, KS 66027-2134			<b>8. PERFORMING ORG REPORT NUMBER</b>		
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>			<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>		
			<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>		
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for Public Release; Distribution is Unlimited					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b> This monograph explores economics, operations research, and systems theory to develop a sustainable approach to building governance and security capacity within the Afghanistan and Pakistan operational environment. This bottom-up approach to capacity-building is predicated on the general principles espoused by the framers of the Marshall Plan in 1947. Specifically, any such recovery program should subordinate melioristic tendencies to the primary goal of denying safe havens to those who seek to harm American strategic interests through either direct action or through the spread of virulent ideologies. Second, the most effective way to oppose ideologies in an affected region is not to provide charity or impose protectionist measures associated with production, but to introduce foreign aid into the operational environment through a network of privately-owned and culturally acceptable financial institutions while simultaneously setting the conditions to better integrate competing socio-economic systems within the operational environment. This monograph does not suggest that socio-economic conditions in 1947 Europe are equivalent to the contemporary socio-economic conditions in Afghanistan or that business sector development alone will permit the United States to achieve its strategic objectives in the region. However, any investment strategy that does not seek to exploit the competitive and cooperative nature of the local free-market system, to include the much-heralded National Solidarity Programme, will inevitably produce benefits whose costs are not sustainable by the Governments in Afghanistan, the United States, or other NATO countries. Furthermore, the consequences of Afghanistan failing to build capacity within its business sector will perpetuate the Government of Afghanistan's inability to broadcast sufficient power to control its territory, thereby risking future stability on the Indian sub-continent.					
<b>15. SUBJECT TERMS</b> Economic Development, Stability Operations, Operational Approach, Capacity, Reconstruction, Marshall Plan, Sustainability					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b> Wayne W. Grigsby, Jr. COL, U.S. Army
<b>a. REPORT</b> (U)	<b>b. ABSTRACT</b> (U)	<b>c. THIS PAGE</b> (U)			76

Standard Form 298 (Rev. 8-98)

Prescribed by ANSI Std. Z39.18

Approved for Public Release; Distribution is Unlimited

# SCHOOL OF ADVANCED MILITARY STUDIES

## MONOGRAPH APPROVAL

Major Travis Jason Lindberg

Title of Monograph: Business Sector Development: A Critical Component of an Operational Approach to Stability Operations

Approved by:

\_\_\_\_\_  
David A. Anderson, D.B.A

Monograph Director

\_\_\_\_\_  
Alexander J. Ryan, Ph.D.

Second Reader

\_\_\_\_\_  
Joseph S. McLamb, LTC(P), IN

Third Reader

\_\_\_\_\_  
Wayne W. Grigsby, Jr., COL, IN

Director,  
School of Advanced  
Military Studies

\_\_\_\_\_  
Robert F. Baumann, Ph.D.

Director,  
Graduate Degree  
Programs

Disclaimer: Opinions, conclusions, and recommendations expressed or implied within are solely those of the author, and do not represent the views of the US Army School of Advanced Military Studies, the US Army Command and General Staff College, the United States Army, the Department of Defense, or any other US government agency. Cleared for public release: distribution unlimited.

## **Abstract**

Business Sector Development: A Critical Component of an Operational Approach to Stability Operations by Major Travis J. Lindberg, U.S. Army, 76 pages.

This monograph explores economics, operations research, and systems theory to develop a sustainable approach to building governance and security capacity within the Afghanistan and Pakistan operational environment. This bottom-up approach to capacity-building is predicated on the general principles espoused by the framers of the Marshall Plan in 1947. Specifically, any such recovery program should subordinate melioristic tendencies to the primary goal of denying safe havens to those who seek to harm American strategic interests through either direct action or through the spread of virulent ideologies. Second, the most effective way to oppose ideologies in an affected region is not to provide charity or impose protectionist measures associated with production, but to introduce foreign aid into the operational environment through a network of privately-owned and culturally acceptable financial institutions while simultaneously setting the conditions to better integrate competing socio-economic systems within the operational environment. This monograph does not suggest that socio-economic conditions in 1947 Europe are equivalent to the contemporary socio-economic conditions in Afghanistan or that business sector development alone will permit the United States to achieve its strategic objectives in the region. However, any investment strategy that does not seek to exploit the competitive and cooperative nature of the local free-market system, to include the much-heralded National Solidarity Programme, will inevitably produce benefits whose costs are not sustainable by the Governments in Afghanistan, the United States, or other NATO countries. Furthermore, the consequences of Afghanistan failing to build capacity within its business sector will perpetuate the Government of Afghanistan's inability to broadcast sufficient power to control its territory, thereby risking future stability on the Indian sub-continent.

## Table of Contents

Introduction .....	1
Background.....	1
Monograph Structure.....	8
Methodology .....	9
Assumptions, Inferences, and Overview of Methodology .....	9
Overview of Political Objectives in Afghanistan and Pakistan.....	13
Definition of Terms and Contextual Overview .....	15
Summary of Methodology.....	30
Analysis.....	31
Overview of Analytical Framework .....	31
The Case for a “Bottom-up” Approach to Capacity-Building in Stability and Reconstruction Operations.....	33
Intervening in the System through Parameter Adjustment.....	33
Intervening in the System through the Adjustment of the Structure of the System .....	41
Intervening in the System through the Adjustment of the Rules and Incentives of the System.....	52
Conclusions .....	67
Recommendations .....	73
Bibliography .....	77

## Introduction

Historically, the rural population in modern Afghanistan has rejected all large-scale reforms attempted by a central government. Unfortunately, change acceptable to the tribes will simply not come from the center...If we can establish security and stabilize the border provinces and districts in southern and eastern Afghanistan, the accompanying momentum may guide the rest of the country to a sustainable peace...<sup>1</sup>

The only effective antidote [to the corruption which undermines building governance, economic, and security capacity in a developing country] is a business middle class, where the majority of people think that they will do better if the system works properly than if everyone steals what they can.<sup>2</sup>

## Background

The level of the United States' involvement in stability and reconstruction operations in Afghanistan and Pakistan following the terrorist attacks on September 11<sup>th</sup>, 2001 is tied directly to an overarching national security interest: to deny terrorists access to safe havens from which future terrorist attacks might be planned or launched against the United States, its allies, or its strategic interests.<sup>3</sup> With the preceding statement in mind, and given the grave and enduring nature of the threat posed by radical Islamic terrorism, this monograph contends that the United States' operational approach to stability operations must consider incorporating economic principles adopted by military and civilian planners in post-World War II Europe that go beyond

---

<sup>1</sup> Michael R. Fenzel, "The Maneuver Company in Afghanistan: Establishing Counterinsurgency Priorities at the District Level," *Military Review* (March – April 2010): 34.

<sup>2</sup> R. Glenn Hubbard and William Duggan, *The Aid Trap: Hard Truths About Ending Poverty* (New York City: Columbia University Press, 2009), 71.

<sup>3</sup> United States National Security Council, "National Security Strategy," *Official Homepage of the President of the United States*, May 2010, 10, 19 – 22, [http://www.whitehouse.gov/sites/default/files/rss\\_viewer/national\\_security\\_strategy.pdf](http://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf) (accessed November 7, 2010).

the current scope of the Afghanistan National Solidarity Programme.<sup>4</sup> Specifically, that foreign aid be directed towards indigenous financial institutions and private businesses at the local level; that land tenure and property rights initiatives in Afghanistan emphasize priorities related to economic growth at the local level; and most importantly, that American human resources be re-allocated to the district and village level in order to synchronize these efforts with ongoing security-oriented missions in Afghanistan. Failure to perform these tasks as part of the larger counterinsurgency campaign, given the “kind of war” that the U.S. appears willing to fight within this operational environment, will likely result in U.S. failure to achieve political objectives in either Afghanistan, or the Indian sub-continent.<sup>5</sup>

A logical point of departure for building this argument is to consider some of the macro-level variables that have influenced the selection of the current operational approach to stability and reconstruction operations.<sup>6</sup> The two most significant variables in this regard appear to be the

---

<sup>4</sup> General Lucius Clay, the Commanding General of the American Zone in Germany, clearly understood that setting the conditions for liberal economic policy to take root in post-World War II Europe was in the United States’ economic and military interests. See: Michael J. Hogan, *The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947-1952* (New York City: Cambridge University Press, 1987), 31 – 35. For information related to the National Solidarity Programme (NSP), see: Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), *National Solidarity Programme*, <http://www.nspafghanistan.org/> (accessed November 11, 2010).

<sup>5</sup> Carl von Clausewitz states that “the most far-reaching act of judgment that the statesman and the commander have to make is to establish...the kind of war on which they are embarking...nor trying to turn it into, something that is alien to its nature.” Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1989), 88. Robert Kaplan suggests that a US failure in Afghanistan will result not only in additional safe-havens for terrorists, but will result in a significant deterioration of the United States’ bi-lateral relationship with India. Robert D. Kaplan, “South Asia’s Geography of Conflict,” *Center for a New American Security*, August 2010, 13 – 14, <http://www.cnas.org/node/4952> (accessed November 7, 2010).

<sup>6</sup> The United States’ current operational approach to stability operations in Iraq and Afghanistan appears to be defined by the nature of counterinsurgency (COIN) operations that are being conducted in each of these countries. The overarching term to describe this operational approach is known as “population-centric COIN”, which helps differentiate it from an operational approach that appears to place a greater emphasis on counter-terrorist (CT) operations. The United States Army’s operational approach to stability operations and counterinsurgency (COIN) is articulated in its Field Manuals. See: United States

United States' level of investment in stability operations and a host nation's establishment of control over its territory.<sup>7</sup> Clearly, a causal relationship between these two variables is implied. That is to say, as the U.S. invests more resources towards stability operations in selected countries overseas, the capacity of the host nation to control its territory is expected to increase.<sup>8</sup> The resulting increase in host nation capacity will result in a net loss of potential terrorist safe havens, thereby enabling the United States to achieve its political objective of preventing further terrorist attacks upon its strategic interests.<sup>9</sup> Therefore, the United States' operational approach must emphasize tasks that permit the host nation to broadcast power, while simultaneously gaining the loyalty of its populace.<sup>10</sup> The challenge, though, is in determining high payoff tasks that must be

---

Department of the Army, *Field Manual 3-07, Stability Operations* (Washington D.C.: US Government Printing Office, 2008); and United States Department of the Army, *Field Manual 3-24, Counterinsurgency* (Washington D.C.: U.S. Government Printing Office, 2006).

<sup>7</sup>This monograph uses the official definition of stability operations: An overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief. United States Department of Defense, Joint Publication 1-02 *DoD Dictionary of Military and Associated Terms* (Washington, D.C.: US Government Printing Office, April 12, 2001, as amended through April 2010), 443. This monograph also uses the terms "stability" and "reconstruction" in accordance with Department of Defense Directive (DoDD) 3000.05, which officially elevated stability operations as a "core" military mission on par with offensive and defensive operations. See: United States Department of Defense, "Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations," Department of Defense Directive 3000.05, November 28, 2005, <http://www.dtic.mil/whs/directives/corres/pdf/300005p.pdf> (accessed November 7, 2010 – the URL links to the version of the directive that was reissued by the Obama Administration in September 16, 2009).

<sup>8</sup>The term "investment" is used in the most general sense and can refer to an investment of US military, financial, political, or any other resources within the host nation.

<sup>9</sup>This operational approach is reflected throughout the current United States National Security Strategy and the Afghanistan and Pakistan Regional Stabilization Strategy. See: United States National Security Council, 21 – 22. See also: United States Department of State, Office of the Special Representative for Afghanistan and Pakistan, "Afghanistan and Pakistan Regional Stabilization Strategy," *Office of the Special Representative for Afghanistan and Pakistan*, February 24, 2010, <http://www.state.gov/documents/organization/135728.pdf> (accessed November 7, 2010).

<sup>10</sup>Jeffrey Herbst, *States and Power in Africa: Comparative Lessons in Authority and Control* (Princeton, New Jersey: Princeton University Press, 2000), 3. Herbst's argument reflects traditional political science theory and the compulsory authority that the state is obligated to maintain over its

performed in a stability operations environment in order to permit the emergence of desired conditions that support U.S. strategic objectives at costs that are politically acceptable.<sup>11</sup>

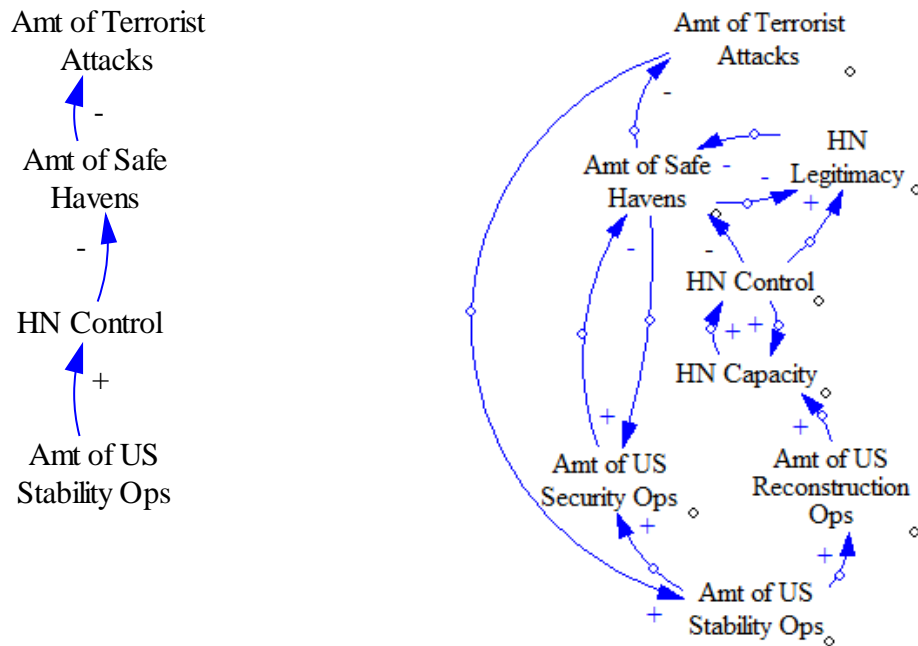
Figure 1 graphically depicts two different perspectives of the causal relationships between key variables within the aforementioned U.S. policy-decision dynamic. The first view (Figure 1A) presents a linear perspective of these causal relationships, while the second view (Figure 1B) presents a nonlinear perspective of these causal relationships. Both views imply that an increase in U.S. investment in stability operations causes a decrease in the number of terrorist attacks against U.S. strategic interests. However, the nonlinear view (Figure 1B), reflects a more nuanced understanding of the operational environment. This nuanced, systems-oriented perspective exposes additional places to intervene in the operational environment. It is through the identification of these additional system variables and causal relationships that leaders find opportunities to reduce risk to U.S. political goals at acceptable costs during an “era of persistent conflict”.<sup>12</sup>

---

territory. For this traditional view see: Ernest Barker. *Principles of Social and Political Theory* (Oxford: Clarendon Press, 1952), 3-4.

<sup>11</sup> The United States has been attempting to set the conditions to deny safe havens to terrorists through a myriad of seemingly disparate operations (e.g. reconstruction of civilian (host nation) institutions, counterinsurgency, counterterrorist, counterdrug) known collectively as stability operations. For a more thorough overview of the spectrum of conflict and operational themes see: United States Department of the Army, *Field Manual 3-0, Operations* (Washington D.C.: United States Government Printing Office, 2008), Chapter 2.

<sup>12</sup> The term “era of persistent conflict” is used throughout the United States Army Posture Statement (APS). See: United States Department of the Army, “2010 Army Posture Statement,” *The Official Homepage of the United States Army*, February 2010, <http://www.army.mil/info/institution/posturestatement/> (accessed November 7, 2010).



**Figure 1: Two views of the U.S. operational approach in the contemporary operating environment in Afghanistan and Pakistan. 1A (Left) Depicts a linear view of causality. 1B (Right) Depicts a non-linear view of causality.<sup>13</sup>**

Broadening one’s perspective of this policy-decision dynamic as it applies to the United States’ operational approach to stability and reconstruction operations is critical – largely because

---

<sup>13</sup> Figure 1B graphically depicts the United States’ operational approach and macro-level understanding of the dynamics in Overseas Contingency Operations (OCO), formerly known as the Global War on Terror (GWOT). For a primer on applying “systems thinking” concepts to counterinsurgency (COIN) see: Jim Baker, "Systems Thinking and Counterinsurgency," *Parameters*, Vol. XXXVI (Winter 2006-2007): 26 – 43. It is important to note that the “+” sign on the arrow reflects a direct relationship between two variables (e.g. the greater the number of terrorist attacks, the greater the investment in US stability operations). Conversely, the “-“ sign on the arrow reflects an inverse relationship between the two variables (e.g. the more military operations that are conducted, the fewer safe havens exist for terrorists to operate within).

official and media reports suggest that, to date, the operational approach that the United States has employed to achieve its political objectives in Iraq and Afghanistan has not yielded benefits that are commensurate with costs.<sup>14</sup> Tactical level commanders responsible for the execution of stability and reconstruction operations echo similar concerns.<sup>15</sup> The Special Inspector General for Iraqi Reconstruction (SIGIR) suggests that the inefficiency during the conduct of stability and reconstruction operations is due largely to a lack of a holistic, medium-to long-term operating concept that ensures that the strategic value of projects are weighed against the “risk of failure and the costs of mitigating security risks”.<sup>16</sup> This monograph does not seek to develop an operating concept for stability and reconstruction operations.<sup>17</sup> However, it will contend that by adhering to fundamental systems-thinking concepts when making investment decisions in a stability operations environment, decision-makers can achieve political objectives at costs that are sustainable and commensurate with benefits that are more likely to achieve enduring stability in Afghanistan. Furthermore, this monograph will demonstrate that a sustainable operational

---

<sup>14</sup> One of the underlying themes in both reports (Special Inspector General for Afghanistan Reconstruction (SIGAR) and Special Inspector General for Iraq Reconstruction (SIGIR)) is that the United States cannot afford to continue to engage in stability operations at the rate that it currently expends human, financial, and political capital for marginal returns on investment. See: Special Inspector General for Iraq Reconstruction (SIGIR), *Hard Lessons: The Iraq Reconstruction Experience*, Periodic Update to the United States Congress (Washington D.C.: US Government Printing Office, 2009). See also: Liz Sly, “A US ‘Legacy of Waste’ in Iraq”, *Los Angeles Times*, August 29, 2010, <http://articles.latimes.com/2010/aug/29/world/la-fg-iraq-reconstruction-20100829> (accessed August 30, 2010).

<sup>15</sup> Craig A. Collier, “Now That We’re Leaving Iraq, What Did We Learn,” *Military Review* (September – October 2010): 88 – 93.

<sup>16</sup> Special Inspector General for Iraq Reconstruction, *Hard Lessons: The Iraq Reconstruction Experience*, 332.

<sup>17</sup> John DeJarnette’s monograph, *Toward a Nation-Building Operating Concept* argues for the development of an operational concept that would provide a medium-to-long-term structural framework for the conduct of stability and reconstruction operations. See: John DeJarnette, *Toward a Nation-Building Operating Concept*, Advanced Operational Art Studies Fellowship (AOASF) Program, School of Advanced Military Studies, Command and General Staff College (Ft Leavenworth, KS: Defense Technical Information Center (DTIC), 2010), 6 – 9.

approach to stability and reconstruction operations in Afghanistan must be primarily, although not exclusively, driven from the “bottom-up”.<sup>18</sup>

The primary impetus for the selection of this research topic stems from two pressing national security realities. The first reality alluded to previously, is that the requirement to engage in stability and reconstruction operation environments will not abate for the near future. The second reality is that the United States’ current, population-centric and COIN-oriented, operational approach has been a very expensive affair and the current level of Federal deficit spending and the debt are unsustainable.<sup>19</sup> The implication being that the U.S. Armed Forces will feel an increasing amount of political pressure to maximize the value of its shrinking portion of the discretionary budget, while simultaneously being compelled to implement policy decisions within stability operations environments.<sup>20</sup> Therefore, the only way to accommodate these two competing national-security priorities and remain solvent as a Nation in perpetuity is to demonstrate greater fiscal discipline during the course of stability and reconstruction operations.<sup>21</sup> Indeed, this monograph contends that in the case of Afghanistan, an operational approach to

---

<sup>18</sup> United States Department of State, Office of the Special Representative for Afghanistan and Pakistan, 3. See also: Jim Gant, "One Tribe at a Time: A Strategy for Success in Afghanistan, 2nd Edition," December 2, 2009, [http://blog.stevenpressfield.com/wp-content/themes/stevenpressfield/one\\_tribe\\_at\\_a\\_time.pdf](http://blog.stevenpressfield.com/wp-content/themes/stevenpressfield/one_tribe_at_a_time.pdf) (accessed December 15, 2009)

<sup>19</sup> United States Joint Forces Command, *The Joint Operating Environment 2010* (Suffolk, VA: United States Joint Forces Command, 2010): 19 – 24.

<sup>20</sup> Carl J. Schramm, “Expeditionary Economics: Spurring Growth after Conflicts and Disasters,” *Foreign Affairs* (May – June 2010): 92.

<sup>21</sup> In numerous conversations with military officers assigned to manage projects or funds associated with infrastructure capacity-building and economic development initiatives (see bibliography citations for Sattinger and Thornhill), the officers all stated that there was generally no universal criteria or approach used to determine the relative importance of a particular project or initiative and that this approach led to inefficiencies. What is disturbing is the level of inefficiency and waste that exists in an environment in which the United States is largely able to control the tempo of its operations. Historically, the ability to control the tempo in a major combat operation (MCO), and the accompanying waste and inefficiency, diminishes significantly. See: David McCullough, *Truman* (New York City: Simon and Schuster Inc., 1992), 253-291.

stability and reconstruction operations that is more fiscally sustainable is also more operationally sound.

## **Monograph Structure**

The structure of the monograph is intended to support the claim that the U.S. will not realize its political objectives at acceptable costs in either Afghanistan or the sub-continent unless it adopts an approach that increases the Government of the Islamic Republic of Afghanistan's (GIROA) capacity to broadcast power from the bottom-up, and that this can only occur if efforts are made to strengthen the business sector in Afghanistan. The methodology will attempt to frame the problem by providing a strategic and doctrinal context, as well as stating necessary assumptions. The methodology will then proceed by describing key leader tasks that are fundamental to the bottom-up approach. Specifically, these key leader tasks include identifying places where excess and limited capacity exists in the operational environment, along with identifying bottlenecks and places to achieve leverage in a system. In the analysis, areas of potential high leverage within the Afghanistan and Pakistan operational environment will be explored more fully – particularly those areas related to the development of a “business sector”, land tenure and property rights, and the re-allocation of American and allied human resources down to the local level. The results of the analysis will be stated in the conclusion, followed by recommendations to military leaders and civilian policy-makers.

# Methodology

## Assumptions, Inferences, and Overview of Methodology

Since 9/11, the operational approach that the U.S. and its allies have employed to achieve the policy goal of preventing terrorist attacks has been centered on counterinsurgency (COIN) operations within stability and reconstruction environments. These operations have been conducted in partnership with host nation governments to establish conditions that deny terrorists safe havens from which to resource, plan, and execute their terrorist activities. There has been much debate regarding the necessary proportion of lethal and non-lethal operations to achieve desired political objectives, just as there has been debate regarding the proportion of economic and human resources that should be directed at the national versus the local level.<sup>22</sup> However, the common denominator for long-term sustainable security is that the host nation government must increase its capacity to govern and the populace must consent to its government's rule.<sup>23</sup> Fortunately, there are several empirical studies addressing the impact that investment decisions in stability and reconstruction environments have had on achieving this host nation capacity to govern, ostensibly through increasing the host nation population's consent to government rule.<sup>24</sup>

---

<sup>22</sup> See previous citations for the National Security Strategy and the Afghanistan and Pakistan Regional Stabilization Strategy.

<sup>23</sup> Herbst, 3. For articles that advocate that lethal operations should be given primacy over non-lethal approaches to COIN, which are generally perceived to be counter-terrorist (CT) in nature, see: Craig A. Collier's "Now That We're Leaving Iraq, What Did We Learn" (previously cited) and Bernard I. Finel, "An Alternative to COIN," *Armed Forces Journal* (February 2010), <http://www.afji.com/2010/02/4387134> (accessed February 20, 2010). For an article that epitomizes the cause championed by advocates for non-lethal primacy in stability and reconstruction operations, see: Nathaniel Fick and Clare Lockhart, "The Economic Imperative: Stabilizing Afghanistan Through Economic Growth," *Policy Brief*, Washington D.C.: Center for a New American Security, April 12, 2010, <http://www.cnas.org/node/4335> (accessed July 15, 2010).

<sup>24</sup> In addition to their individual research on economic links to civil war, Collier, Hoeffler, and Sambanis have edited two separate volumes of case studies that attempt to link key variables with the onset

Specifically, Berman, et al.'s study indicates a statistically significant relationship between reductions in violent incidents in Iraq for every dollar of Commander's Emergency Response Program (CERP) spent.<sup>25</sup> Interestingly, the same study concludes that investment in large-scale projects did not yield similar results.<sup>26</sup> Furthermore, even tactical-level commanders who do not concur with the primacy of non-lethal approaches to COIN generally concede that top-down driven investment decisions are usually (much) less helpful in achieving desired political objectives than are bottom-up driven investments.<sup>27</sup> The amount of CERP spending does not necessarily translate into the development of an indigenous business sector, which this

---

and termination of (civil) war. Collier and Hoeffler's well known paper on "Greed and Grievance in Civil War" suggests that economic factors are more statistically significant in predicting the onset of civil war. See: Paul Collier, Anke Hoeffler, and Nicholas Sambanis. The Collier-Hoeffler Model of Civil War Onset and the Case Study Project Research Design. Volume 2: Europe, Central Asia, and Other Regions, chap. 1 in *Understanding Civil War: Evidence and Analysis*, edited by Paul Collier and Nicholas Sambanis, 1-34. Washington D.C.: The International Bank for Reconstruction and Development/ The World Bank, 2005.

<sup>25</sup> Eli Berman, Jacob N. Shapiro, and Joseph H. Felter. *Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq*. NBER Working Paper Series, Cambridge, MA: National Bureau of Economic Research, 2009, 36. This working paper also served as the basis for an article in *Foreign Affairs* magazine. See: Eli Berman, Jacob N. Shapiro, and Joseph H. Felter, "Constructive COIN: How Development Can Fight Radicals," *Foreign Affairs* (June 1, 2010), <http://www.foreignaffairs.com/articles/66432/eli-berman-joseph-h-felter-and-jacob-n-shapiro/constructive-coin> (accessed September 18, 2010). For relevant information related to the Commander's Emergency Response Program (CERP), see: Government Accountability Office (GAO), "GAO-08-736R Military Operations: Actions Needed to Better Guide Project Selection for Commander's Emergency Response Program and Improve Oversight in Iraq," *GAO Report*, June 23, 2008. <http://www.gao.gov/new.items/d08736r.pdf> (accessed July 15, 2010). Also see: William J. Lynn III, "Management of the Commander's Emergency Response Program," *Deputy Secretary of Defense Report*, May 10, 2010. <http://www.oaa.army.mil/FetchFile.ashx?DocID=347> (accessed August 21, 2010).

<sup>26</sup> Berman, et al, *Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq*, 2 – 3.

<sup>27</sup> Craig A. Collier, 89 – 92. See also: Fenzel, 39. See also: Gian P. Gentile, "A Strategy of Tactics: Population-centric COIN and the Army," *Parameters: US Army War College Quarterly*, Volume XXXIX (Autumn 2009): 6 – 7. The conclusion regarding the efficacy of bottom-up development has also been drawn by staunch advocates for non-lethal approaches to COIN, also. See: Edwina Thompson, "Winning 'Hearts and Minds' in Afghanistan: Assessing the Effectiveness of Development Aid in COIN Operations," *Wilton Park*, April 1, 2010, 2 – 3, <http://www.wiltonpark.org.uk/documents/conferences/WP1022/pdfs/WP1022.pdf> (accessed April 22, 2010).

monograph contends is critical to achieving a sustainable security environment. However, the Berman study does provide significant evidence that bottom-up capacity building efforts are superior to top-down capacity-building efforts.

Based on these assessments and the evidence provided in the introductory section, this monograph will make several assumptions and inferences that are critical for the development of the hypothesis that political goals can only be realized in Afghanistan through bottom-up capacity building efforts. To support this argument, this monograph will present a series of assumptions and inferences bearing on the problem that will serve as the basis for the analytical approach conducted in subsequent sections of this monograph. The first set of assumptions were presented in the introductory section, namely, that the strategic requirement to engage in stability and reconstruction operation environments in Afghanistan will not decrease significantly in the near future out of concerns of the destabilizing impact a U.S. withdrawal would have on the subcontinent.<sup>28</sup> Despite this requirement, the U.S. Armed Forces will feel an increasing amount of political pressure to “do more [stability operations] with less” of a defense budget or supplemental appropriations. A related assumption is that the U.S. operational approach will continue to consider the host nation populace to be the “center of gravity” in stability operations requiring an enduring and significant physical U.S. military presence.<sup>29</sup> A related inference is that the U.S. political goal in Afghanistan will only be achieved if the majority of U.S. resources invested in the region are directed towards both bottom-up and top-down capacity building

---

<sup>28</sup> Kaplan, “South Asia’s Geography of Conflict,” 13 – 14.

<sup>29</sup> United States Department of the Army, *Field Manual 3-24, Counterinsurgency* (Washington D.C.: US Government Printing Office), 3-13.

initiatives that set conditions for the development of the host nation business sector.<sup>30</sup>

Unfortunately, a second inference is that neither the central government of Afghanistan nor the central government of Pakistan are on a sustainable trajectory to control their territory to an extent that will satisfy U.S. political objectives in a timely or cost-effective fashion.<sup>31</sup> Instead, the institutions that possess the “high leverage” in their respective societies reside at the village, or possibly district, level.<sup>32</sup> Therefore, in order for the indigenous business sector to develop from the bottom-up, the U.S. and other entities donating financial assistance to Afghanistan and Pakistan must be willing to donate and disburse a larger share of assistance through private businesses and financial institutions within the host nation rather than directly funding developmental projects through the central government. This is a critical assumption, but it is directly related to a final, three-part inference. The first inference is that bottom-up capacity development at the local level is the primary sustainable means by which the host nation’s central government must gain the strength to control its territory. The second inference is that because the host nation’s central government control of its territory is increased, the U.S. will be able to better project its own power into the country and the region in order to further its own political objectives. The final inference is that without integrating mechanisms stimulated by business sector development, the likelihood that the GIROA will be able to broadcast sufficient power

---

<sup>30</sup> Bar-Yam states that “[d]evelopment will occur only when a country’s environment promotes it and the internal mechanisms of the system can enable it.” See: Yaneer Bar-Yam, *Making Things Work: Solving Complex Problems in a Complex World* (Boston, MA: Knowledge Press, 2004), 207.

<sup>31</sup> Matt Waldman, “The Sun in the Sky: The Relationship Between Pakistan’s ISI and Afghan Insurgents,” *Discussion Paper 18, Kennedy School of Government, Harvard University*, June 2010, [http://www.cfr.org/publication/22496/crisis\\_states\\_research\\_centre.html](http://www.cfr.org/publication/22496/crisis_states_research_centre.html) (accessed August 17, 2010). See also: Michael Flynn, “State of the Insurgency: Trends, Intentions and Objectives,” *Unclassified NATO briefing obtained by the author via e-mail*, December 2009, 18.

<sup>32</sup> From the perspective of a US Army Special Forces officer with extensive experience in the tribal areas, see: Gant. See also: Seth G. Jones, “It Takes the Villages: Bringing Change from Below in Afghanistan,” *Foreign Affairs* (May – June 2010): 125 – 127.

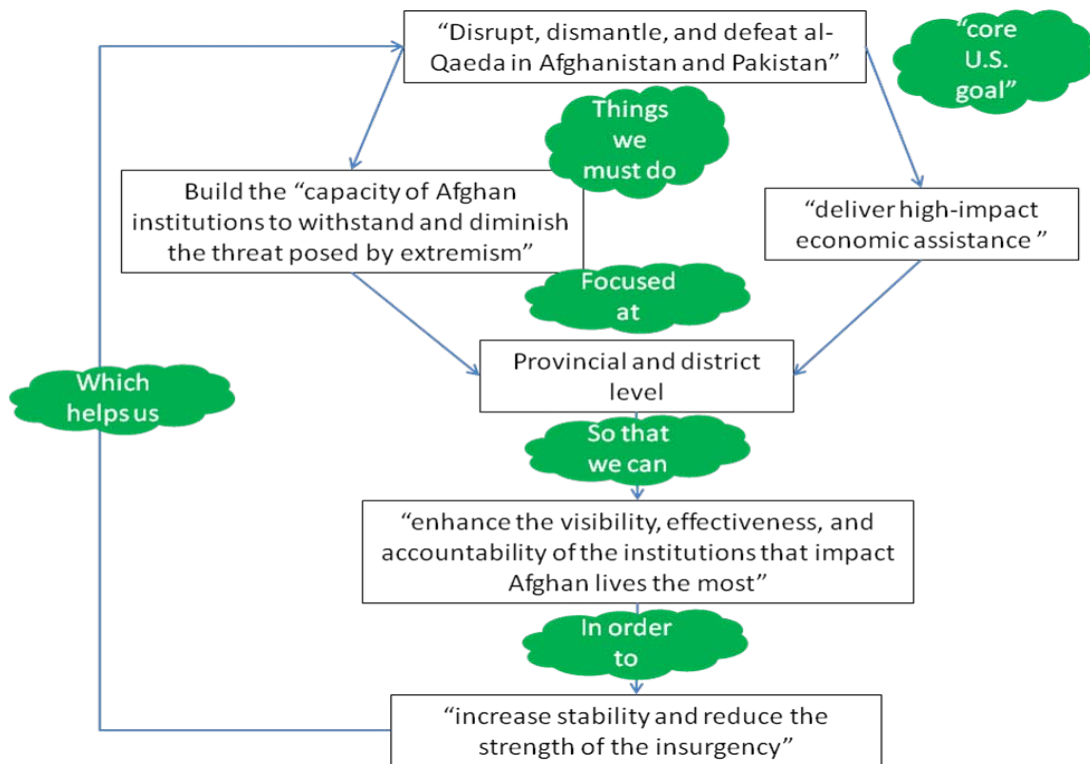
within each of its provinces will remain extremely low. Each of these assumptions and inferences will be addressed in detail in the analysis section of this monograph. However, before proceeding with the analysis, it is necessary to provide an overview of U.S. political objectives in Afghanistan and Pakistan, define essential terms that will be used throughout this monograph, and provide an introduction of some of the analytical techniques.

## **Overview of Political Objectives in Afghanistan and Pakistan**

Figure 2 attempts to articulate the relationship between desired political objectives and specific tasks related to infrastructure capacity-building and economic development that are outlined in the 2010 *Afghanistan and Pakistan Regional Stabilization Strategy* in order to establish the context for the problem being investigated in this monograph.<sup>33</sup>

---

<sup>33</sup> See: United States Department of State, Office of the Special Representative for Afghanistan and Pakistan, “Afghanistan and Pakistan Regional Stabilization Strategy.” One caveat as to the inclusiveness of this document is that it omits the words “nuclear” or “Kashmir” from the body of the document, and only mentions India in terms of it being interested in stability in the region, just like other regional powers, China and Russia.



**Figure 2: The core goal and essential elements of U.S. strategy in Afghanistan.**<sup>34</sup>

One can see in Figure 2 that the Obama Administration already believes that increasing local, or “bottom-up”, governance and economic-development capacity in Afghanistan is the primary way by which the political goal of “disrupt[ing], defeat[ing], and dismantle[ing] al Qaeda in Afghanistan and Pakistan” will be achieved.<sup>35</sup> Conversely, the three primary U.S. political goals with respect to Pakistan are ensuring that it: remains an active member in the alliance in the war against terrorism, controls its nuclear material or technology, and maintains a stable

<sup>34</sup> All quotes shown in Figure 5 are obtained from the United States Department of State’s “Afghanistan and Pakistan Regional Stabilization Strategy,” i.

<sup>35</sup> “Local”, in the context of this monograph, refers to villages and district-level political entities.

government.<sup>36</sup> Unfortunately, the lack of Pakistani governmental control of the Federally Administered Tribal Areas (FATA), Khyber Pakhtunkhwa (KP, formerly known as the Northwest Frontier Province (NWFP)), and Baluchistan; coupled with a legacy of mistrust of the U.S. and the perception that India, rather than terrorists, is its biggest threat makes an identical approach to capacity building in Pakistan much more challenging.<sup>37</sup> However, in both cases, Afghanistan and Pakistan are challenged by the United States to eliminate safe havens, yet both lack the ability to extend the requisite amount of control over their territory.

## Definition of Terms and Contextual Overview

Several terms need to be defined within the context of this monograph before a meaningful analysis can proceed. The first key term that needs to be defined is “systems-thinking”. U.S. Army *Field Manual 3-24, Counterinsurgency* describes systems thinking as such:

*Systems thinking* involves developing an understanding of the relationships within the insurgency and the environment. It also concerns the relationships of actions within the various logical lines of operations (LLOs). This element is based on the perspective of the systems sciences that seeks to understand the interconnectedness, complexity, and wholeness of the elements of systems in relation to one another.<sup>38</sup>

---

<sup>36</sup> President Bush’s original third goal included establishing a functional democracy in Pakistan. See: George W. Bush and Pervez Musharraf, “President Bush Welcomes President Musharraf to Camp David,” *George W. Bush White House Archives, White House Press Secretary*, June 23, 2003, <http://georgewbush-whitehouse.archives.gov/news/releases/2003/06/20030624-3.html> (accessed May 6, 2010). For more insightful analysis with respect to political objectives in Pakistan, see: Stephen P. Cohen (*The Idea of Pakistan*, Washington D.C.: The Brookings Institution, 2006), Chapter 9.

<sup>37</sup> Lisa Daniel, “US Must Help Pakistan Beat Insurgency, Officials Say,” *American Forces Press Service*, April 29, 2010, <http://www.defense.gov/news/newsarticle.aspx?id=58958> (accessed July 19, 2010).

<sup>38</sup> United States Department of the Army. *Field Manual 3-24, Counterinsurgency*. Washington D.C.: US Government Printing Office, 2006, 4-3. It should be noted that this monograph sought to use definitions as listed in United States Department of Defense, *Joint Publication (JP) 1-02 DoD Dictionary*

While not a formal definition for systems thinking, this description characterizes the nature of the analysis that will be presented in this monograph.

The second key term is “business sector”. It is important to understand that the business sector is the vehicle by which goods and services are produced and distributed throughout a country’s economic system.<sup>39</sup> This monograph will define the term as the infrastructure, processes, and ideas comprising each of the steps listed in the World Bank’s *Doing Business* report. These steps include:<sup>40</sup>

1. Starting a business
2. Paying taxes
3. Trading across borders
4. Registering property
5. Dealing with construction permits
6. Getting credit
7. Closing a business
8. Enforcing contracts

---

*of Military and Associated Terms*, when applicable. In instances when the definitions were either not listed in JP 1-02, or were not consistent with the monograph’s usage of the term, alternate definitions were sought within authoritative literature.

<sup>39</sup> The primary stability tasks of “restore essential services” and “Support to Economic and Infrastructure Development”, as defined by US Army *Field Manual 3-07 Stability Operations*, are implied as activities related to business sector development. However, there is a significant difference to relying upon developmental projects to stimulate economic growth, and having a mindset that it is the purpose of the business sector to stimulate economic growth. See: United States Department of the Army, *Field Manual 3-07, Stability Operations* (Washington D.C.: US Government Printing Office, 2008), Chapter 3 (particularly pages 3-9 through 3-13 and 3-14 through 3-19).

<sup>40</sup> The World Bank/ The International Bank for Reconstruction and Development, “Doing Business 2011: Making a Difference for Entrepreneurs,” *A Copublication of the World Bank and the International Finance Corporation*, November 4, 2010, <http://www.doingbusiness.org/~media/fpdkm/doing%20business/documents/annual-reports/english/db11-fullreport.pdf> (accessed November 15, 2010).

## 9. Protecting investors

Specifically, this monograph will focus on those elements of the business sector related to “registering property” and “getting credit” and how an understanding of these processes can be leveraged to enable the U.S. to achieve its political objectives within the operational environment of Afghanistan. This monograph will also attempt to convey where business sector development and initiatives such as the National Solidarity Programme (NSP) and the microfinance industry share common interests, and where these interests diverge.

The final key term is “capacity-building”. Since this term lies at the heart of the United States’ operational concept, special attention will be focused on both defining and examining the implications of “capacity-building”. The U.S. Army’s *Field Manual (FM) 3-07, Stability Operations* defines “capacity-building” as:

...the process of creating an environment that fosters host-nation institutional development, community participation, human resources development, and strengthening managerial systems.<sup>41</sup>

While the preceding definition of capacity-building is sound, another definition, tailored more appropriately for the purpose of this monograph, has been proposed for the stability operations mission in Iraq:

Transparent and accountable Iraqi provincial and local governments providing essential services to their citizens, and characterized by a firmly established rule of law and sustainable, growing economy.<sup>42</sup>

Indeed, it is this latter definition, a variant of the definition found in *FM 3-07*, that is most in line with the overarching purpose of this monograph. Furthermore, from this second definition, one

---

<sup>41</sup> United States Department of the Army, *Field Manual 3-07, Stability Operations*, 1-8.

<sup>42</sup> Scott F. “Rock” Donahue and Daniel L. Higgins, “Building Civil Capacity in Iraq,” *Engineer: The Professional Bulletin of Army Engineers* (May – August 2009): 55. See also: Jeffrey R. Eckstein, “Engineers Build Capacity in Stability Operations,” *Engineer: The Professional Bulletin of Army Engineers* (January – April 2010).

should infer a mandate for an indigenous and sustainable approach to business sector development within the United States' current operational approach to stability operations. However, one of the challenges to adopting this approach is that even though the United States and its allies have recently advocated a sustainable approach to security and development in the developing world, this approach was rarely adopted by developed nations during the colonial and post-colonial era, resulting in poor indigenous capacity to govern.<sup>43</sup> Fortunately, advocates of systems and holistic thinking have argued for this type of bottom-up approach to “capacity-building” for quite some time based on insights observed within other types of systems (biological, manufacturing, etc.).<sup>44</sup> The logic emanating from these insights contends that U.S. policy objectives in stability operations are far more likely to be achieved at costs commensurate with benefits if resources from large, “top-down” driven projects were re-allocated to numerous, smaller projects with greater appeal at the local level.<sup>45</sup> This monograph will further contend that these smaller projects should be undertaken via the principles associated with business sector development that will be explained later in this paper.

Measuring both short and long-term costs, benefits, and risks vis-à-vis U.S. policy objectives and host nation capacity to control its territory is fundamental to the effective

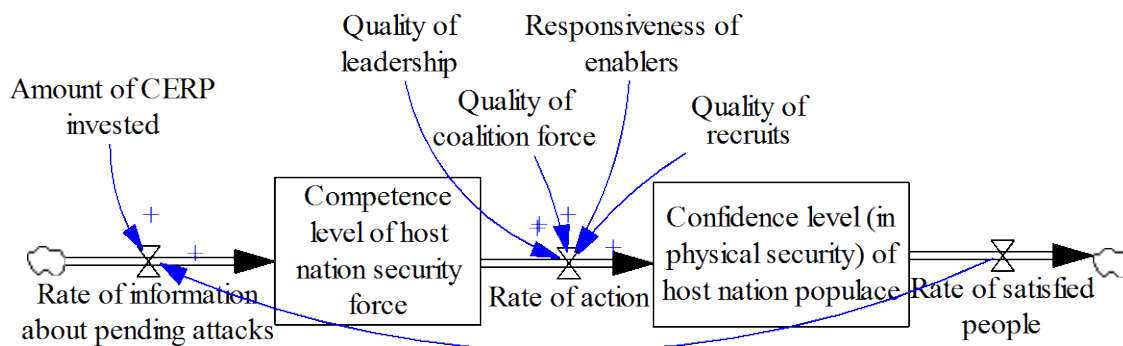
---

<sup>43</sup> Interventions of this nature in the past would now be classified as stability operations. For a concise list of capacity development approaches that have been employed over the past century, see: United Nations Development Programme Bureau for Development Policy -- Capacity Development Group. *Capacity Development: A UNDP Primer*, (New York City: United Nations Developmental Programme, 2009), 5 – 8, <http://www.undp.org/capacity/> (accessed August 21, 2010). See also: US Agency for International Development (USAID), *A Guide to Economic Growth in Post-Conflict Countries*, January 2009, [http://pdf.usaid.gov/pdf\\_docs/PNADO408.pdf](http://pdf.usaid.gov/pdf_docs/PNADO408.pdf) (accessed June 5, 2010).

<sup>44</sup> Yaneer Bar-Yam makes specific mention of biological systems while Hopp and Spearman provide insights into manufacturing and production operations. See: Bar-Yam, 214 – 215. See also: Wallace J. Hopp and Mark L. Spearman, *Factory Physics: Foundations of Manufacturing Management, 2<sup>nd</sup> Edition* (New York City: McGraw Hill Higher Education, 2000), 36 – 38.

<sup>45</sup> Bar-Yam, 214 – 215.

implementation and execution of the operational art in the contemporary stability operations environment. To help address this issue, one can look at a state’s capacity to undertake business sector development tasks from the perspective of a supply or value-chain model. In the traditional value-chain model, a good or service originates with a raw material, and this raw material is then transformed as it passes through the nodes in the network. The important idea is that each node of the value-chain infuses energy, or value, into the material passing through the network, thereby transforming the raw material at each stage of the value-chain, into a final good or service that is ultimately passed to an end-user or consumer.<sup>46</sup> One possible value chain that cites several variables used in Berman, et al’s study might look something like Figure 3.



**Figure 3: The level of CERP investment is tied to an increase in the amount of information that the host nation populace is willing to share with the counterinsurgent, which leads to a reduction in violent incidents against the host nation populace.<sup>47</sup>**

<sup>46</sup> It is important to note that this “raw material” does not necessarily have to be something physical, or even tangible at the point of origin of the value chain. Value can be gradually added to ideas, the written word, lines of computer code, or just about anything. The key take-away, however, is that some form of energy is required to transform this “raw material” into something useful. See: Eric D. Beinhocker, *The Origin of Wealth: The Radical Remaking of Economics and What it Means for Business and Society* (Boston, MA: Harvard Business School Press, 2007), 316 – 317, 394 – 399.

<sup>47</sup> Berman, et al. *Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq*, 6 – 10, 36. It should be noted that Berman’s analysis shows that CERP indirectly “buys” information from a host nation populace that gradually becomes willing to provide information to counterinsurgents.

In Figure 3, the level of U.S. CERP investment is analogous to a raw material that needs to be transformed by the value-chain into a desired product. This CERP investment directly influences the volume of actionable information that the local populace is willing to provide to host nation security forces. The result being that the CERP and population-supplied information are transformed into a final, deliverable (and desired) product – people who are satisfied with the performance of their indigenous government. The logical extension being that people who are satisfied with the performance of their government are more inclined to submit to some semblance of governmental control that permits the denial of safe havens to terrorists.<sup>48</sup> Furthermore, while the value chain described in Figure 3 is shown as a system dynamics (complex systems) model, it is important to note that the example that will be used in the remainder of this section (Figures 4 and 5) draws upon linear (as opposed to nonlinear or complex) systems theory. The reason for using linear systems theory rather than complex systems theory is that linear models make the pedagogical example simpler to understand in order to stress the principle that it is necessary to identify areas in the system in which it is important to build capacity – and areas in which it is inefficient to do so. This is critical since effective and efficient capacity-building in this type of operational environment generally occurs only by using a bottom-up approach to development.<sup>49</sup>

---

The paradigm for this hypothesis is drawn from the post-Vietnam-era “rational peasant model” and has been expanded to model behavior in street gangs in American inner cities. See: Samuel L. Popkin. *The Rational Peasant: The Political Economy of Rural Society in Vietnam* (Berkeley, CA: University of California Press, 1979).

<sup>48</sup> Seth G. Jones, “It Takes the Villages: Bringing Change from Below in Afghanistan,” *Foreign Affairs* (May – June 2010): 125 – 127.

<sup>49</sup> *Ibid.*, 122.

Now consider the remaining variables that exist within the Berman-inspired model (Figure 3). Each variable possesses a certain amount of capacity to transform the raw materials (CERP and information) into the desired end product of “satisfied people” as the raw materials pass through the system. However, for the sake of pedagogical clarity, consider the two variables: “level of confidence among the host nation population” and “level of competence among the host nation security forces”. Since these two variables characterize the state of the system in Figure 3, these two variables are known as “state variables.”<sup>50</sup> Furthermore, considering that the primary goal of U.S. policy-makers is to maximize GIROA’s ability to control its own territory, it is logical for the U.S. to pursue a strategy of increasing capacity in these two variables to an extent that would maximize the “rate of satisfied people” being produced by the system.

Clearly, given an unlimited amount of resources, the U.S. and its allies could ensure that the capacity for each of these variables in Figure 3 were maintained at a level that was sufficient to maximize the GIROA’s ability to produce “satisfied people” in an effort to control its sovereign territory. Unfortunately, unlimited resources are not available, so achieving desired benefits at sustainable costs involves policy-makers making a trade-off between the costs, benefits, and risks associated with implementing policies that enable GIROA to achieve this goal. Therefore, given limited resources, the only way to begin to ensure that benefits associated with policy goals are maximized in the operational environment is to focus on applying scarce

---

<sup>50</sup> The selection of these two variables as state variables is predicated on the commonly held understanding that the population is the “center of gravity” in stability and reconstruction operations. While no direct reference is made to center of gravity analysis in *Field Manual 3-07 Stability Operations*, *Field Manual 3-24 Counterinsurgency* (COIN) makes specific reference to popular support as the center of gravity in COIN. See: United States Department of the Army, *Field Manual 3-24, Counterinsurgency* (Washington D.C.: US Government Printing Office, 2006), 3-13.

resources (civilian expertise), at the bottleneck, or binding, constraints identified within the system.<sup>51</sup> The example scenario demonstrated by Figures 4 and 5 seeks to illustrate this point.

For the following example scenario, consider only two variables that have a direct impact on achieving the aforementioned policy goal of assisting GIROA in controlling its territory. The first variable is the amount of CERP that is invested within the area of operations, and the second variable is the quality of the leadership of the host nation security forces (HNSF).<sup>52</sup> Now consider a fictional and purely illustrative statistical analysis that has shown that for every dollar of CERP that is invested in projects within the area of operations, two additional members of the local populace feel reasonably confident that their local institutions can project adequate power to protect them from insurgents.<sup>53</sup> Furthermore, consider that the same fictional statistical analysis has shown that for every “quality point” that the local security force leadership team possesses, eight additional people in the local community feel reasonably confident that their local

---

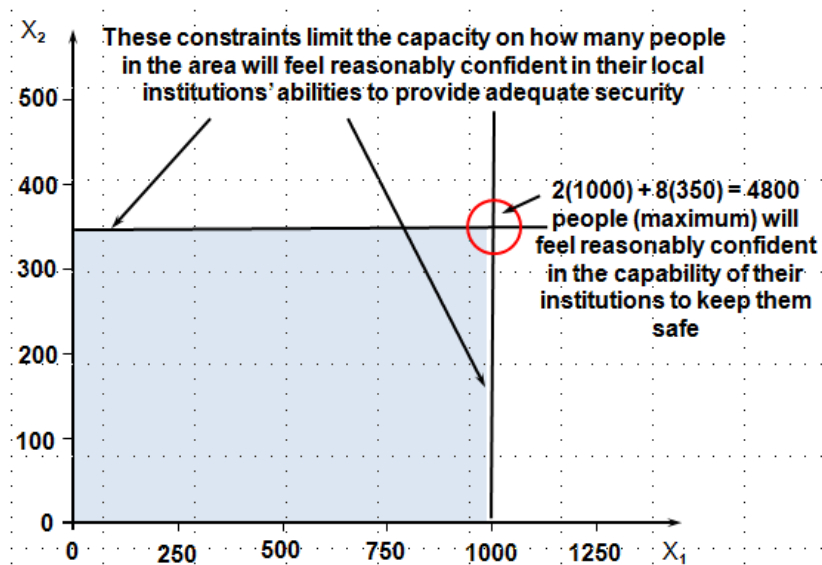
<sup>51</sup> In the late 1970s, Goldratt developed a technique known as “optimized production technology” (OPT). This technique consisted of constantly scanning manufacturing and production systems for bottleneck constraints. Once these bottleneck constraints were identified, resources (machine time, man-hours, etc.) would be re-allocated from non-bottleneck tasks (sorting, welding, final assembly, etc.) in order to overcome the existing bottlenecks. This process would then be repeated each time the bottleneck constraint was identified within the system in order to enhance the productivity of the system. See: Eliyahu M. Goldratt and Jeff Cox, *The Goal: A Process of Ongoing Improvement, Second Revised Edition* (Croton-on-Hudson, NY: North River Press, Inc., 1992). Also, see: R. Dan Reid and Nada R. Sanders, *Operations Management: An Integrated Approach, Second Edition* (Hoboken, NJ: John Wiley and Sons, Inc., 2005), 573 – 575, 614 – 616.

<sup>52</sup> In reality, collecting classified data related to both of these variables would be straightforward.

<sup>53</sup> This relationship is made in order to keep this example simple – it is not intended to suggest monocausal relationships in a complex system. However, at some point in any analytical process, hypothesis development and testing must occur (and often with simple, linear models) if progress towards a more robust analysis and recommended course of action is to be made. For decisions related to the selection of appropriate variables in modeling and simulation, see: John D. Sterman, *Business Dynamics: Systems Thinking and Modeling for a Complex World* (Boston, MA: Irwin McGraw-Hill, 2000), Chapter 3, and also see: Gregory S. Parnell, Patrick J. Driscoll, and Dale L. Henderson, *Decision Making in Systems Engineering and Management* (Hoboken, NJ: Wiley-Interscience, 2008), Chapter 9.

institutions can project adequate power to protect them.<sup>54</sup> Finally, both resources: quality leadership and the amount of CERP funds are necessarily constrained by the amounts shown below. Figure 4 lists the system of equations, as well as a graphical representation of the variables and solution space in the problem scenario.

$$\begin{aligned} \text{Maximize: } & 2X_1 + 8X_2 \text{ (# of people confident in their local security forces)} \\ \text{Subject to: } & X_1 \leq 1000 \text{ (Amount of CERP available)} \\ & X_2 \leq 350 \text{ (Quality HNSF leadership available)}^{55} \end{aligned}$$



**Figure 4: Graphical depiction of solution space and binding constraints for deterministic, two-variable linear model, derived from Figure 3.<sup>56</sup>**

<sup>54</sup> Obtaining qualitative data on the level of competence of host nation security force leadership is also relatively easy, although details on the manner in which this could be obtained is intentionally omitted from this unclassified monograph. However, based on the author's personal experience as a military advisor to Iraqi security forces, efforts must be taken by counterinsurgent forces to take these qualitative assessments and use them as a basis to compare levels of performance amongst host nation security force leadership across a broader (multi-province) area of operations.

<sup>55</sup> Assume that the values within this constraint are calculated by multiplying the number of leaders available and required, by the quality leadership score for each leader. This constraint formally acknowledges the trade-off between the quality and quantity of host nation security force leadership.

One can see that, given the existing constraints on the availability of CERP and quality leadership in the security forces, 4800 is the maximum number of people in the local community that will feel reasonably confident with their level of physical security. However, Figure 4 clearly indicates that if U.S. forces (and their CERP funds) are removed from the system, the number of people in the local community that feel confident with their level of physical security will decrease sharply.<sup>57</sup> Therefore, in order for there to be a sustainable (bottom-up) solution to security and development in the area, an effective, local host nation government institutional capacity must be developed in order to capitalize upon any success that has been achieved through the introduction of CERP funds and the infusion of higher quality host nation security force leadership.<sup>58</sup>

To represent this additional requirement then, imagine a third constraint that is added to the original system of equations.<sup>59</sup> This third constraint represents the capacity to govern at the

---

<sup>56</sup> Real-world scenarios usually contain more than two variables. However, by limiting the problem and solution space to two variables, it allows the reader to easily understand the fundamental relationship between the binding constraints and the maximum output of the system. See: Mokhtar S. Bazaraa, John J. Jarvis, and Hanif D. Sherali, *Linear Programming and Network Flows, 2<sup>nd</sup> Edition* (New York City: John Wiley & Sons, 1990), 14 – 23.

<sup>57</sup> If the availability of CERP funds goes to 0 and based on the (poor) assumption inherent in this linear model that the level of CERP invested is completely independent of the quality of host nation security force leadership in the area, according to Figure 4, the maximum number of people that would feel reasonably confident with their security becomes  $2(0) + 8(350) = 2800$  people.

<sup>58</sup> This is in keeping with previously cited doctrine, as well as recent counterinsurgency (COIN) guidance issued by the Commander of the International Security Assistance Force (ISAF) in Afghanistan to members of that organization. See: David Petraeus, Commander – International Security Assistance Force (COMISAF), “COMISAF’s Counterinsurgency Guidance,” Kabul, Afghanistan: International Security Assistance Force (ISAF), July 27, 2010.

<sup>59</sup> This constraint is not represented by a variable depicted in Figure 3, instead it is intended to demonstrate the relationship between security, and other lines of effort (LOEs) that exist in a stability operations environment. See: United States Department of the Army, *Field Manual 3-07, Stability Operations*, 4-9 – 4-11. This constraint is also intended to reflect the requirement that enduring stability

lowest levels in Afghanistan and Pakistan – the district and tribal level. It equates to the host nation’s ability to translate the temporary increase in CERP funds and (hopefully) long-term increase in quality security force leadership into enduring non-security oriented benefits that will permit a sustainable stability. This constraint says that for every dollar of CERP that is invested, one man-hour of local governance leadership is required per week to lay the foundations for sustainable, non-security oriented benefits that will directly translate into increasing the local populace’s confidence in the capability of their institutions to keep them safe.<sup>60</sup> Similarly, it says that for every “quality point” of security force leadership that is allocated, two man-hours of local governance leadership are required per week.<sup>61</sup> The cap on availability of local governance leadership is 500 man-hours per week. Applying this third constraint to the previous system of equations and depicting it graphically results in the information shown in Figure 5. By inspection, one can see that with the addition of the third constraint, the new maximum number of people that will feel confident in their security will be significantly less than 4800 people.<sup>62</sup>

---

will only occur by “bring[ing] about transformation that is generated and sustained over time from within”. See: *Capacity Development: A UNDP Primer*, 5.

<sup>60</sup> Assume this role would be to coordinate the use of CERP funds so that they could be directed in a manner that would yield the greatest benefit for the village.

<sup>61</sup> Assume that this role is a bit more time consuming because of the requirement to meet with other, busy leaders with potentially competing agendas.

<sup>62</sup> This new number of people that are confident in their local security forces can be computed mathematically (and easily), as well, since the “optimal” solution for a problem of this nature must occur at an extreme (corner) point within the feasible (dark shaded) region of the graph. See: Bazaraa, et. al., 89 – 97.

$$\begin{aligned} \text{Maximize: } & 2X_1 + 8X_2 \quad (\# \text{ of people confident in their local security forces}) \\ \text{Subject to: } & X_1 \leq 1000 \quad (\text{Amount of CERP available}) \\ & X_2 \leq 350 \quad (\text{Quality HNSF leadership available}) \\ & X_1 + 2X_2 \leq 500 \quad (\text{Local governance leadership available}) \end{aligned}$$

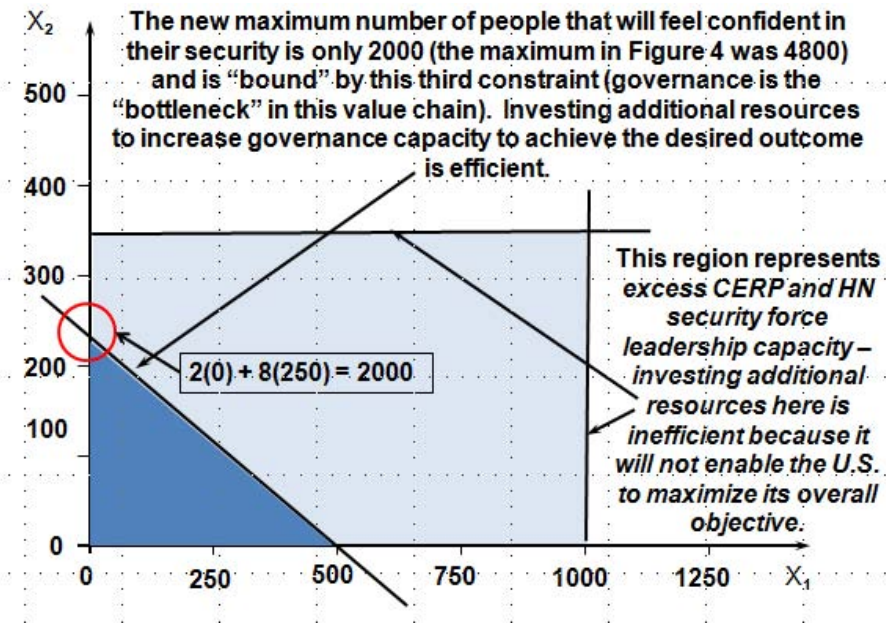


Figure 5: Same problem scenario as depicted in Figure 4, but with the third constraint added.

By analyzing the structure and the individual variables of the operational environment by using a linear model (Figures 4 and 5), it is possible to identify excess resource capacity in the system (e.g. CERP). It is also possible to identify those high payoff constraints (e.g. level of host nation governance) that, if resources were to be shifted to address them, would enable the U.S. to achieve desired objectives more efficiently and effectively.<sup>63</sup> However, given that the actual

---

<sup>63</sup> This conclusion is consistent with Collier and Hoeffler's research that states that massive amounts of foreign aid introduced within post-conflict societies can be counterproductive and should be avoided until the "absorptive capacity" of the host nation government and economy has been increased.

system under investigation is complex and highly nonlinear, great care should be exercised before drawing conclusions from a linear model (Figures 4 and 5).<sup>64</sup> Indeed, while there are still bottleneck constraints in complex systems, the system's response to the shifting of resources to address these bottlenecks can often defy the type of proportional response one would expect to see in a linear system.<sup>65</sup> Because of this, it is often more critical to analyze the nonlinear behavior of a system to identify those key areas in which to intervene. This monograph will refer to these key areas as areas of "high leverage" within the system and they can be identified when relatively small amounts of resources are applied at those areas and they are able to generate a disproportionately large or nonlinear response from the system.<sup>66</sup> Before proceeding, it should be noted that high leverage areas are rarely individual variables or parameters. Instead, high leverage areas, like the rest of the complex system, are generally sets of dynamic relationships between variables and groups of variables, also known as "causal-loops," or just "loops."<sup>67</sup>

By extension, this monograph contends that the U.S. will only achieve political objectives in stability and reconstruction operations at costs that are commensurate with benefits over the long-term, given the current operational approach, if stability and reconstruction operations employ a bottom-up approach to capacity-building within "high leverage" areas of the

---

See: Paul Collier and Anke Hoeffler, *Aid, Policy, and Growth in Post-Conflict Societies*, World Bank Policy Research Working Paper No. 2902, New York City: World Bank, 2002, 1.

<sup>64</sup> Linear approximations, when aggregating data at a "sufficiently" high level, have been demonstrated to yield results that are adequate to permit informed decision-making. See: Mark A. Gallagher, Anthony W. Snodgrass, and Gregory J. Ehlers, "Input-Output Modeling for Assessing Cascading Effects," *Military Operations Research*, Volume 10, Number 2 (2005): 8 – 9.

<sup>65</sup> Beinhooker, 102 – 107.

<sup>66</sup> See: Peter M. Senge, *The Fifth Discipline: The Art & Practice of the Learning Organization* (New York City: Currency Doubleday, 2006).

<sup>67</sup> Sterman, Chapter 5.

system. Unfortunately, “[h]igh leverage policies are often not obvious.”<sup>68</sup> Regardless, the recent decision to re-allocate a scarce resource (U.S. interagency civilians) from areas perceived to possess low leverage within the system (the Afghan central government in Kabul) to areas perceived to possess high leverage within the system (Afghan provincial and district level governments) is an example of this principle in action.<sup>69</sup> Nevertheless, simply re-allocating scarce resources is insufficient to accomplish larger U.S. political objectives. Indeed, where these scarce resources are allocated within the system, and defining the purpose of their actions at these high-leverage areas is of critical importance. However, before proceeding with the analysis, it is necessary to identify the broad categories of areas in complex systems in which high leverage is said to be achieved. Meadows contends that the following are the most effective places to intervene in the system, in increasing order of significance – three of which will be explored within the context of the Afghanistan-Pakistan operational environment in the next section of this monograph:<sup>70</sup>

1. Constants, parameters, numbers
2. The sizes of buffers and other stabilizing stocks, relative to their flows
3. The structure of materials stocks and flows
4. The lengths of delays, relative to the rate of system change

---

<sup>68</sup> Sterman, 22.

<sup>69</sup> United States Department of State, Office of the Special Representative for Afghanistan and Pakistan, “Afghanistan and Pakistan Regional Stabilization Strategy,” i, 3.

<sup>70</sup> The least effective place to intervene in a system is through “constants, parameters, and numbers” and the most effective place to intervene in a system is through the “power to transcend paradigms.” Donella Meadows, “Leverage Points: Places to Intervene in a System,” *Sustainability Institute*, 1999, 3 – 19, [http://www.sustainer.org/pubs/Leverage\\_Points.pdf](http://www.sustainer.org/pubs/Leverage_Points.pdf) (accessed June 3, 2010). The list comes from Meadows, who was a first-generation student of the Massachusetts Institute of Technology (MIT) professor who pioneered the use of system-dynamics in the late 1960s, Dr. Jay Forrester. Dr. Forrester’s concepts permeate the contemporary systems-thinking literature.

5. The strength of negative feedback loops, relative to the impacts they are trying to correct against
6. The gain around driving positive feedback loops
7. The structure of information flows
8. The rules of the system
9. The power to add, change, evolve, or self-organize system culture
10. The goals of the system
11. The mindset or paradigm out of which the system – its goals, structure, rules, delays, parameters – arises
12. The power to transcend paradigms

The following areas that will be explored more fully in the analysis include: intervening in the system through parameter adjustment, intervening in the system through the adjustment of the structure of the system, and intervening in the system through the adjustment of the rules and incentives of the system. Other areas not analyzed here are fruitful topics for future research.

One additional note about capacity-building must be made before commencing with the analysis. While this monograph does contend that resources for capacity-building in a stability and reconstruction operations environment should be directed primarily in support of a bottom-up approach, the aforementioned list of areas where high leverage can be achieved in a system infers that top-down driven development must occur, also. Therefore, at no time should the reader infer from this monograph that the development of the governments in Kabul or Islamabad should be neglected for achieving success in rural areas. However, this does infer that the level of investment in top-down driven capacity-building should be proportional to the level of

competence and trustworthiness of the indigenous authorities in Afghanistan and Pakistan, and also proportional to the level of monitoring and supervision available through responsible agents of the intervening power – the United States.<sup>71</sup>

## **Summary of Methodology**

The primary purpose of the methodology, besides introducing primary assumptions, was to introduce the importance of building capacity within the stability and reconstruction operational environment from the bottom-up. However, because it is not feasible to allocate resources to capacity building efforts in all areas of the system, resources must be assigned to “bottleneck constraints,” or when looking at it from a complex systems perspective – to areas within the system from which high leverage can be obtained. Possibly the most significant point is that each of these variables, actors, causal loops, and leverage points must ultimately all relate to the fundamental objective within the overarching problem frame – building sufficient indigenous business sector development capacity in Afghanistan and the tribal areas of Pakistan such that the political objective of preventing future terrorist attacks against the United States can be achieved.<sup>72</sup>

---

<sup>71</sup> Collier and Hoeffler, *Aid, Policy, and Growth in Post-Conflict Societies*, 1. See, also: Special Inspector General for Afghanistan Reconstruction, *SIGAR: Quarterly Report to the United States Congress*, Periodic update to the U.S. Congress, Washington D.C.: U.S. Government Printing Office, July 2009, SIGAR’s Letter to Congress.

<sup>72</sup> United States Department of the Army, *Field Manual 5-0, The Operations Process*, (Washington D.C.: United States Government Printing Office, 2010), 3-7 – 3-13.

# Analysis

## Overview of Analytical Framework

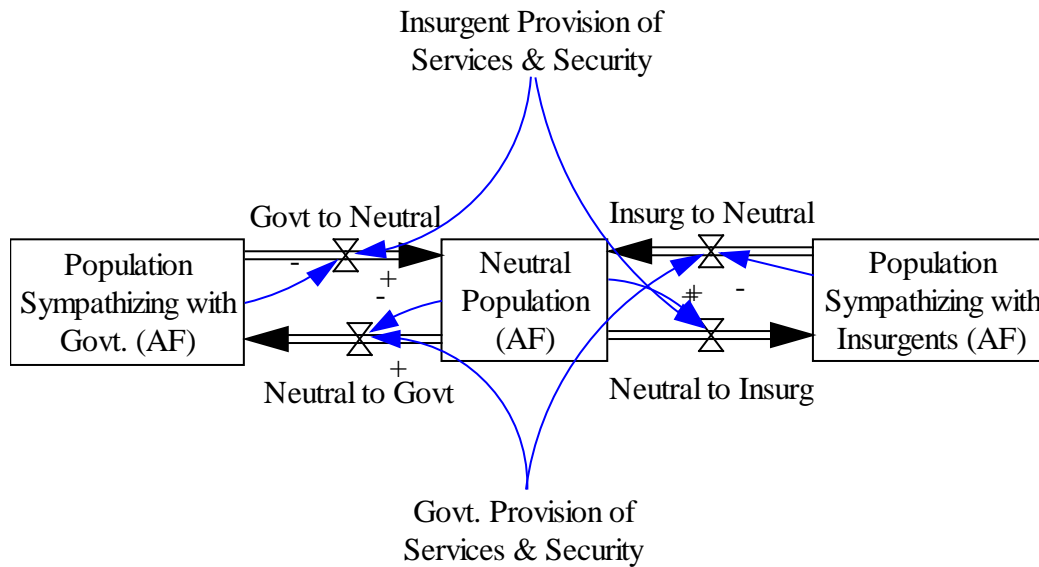
Figure 6 shows the system dynamics model that will be utilized throughout the analysis in order to demonstrate the principles of identifying measurable gaps in capacity and “high-leverage” places to intervene in the system. The model currently reflects a government actor and a terrorist actor competing for the loyalty of the populace via the provision (or denial) of essential services and security. The model will assist in articulating the argument that a successful operational concept in stability and reconstruction operations must allocate resources against “bottleneck” capacity constraints within the system in order to expand the capability, or “carrying capacity,” of the system in order to enable the U.S. to achieve its political objectives.<sup>73</sup> However, this model will also help articulate two other points that have been made in this monograph. The first is that the aforementioned additional human and financial resources should not be provided solely or directly to the public sector in Afghanistan, but through a combination of public and private sector investments. The second is that these investments should be made primarily at the local, versus central government, level – although the proportion of public versus private, and central versus local investments must necessarily shift as a function of local security conditions in order to achieve enduring stability within the operational environment.<sup>74</sup> These arguments will be further developed by considering the three broad “high leverage” areas in which to intervene

---

<sup>73</sup> For a discussion on carrying capacity see: Donella H. Meadows, Dennis L. Meadows, and Jorgen Randers, *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future* (White River Junction, Vermont: Chelsea Green Publishing Company, 1992), 108 – 127.

<sup>74</sup> Carl J. Schramm, “Expeditionary Economics: Spurring Growth after Conflicts and Disasters,” *Foreign Affairs* (May – June 2010).

in the system, through the adjustment of parameters that define the system, through the adjustment of the structure of the system, and through the adjustment of the rules and incentives of the system.



**Figure 6: Baseline system dynamics model indicating a competition between the counterinsurgent and insurgent for the loyalty of the populace.<sup>75</sup> The abbreviation (AF) stands for Afghanistan.**

<sup>75</sup> The baseline, and subsequent, system dynamics models were inspired by United States Navy Captain (O-6) Brett Pierson’s presentation which was shared with the author in March 2010 by an Advanced Military Studies Program faculty member. See: Brett Pierson, *A System Dynamics model of the FM 3-24 COIN Manual* (Washington D.C.: Office of the Secretary of Defense, J8/ Warfighting Analysis Division (WAD)) [http://www.earth-intelligence.net/dynamaster/file\\_archive/100513/f5ffe44103bf516a5191d460bc8b3d98/System\\_Dynamics\\_and\\_COIN\\_Modeling\\_v13.ppt.pdf](http://www.earth-intelligence.net/dynamaster/file_archive/100513/f5ffe44103bf516a5191d460bc8b3d98/System_Dynamics_and_COIN_Modeling_v13.ppt.pdf) (accessed August 24, 2010). It should be noted that categorizing the segments of the population into these three broad categories (“sympathizing with government,” “sympathizing with insurgents,” and “neutral”) is a fairly standard convention. See: Eitan Azani, *Hezbollah: The Story of the Party of God – From Revolution to Institutionalization* (New York City: Palgrave Macmillan, 2009), 2 – 3.

## The Case for a “Bottom-up” Approach to Capacity-Building in Stability and Reconstruction Operations

### Intervening in the System through Parameter Adjustment

Recall the initial assumptions and inferences that were presented in the methodology section. Specifically, the inference that can be drawn from Berman, et al.’s claim that an increase in bottom-up (CERP) investment was demonstrated to be correlated with a decrease in violent activity in a stability operations environment, while top-down investments did not yield similar benefits.<sup>76</sup> This inference supports the argument for a bottom-up approach to capacity building within a population-centric COIN, stability operations environment. Indeed, if one is to attempt to achieve leverage within the system through the adjustment of key parameters, the parameter “level of CERP investment” is certainly one that must be considered more fully, even if the data only provides reasonable upper and lower bounds for a dependent variable under consideration (e.g. “level of violent activity”).<sup>77</sup> However, before a specific case for bottom-up capacity development can be made, consider a more general instance in which the provision of services

---

<sup>76</sup> Berman, et al.’s analysis does attempt to control for bias associated with the increase in troop strength during the “surge”; bias related to data reporting and collection; and increased graft-related violence associated with an increase in CERP funds. Berman, et. al., 34 – 37.

<sup>77</sup> Meadows, 5 – 7. Major General Flynn’s (International Security Assistance Force (ISAF) CJ2 from 2009 – 2010) much publicized intelligence and data mining efforts to help achieve a “rich contextual understanding of Afghanistan” epitomizes the vital, yet limited, benefits associated with gathering appropriate “constants, parameters, and numbers” in order to identify the most effective places to intervene in a system. See: Michael T. Flynn, Matt Pottinger, and Paul D. Batchelor, “Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan,” *Center for a New American Security*, January 2010, [http://www.cnas.org/files/documents/publications/AfghanIntel\\_Flynn\\_Jan2010\\_code507\\_voices.pdf](http://www.cnas.org/files/documents/publications/AfghanIntel_Flynn_Jan2010_code507_voices.pdf) (accessed January 15, 2010). The “Fixing Intel” document reflects the thinking that generated the provincial surveys which this monograph relies upon heavily for data. See: International Security Assistance Force (ISAF), “Helmand Province Survey Report,” *Human Terrain System Afghanistan Provincial Report*, Burlington, MA: Glevum Associates, April 2010. The survey reports for Kandahar and Kunduz are cited similarly in the bibliography.

and security is related to desired outcomes and how this relates to attempting to gain leverage in the system through parameter adjustment.

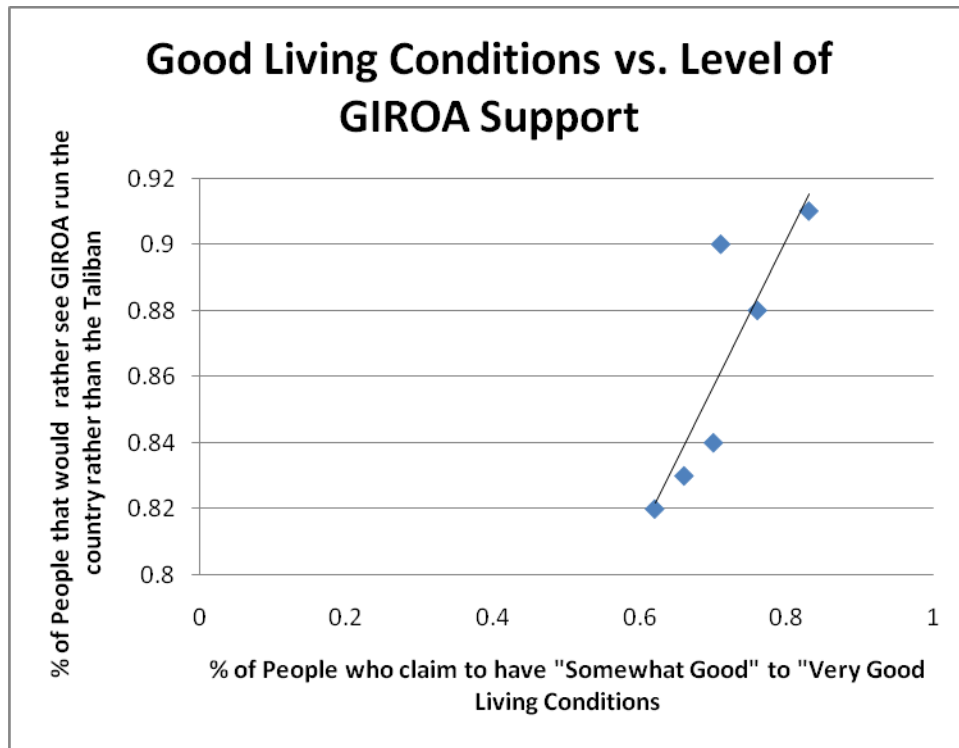
Consider British Broadcasting Corporation (BBC) polling data taken between 2005 and 2010 that is shown in a scatter-plot (Figure 7).<sup>78</sup> The plot indicates the relationship between two parameters (variables) that are represented in the baseline model (Figure 6). The independent variable (x-axis) that is depicted in Figure 7 represents the percentage of people in Afghanistan who rated their living conditions as “good” to “very good.” In this case, living conditions are intended to be a proxy measure for the Government of the Islamic Republic of Afghanistan’s (GIROA) ability to deliver services and security to the population.<sup>79</sup> Hence, the coordinates of the data points along the horizontal axis represent the variable “Government Provision of Services and Security” that is depicted in the baseline model (Figure 6). Similarly, the dependent variable (y-axis) that is depicted in Figure 7 represents the percentage of people in Afghanistan who would prefer to see the government, rather than the Taliban, in charge of the country. In this second instance, this preference statement is a proxy measure indicating the degree of loyalty that

---

<sup>78</sup>Afghan Center for Socio-Economic and Opinion Research (ACSOR), “Afghan Poll,” *British Broadcasting Service (BBC)*, [http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/11\\_01\\_10\\_afghanpoll.pdf](http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/11_01_10_afghanpoll.pdf) (accessed July 28, 2010). [From poll results] “This survey was conducted for ABC News, the BBC and ARD by the based in Kabul, a D3 Systems Inc. subsidiary. Interviews were conducted in person, in Dari or Pashto, among a random national sample of 1,534 Afghan adults from 11-23 December, 2009.” Data for the year 2008 was omitted from the time series, so this analysis approximated the value for 2008 by taking the average of the values for 2007 and 2009.

<sup>79</sup> While the polling data does not convey the sources of revenue that funded the services rendered by the government, it should be noted that the majority of these services were most likely funded by external donors and not sustainably funded by GIROA since Afghanistan “domestic revenues have been sufficient to cover only 45 percent of total core expenditures. The operating budget deficits and core development expenditures are all covered by donors.” See: Department for International Development (DFID), *Working Paper 2 for Afghanistan Public Expenditure Review 2010: Public Expenditure Trends and Fiscal Sustainability*, Working paper series for Afghanistan Public Expenditure Review 2010, New York City: World Bank, 2010, 4.

the population feels towards the government represented by the variable “Population sympathizing with Government” in the baseline model (Figure 6). It should be noted that because it is impossible to obtain the type and quantity of open-source data that measures the baseline model variables directly, proxy variables are used throughout this portion of the analysis.<sup>80</sup>



**Figure 7: Plot of Living Conditions versus Level of Support for Government in Afghanistan from BBC/ ASCOR data gathered between 2005 – 2010. This data is not presented as a time-series graph, so it should be noted that periods of lowest popular support for the Afghan Government were from 2007 – 2009.**

---

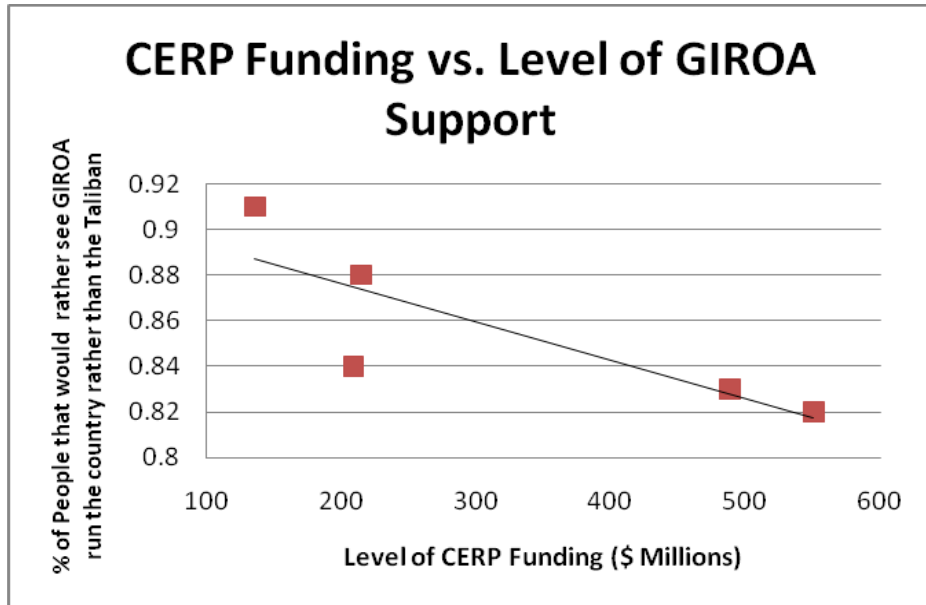
<sup>80</sup> For a discussion of how proxy variables are used to conduct modeling and analysis, see: Parnell, et al., Chapter 9.

One can clearly see in Figure 7 a strong, direct, and positive correlation between the provision of essential services and the level of popular support for the Government of the Islamic Republic of Afghanistan (GIROA). However, while the data set in Figure 7 appears to support the larger presumption that people who are happy with their essential services are generally predisposed to supporting their government, it does warrant further scrutiny.<sup>81</sup> Specifically, when the same levels of popular support utilized in Figure 7 are plotted as a function of the level of CERP investment in Afghanistan in toto (Figure 8), the results appear to be much less conclusive.<sup>82</sup>

---

<sup>81</sup> Even in Figure 7, the  $R^2$  value is only 0.6146, which means that only 61% of the variability in the model is explained solely by the relationship between the level of popular support for the government (the dependent variable) and the level of overall service satisfaction (the independent variable) – although this may still be the single greatest factor.

<sup>82</sup> For Afghanistan funding data, see: Curt Tarnoff, “Afghanistan: US Foreign Assistance,” *Congressional Research Service Report*, June 25, 2010, 12, 16 [http://assets.opencrs.com/rpts/R40699\\_20100625.pdf](http://assets.opencrs.com/rpts/R40699_20100625.pdf) (accessed August 26, 2010). With regards to Berman, et al’s NBER paper, it should be noted that the authors did not attempt to make a claim of universal applicability, nor did they attempt to use the variable associated with the level of violence as a proxy variable for the level of popular support. See footnote 47 for a brief overview of the methodological background that Berman, et al. used in their paper.

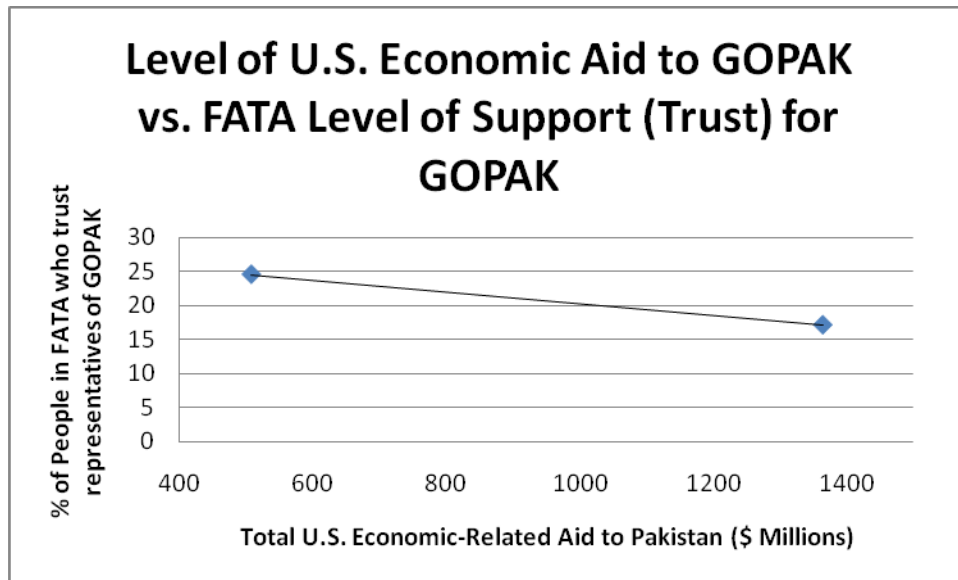


**Figure 8: Plot of Level of CERP Funding versus the Level of Support for the Government in Afghanistan between 2005 – 2009.**

Even more vexing to U.S. policy-makers than the scenario painted in Figure 8, though, is the one depicted in Figure 9 that shows that residents inside the FATA are less inclined to trust (support) the government of Pakistan (GOPAK), despite a significant increase in U.S. economic-development aid to Pakistan.<sup>83</sup>

---

<sup>83</sup> The US government does not execute the CERP program in Pakistan. Therefore, this monograph uses the budget category “Total U.S. Economic-Related Aid” instead. See: K. Alan Kronstadt, “Direct Overt US Aid and Military Reimbursements to Pakistan, FY2002-FY2011,” *Congressional Research Service Report*, July 6, 2010, 1, <http://www.fas.org/sgp/crs/row/pakaid.pdf> (accessed August 26, 2010). Unfortunately, given the available data there is no way to determine the amount of economic aid that is distributed to the FATA based on what the GOPAK receives.



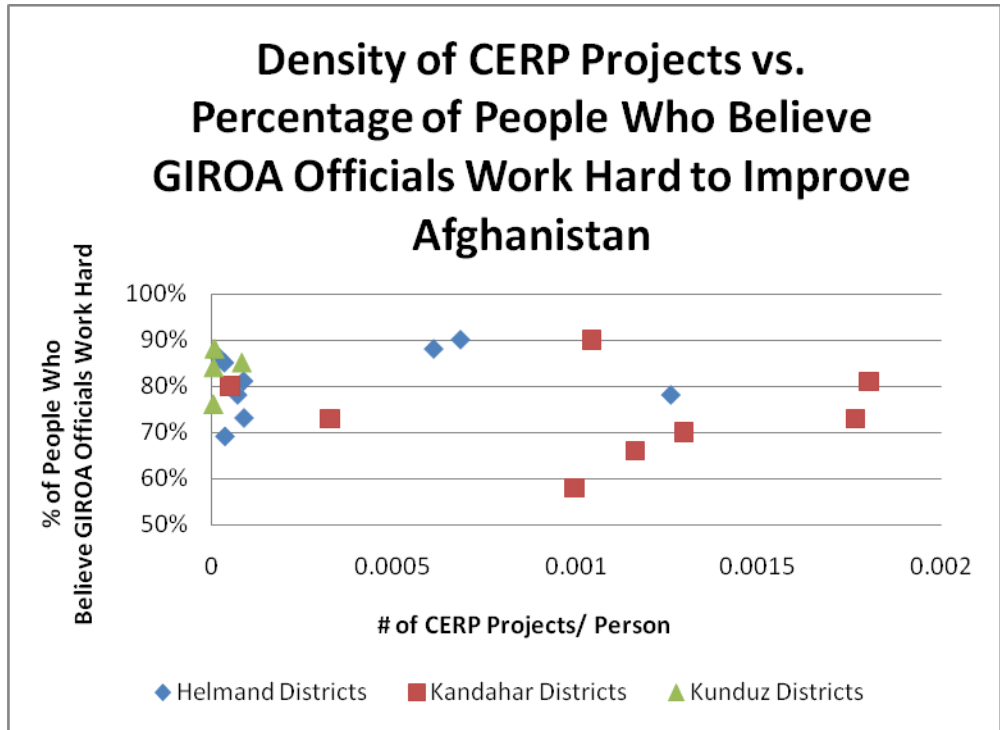
**Figure 9: Plot of Level of U.S. Economic Aid to Pakistan versus the Level of Support that the populace in the FATA feels towards the Government of Pakistan between 2008 – 2009.<sup>84</sup>**

While not as disheartening as the results depicted in Figure 9, Figure 10 paints a picture that can be considered inconclusive, at best, with respect to the impact that CERP investments have had on the ability to generate popular support for GIROA at the district and provincial level in several critical districts.<sup>85</sup>

---

<sup>84</sup> Unfortunately, the limiting factor in this analysis is the amount of popular opinion data available on the FATA. Given the diverse demographics within Pakistan, this monograph did not consider popular opinion data for Pakistan as a whole, which is readily available, to be a suitable proxy for the level of support that inhabitants of the FATA feel towards GOPAK. See: Community Appraisal and Motivation Programme (CAMP), “Understanding FATA: Attitudes towards Governance, Religion and Society in Pakistan’s Federally Administered Tribal Areas, Volume III,” *understandingfata.org*, 2009, 36 <http://www.understandingfata.org/aboutcamp.php> (accessed August 1, 2010).

<sup>85</sup> For data related to CERP projects, see: International Security Assistance Force (ISAF) Regional Command – Southwest, “RC-SW CERP Projects Reported in CIDNE in the Last 12 Months,” *info.publicintelligence.net*, August 2010, <http://info.publicintelligence.net/RC-SW-CERP.pdf> (accessed September 13, 2010). The CERP reports for Regional Commands “South” (Kandahar) and “North” (Kunduz) are cited similarly in the bibliography. For data related to the population of districts within the provinces of Helmand, Kandahar, and Kunduz provinces, see: Afghanistan Ministry of Rural



**Figure 10: Plot of the percentage of people in key districts that felt that GIROA officials worked hard to improve Afghanistan as a function of the number of CERP projects per person, in each district.** <sup>86</sup>

Rehabilitation and Development (MRRD), “Provincial Development Plan, Helmand: Provincial Profile” *Afghanistan Ministry of Rural Rehabilitation and Development (MRRD) and National Area-Based Development Program (NABDP)*, 2006, <http://www.mrrd.gov.af/nabdp/Provincial%20Profiles/Helmand%20PDP%20Provincial%20profile.pdf> (accessed September 13, 2010). The reports for Kandahar and Kunduz provinces are cited similarly in the bibliography.

<sup>86</sup> The Human Terrain System surveys for Afghanistan did not ask respondents a direct question about their level of support for GIROA. Instead, the surveys asked respondents in these three provinces (Helmand, Kandahar, and Kunduz) to indicate whether they thought “national officials work hard to improve Afghanistan.” Because of the survey’s use of this convention, this monograph uses the people’s perception of GIROA’s willingness to “work hard” as a proxy variable to reflect the level of popular support for GIROA. See: International Security Assistance Force (ISAF), “Helmand Province Survey Report.” The surveys for Kandahar and Kunduz are cited similarly in the bibliography. While unclassified, these surveys were not obtained via open source, but directly from the senior social scientist for the International Security Assistance Force (ISAF). However, several sites on the internet have posted them since their release in the spring of 2010. The “# of CERP projects/ person” values were calculated by dividing the total number of CERP projects conducted in that district by the total number of people in the district. See the previous footnote for references for CERP project and district population data.

Clearly, if the U.S. political goal is to reduce the amount of terrorist safe havens in Afghanistan and Pakistan; and if the means by which this is to be accomplished is by ensuring that the government of each of these countries is able to broadcast enough power to eliminate these havens, then adjusting the parameter associated with financial aid will not be sufficient. Of course, political and military leadership understand intuitively that simply adjusting the number of any parameter (financial aid, military aid, number of civilian experts, etc.) is insufficient in and of itself to achieving political goals. Even in their paper, Berman, et al do not ever attempt to suggest that CERP or any other type of bottom-up or local investments are a “silver bullet” within the larger operational approach to stability and reconstruction operations. However, in the absence of adopting systems-thinking principles, calling for additional resources to tackle underlying structural and behavioral deficiencies in the system is an oft-cited prescription.

That is not to say, that there are not times when it is perfectly appropriate to intervene in the system by adjusting parameters associated with the levels of resources committed to the problem. Meadows states the following:

Parameters become leverage points when they go into ranges that kick off one of the items later on this list [see end of methodology section]... These critical numbers are not nearly as common as people seem to think they are. Most systems have evolved or are designed to stay far out of critical parameter ranges. Mostly, the numbers are not worth the sweat put into them.<sup>87</sup>

That is to say, eliminating as much variance in data sets is useful in any sort of hypothesis test. It is just generally unnecessary to obtain the same level of precision in a stability operations environment that one would expect to find in data sets collected in a laboratory or academic

---

<sup>87</sup> Meadows, 6.

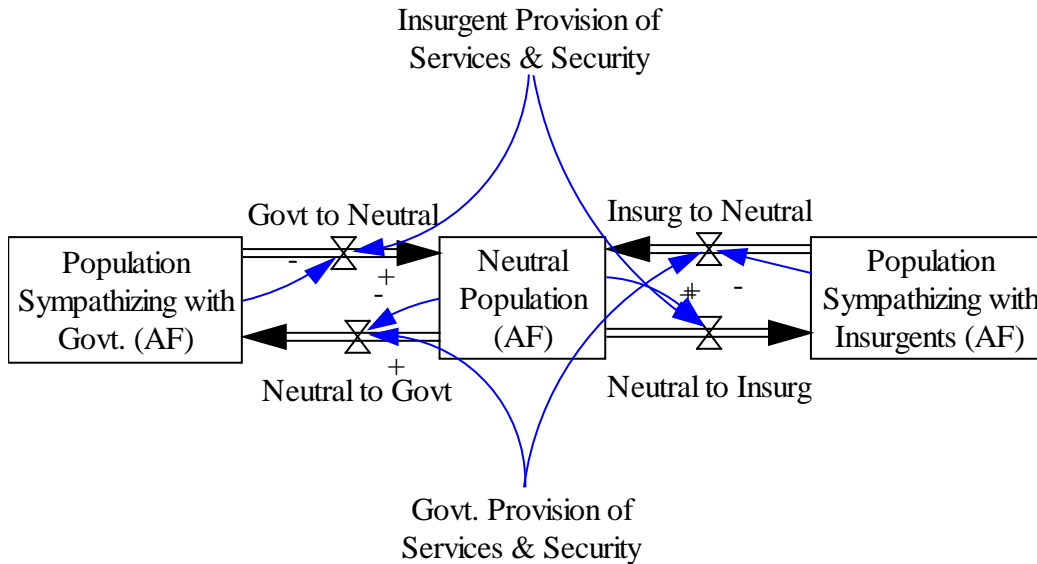
environment.<sup>88</sup> It is for this reason, as well as the fact that it is difficult to ascribe meaning to data in these types of operational environments, that parametric data obtained in these circumstances should be regarded broadly in order to establish boundary conditions for explanatory models, as opposed to looking for precise point estimates. It is also for this reason that when attempting to intervene in a complex system in order to achieve leverage over an outcome, attempting to adjust the structure of the system (as opposed to adjusting parameters) will generally result in achieving benefits that are closer to being commensurate with costs.

### Intervening in the System through the Adjustment of the Structure of the System

The structure of the system depicted by the model in Figure 6 (repeated below as Figure 11, for ease of reference) belies the underlying complexity in the operational environment. However, the model does enable the reader to see the fundamental structure of the primary variables within the system, as well as the relationships between those variables.

---

<sup>88</sup> This is not to say that obtaining data in accordance with the commander's priorities should not be done. Findings in classified documents seem to indicate that data gathering and analysis, as part of a larger targeting cycle process, can be an extremely useful predictive analysis tool in stability operations. For the utility of hypothesis generation and testing in a military application, see: United States Department of the Army, *Field Manual 5-0, The Operations Process*, Chapters 2 and 6. For an overview of relevant data analysis techniques, see: Douglas C. Montgomery, *Design and Analysis of Experiments, 5<sup>th</sup> Edition* (New York City: John Wiley and Sons, Inc., 2001).



**Figure 11: Copy of Figure 6, the baseline system dynamics model used within the analysis.**

Buffers are one of the most important structural elements within a system. In simple terms, a buffer is a supply or reserve of something that serves as a hedge against risk and uncertainty. Sterman states that a buffer can be physical, such as a man-made reservoir that is designed to store a certain quantity of water to mitigate the risk associated with drought or to provide hydroelectric power. The amount of water in the reservoir is based on the amount of rain, surface, and subsurface water flow that has occurred in the past, minus the amount of water that has been released (or evaporated) from the reservoir. A common buffer against uncertainty in a military context is a reserve force that can respond to emergencies within the operational environment. A buffer can also be psychological, such as the level of trust or goodwill that a

population feels towards another actor or group. In each of these cases, the buffers accumulate the input and output “flows” of past events.<sup>89</sup>

Changing the size or composition of a buffer certainly affects the structure of the system, but it can be difficult to do, since, as one will recall from the previous section on parameter adjustment: “[m]ost systems have evolved or are designed to stay far out of critical parameter ranges.”<sup>90</sup> In the case of Figure 6 (11), the buffers also happen to be the state variables of the system. That is, the variables “Population sympathizing with Government,” “Neutral Population,” and “Population sympathizing with Insurgents” all define the state, or nature, of the system in a population-centric COIN environment, but they also represent large stocks of people in the operational environment. This analysis will identify two general types of buffers that influence the environmental context in Afghanistan and Pakistan: operational level buffers and strategic level buffers.<sup>91</sup> Key operational level buffers that influence the ability of the U.S. to deny safe havens to terrorists include:

1. People (the aforementioned three state variables);
2. Attitudes; and
3. “Absorption” capacity of indigenous institutions.

---

<sup>89</sup> This monograph will use the terms buffers and stocks interchangeably. The term for a “buffer” varies by discipline. Some other common terms for the function that a buffer provides within a system are: inventory (manufacturing), state variables or integrals (mathematics and engineering), levels (economics), and reactant products (chemistry). See: Sterman, 197 – 198.

<sup>90</sup> Meadows, 6.

<sup>91</sup> For formal definitions of “operational level” and “strategic level” of war, see: United States Department of Defense, *Joint Publication 1-02, DoD Dictionary of Military and Associated Terms*, 344, 448. With respect to these two definitions, the key point is that “[a]ctivities at this [operational] level link tactics and strategy by establishing operational objectives needed to achieve the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events.”

The notion of strategic level buffers, such as the use of Afghanistan as a security buffer by either Pakistan or India, is not the focus of this monograph and will only be addressed briefly within this analysis.<sup>92</sup>

The first operational level buffer, people, is associated with the three state variables in the model and is also related to the final inference that was addressed in the methodology section. Specifically, that without integrating mechanisms stimulated by business sector development, the likelihood that the GIROA will be able to broadcast sufficient power in order to prevent the establishment of terrorist safe-havens within its territory will ultimately be limited to a certain subset of the total population of Afghanistan.<sup>93</sup> Thus, assuming no integrating mechanism and assuming that many key districts within the southern and eastern provinces of Afghanistan have a propensity to support the Taliban, the maximum number of people that the GIROA will be able to exert control over will remain limited to the number of people who have historically demonstrated an affinity for Durrani confederation leadership, plus a certain portion of the population who are currently neutral.<sup>94</sup> These assumptions were incorporated into the simulation (Figure 6 (11)) which was run using both the “best case” conditions of popular support for GIROA as reflected in the BBC/ ASCOR polling data (Figure 7) as well as using a “worst case”

---

<sup>92</sup> Cohen, 323 – 324.

<sup>93</sup> The rationale for making this statement is tied to the fundamental nature of a buffer. That is to say, the tendency of a buffer is to remain relatively fixed at a size that was either constructed based on a deliberate design effort, such as the aforementioned water reservoir, or is based on historical, adaptive system behavior, such as the number of people inclined to support one’s own clan, tribe, or ethno-lingual group. While the size of the buffer might help mitigate micro-level risk to a subset of the population, it can simultaneously serve as an obstacle to macro-level goals.

<sup>94</sup> For insights into the Durrani influence among Afghans, see: Malou Innocent and Ted Galen Carpenter, “Escaping ‘The Graveyard of Empires’: A Strategy to Exit Afghanistan,” The CATO Institute, September 2009, 11, <http://www.cato.org/pubs/wtpapers/escaping-graveyard-empires-strategy-exit-afghanistan.pdf> (accessed November 12, 2010). For insights into Taliban and ISI influence among Afghans, and the use of Afghanistan as a strategic buffer by both Pakistan and India, see: Waldman, as well as Kaplan’s “South Asia’s Geography of Conflict.”

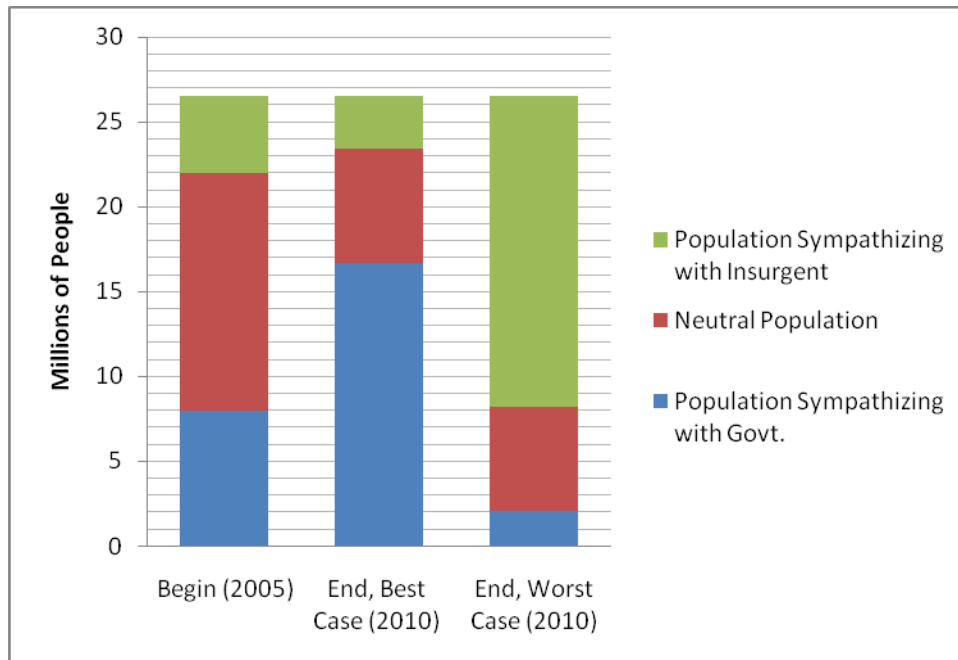
condition reflected in the Kandahar district data (Figure 10). In both cases, the same initial values were used for population data in 2005: “Population Sympathizing with Government” (8 Million), “Neutral Population” (14 Million), and “Population Sympathizing with Insurgents” (4.5 Million).<sup>95</sup> Table 1 presents the relevant parameters for the best and worst case scenarios, while Figure 12 presents the results of the sensitivity analysis for each of the state variables.

	<b>Best Case</b>	<b>Worst Case</b>
<b>Mean (Govt. Provision of Svcs)</b>	0.71	0.24
<b>Std. Dev. (Govt. Provision of Svcs)</b>	0.07	0.02
<b>Mean (Insurg Provision of Svcs)</b>	0.29	0.76
<b>Std. Dev. (Insurg Provision of Svcs)</b>	0.07	0.02

**Table 1: Parameters used in the model (Figure 6 (11)) to conduct sensitivity analysis. Note that the mean values are simply complements of one another within each scenario.**

---

<sup>95</sup> These population values represent the initial state of the system in 2005 and were drawn from ethnic/ demographic data as reported in the CIA World Factbook. See: United States Central Intelligence Agency, *The World Factbook: Afghanistan*, August 19, 2010, <https://www.cia.gov/library/publications/the-world-factbook/geos/af.html> (accessed August 26, 2010). Normal probability plots of residuals were conducted to ensure that the underlying data (generally) satisfied the independent and identically distributed (IID) assumptions associated with normal random variables. See: Montgomery, 38 – 40, 77 – 80.



**Figure 12: Sensitivity analysis results for each of the three state variables within each of the three scenarios: Initial Condition, Best Case, and Worst Case.**

One of the most significant implications associated with the simulation results is that even under the most favorable conditions, the GIROA will not be able to directly control seven of its 34 provinces nor approximately five of its 27 million people on a long-term or sustainable basis.<sup>96</sup> Conversely, even under the most unfavorable conditions, the Taliban will not be able to

---

<sup>96</sup> The sustainability-oriented assumption is based on the Afghanistan Public Expenditure Review for 2010 conducted on behalf of the World Bank. See: Department for International Development (DFID), “Working Paper 2 for Afghanistan Public Expenditure Review 2010: Public Expenditure Trends and Fiscal Sustainability,” World Bank working paper series for Afghanistan Public Expenditure Review 2010, 2, 7 – 10 <http://siteresources.worldbank.org/AFGHANISTANEXTN/Resources/305984-1264608805475/6739619-1276813833351/Paper2.pdf> (accessed October 15, 2010). The total estimated population for Afghanistan in 2001 was 26,813,057. See: United States Central Intelligence Agency, *The World Factbook: Afghanistan*. The assumption of seven provinces and five million people are rough estimates for that segment of the Afghanistan population that has been predisposed to being controlled by the Taliban as indicated by Major General Flynn’s unclassified briefing. See: Michael Flynn, “State of the

actually control 13 northern provinces, nor will the international community allow the Taliban to control Kabul as it did prior to Operation Enduring Freedom in 2001.<sup>97</sup> Given the assumptions on the minimum number of people sympathetic to either the GIROA or the Taliban, this leaves approximately 14 million people as the key buffer in the model: the neutral population. Indeed, one of the reasons this neutral population is so large is because, in the absence of a government that is able to exert sufficient control, the population is hedging its risk against an unfavorable outcome in the event another faction (either GIROA or Taliban) ultimately ends up controlling their territory.<sup>98</sup> This desire to remain neutral during times of uncertainty may explain why districts not controlled exclusively by either GIROA or anti-government elements (AGE) in the Helmand and Kandahar provinces in Afghanistan demonstrate a slightly higher level of satisfaction with their level of services and security (Figure 13).<sup>99</sup>

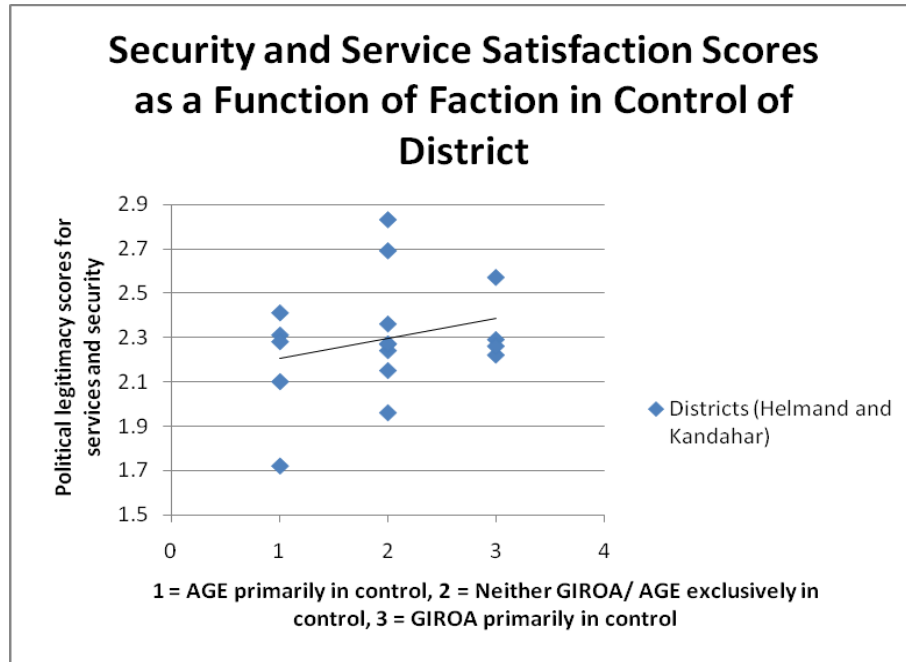
---

Insurgency:Trends, Intentions and Objectives,” Unclassified NATO briefing obtained by the author via e-mail but cited widely on the Internet, December 2009, 18.

<sup>97</sup> Ibid. For additional information on the Taliban Shadow government described in Major General Flynn’s brief, see: Griff Witte, “Taliban shadow officials offer concrete alternative: Many Afghans prefer decisive rule to disarray of Karzai government,” *Washington Post*, December 8, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/12/07/AR2009120704127.html> (accessed September 15, 2010).

<sup>98</sup> Witte, 2009.

<sup>99</sup> See: International Security Assistance Force (ISAF), “Helmand Province Survey Report,” 17, 36. The same data for Kandahar is found in the similarly cited report on pages 40 and 49. The mean service satisfaction score for districts not controlled exclusively by GIROA or an AGE (anti-government element) is 2.35, which is slightly higher than the score of 2.34 for districts controlled primarily by GIROA. However, districts falling into this middle category have the largest standard deviation, 0.28. There are other possible explanations, but these other explanations will be addressed later in the analysis.



**Figure 13: Service satisfaction versus faction (GIROA or AGE (anti-government element)) in control of district.<sup>100</sup>**

Neither of these aforementioned phenomena (inclination of population groups to stay neutral unless ethnically or geographically compelled to stay in one of the competing factions) should come as a surprise. Meadows suggests that attempting to achieve desired system behavior by adjusting the size of the buffers is a relatively high cost, low value proposition, which is why she suggests that it is not one of the more effective ways to achieve leverage in a complex system.<sup>101</sup> This is because attempting to adjust the size of a buffer, without considering the structure of the system as well as perceived risks to actors in the system, is comparable to

<sup>100</sup> The Human Terrain Team (HTT) reports use the term AGE, which is why this term is used within this context.

<sup>101</sup> Meadows, 7. In the case of the first type of buffer, “flows” would be reflected as people moving back and forth between groups (the state variables) over time.

designing the aforementioned reservoir without accounting for the flow rates and topography of the watershed; or considering stakeholder demands for the water contained within the reservoir.<sup>102</sup> Given the difficulty associated with influencing the size of the buffers associated with people, it is prudent to investigate the second type of operational level buffer: attitudes.

When thinking about attitudes as a buffer in the system, consider the Taliban (“Population Sympathizing with Insurgents”) and the segment of Afghanistan’s population formerly affiliated with the Northern Alliance (“Population Sympathizing with Govt.”). There are at least two generations of accumulated distrust and animosity between these two factions (GIROA and anti-government element), with neither side able to provide enough incentives (in the form of services and security), to the neutral or opposing population to sway the people to permanently declare allegiance to one side versus the other.<sup>103</sup> A similar argument can be made for inhabitants of the tribal areas within Pakistan, although the dynamics which exacerbate tensions in this region are different from those dynamics which exist within Afghanistan.<sup>104</sup> Looking at this problem in the context of the current operational environment naturally causes decision-makers to seek courses of action that enable him or her to shape the size of these buffers within the limits of what is reasonable given available resources.<sup>105</sup> Given the U.S.’ current

---

<sup>102</sup> This fundamental assertion lies at the heart of the United States Army’s *Field Manual 3-24, Counterinsurgency*, as well as *Field Manual 3-07, Stability Operations*.

<sup>103</sup> International Security Assistance Force (ISAF), “Helmand Province Survey Report,” 36. The other provincial survey reports provide similar results, but only Helmand and Kandahar district information was included in the model.

<sup>104</sup> Haider A.H. Mullick, *Pakistan’s Security Paradox: Countering and Fomenting Insurgencies* (Joint Special Operations University Report 09-9, Hurlburt Field, Florida: Joint Special Operations University Press, 2009).

<sup>105</sup> United States Army doctrine calls this analyzing the “tendencies” and “potentials” of the actors in the environment. See: United States Department of the Army *Field Manual 5-0, The Operations Process*, 3-10.

population-centric approach to COIN, this naturally results in an operational approach consisting of various proportions of “carrots” (aid for reconstruction projects and similar initiatives) and “sticks” (lethal targeting operations directed against key nodes in the insurgent network). Unfortunately, a top-down driven approach to the distribution of foreign assistance and reconstruction aid (carrots) generally results in mismanaged funds and endemic corruption – which has the second-order effect of the U.S. and the international community squandering blood and treasure without drastically altering the sizes of these buffers.<sup>106</sup> Furthermore, an operational approach emphasizing the primacy of lethal and counter-terrorist (CT) operations (sticks) does little to affect attitude-oriented buffer-sizes over the long run, either.<sup>107</sup> While it might have been possible at the outset of Operation Enduring Freedom (OEF) to marginalize the role that attitudes play within a counter-terrorist oriented operational environment, the subsequent decision by the U.S. to keep forces in Afghanistan and essentially transition to a nation-building effort has fundamentally altered the larger operational environment, rendering it necessary to account for attitudes within Pakistan and India.<sup>108</sup> While adjusting the buffers associated with attitudes in the system is a precondition for adjusting the buffers associated with people in the system, it is clear

---

<sup>106</sup> Previously cited references address the challenges associated with entrusting GIROA with large sums of money and responsibility for providing oversight on large-scale infrastructure and economic-development projects.

<sup>107</sup> While General David Petraeus is widely cited as having remarked, “You can’t kill your way out of an insurgency,” Dr. Thomas Henriksen provides a useful critique of relying solely on a “limited footprint,” counter-terrorist approach to achieving the strategic objective of denying safe havens to terrorists. Thomas H. Henriksen, *Afghanistan, Counterinsurgency, and the Indirect Approach* (Joint Special Operations University Report 10-3, Hurlburt Field, Florida: Joint Special Operations University Press, 2010), 4 – 22.

<sup>108</sup> The argument posited in this monograph runs counter to the views held by Ralph Peters and other scholars and analysts who contend that it is possible, given the new state of the operational environment, to achieve US political objectives in Afghanistan and the sub-continent by maintaining a limited footprint focused almost exclusively upon counter-terrorism operations. See: Ralph Peters, “Trapping Ourselves in Afghanistan and Losing Focus on the Essential Mission,” *Joint Forces Quarterly*, 3<sup>rd</sup> Quarter (July 2009), <http://www.ndu.edu/press/lib/images/jfq-54/18.pdf> (accessed September 15, 2009).

neither of these will be enough to ensure a sustainable peace without addressing the third category of operational-level buffers: “absorption capacity” of indigenous institutions in the system.<sup>109</sup>

This notion of “absorption capacity” of indigenous institutions is directly tied to the capacity-building rationale that was addressed in the methodology (Figures 4 and 5). The fundamental logic being that absorption capacity is the indigenous ability to take the “raw materials” such as CERP and information provided by citizens and transform the raw materials into a more useful desired product or outcome. Once this occurs, it has a positive influence on attitudes, which, in turn, has a positive influence on reducing the size of the neutral and anti-government state variables (buffers) in favor of increasing the size of the pro-government state variable. Upon achieving a positive balance of supportive people, the host nation government is then able to more effectively control its territory and deny safe havens to terrorists.<sup>110</sup>

One of the strengths of the bottom-up approach to capacity-building, because individual projects are smaller in scope than top-down managed development, is that it generally results in multiple projects that are more responsive to the immediate needs and concerns of the local populace. This approach gradually increases the capacity of the system, one (or possibly more) buffer(s) at a time, in a manner that can be sustained by the host nation. To advocate anything

---

<sup>109</sup> Collier and Hoeffler, “Aid, Policy, and Growth in Post-Conflict Societies,” 1.

<sup>110</sup> Despite the description that is provided for simplicity, at no time does this monograph attempt to suggest a linear approach to this process. The term “positive balance” does not imply a simple comparison of the number of people between groups, nor that the same approach to capacity building will yield constant, or proportional, results over time.

other than a bottom-up approach is illogical if one considers that the size of the buffer at a bottleneck (from a linear systems perspective) is equivalent to the capacity of the system.<sup>111</sup>

Almost as importantly, though, is the fact that the bottom-up approach distributes risk amongst multiple entities throughout the system, so that if one entity fails to increase in its ability to transform raw materials into finished products, the results are not catastrophic. More importantly, as success is realized in one area, the template used for success (if applicable) can be replicated in other areas.<sup>112</sup> This sets the conditions for local initiative and innovation to be rewarded across multiple domains and lines of effort throughout the system – not just from an economic perspective, but from the grass-roots development of various “social technologies” that are necessary for a sustainable security and the realization of U.S. political objectives.<sup>113</sup> Unfortunately, these efforts will not be realized through an attempt to directly adjust the structure of the system, but must be accomplished through an effort to adjust the rules governing the system.

## Intervening in the System through the Adjustment of the Rules and Incentives of the System

Efforts to achieve leverage by focusing on transforming the rules, goals, and incentives within a system tend to be less costly and result in higher payoffs than efforts focused on

---

<sup>111</sup> See: Goldratt. Mathematically, this is similar to what is observed in the critical path method (CPM) of project management – the bottleneck activity always falls along the critical path.

<sup>112</sup> Bar-Yam, 201 – 216.

<sup>113</sup> The premise of Schramm’s *Expeditionary Economics*, and also Beinhocker’s *The Origin of Wealth* – both echo positions held by those who have had extensive experience in economic systems in developing countries. See: Keith Crane, et al., *Guidebook for Supporting Economic Development in Stability Operations* (Santa Monica, CA: RAND Corporation, 2009).

adjustments to the parameters and structural elements of the system.<sup>114</sup> This portion of the analysis will draw upon the earlier concepts outlined in this monograph as it explains the nature of, and risks associated with, each of the dynamic relationships depicted in this model. However, prior to doing so, it is important to provide a relevant context for a discussion on business sector development in Afghanistan and how it relates to U.S. political objectives in the region.

First, this monograph is under no illusion that Afghanistan's business sector of 2011 (or any future date) will look anything like Western Europe's business sector prior to the implementation of the European Recovery Program (ERP) in 1948.<sup>115</sup> However, military, diplomatic, and economic planners of that era were astutely aware that regardless of the exact shape that the ERP would take upon its implementation, its overarching goal was never in question: to block the influence of Communism in Western Europe. The primary pillars of any ERP strategy, namely, increasing productivity and integration of economic markets, would need to support this overarching goal.<sup>116</sup> However, neither of these pillars could have been pursued without compelling the Europeans to develop new rules for the system. That is, to replace their traditionally autonomous, protective, and independent economic strategies with a cooperative (integrated) and competitive (market-based) economic strategy.<sup>117</sup> If the Europeans failed to

---

<sup>114</sup> Meadows, 5 – 17. It should be noted that at no time does Meadows suggest that one can achieve leverage in a system solely by focusing on adjusting the goals of the system while simultaneously neglecting the requirement to adjust the parameters and structural elements of the system. However, she implies that by reversing the priority of effort (i.e. focusing first on the parameters or structural elements rather than focusing on the goals), one is likely to increase the cost of the intervention substantially.

<sup>115</sup> The European Recovery Program is the formal name for the Marshall Plan which was in effect from 1947 – 1952. Funding for the program was not authorized by Congress until the spring of 1948. See: Hogan, 89.

<sup>116</sup> It should be noted that prior to its passage, there were many debates about the exact form that the program would take. See: Hogan, 86 – 92.

<sup>117</sup> Ibid.

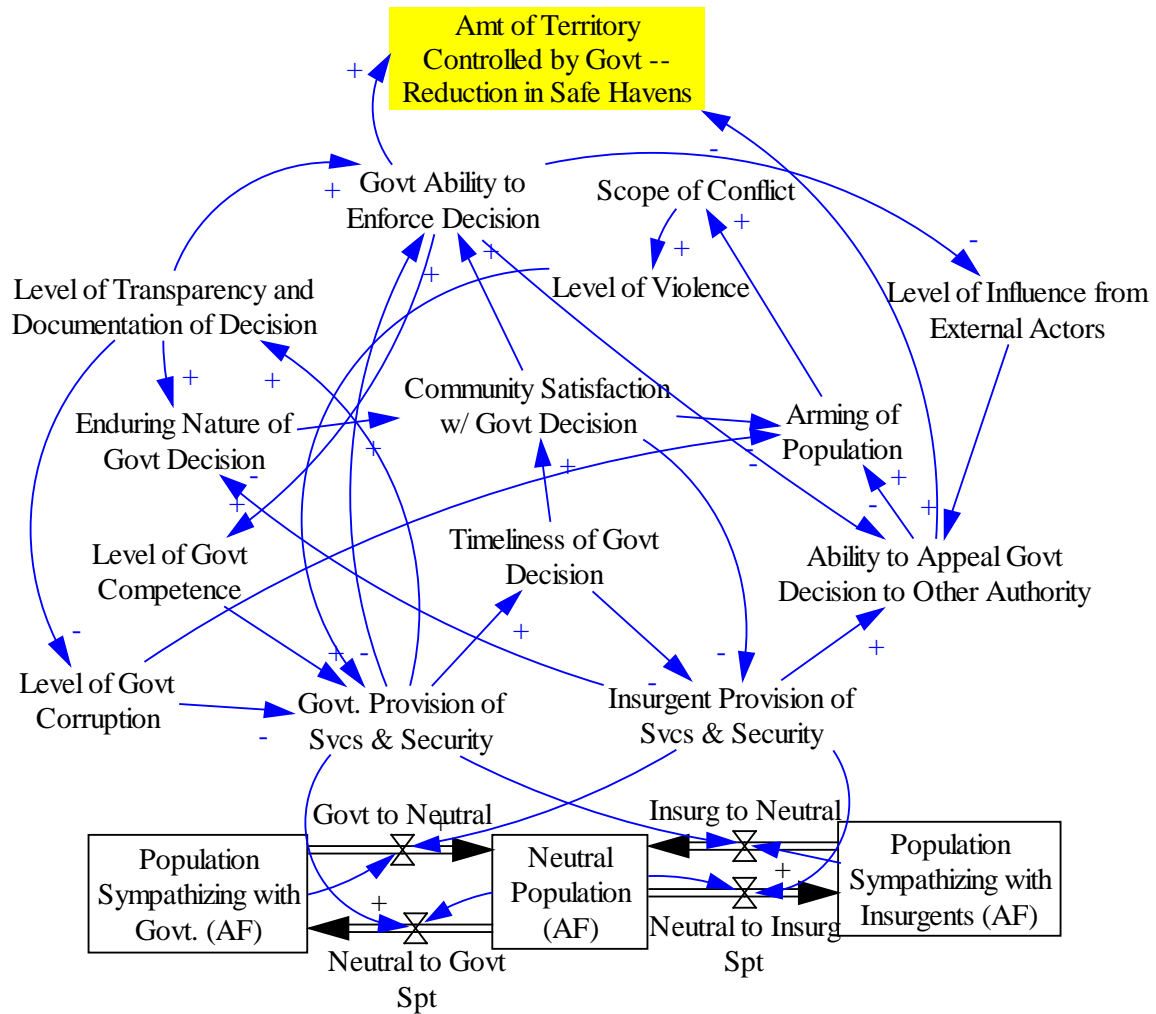
change the rules of their economic system, economic stagnation and deprivation could have driven them into closer alignment with the Soviet Union, regardless of how much foreign aid and military assistance the Europeans received from the United States.<sup>118</sup> However, the most important insight gained from this historical example as it applies to this monograph is that the solution to the United States' national security problem in Europe was not contingent upon providing more charity, but upon compelling the Europeans to devise an integrated, market-based economic strategy that would help themselves and which conformed broadly to U.S. interests.

It is in this same light that the argument will be made for developing the business sector in Afghanistan. Figure 14 attempts to relate the overarching U.S. political objective to the baseline model (Figure 6 (11)) via the most important dynamics associated with business sector development in the operational environment and specifically as it relates to the two *Doing Business* elements of registering property and getting credit.<sup>119</sup> A detailed examination of each of the dynamic relationships in the model (Figure 14) follows, and in each instance, a bottom-up and indigenous-driven approach to capacity building is implied as the standard.

---

<sup>118</sup> This is certainly the viewpoint depicted in Hogan's account, but it should be noted that this is not necessarily a universally held notion among all Marshall Plan historians (particularly some European scholars). However, the merits of these other views fall outside the scope of this research effort. For a list of some scholars who might possess different views, see: Organisation for Economic Co-operation and Development (OECD), *The Marshall Plan: Lessons Learned for the 21st Century* (publication place unknown: OECD Publishing, 2008).

<sup>119</sup> Recall the definition of "business sector" provided in the methodology. It should be noted that the CSIS report "Breaking Point" makes several of the same recommendations with regards to enabling access to credit. See: Seema Patel and Steven Ross, "Breaking Point: Measuring Progress in Afghanistan," *Center for Strategic and International Studies (CSIS)*, March 2007, vii. [http://csis.org/files/media/csis/pubs/070329\\_breakingpoint.pdf](http://csis.org/files/media/csis/pubs/070329_breakingpoint.pdf) (accessed November 13, 2010).



**Figure 14: Baseline model (Figure 6 (11)) integrated with the dynamics associated with business sector development and the overarching U.S. political objective.**

*Dynamic Loop 1: “Level of Transparency and Documentation of Decision,” “Level of Government Corruption” and “Government Provision of Services and Security”*

The Special Inspector General for Afghanistan Reconstruction (SIGAR) recently stated:

Accountability is the cornerstone of good governance. Without it, we risk losing our investment in Afghanistan to waste, corruption, and fraud. Everyone

involved in the reconstruction effort – the U.S. implementing agencies, private contractors, nongovernment organizations, and the Afghan government – must be held accountable for public funds at their disposal.<sup>120</sup>

Before proceeding with an analysis of this dynamic loop it is critical to make the following caveat – corruption in Afghanistan does not refer to the type of government graft that is vilified in modern western societies. On the contrary, corruption in Afghanistan refers more to “overreaching for personal advantage without spreading the benefits to the tribe.”<sup>121</sup> Regardless of how one defines corruption, though, one cannot refute the positive impact that transparency and documentation has upon mitigating its negative effects.

A fundamental condition that must exist before transparency can occur with respect to property rights is the ability of selected individuals within the local community to read a map and interpret geospatial information. While the literacy rate is an oft-cited obstacle in this regard, it is not insurmountable.<sup>122</sup> However, for literacy and map-reading to serve as effective anti-corruption tools, people from competing backgrounds must be proficient in these skills. That is

---

<sup>120</sup> Special Inspector General for Afghanistan Reconstruction, 12. Unfortunately, by adopting a top-down approach to capacity-building, instead of relying on developing the business sector from the bottom-up, a country’s civil service and bureaucracy tends to increase in size without adding value to the citizens they are intended to serve. For insight into Pakistan’s bloated civil service sector see: International Crisis Group, “International Crisis Group Asia Report Number 185: Reforming Pakistan’s Civil Service,” *International Crisis Group*, February 16, 2010, <http://www.crisisgroup.org/home/index.cfm?id=6528&l=1> (accessed February 16, 2010). Pakistan’s inefficient civil service sector is cited as one reason some Pakistani’s living abroad chose not to donate to assist in the flood relief effort during the summer of 2010. See: Ron Scherer, “Why Many Pakistani-Americans Aren’t Sending Flood Donations Home,” *Christian Science Monitor*, August 18, 2010, <http://www.csmonitor.com/USA/2010/0818/Why-many-Pakistani-Americans-aren-t-sending-flood-donations-home> (accessed August 18, 2010).

<sup>121</sup> KGS Nightwatch, “Daily news summary,” delivered via personal e-mail, April 28, 2010. This definition is also consistent with the author’s experiences dealing with corruption in Iraq in a rural operational environment.

<sup>122</sup> See: William B. Caldwell IV, “Economy of Force to Strategic Cornerstone: The Past, Present and Future of the Afghan Security Forces,” *Army* (November 2010): 27. Lieutenant General Caldwell identifies the relationship between illiteracy and corruption within the Afghan National Security Forces (ANSF), but this relationship transcends all aspects of societal relationships in Afghanistan.

to say, it is not sufficient for a military team to teach these map-reading and geospatial interpretation and management skills to Afghan National Security Forces (ANSF) in a local area and neglect whether the USAID or an NGO has taught the local tribal elders or district officials similar skills. Only by teaching these skills at the local level to as many competing, legitimate interest groups as possible, will the necessary transparency occur.<sup>123</sup> This is because once multiple groups are empowered, true competition (and accountability) can begin to set the conditions for business sector development, vis-à-vis the vehicle of property rights.<sup>124</sup> However, teaching these skills is only the first step to mitigating the effects of corruption. In addition to teaching the skills of map reading and geo-spatial interpretation, the next key is to ensure that once property deeds are completed, the information is disseminated as widely as possible – with local leaders, as well as with higher headquarters.<sup>125</sup> The host nation security forces, as emissaries of the host nation central government, should also ensure that the basic property data for the land that they occupy is provided to local officials and tribal elders.<sup>126</sup> By building in this

---

<sup>123</sup> This monograph does not suggest teaching these skills to members of anti-government elements. However, it would be naïve to think that these vital skill sets will not reach them within the community, eventually. This key point will be addressed in the paragraph on risk at the end of this section.

<sup>124</sup> The complex-systems theory principle of competition and cooperation is reiterated throughout both Bar-Yam and Beinhocker.

<sup>125</sup> Two references were invaluable in the writing of this monograph with regards to the military application of land tenure and property rights issues. The first was a short article in the July 2010 issue of the Association of the United States Army's (AUSA) *Army Magazine*. See: Jonathan Pan and Gabriel Grau, "Land Disputes in Afghanistan: Implications for the Warfighter," *Army* (July 2010): 26 – 28. The second was a book that provided a more detailed overview of the topic. See: Geoff Demarest, *Property and Peace: Insurgency, Strategy, and the Statute of Frauds* (Ft Leavenworth, Kansas: Foreign Military Studies Office, 2008). It should also be noted that civilian unrest related to land tenure and property rights issues have often been a significant factor in other foreign conflicts involving the United States. See: Jeffrey Race, *War Comes to Long An: Revolutionary Conflict in a Vietnamese Province* (Berkeley, CA: University of California Press, 1972), 1 – 26. See also: Phebe Marr, *The Modern History of Iraq, Second Edition* (Boulder, CO: Westview Press, 2004), 41 – 42, 84,, 126 – 127, 163 – 164.

<sup>126</sup> Besides being government-appointed power brokers who are often called upon to informally adjudicate issues in a particular locale, the real estate upon which a host nation security force commanders'

redundancy and process of dissemination into the system, it ensures that multiple actors are aware of a legitimate claim and connects higher levels of government with local interests.

Just as literacy is a necessary condition to enable the transparency of property rights, so too is literacy a necessary condition to enable the transparency of matters related to credit at the grassroots level. While there may be some aspects of the much-heralded National Solidarity Programme (NSP) that do not adhere to the principles of effective business sector development, one of the positive aspects of the program is that standards for ensuring transparency have been developed and appear to be enforced at the local level.<sup>127</sup> Unfortunately, the microfinance sector has faced challenges associated with both adhering to the principles of business sector

---

forces occupy are inevitably located on property that has been claimed by one or more tribe in the not-too-distant past. By formalizing and sharing property right information with local officials and village elders, the host nation security force commander is accomplishing multiple objectives. First, he is setting a personal example for the other power brokers in the area. Second, he is acting in good faith to speed up the reciprocal exchange of property right information from the other power brokers – thereby connecting the central government to the local areas. Finally, he is acting to mitigate any claims on government property in the future by other tribes or external actors. For the role that host nation security force commanders may play in land tenure and property rights issues, see: The Liaison Office, “Land Conflicts in Kandahar, Final Version,” (publication place unknown: The Liaison Office, September 2010). This document was provided to the author via e-mail in October 2010 after a request was placed to ISAF for information on land tenure and property rights.

<sup>127</sup> Gregory Warner, “The Schools the Taliban Won’t Torch,” *Washington Monthly*, December 2007, <http://www.washingtonmonthly.com/features/2007/0712.warner.html> (accessed November 13, 2010). The National Solidarity Programme (NSP) does appear to have indigenous support, but it is still primarily about putting people to work by funding projects with foreign aid rather than letting consumer demand for goods and services stimulate business activity that satisfies this demand through the free-market system. While both approaches believe bottom-up development is essential to sustainable security, business sector capacity building is more apt to produce the “virtuous cycle” of wealth creation that helps connect economic and security interests at the local, provincial, national, and regional level. For more information about the NSP, see: Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), *Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), National Solidarity Programme*, November 201, <http://www.nspafghanistan.org/> (accessed November 11, 2010). Also see: John Nagl, “A ‘Better War’ in Afghanistan,” *Prepared Statement to the Senate Committee on Foreign Relations*, September 16, 2009, 8 – 9, [http://www.cnas.org/files/documents/publications/CNASTestimony\\_Nagl\\_SFRC\\_September\\_16\\_2009.pdf](http://www.cnas.org/files/documents/publications/CNASTestimony_Nagl_SFRC_September_16_2009.pdf) (accessed January 15, 2010)

development, as well as with transparency and accountability.<sup>128</sup> In either case, just as with property rights, the key to transparency and reducing corruption is to ensure that multiple parties with competing interests are privy to the relevant information.<sup>129</sup>

While there are certainly benefits associated with pursuing a policy of transparency in order to further the development of the business sector, so too are there risks. While attempting to fully articulate the number of risks associated with giving a host nation population the ability to read a map and manage and interpret geospatial info exceeds the scope of this monograph, there are some key points that must be considered. One unfamiliar with the cartography management effort in Afghanistan to date would assume that one of the primary reasons for keeping this vital skill limited to uniformed and civilian members of GIROA is to mitigate the risk associated with this critical knowledge “falling into the wrong hands.”<sup>130</sup> However, failing to disseminate this skill down to the village and district level means failing to establish the conditions that will promote a sustainable peace through the development of the host nation business sector. Pursuing training initiatives at the local level in an effort to promote transparency in property rights and the management of credit also places U.S. and ISAF low-density and civilian employees at additional risk that must be mitigated in order to preserve this vital capability. This

---

<sup>128</sup> Paula Kantor and Erna Andersen, “Building a Viable Microfinance Sector in Afghanistan,” *Afghanistan Research and Evaluation Unit (AREU)*, January 2010, [http://www.areu.org.af/index.php?option=com\\_docman&Itemid=26&task=doc\\_download&gid=740](http://www.areu.org.af/index.php?option=com_docman&Itemid=26&task=doc_download&gid=740) (accessed October 24, 2010).

<sup>129</sup> The author, who served as a military advisor in Iraq between 2008 – 2009, routinely monitored Iraqi military personnel administer Iraqi government payments to private citizens for a host of reasons, but most often because of participation in the Sons of Iraq (SOI) program. What started off as direct supervision of the process by Americans eventually transitioned into a more indirect method of supervision that was managed completely by the Iraqi government. While not an error-free process, it did clearly place responsibility for the process upon the host nation government. There is no reason to believe that a related process could not be replicated within the Afghanistan private financial sector.

<sup>130</sup> Pan and Grau.

is especially true for those people who will be expected to conduct the property surveys and financial audits. However, without these additional human resources moving from large bases to the grassroots level to conduct their job, this critical transparency effort to promote the development of the business sector cannot occur.<sup>131</sup> Finally, this monograph has consistently argued that the best way to maximize returns on investment and minimize risk due to corruption and other factors is to invest numerous, smaller quantities of funds at local levels in lieu of investing fewer, larger quantities of funds at the central government level.<sup>132</sup> Regardless, the most important factor to reducing risk due to corruption is to ensure that a healthy competition for ideas and information exists within the indigenous population – this is the “rule” that needs to change in the system if the business sector is to take root and enable a sustainable security.

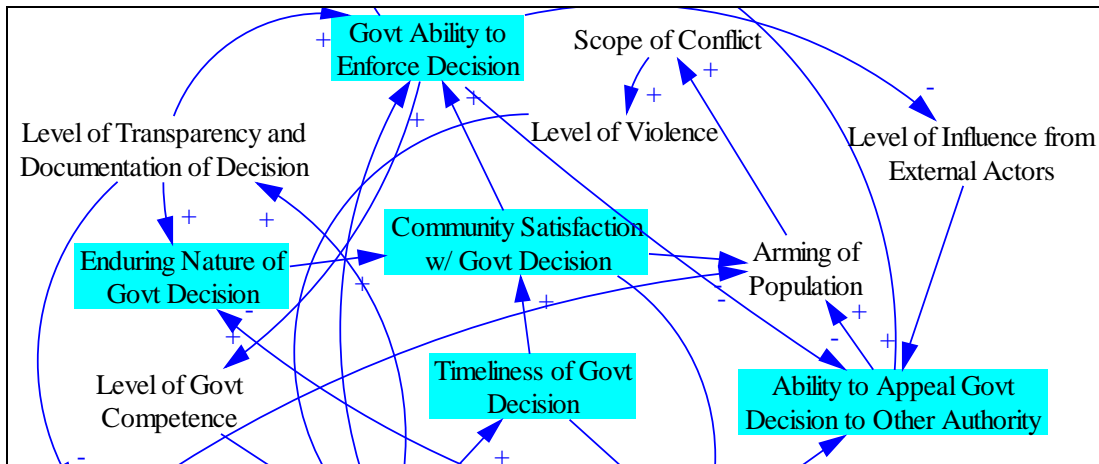
*Dynamic Loop 2: “Enduring Nature of Government Decision,” “Timeliness of Government Decision,” “Community Satisfaction with Government Decision,” “Government Ability to Enforce Decision” and “Ability to Appeal Government Decision to Other Authority”<sup>133</sup>*

---

<sup>131</sup> In addition to the U.S. and ISAF civilian teachers, surveyors, auditors, and the like, it is critical to ensure that units have qualified disbursing agents and contracting officers at their disposal.

<sup>132</sup> A principle espoused consistently by Bar-Yam.

<sup>133</sup> It should be noted that these variables do not technically constitute a causal loop. This portion of the analysis omits the other variables that would otherwise constitute the complete loop for the sake of brevity and the fact that the salient points about these other variables are made throughout the rest of the analysis.



**Figure 15: Snapshot of Figure 14 including those variables considered within Dynamic Loop 2.**

The first variable that will be considered within this dynamic loop is the “timeliness of government decisions.” The following sentence sheds light on the dynamic associated with timely decisions in Afghanistan: “Contrary to common belief, the Taliban justice system is not always perceived as just by the conflict parties but its specific advantage seem[s] to be their timeliness and ability to enforce decisions...”<sup>134</sup> Indeed, in a region where the absence of a timely and authoritative decision often results in the escalation of seemingly trivial offenses between families into lengthy and destructive clan warfare, understanding this variable as it applies to business sector development is critical.<sup>135</sup> Unfortunately, what makes any potential solution to this dilemma so challenging is that as one adds requirements for increased precision in land

---

<sup>134</sup> The Liaison Office, 4.

<sup>135</sup> The entire document produced by The Liaison Office provides a series of case studies detailing the descent into chaos that ensues when land tenure and property rights issues are not handled with a sense of urgency.

tenure and property rights and financial transactions to support business sector development, the tendency is for the timeliness of the decision to decrease. However, before any solution to the dilemma associated with the timeliness of government decisions can be proposed, the reasons for the delay in the government decisions must be understood.<sup>136</sup> Furthermore, regardless of the solution chosen for implementation, it must be proposed by and acceptable to Afghans, and must account for the requirement to add capacity within the local business sector of the community. As a rule of thumb, any solution that calls for an increase in government overhead without simultaneously setting the conditions for the generation of wealth in the local business community that can offset the increased cost to government is unacceptable.<sup>137</sup>

A specific example of how this principle could be enforced within the context of timely decision-making in land tenure and property rights would be to educate and train an indigenous crew of surveyors and cartographers who operated as a private business. This business would sometimes work to complete government surveying jobs as part of the new geospatial requirements outlined in the preceding sections of this analysis, but often working to complete jobs within the private sector since landowners would eventually rush to add precision to their claims to property before a neighbor beat them to it. The money to start the surveying and cartography business would be funded through a small business loan from a private, Islamic financial institution, possibly based out of Pakistan, Iran, or even India.<sup>138</sup> The capital for the

---

<sup>136</sup> There are a plethora of business and engineering textbooks that address analytical techniques for finding the root cause of a problem and problem decomposition that would be helpful in this regard. See: Parnell, et al.

<sup>137</sup> In fact, this is one of the major justifications for bottom-up development – the creation of wealth through market-based competition must drive the creation of government mechanisms to manage the competition within a cooperative framework. Once again, the principles of competition and cooperation are espoused by both Bar-Yam and Beinhocker.

<sup>138</sup> Cohen, 255 – 256.

loan could be provided to the local Islamic financial institution by a local U.S. military commander (via CERP), an NGO, or other donor country; or possibly through the National Solidarity Programme (NSP) to the private financial institution. Accountability for the financial transaction would be accomplished through the transparency and documentation principles outlined previously, ensuring that multiple competing interests had access to the loan and repayment information. The loan would then be repaid to the private financial institution so that it could eventually be issued to other borrowers. There are many ways to continue the branches of this narrative of enabling timely government decisions while simultaneously fostering business sector capacity building and development, but this will be saved for subsequent variable analysis.

The “community satisfaction with government decisions” variable will be considered concurrently with the “government ability to enforce decisions” and the “ability to appeal government decision to other authority”. Evidence suggests that besides the perception that Taliban decisions tend to be more timely than government decisions, the real problem is not that communities are less satisfied with the decisions that GIROA makes with regards to land tenure and property rights. In fact, in most instances local respondents believed that cases decided by the government “were usually ‘correct’.”<sup>139</sup> Unfortunately, because of GIROA’s inability to broadcast power, the party that was sided against in the government decision felt that the decision could be challenged by appealing to other (non-governmental) authorities.<sup>140</sup> This is clearly a dysfunctional dynamic within the operational environment in terms of being able to satisfy the U.S. political goal of ensuring that GIROA is capable of controlling its sovereign territory. However, any sustainable solution to this problem must emanate through the development of the

---

<sup>139</sup> The Liaison Office, 4.

<sup>140</sup> Ibid.

local business sector, although in some instances, lethal targeting operations directed against hardcore anti-government elements must complement the business sector development effort.

Regardless, the business sector component of the solution to this problem enables us to resume with the narrative where it concluded in the preceding paragraph. That is to say, with the repayment of the small business loan to the privately-owned, Islamic financial institution. Transparency of its operations will help prevent the financial institution from misappropriating capital and ensure that money is not lost to corruption.<sup>141</sup> Unfortunately, this transparency, coupled with a decrease in available capital for insurgent activity, will attract unwelcome attention from the hardcore members of anti-government elements and those that stand to lose from the development of a business sector in Afghanistan. There will certainly be threats of kidnappings, robbery, extortion, etc. directed against the owners and employees of the privately-owned financial institution and all who support it. However, the Afghan National Security Forces, with a minimum amount of support from ISAF-led forces, will ensure that these financial institutions – new pieces of key terrain in the conflict in Afghanistan – are secured through cooperative measures between Afghan National Security Forces, tribal elders, other local leaders, and the fledgling business community. Banking insurance, analogous to the Federal Deposit Insurance Corporation in the United States, provided initially by donor countries and in lieu of other forms of aid, would further help secure these pieces of key terrain. The nations from which the Islamic financial institutions originate will also have a stake in the development of the business sector of Afghanistan, thereby helping to integrate the economic and security interests of multiple countries in the region.

---

<sup>141</sup> Kantor and Andersen, 14 – 15.

The final variable to be considered within this dynamic loop is the “enduring nature of [the] government[‘s] decision[s]”. In modern western society, one can scarcely consider a situation in which one’s significant investments were not protected from the vagaries of some form of disaster. However, the absence of this type of assurance – that decisions made today in Afghanistan will remain upheld one, five, or ten years from now by a different regime – is one of the most unsettling aspects of life as a citizen in Afghanistan.<sup>142</sup> Fortunately, by pursuing the business sector capacity building initiatives outlined in the preceding pages, the increased level of transparency and integration that occurs between the business community, the legal community, political leaders, and the security forces would help assuage some of these concerns.<sup>143</sup> An increase in the level of economic and security integration between the local, provincial, national, and regional governments could further ease concerns. Indeed, what has been presented in this portion of the monograph attempted to outline a component of an operational approach to stability and reconstruction operations that embodied the principles contained in the Marshall Plan. Namely, to halt the spread of an ideology that ran counter to the principles traditionally espoused by the United States, to increase the productivity of a war-torn region, and to gain increased physical and economic security for the United States by encouraging greater interdependence of multiple systems within the operational environment.<sup>144</sup>

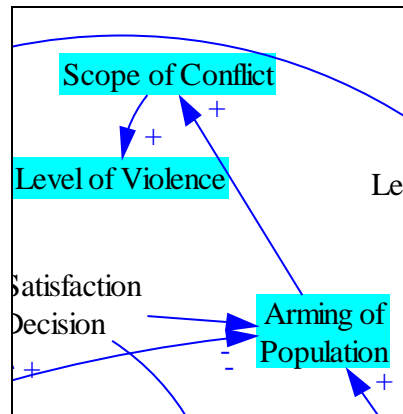
---

<sup>142</sup> The Liaison Office, 4.

<sup>143</sup> Some of the literature that was reviewed during the preparation of this monograph discusses offering different types of financial instruments to offset additional personal risk, such as personal insurance. However, a more complete discussion and analysis of this topic exceeds the scope of this monograph. See: Kantor and Andersen, 2, 12, 14.

<sup>144</sup> Hogan, 86 – 87.

*Dynamic Loop 3: “Arming of Population,” “Scope of Conflict” and “Level of Violence”*<sup>145</sup>



**Figure 16: Snapshot of Figure 14 including those variables considered within Dynamic Loop 3.**

This final dynamic loop emanates from variables introduced previously. Specifically, the rate at which the population is armed is directly related to the level of satisfaction with government decisions, and the amount of capital available to buy arms.<sup>146</sup> The first relationship indicates the population’s level of desire, or will, to arm itself in the face of uncertainty, deprivation, and traditionally feeble levels of support from the Afghan National Security Forces. The preceding analysis introduced several ways to reduce the population’s will to arm itself. The second relationship indicates the population’s ability to arm itself due to an infusion of massive

---

<sup>145</sup> Like “Dynamic Loop 2,” these variables do not technically constitute a causal loop. This portion of the analysis omits the other variables that would otherwise constitute the complete loop for the sake of brevity and the fact that the salient points about these other variables are made throughout the rest of the analysis.

<sup>146</sup> Upon closer examination of the model in Figure 14, one can observe other relationships with the variable “arming of population,” but the variables mentioned above will be the primary variables addressed within this monograph.

amounts of capital that, instead of being tied up in satisfying demand for legitimate goods and services through a more competitive and cooperative business sector, has instead been siphoned away through bureaucratic processes that rely upon altruism and government oversight to deliver goods and services. From a systems perspective, funds introduced into the economy at the lowest levels and in smaller quantities cause less harm to existing social and economic mechanisms, and have the potential to do less harm in the event that funds are misappropriated by anti-government elements.<sup>147</sup> Encouraging greater transparency and dissemination of knowledge and information among competing actors as part of the large business sector development effort within the operational environment was the primary means by which this can occur. Predictably, both “scope of conflict” and “level of violence” variables, predictably, are directly and positively related to the “arming of [the] population”. That is to say, as long as the variables which compel the populace to arm itself are decreased (or increased, as the case may be) both the scope of the conflict and the level of violence will decrease (increase).

## **Conclusions**

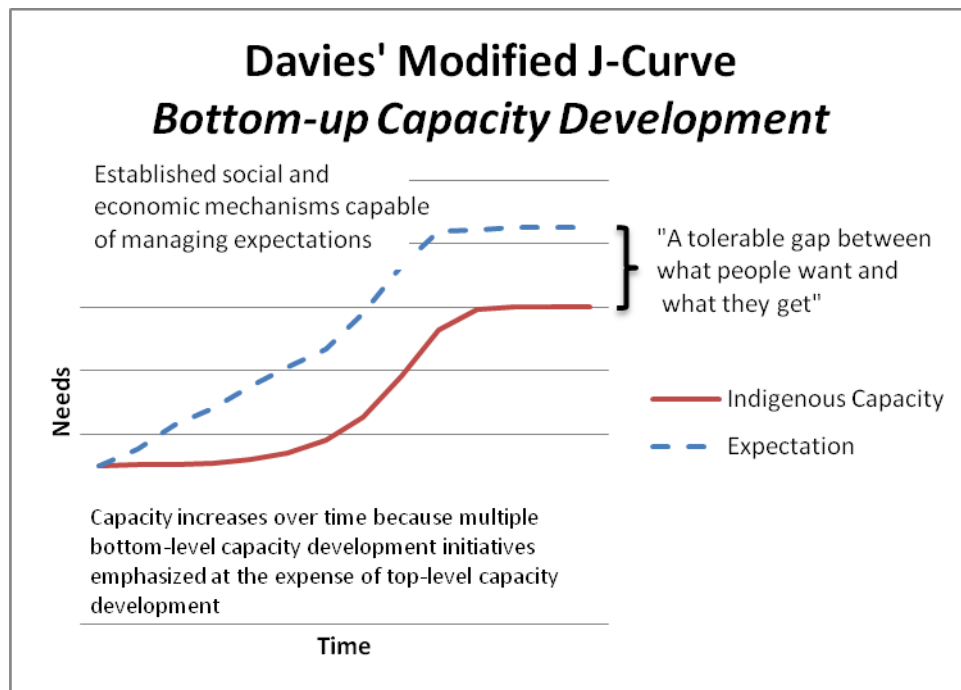
This monograph posited, through a critical analysis of the current Afghanistan and Pakistan operational environment, that by adhering to fundamental systems-thinking concepts when making investment decisions in a stability and reconstruction operations environment, decision-makers can achieve political objectives at costs that are commensurate with benefits and are more likely to achieve enduring stability. The vehicle by which this occurs is through the development of the host nation’s business sector. This monograph further stated that the key to

---

<sup>147</sup> Bar-Yam, 202 – 203. Crane, et. al., Chapter 10. These arguments are also consistent with the research conducted by Collier and Hoeffler that stated that “One factor influencing the opportunity for rebellion is the availability of finance.” See: Collier, Hoeffler, and Sambanis, 17.

achieving this outcome was to identify bottlenecks and key leverage areas within the system, beginning with a bottom-up approach to capacity building, and allocate critical resources (civilian expertise, combat power, etc.) against those bottlenecks and leverage points. The justification for a bottom-up, vice a top-down, approach to capacity building is tied directly to two principles in stability and reconstruction operations: the need to distribute risk throughout the system, and the need to tie the introduction of aid to the absorption capacity of the indigenous institution to transform that aid into a value-added deliverable for the host nation populace.

Figure 17 and 18 depict modified versions of Davies' classic "J-Curve" which has been used for decades to understand factors that might foment revolution.<sup>148</sup>



**Figure 17: Sigmoid (S-shaped) curve depicting indigenous capacity and expectation over time given a bottom-up approach to capacity building.**

<sup>148</sup> James C. Davies, "Toward a Theory of Revolution," *American Sociological Review*, Vol. 27, No. 1 (February 1962): 6.

One can see in Figure 17 that because risk and resources are distributed over a wider area closer to the institutions that have the capacity to control territory, effective social and economic mechanisms are given the opportunity to develop more naturally. Bottom-up development is not distributed to local political, social, or economic entities haphazardly, or even equitably, but is allocated to areas identified as bottlenecks or key leverage areas within the operational environment through the principles which govern effective business sector development. These key areas are identified by using both conceptual and detailed-planning techniques, with just enough quantitative rigor to establish reasonable boundary conditions for and within the operational environment.<sup>149</sup>

Top-down development occurs using this approach, but investment at the senior levels of government is largely limited to professional training and development and ensuring that host nation security forces are capable of exerting sufficient control over outlying areas. Host nation government leadership and bureaucracies are not given responsibility and authority over more resources than they can effectively manage. The risk of civil unrest due to unmet demand from the central government is mitigated since the local populace is seeing the fruits of progress through local business sector capacity building efforts, as provided through their own leadership and in accordance with one of the most powerful places to achieve leverage in a system – social customs and norms.<sup>150</sup> Customs and norms deemed to be inefficient by the host nation populace,

---

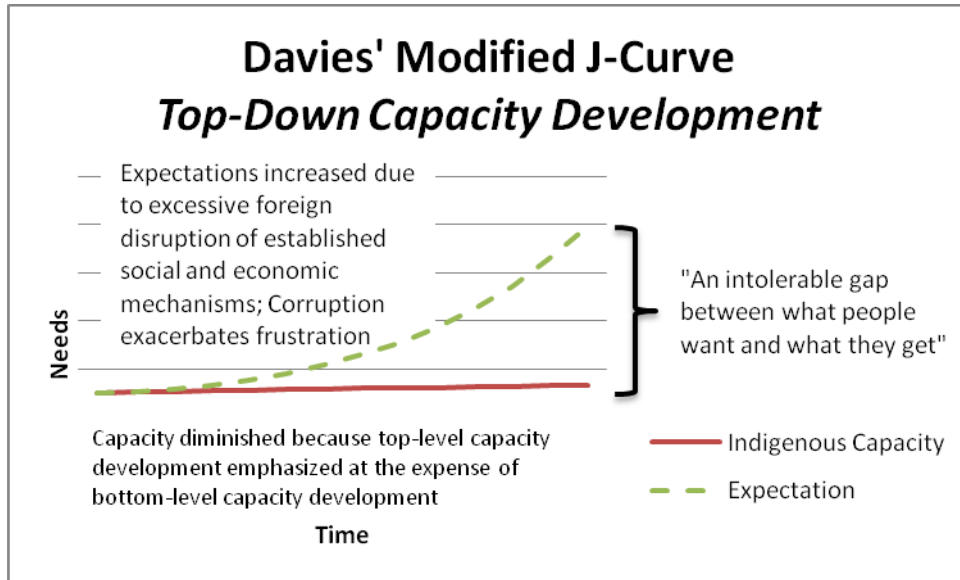
<sup>149</sup> United States Department of the Army, *Field Manual 5-0, The Operations Process*, Chapter 2.

<sup>150</sup> Throughout his book, Beinhocker uses the term “social technology” to place an appropriate emphasis on the role that norms and values have in transforming a society’s economic system. Beinhocker states that there are four norms that reinforce economic development. These norms are related to: Individual behavior – “strong work ethic, individual accountability, and a belief that you are a protagonist of your own life”; Cooperative behavior – “value generosity and fairness, but also sanction those who free

such as the manner in which property is currently managed in Afghanistan, are slowly modified in accordance with local values because key stakeholders have bought into the process through repeated engagements at the local level. Furthermore, the effects of corruption are mitigated because the sums of money being transferred are smaller, and the process is more transparent to the intended beneficiaries. From a U.S. policy perspective, local communities are more resilient to the influence of radical and extremist ideologies that serve as the pre-conditions for creating terrorist safe havens. Terrorists will be hard-pressed to offer the local populace much more than threats of violence, which will be countered by a more visible U.S. and allied security presence at the local level. The result is that while foreign actors will still seek to gain influence in these areas, communities that have increased their capacity to govern and secure themselves from the bottom-up will be less susceptible to the influence of malign actors.

---

ride and cheat”; Innovation – “look to rational scientific explanations of the world...supportive of competition and celebrate achievement”; How people view time – have a long-term perspective of life on Earth which encourages working and saving hard for a better tomorrow. See: Beinbocker, 430 – 431.



**Figure 18: Line depicting indigenous capacity and exponential expectation over time given a top-down approach to capacity building.**

Figure 18, on the other hand, reflects a growing gap between indigenous capacity and host nation expectations for services and security. These expectations have not been effectively managed by local officials because they are equally frustrated and dismayed by the perceived inequity that has permeated a central government that was never responsive to their needs, yet seems intent on exerting an increased amount of authority over their lives. State-sponsored violence runs amok as traditional social and economic mechanisms disintegrate and local leadership cannot muster enough support to formulate an effective response to the threat.<sup>151</sup> U.S. and host nation security forces do their best to eliminate the threat, but the host, which might be empathetic to U.S. concerns, lacks sufficient means and incentives to prevent long-term malaise

---

<sup>151</sup> Waldman, "The Sun in the Sky: The Relationship Between Pakistan's ISI and Afghan Insurgents."

and apathy amongst the people. Looking at the U.S. policy implications of this outcome in light of growing political pressure to reduce U.S. government spending and bring forces home after nearly 10 years of conflict reveals that the course is unsustainable. Regional actors see these developments even more clearly and starkly than does the U.S. and they will continue to vie for influence in regions that afford them strategic depth and enable them to mitigate risk to their own self-interest. International actors exploit the situation by establishing access to key natural resources, yet have limited interests in sharing in the burden of security through their military when their own foreign policy goals can be achieved through non-military means.<sup>152</sup>

---

<sup>152</sup> Robert D. Kaplan, "The Geography of Chinese Power: How Far Can Beijing Reach on Land and at Sea?" *Foreign Affairs* (May – June 2010): 26. See also: Ben Arnoldy, "News of Afghanistan's Mineral Wealth Deepens Suspicion of US aims," *Christian Science Monitor*, June 15, 2010 <http://www.csmonitor.com/World/Global-News/2010/0615/News-of-Afghanistan-s-mineral-wealth-deepens-suspicion-of-US-aims> (accessed June 19, 2010). For details on mineral deposits in Afghanistan, see: Mining Communications, Ltd., "Mining Journal Special Publication: Afghanistan," *Mining Journal* (2006), [http://www.bgs.ac.uk/afghanMinerals/docs/afghan\\_supp\\_final.pdf](http://www.bgs.ac.uk/afghanMinerals/docs/afghan_supp_final.pdf) (accessed December 15, 2009).

## Recommendations

Commanders are investors with limited resources trying to get a maximum return on their security investment. If the commander invests his assets properly, he can build momentum on the economic front to help him achieve his security mission... If the commander does not invest his assets wisely, the local economy may worsen, making the security mission difficult or untenable.<sup>153</sup>

According to the official history of World War II, the military's official policy regarding development in stability and reconstruction operations was:

to reduce to a minimum the needs of the area for United States and allied assistance and to develop the area as a source of supply for further operations, and second, to use available goods and services as efficiently as possible for the satisfaction of military and civilian needs.<sup>154</sup>

In light of the ideological threat posed by Soviet Communism, the United States understood that it would need to adopt another strategy by which stability and reconstruction operations were conducted, a strategy that emphasized the development of the business sector in Europe. It is with this in mind that the following three recommendations are made. First, U.S. policy makers must continue to seek all available options to distribute resources to the lowest levels of command in stability and reconstruction operations. Specifically, human resources retained on large forward operating bases must be distributed to the lowest levels of command, for as long as they can be spared, so that the experiences gleaned at the lowest levels can inform operational and strategic-level decision-making and so that discourse can be achieved. The same must be

---

<sup>153</sup> James E. Shircliffe, Jr., "Investing in Stability: The Need for Intelligence Preparation for Economic Operations," *Military Review* (March – April 2010): 92.

<sup>154</sup> Harry L. Coles and Albert K. Weinberg, *US Army in World War II: Special Studies: Civil Affairs: Soldiers Become Governors* (Washington D.C.: Center of Military History, United States Army, 1964), 344.

done concerning the allocation of funds and funding priorities – but it must be done with the assistance of responsible and trained accountable agents, and through indigenous social and economic mechanisms that serve to stimulate the development of the business sector. The process must also be as transparent as possible to all parties involved – particularly to the host nation populace, yet still in keeping with local traditions and norms. This is the only sustainable way to achieve enduring stability in stability and reconstruction operations given the United States’ current operational approach. An operational approach that emphasized maintaining a limited footprint in order to conduct primarily counterterrorist operations may have been the proper decision at one point, and may work in some instances in the contemporary operating environment, but this approach will not prevent the destructive and potentially de-stabilizing dynamic associated with regional powers competing for influence in contested spaces.

Communities that have developed their own socio-economic stability mechanisms through increased integration between government, tribal elders, the local business community, and host nation security forces are the only sustainable means to resisting this influence over the long run.

The second recommendation is that all military and civilian operational planning account for implications related to the management of real property within the stability and reconstruction operations environment. Demarest, Pan, and Grau make compelling arguments regarding the far-reaching implications that real property management has upon the warfighter. Besides influencing every military and civilian line of effort in stability and reconstruction operations, the management of real property lends itself perfectly to a strategy involving both bottom-up and top-down development. Of course, great care must be taken in understanding the risks that altering the property management structure has upon the local and national community. However,

anecdotal evidence suggests that, as long as the case is made effectively to influential stakeholders (especially tribal leaders), the resulting competition and cooperation dynamic emanating from both the bottom-up and the top-down will result in an operational environment that is more conducive to enduring stability.<sup>155</sup>

The final recommendation is to incorporate the ideas proposed by this monograph into the growing body of literature known as “expeditionary economics.” While short on concrete details, the general idea underlying expeditionary economics is that the United States, foreign investors, and the host nation are best served when barriers to the development of a host nation’s business sector are removed within a country or region through a deliberate process initiated by the U.S. (or coalition) military forces at the start of stability operations planning activities. Carl Schramm, the President and CEO of the Ewing Marion Kauffman Foundation and the originator of the concept of expeditionary economics makes no attempt to frame this in altruistic terms – investors want to make money, but so do the entrepreneurs in a host nation wracked by violence. Schramm paints this as a powerful incentive to remaking the socio-economic fabric of the affected country through many of the same principles espoused by the framers of the Marshall Plan. However, Schramm’s approach to expeditionary economics (the use of the military, notwithstanding) is not simply a re-make of the traditional hierarchical, top-down driven approach that has plagued development initiatives in the past; and it is consistent with Bar-Yam’s and other complex-systems oriented ideas that were expressed earlier in this monograph.<sup>156</sup>

---

<sup>155</sup> Both Bar-Yam and Beinhocker stress throughout their books the necessity for alternating between the competition and cooperation dynamics in order to develop a robust organization within a complex system.

<sup>156</sup> Carl J. Schramm, “Expeditionary Economics: Spurring Growth after Conflicts and Disasters,” *Foreign Affairs* (May – June 2010): 89 – 99. Dr. Schramm is also author of numerous articles and co-

Perhaps the most significant contribution that encouraging innovation and entrepreneurship could have upon Afghanistan is that it would help make the culture more resilient to the destructive influences of “rentier” economics that could occur if Afghanistan’s mineral wealth is exploited in the future.<sup>157</sup>

---

author of the 2007 book, *Good Capitalism, Bad Capitalism and the Economics of Growth and Prosperity*, all which espouse an American viewpoint on the virtues of the entrepreneurial spirit.

<sup>157</sup> The destructive dynamic induced by a state’s dependency upon a single natural resource as its primary source of revenue is the premise behind Collier and Hoeffler’s *Greed and Grievance in Civil War*.

## BIBLIOGRAPHY

- Afghan Center for Socio-Economic and Opinion Research (ASCOR). "Afghan Opinion Poll." *British Broadcasting Corporation (BBC)*. January 11, 2010. [http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/11\\_01\\_10\\_afghanpoll.pdf](http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/11_01_10_afghanpoll.pdf) (accessed July 28, 2010).
- Arnoldy, Ben. "News of Afghanistan's mineral wealth deepens suspicion of US aims." *Christian Science Monitor*. June 15, 2010. <http://www.csmonitor.com/World/Global-News/2010/0615/News-of-Afghanistan-s-mineral-wealth-deepens-suspicion-of-US-aims> (accessed June 19, 2010).
- Azani, Eitan. *Hezbollah: The Story of the Party of God – From Revolution to Institutionalization*. New York City: Palgrave Macmillan, 2009.
- Baker, Jim. "Systems Thinking and Counterinsurgency." *Parameters*, Volume XXXVI, Winter 2006 – 2007: 26 – 43.
- Barker, Ernest. *Principles of Social and Political Theory*. Oxford: Clarendon Press, 1952.
- Bartolf, Christine, and Bernard I. Finnel. "Are We Winning: Measuring Progress in the Struggle Against Al Qaeda and Associated Movements." *American Security Project*. 2009. <http://www.americansecurityproject.org/content/publications/2009/are-we-winning-measuring-progress-in-the-struggle-against-al-qaeda-and-associate-movements/> (accessed December 15, 2009).
- Bar-Yam, Yaneer. *Making Things Work: Solving Complex Problems in a Complex World*. Boston, MA: Knowledge Press, 2004.
- Bazaraa, Mokhtar S., John J. Jarvis, and Hanif D. Sherali. *Linear Programming and Network Flows, 2nd Edition*. New York City: John Wiley & Sons, 1990.
- Beinhocker, Eric D. *The Origin of Wealth: The Radical Remaking of Economics and What it Means for Business and Society*. Boston, MA: Harvard Business School Press, 2007.
- Berman, Eli, Jacob N. Shapiro, and Joseph H. Felter. *Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq*. NBER Working Paper Series, Cambridge, MA: National Bureau of Economic Research, 2009.
- . "Constructive COIN: How Development Can Fight Radicals." *Foreign Affairs*. June 1, 2010. <http://www.foreignaffairs.com/articles/66432/eli-berman-joseph-h-felter-and-jacob-n-shapiro/constructive-coin> (accessed September 18, 2010).
- Bush, George W., and Pervez Musharraf. "President Bush Welcomes President Musharraf to Camp David." *George W. Bush White House Archives, White House Press Secretary*. June 23, 2003. <http://georgewbush-whitehouse.archives.gov/news/releases/2003/06/20030624-3.html> (accessed May 6, 2010).
- Caldwell, William B. IV. "Economy of Force to Strategic Cornerstone: The Past, Present, and Future of the Afghan National Security Forces." *Army*, November 2010: 25 – 27.
- Clausewitz, Carl von. *On War*. Translated and edited by Michael Howard and Peter Paret. Princeton, N.J.: Princeton University Press, 1989.
- Cohen, Stephen P. *The Idea of Pakistan*. Washington D.C.: The Brookings Institution, 2006.

- Coles, Harry L., and Albert K. Weinberg. *U.S. Army in World War II: Special Studies: Civil Affairs: Soldiers Become Governors*. Washington D.C.: Center of Military History, United States Army, 1964.
- Collier, Craig A. "Now That We're Leaving Iraq, What Did We Learn." *Military Review*, September – October 2010: 88-93.
- Collier, Paul, and Anke Hoeffler. *Aid, Policy, and Growth in Post-Conflict Societies*. World Bank Policy Research Working Paper No. 2902, New York City: World Bank, 2002.
- Collier, Paul, Anke Hoeffler, and Nicholas Sambanis. *The Collier-Hoeffler Model of Civil War Onset and the Case Study Project Research Design*. Vols. 2: Europe, Central Asia, and Other Regions, chap. 1 in *Understanding Civil War: Evidence and Analysis*, edited by Paul Collier and Nicholas Sambanis, 1-34. Washington D.C.: The International Bank for Reconstruction and Development/ The World Bank, 2005.
- Community Appraisal & Motivation Programme (CAMP). "Understanding FATA: Attitudes towards Governance, Religion and Society in Pakistan's Federally Administered Tribal Areas, Volume III." *understandingfata.org*. 2009. <http://www.understandingfata.org/aboutcamp.php> (accessed August 1, 2010).
- Cordesman, Anthony H., and Adam Mausner. "Shaping Afghan National Security Forces: What it Will Take to Implement President Obama's New Strategy." *Center for Strategic and International Studies*. December 9, 2009. <http://csis.org/publication/shaping-afghan-national-security-forces> (accessed December 15, 2009).
- Cordesman, Anthony H., and Nicholas B. Greenough. "Shape, Clear, Hold, Build, and Transfer: The Metrics of the Afghan War." *Center for Strategic and International Studies*. January 12, 2010. <http://csis.org/publication/afghan-metrics> (accessed February 15, 2010).
- . "The Afghan War at End 2009: A Crisis and New Realism." *Center for Strategic and International Studies*. January 7, 2010. <http://csis.org/publication/> (accessed January 15, 2010).
- Crane, Keith, et al. *Guidebook for Supporting Economic Development in Stability Operations*. Technical, Santa Monica, CA: RAND Corporation, 2009.
- Daniel, Lisa. "U.S. Must Help Pakistan Beat Insurgency, Officials Say." *Defense.Gov*. April 29, 2010. <http://www.defense.gov/news/newsarticle.aspx?id=58958> (accessed July 19, 2010).
- Davies, James C. "Toward a Theory of Revolution." *American Sociological Review* 27, no. 1 (February 1962): 5 – 19.
- DeJarnette, John. *Toward a Nation-Building Operating Concept*. Advanced Operational Art Studies Fellowship (AOASF) Program Monograph, School of Advanced Military Studies, Command and General Staff College, Ft Leavenworth, KS: Defense Technical Information Center (DTIC), 2010.
- Demarest, Geoff. *Property and Peace: Insurgency, Strategy, and the Statute of Frauds*. Ft Leavenworth, Kansas: Foreign Military Studies Office, 2008.
- Department for International Development (DFID). *Working Paper 2 for Afghanistan Public Expenditure Review 2010: Public Expenditure Trends and Fiscal Sustainability*. Working paper series for Afghanistan Public Expenditure Review 2010, New York City: World Bank, 2010.
- Donahue, Scott F. "Rock", and Daniel L. Higgins. "Building Civil Capacity in Iraq." *Engineer: The Professional Bulletin of Army Engineers*, May – August 2009: 53 – 58.

- Eckstein, Jeffrey R. "Engineers Build Capacity in Stability Operations." *Engineer: The Professional Bulletin of Army Engineers*, January – April 2010: 18 – 20.
- Fenzel, Michael R. "The Maneuver Company in Afghanistan: Establishing Counterinsurgency Priorities at the District Level." *Military Review*, March – April 2010: 33 – 44.
- Fick, Nathaniel, and Clare Lockhart. *The Economic Imperative: Stabilizing Afghanistan Through Economic Growth*. Policy Brief, Washington D.C.: Center for a New American Security, April 2010.
- Finel, Bernard I. "An Alternative to COIN." *Armed Forces Journal*. February 2010. <http://www.afji.com/2010/02/4387134> (accessed February 20, 2010).
- Flynn, Michael. *State of the Insurgency: Trends, Intentions and Objectives*. Unclassified NATO briefing obtained by the author via e-mail but cited widely on the Internet, Kabul, Afghanistan: International Security Assistance Force (ISAF), 2009.
- Flynn, Michael T, Matt Pottinger, and Paul D. Batchelor. "Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan." *Center for a New American Security*. 2010 January. [http://www.cnas.org/files/documents/publications/AfghanIntel\\_Flynn\\_Jan2010\\_code507\\_voices.pdf](http://www.cnas.org/files/documents/publications/AfghanIntel_Flynn_Jan2010_code507_voices.pdf) (accessed January 15, 2010).
- Gallagher, Mark A., Anthony W. Snodgrass, and Gregory J. Ehlers. "Input-Output Modeling for Assessing Cascading Effects." *Military Operations Research*, Volume 10, Number 2, 2005: 5 – 17.
- Gant, Jim. "One Tribe at a Time: A Strategy for Success in Afghanistan, 2nd Edition." December 2, 2009. [http://blog.stevenpressfield.com/wp-content/themes/stevenpressfield/one\\_tribe\\_at\\_a\\_time.pdf](http://blog.stevenpressfield.com/wp-content/themes/stevenpressfield/one_tribe_at_a_time.pdf) (accessed December 15, 2009).
- Gentile, Gian P. "A Strategy of Tactics: Population-centric COIN and the Army." *Parameters: US Army War College Quarterly*, Volume XXXIX, Autumn 2009: 5 – 17.
- Goldratt, Eliyahu M., and Jeff Cox. *The Goal: A Process of Ongoing Improvement, Second Revised Edition*. Croton-on-Hudson, NY: North River Press, Inc., 1992.
- Henriksen, Thomas H. *Afghanistan, Counterinsurgency, and the Indirect Approach*. JSOU Report 10-3, Hurlburt Field, Florida: Joint Special Operations University, 2010.
- Herbst, Jeffrey. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton, New Jersey: Princeton University Press, 2000.
- Hogan, Michael J. *The Marshall Plan: America, Britain, and the Reconstruction of Western Europe, 1947 – 1952*. New York City: Cambridge University Press, 1987.
- Hopp, Wallace J., and Mark L. Spearman. *Factory Physics: Foundations of Manufacturing Management, 2nd Edition*. New York City: McGraw Hill Higher Education, 2000.
- Hubbard, R. Glenn, and William Duggan. *The Aid Trap: Hard Truths About Ending Poverty*. New York City: Columbia University Press, 2009.
- Innocent, Malou, and Ted Galen Carpenter. "Escaping 'The Graveyard of Empires': A Strategy to Exit Afghanistan." *The CATO Institute*. September 2009. <http://www.cato.org/pubs/wtpapers/escaping-graveyard-empires-strategy-exit-afghanistan.pdf> (accessed November 12, 2010).

- International Crisis Group. "International Crisis Group Asia Report Number 185: Reforming Pakistan's Civil Service." *International Crisis Group*. February 16, 2010. <http://www.crisisgroup.org/home/index.cfm?id=6528&l=1> (accessed February 16, 2010).
- International Security Assistance Force (ISAF). *Helmand Province Survey Report*. Human Terrain System (HTS) Afghanistan Provincial Report, Burlington, MA: Glevum Associates, LLC, April 2010.
- International Security Assistance Force (ISAF). *Kandahar Province Survey Report*. Human Terrain System (HTS) Afghanistan Provincial Report, Burlington, MA: Glevum Associates, LLC, March 2010.
- International Security Assistance Force (ISAF). *Kunduz Province Survey Report*. Human Terrain System (HTS) Afghanistan Provincial Report, Burlington, MA: Glevum Associates, LLC, April 2010.
- International Security Assistance Force (ISAF) Regional Command – North. "RC-N CERP Projects Reported in CIDNE in the Last 12 Months: From 31 July 2009 to 01 August 2010." *ronna-afghan.harmonieweb.org*. August 2010. <https://ronna-afghan.harmonieweb.org/.../RC-N%20CERP%20PROJECT%20from%2031%20Jul...> (accessed September 13, 2010).
- International Security Assistance Force (ISAF) Regional Command – South. "RC-S CERP Projects Reported in CIDNE in the Last 12 Months: From 31 July 2009 to 01 August 2010." *info.publicintelligence.net*. August 2010. <http://info.publicintelligence.net/RC-S-CERP.pdf> (accessed September 13, 2010).
- International Security Assistance Force (ISAF) Regional Command – Southwest. "RC-SW CERP Projects Reported in CIDNE in the Last 12 Months: From 31 July 2009 to 01 August 2010." *info.publicintelligence.net*. August 2010. <http://info.publicintelligence.net/RC-SW-CERP.pdf> (accessed September 13, 2010).
- Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD). *Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), National Solidarity Programme*. 2010. <http://www.nspafghanistan.org/> (accessed November 11, 2010).
- . "Provincial Development Plan, Helmand : Provincial Profile." *Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), National Area-Based Development Program (NABDP)*. 2006. <http://www.mrrd.gov.af/nabdp/Provincial%20Profiles/Helmand%20PDP%20Provincial%20profile.pdf> (accessed September 13, 2010).
- . "Provincial Development Plan, Kandahar: Provincial Profile." *Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), National Area-Based Development Program (NABDP)*. 2006. <http://www.mrrd.gov.af/nabdp/Provincial%20Profiles/Kandahar%20PDP%20Provincial%20profile.pdf> (accessed September 13, 2010).
- . "Provincial Development Plan, Kunduz: Provincial Profile." *Islamic Republic of Afghanistan Ministry of Rural Rehabilitation and Development (MRRD), National Area-Based Development Program (NABDP)*. 2006. <http://www.mrrd.gov.af/nabdp/Provincial%20Profiles/Kunduz%20PDP%20Provincial%20profile.pdf> (accessed September 13, 2010).
- Jones, Seth G. "It Takes the Villages: Bringing Change from Below in Afghanistan." *Foreign Affairs*, May – June 2010: 120 – 127.

- Kantor, Paula, and Erna Anderson. "Building a Viable Microfinance Sector in Afghanistan." *Afghanistan Research and Evaluation Unit (AREU)*. January 2010. [http://www.areu.org.af/index.php?option=com\\_docman&Itemid=26&task=doc\\_download&gid=740](http://www.areu.org.af/index.php?option=com_docman&Itemid=26&task=doc_download&gid=740) (accessed October 24, 2010).
- Kaplan, Robert D. "South Asia's Geography of Conflict." *Center for a New American Security*. August 2010. <http://www.cnas.org/node/4952> (accessed November 7, 2010).
- Kaplan, Robert D. "The Geography of Chinese Power: How Far Can Beijing Reach on Land and at Sea." *Foreign Affairs*, May – June 2010: 22 – 41.
- KGS Nightwatch. "Daily News Summary." Obtained via personal e-mail, April 28, 2010.
- Kronstadt, K. Alan. *Direct Overt U.S. Aid and Military Reimbursements to Pakistan, FY2002 – FY2011*. CRS Report, Washington D.C.: Congressional Research Service, July 6, 2010.
- Lynn, William J.III. *Management of the Commander's Emergency Response Program*. Official Memorandum, Washington D.C.: United States Deputy Secretary of Defense, May 10, 2010.
- Marr, Phebe. *The Modern History of Iraq, Second Edition*. Boulder, CO: Westview Press, 2004.
- McCullough, David. *Truman*. New York City: Simon and Schuster Inc., 1992.
- Meadows, Dennis L., Donella H. Meadows, and Jorgen Randers. *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*. White River Junction, Vermont: Chelsea Green Publishing Company, 1992.
- Meadows, Donella. "Leverage Points: Places to Intervene in a System." *Sustainability Institute*. 1999. [http://www.sustainer.org/pubs/Leverage\\_Points.pdf](http://www.sustainer.org/pubs/Leverage_Points.pdf) (accessed June 3, 2010).
- Mining Communications, Ltd. "Mining Journal Special Publication: Afghanistan." *Mining Journal*. 2006. [http://www.bgs.ac.uk/afghanMinerals/docs/afghan\\_supp\\_final.pdf](http://www.bgs.ac.uk/afghanMinerals/docs/afghan_supp_final.pdf) (accessed December 15, 2009).
- Montgomery, Douglas C. *Design and Analysis of Experiments, 5th Edition*. New York City: John Wiley and Sons, Inc., 2001.
- Mullick, Haider A.H. *Pakistan's Security Paradox: Countering and Fomenting Insurgencies*. Joint Special Operations University Report 09-9, Hurlburt Field, FL: Joint Special Operations University Press, 2009.
- Nagl, John. "A 'Better War' in Afghanistan." *Prepared Statement to the Senate Committee on Foreign Relations*. September 16, 2009. [http://www.cnas.org/files/documents/publications/CNASTestimony\\_Nagl\\_SFRC\\_September\\_16\\_2009.pdf](http://www.cnas.org/files/documents/publications/CNASTestimony_Nagl_SFRC_September_16_2009.pdf) (accessed January 15, 2010).
- Oatley, Thomas. *International Political Economy: Interests and Institutions in the Global Economy*. 3rd. New York: Pearson-Longman, 2008. This was used as a general reference, although not cited directly in the body of the work.
- Organisation for Economic Co-operation and Development (OECD). *The Marshall Plan: Lessons Learned for the 21st Century*. Publication place unknown: OECD Publishing, 2008.
- Pan, Jonathan, and Gabriel Grau. "Land Disputes in Afghanistan: Implications for the Warfighter." *Army*, July 2010: 26 – 28.
- Parnell, Gregory S., Patrick J. Driscoll, and Dale L. Henderson. *Decision Making in Systems Engineering and Management*. Hoboken, New Jersey: Wiley-Interscience, 2008.

- Patel, Seema, and Steven Ross. "Breaking Point: Measuring Progress in Afghanistan." *Center for Strategic and International Studies (CSIS)*. March 2007.  
[http://csis.org/files/media/csis/pubs/070329\\_breakingpoint.pdf](http://csis.org/files/media/csis/pubs/070329_breakingpoint.pdf) (accessed November 13, 2010).
- Peters, Ralph. "Trapping Ourselves in Afghanistan and Losing Focus on the Essential Mission." *Joint Forces Quarterly*. 3rd Quarter, July 2009. <http://www.ndu.edu/press/lib/images/jfq-54/18.pdf> (accessed September 15, 2009).
- Petraeus, David. "COMISAF's Counterinsurgency Guidance." Kabul, Afghanistan: International Security Assistance Force (ISAF), July 27, 2010.
- Pierson, Brett. "A System Dynamics Model of the FM 3-24 COIN Manual." *Earth-intelligence*. 2008. [http://www.earth-intelligence.net/dynamaster/file\\_archive/100513/f5ffe44103bf516a5191d460bc8b3d98/System\\_Dynamics\\_and\\_COIN\\_Modeling\\_v13.ppt.pdf](http://www.earth-intelligence.net/dynamaster/file_archive/100513/f5ffe44103bf516a5191d460bc8b3d98/System_Dynamics_and_COIN_Modeling_v13.ppt.pdf) (accessed August 24, 2010).
- Popkin, Samuel L. *The Rational Peasant: The Political Economy of Rural Society in Vietnam*. Berkeley, CA: University of California Press, 1979.
- Race, Jeffrey. *War Comes to Long An: Revolutionary Conflict in a Vietnamese Province*. Berkeley, CA: University of California Press, 1972.
- Reid, R. Dan, and Nada R. Sanders. *Operations Management: An Integrated Approach, Second Edition*. Hoboken, NJ: John Wiley and Sons, Inc., 2005.
- Sattinger, Steven, interview by Travis J. Lindberg. "Feedback from Multi-National Corps-Iraq (MNC-I) Engineer Cell on Need to Prioritize Reconstruction Efforts," Completed via e-mail, (August 14, 2009).
- Scherer, Ron. "Why Many Pakistani-Americans Aren't Sending Flood Donations Home." *Christian Science Monitor*. August 18, 2010.  
<http://www.csmonitor.com/USA/2010/0818/Why-many-Pakistani-Americans-aren-t-sending-flood-donations-home> (accessed August 18, 2010).
- Schramm, Carl J. "Expeditionary Economics: Spurring Growth after Conflicts and Disasters." *Foreign Affairs*, May – June 2010: 89 – 99.
- Senge, Peter M. *The Fifth Discipline: The Art & Practice of the Learning Organization*. New York City: Currency Doubleday, 2006.
- Shircliffe, James E. Jr. "Investing in Stability: The Need for Intelligence Preparation for Economic Operations." *Military Review*, March – April 2010: 86 – 92.
- Sly, Liz. "A U.S. 'Legacy of Waste' in Iraq." *Los Angeles Times*. August 29, 2010.  
<http://articles.latimes.com/2010/aug/29/world/la-fg-iraq-reconstruction-20100829> (accessed August 30, 2010).
- Special Inspector General for Afghanistan Reconstruction. *SIGAR: Quarterly Report to the United States Congress*. Periodic update to the U.S. Congress, Washington D.C.: U.S. Government Printing Office, July 2010.
- Special Inspector General for Iraq Reconstruction. *Hard Lessons: The Iraq Reconstruction Experience*. Periodic update to the U.S. Congress, Washington D.C.: U.S. Government Printing Office, 2009.
- Sterman, John D. *Business Dynamics: Systems Thinking and Modeling for a Complex World*. Boston, MA: Irwin McGraw-Hill, 2000.

- Tarnoff, Curt. *Afghanistan, U.S. Foreign Assistance*. CRS Report R40699, Washington D.C.: Congressional Research Service, June 25, 2010.
- The Liaison Office. *Land Conflicts in Kandahar, Final Version*. Publication place unknown: The Liaison Office, September 2010.
- The World Bank, The International Bank for Reconstruction and Development. "Doing Business 2011: Making a Difference For Entrepreneurs." *A Copublication of the World Bank and the International Finance Corporation*. November 4, 2010.  
<http://www.doingbusiness.org/~media/fpdkm/doing%20business/documents/annual-reports/english/db11-fullreport.pdf> (accessed November 15, 2010).
- Thompson, Edwina. "Winning 'Hearts and Minds' in Afghanistan: Assessing the Effectiveness of Development Aid in COIN Operations." *Wilton Park*. April 1, 2010.  
<http://www.wiltonpark.org.uk/documents/conferences/WP1022/pdfs/WP1022.pdf> (accessed April 22, 2010).
- Thornhill, William Mark, interview by Travis J. Lindberg. "Feedback from ARCENT G8 on Need to Prioritize Reconstruction Effort," Ft Leavenworth, Kansas, (April 17, 2010).
- Tyron, Joseph D. "Theater Construction Management Standards: Time to Raise the Standards." *Engineer: The Professional Bulletin of Army Engineers*, January – March 2008: 51 – 54.
- United Nations Development Programme Bureau for Development Policy – Capacity Development Group. *Capacity Development: A UNDP Primer*. New York City: United Nations Development Programme, 2009.
- United States Agency for International Development. "A Guide to Economic Growth in Post-Conflict Countries." *Office of Economic Growth, Bureau for Economic Growth, Agriculture, and Trade, USAID*. January 2009.  
[http://pdf.usaid.gov/pdf\\_docs/PNADO408.pdf](http://pdf.usaid.gov/pdf_docs/PNADO408.pdf) (accessed June 5, 2010).
- United States Central Intelligence Agency. *The World Factbook: Afghanistan*. August 19, 2010.  
<https://www.cia.gov/library/publications/the-world-factbook/geos/af.html> (accessed September 16, 2010).
- United States Department of Defense. *Joint Publication 1-02, DoD Dictionary of Military and Associated Terms*. Washington D.C.: U.S. Government Printing Office, April 12, 2001, as amended through April 2010.
- United States Department of Defense. *Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations*. Department of Defense Directive 3000.05, Washington D.C.: Office of the Secretary of Defense, November 28, 2005.
- United States Department of State. *Congressional Budget Justification, Volume II: Foreign Operations, FY11*. Congressional Budget Justification, Washington D.C.: Foreign Operations, Department of State, United States Government, 2010.
- United States Department of State. *Congressional Budget Justification: Foreign Assistance, Summary Tables FY11*. Congressional Budget Justification, Washington D.C.: Foreign Assistance, Department of State, U.S. Government, 2010.
- United States Department of State, Office of the Special Representative for Afghanistan and Pakistan. "Afghanistan and Pakistan Regional Stabilization Strategy." *Office of the Special Representative for Afghanistan and Pakistan*. February 24, 2010.  
<http://www.state.gov/documents/organization/135728.pdf> (accessed November 7, 2010).

- United States Department of the Army. "2010 Army Posture Statement." *Official Homepage of the United States Army*. February 2010.  
<http://www.army.mil/info/institution/posturestatement/> (accessed November 7, 2010).
- . *Field Manual 3-0, Operations*. Washington D.C.: United States Government Printing Office, 2008.
- . *Field Manual 3-07, Stability Operations*. Washington D.C.: U.S. Government Printing Office, 2008.
- . *Field Manual 3-24, Counterinsurgency*. Washington D.C.: U.S. Government Printing Office, 2006.
- . *Field Manual 5-0, The Operations Process*. Washington D.C.: United States Government Printing Office, 2010.
- United States Government Accountability Office. *Military Operations: Actions Needed to Better Guide Project Selection for Commander's Emergency Reponse Program and Improve Oversight in Iraq*. Government Accountability Office Report, Washington D.C.: U.S. Government Printing Office, June 23, 2008.
- United States Joint Forces Command. *The Joint Operating Environment (JOE) 2010*. Periodic Unclassified Strategic Assessment, Suffolk, VA: United States Joint Forces Command, 2010.
- United States National Security Council. "National Security Strategy." *Official Homepage of the President of the United States*. May 2010.  
[http://www.whitehouse.gov/sites/default/files/rss\\_viewer/national\\_security\\_strategy.pdf](http://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy.pdf)  
 (accessed November 7, 2010).
- Waldman, Matt. *The Sun in the Sky: The Relationship Between Pakistan's ISI and Afghan Insurgents*. Discussion Paper 18, Kennedy School of Government, Harvard University, London: Crisis States Research Centre, June 2010.
- Warner, Gregory. "The Schools the Taliban Won't Torch." *Washington Monthly*. December 2007.  
<http://www.washingtonmonthly.com/features/2007/0712.warner.html> (accessed November 13, 2010).
- Witte, Griff. "Taliban shadow officials offer concrete alternative: Many Afghans prefer decisive rule to disarray of Karzai government." *Washington Post*. December 8, 2009.  
<http://www.washingtonpost.com/wp-dyn/content/article/2009/12/07/AR2009120704127.html> (accessed September 15, 2010).