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**IMPROVING EFFECTIVENESS OF MONETARY WEAPON SYSTEMS IN
AFGHANISTAN**

THESIS

Seth M. Lorimer, Captain, USAF

AFIT/GEM/ENV/12-M13

**DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY**

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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AFIT/GEM/ENV/12-M13

IMPROVING EFFECTIVENESS OF MONETARY WEAPON SYSTEMS IN
AFGHANISTAN

THESIS

Presented to the Faculty

Department of Systems and Engineering Management

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Air Education and Training Command

In Partial Fulfillment of the Requirements for the
Degree of Master of Science in Engineering Management

Seth M. Lorimer, B.S.

Captain, USAF

March 2012

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IMPROVING EFFECTIVENESS OF MONETARY WEAPON SYSTEMS IN
AFGHANISTAN

Seth M. Lorimer, B.S.

Captain, USAF

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Abstract

Tenuous political and economic times call for increased oversight and improved results from military counterinsurgency programs in Afghanistan, programs that provide agile non-kinetic weapons, critical for commanders fighting in today's asymmetric battle space. This paper proposes a decision tool for construction projects executed under the Commanders Emergency Response Program, designed to meet the changing demands of fighting an amorphous insurgency among dynamic systems of stakeholders. The research first conducted a system analysis of the CERP project execution process identifying key findings addressing value adding inputs. The research then applies a Causal Chain, borrowed from the Emergency Management field to identify contributions of early system inputs and expand the aperture on project outcomes to include their long-term impacts. The research suggests that the Commanders Emergency Response Program can improve outcomes by considering a broader perspective of the system using the Causal Chain, delaying project outcome determination, expanding the pool and increasing the meaningful involvement of stakeholders, driving outcome focused decision making. The research hopes to contribute to improving the outcomes of the Commanders Emergency Response Program and provide a useful framework to describe the system during future policy decisions for the program.

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My parents and brothers have always been a renewing source of motivation and encouragement. I am very glad to have their support and enthusiasm. Your lofty expectations for me have led me to accomplish more than I would have ever imagined.

Finally, I am evermore thankful for my amazing fiancé. I am grateful for her love, patience, and support throughout this process. You are the perfect complement to me and I am truly fortunate to have had your balance during my AFIT experience.

Seth M. Lorimer

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List of Acronyms

ADR – Afghan Development Report

ADT – Agribusiness Development Team

ANDS- Afghan National Development Strategy

AO- Area of Operations

BSO- Battle Space Owner

CERP- Commanders Emergency Response Program

CIDNE- Combined Information Data Network Exchange

COIN- Counterinsurgency

CTP- Critical Thinking Process

DoD – United States Department of Defense

DoS – United States Department of State

FAR – Federal Acquisition Regulation

FMR- Financial Management Regulation

GDP – Gross Domestic Product

GIRoA- Government of the Islamic Republic of Afghanistan

HASC- House Armed Services Committee

IGE- Independent Government Estimate

KO- Contracting Officer

KTR- Contractor

LOJ- Letter of Justification

MAAWS-A – Money As A Weapon System-Afghanistan

MOA- Memorandum of Agreement

O&M- Operations and Maintenance

OSD- Office of the Secretary of Defense

PDC- Provincial Development Council

PDP- Provincial Development Plan

PM – Project Manager

PMP- Project Management Plan

PPBE- Planning, Programming, Budgeting and Execution

PRT – Provincial Reconstruction Team

RM- Resource Manager

SASC – Senate Armed Services Committee

SIGAR – Special Investigative General for Afghan Reconstruction

SOP- Standard Operating Procedure

SOW- Statement of Work

U.S. – United States

USFOR-A – United States Forces- Afghanistan

USAID – United States Agency for International Development

IMPROVING EFFECTIVENESS OF MONETARY WEAPON SYSTEMS IN AFGHANISTAN

I. Introduction

On September 11, 2001, the largest terrorist attack on American soil shook the foundation of United States' (U.S.) national security and changed the course of military operations for the following decade. In the aftermath of the events that were to follow, the U.S. and allies were faced with the reality of settling into a different type of war, a counterinsurgency (COIN) fight between anti-GIRoA elements and a U.S.-Afghan coalition. Opponents in this battle struggle to be favored by balance of the Afghan population that has yet to take a side. Eventually the sides must also combat their own supporters' will to fight. The Commander's Emergency Response Program (CERP) has been a weapon in the arsenal for coalition forces, who have been seeking to prevent violent actions by the insurgency and win support of the local population for the freely elected Afghan government. The primary wielders of the CERP weapon are the Provincial Reconstruction Teams (PRTs), specialized military units designed to execute CERP infrastructure development projects for the Afghan people. CERP funding is set aside for urgent humanitarian assistance (36 DOD FMR 7000.14-R, 2009) used to benefit the Afghanistan population by contracting development and reconstruction projects across U.S. controlled provinces in Afghanistan.

This chapter offers a background about COIN, CERP, and the grievances about CERP. Next, the chapter provides justification why it is necessary complaints about CERP be addressed and it identifies the objectives and intentions of the research. The

chapter then defines the scope and method for what will be studied. Finally, it delivers an overview of the remaining chapters in the thesis.

COIN Background

The primary focus of this research is on a system intended to manipulate the tenuous relationships within Afghanistan to meet strategic objectives. The focus on the relationships and the nature of fighting a non-state opponent represents a major shift in U.S. war fighting dynamics.

Role of Noncombatants

Counterinsurgency warfare differs from conventional interstate conflicts because of the primary focus on noncombatants. The conflict exists, not between two warring states, but among a tri-party relationship involving insurgents, the government, and the local population (Akerlof, 1997; Atkinson, 2010; Berman, 2011). As described by Mao Tse-Tung, the favor of the population is so important because “guerrillas must live in and among the people as fish swim in the sea” (Tse-Tung, 1937). The importance of the people is echoed throughout counterinsurgency literature (Trinquier, 1961; Galula, 1964; Sepp, 2005; Petraeus, 2006; Cassidy, 2008; Johnson, 2008; Atkinson, et al., 2010; Berman, et al., 2011). The noncombatant population is important in counterinsurgency warfare because it is simultaneously the source of strength and great vulnerability for rebel fighters. The people are a source of reinforcements, concealment, and supplies for insurgents. Insurgent opposition needs the support of the people for economic stability, information about the insurgency, and democratic legitimacy. The insurgency tends to thrive when the population is on its side and declines when it is not (Atkinson, et al.,

2010). The next section will explore different theories about how to manipulate this three party relationship, and how CERP fits into the U.S. strategy.

COIN Theories

Theories about how to gain the favor of the noncombatants vary greatly and have considerable implications for the focus of counterinsurgency strategy. One feature that seems to be common among theories is the need for more than just kinetic actions to fight insurgents. Also, coercive strategies cannot operate independently of targeted military force. Supply of Rebels is a theory that contends that no amount of support from the government can buy the favor of local people so long as the government cannot secure the area and enforce legitimate economic trade (Ross, 2004). In the Opportunity Cost theory, the economic cost of supporting the rebels rises to an unacceptable level because of other benefits that would be lost by supporting the insurgents. Agriculture development teams (ADT), deployed across Afghanistan, seek to raise the opportunity cost of rebellion. For example, the ADTs attempt to educate farmers about legitimate agriculture exports so that profits from farming become more advantageous, although time consuming, than supporting the insurgency (Becker, 1968). Recent popular movements have also targeted education and women's rights as a means to combat insurgency. In Greg Mortenson's book, *Three Cups of Tea*, he describes his effort to build schools to educate women, citing the idea that educated mothers are less likely to raise children that would support insurgents (Mortenson, 2006). Again, an educated population would also be exposed to more economically attractive opportunities than supporting insurgents. Yet others believe that the war cannot be as easily manipulated as these theories suggest, by addressing grievances and providing better services.

Some theorists argue that low gross domestic product per capita is a symptom of weak government and is a motivator for political rebellion. Things like low GDP and rough terrain that makes government control more challenging, cannot be addressed by providing benefits or raising the opportunity cost. Also, the theories depend on an idea that a division can exist between coercive and attractive means of fighting insurgents (Kress and Szechtman, 2008). This notion is impractical because these events occur simultaneously in a COIN fight, and a population cannot make a distinction between the people within an outside organization providing benefits to the population and those outsiders that are dealing them harm. Realistically, actions of both sides of the struggle affect the position of the noncombatants, as well as contradictory actions within either side. For example, a much needed public infrastructure project's benefits can be negated and even overshadowed by misinformed targeting of military strikes.

U.S. Strategy

The United States foreign actions in Afghanistan focus on a theory called “Hearts and Minds” (Berman, 2008). The goal of the theory is to reduce the demand for rebellion. In this theory, beneficiaries of aid and services reciprocate by showing support for the provider in terms of aid, cooperation or information (Horowitz, 1985). The program is designed to enable commanders to respond to urgent humanitarian relief and reconstruction requirements that will assist the indigenous population and reduce their desire to oppose the Afghan government (36 DOD FMR 7000.14-R, 2009).

CERP Background

Following the invasion of Iraq in 2003, the U.S. was faced with determining what to do with seized dinar found in palaces throughout the country. It was determined that the money had been stolen from the people of Iraq and should be used to benefit them. In the aftermath of the U.S. invasion, the money was used to fund rebuilding projects to address destroyed infrastructure and provide humanitarian assistance to affected Iraqis. While implementing these small-scale rebuilding projects, American Forces discovered reconstruction was a powerful non-kinetic weapon for winning the hearts and minds of local people (Martins, 2005). The success led to the U.S. Congress passing a bill to fund CERP on November 6, 2003 with the intent of providing guidance for how money could be used, who could be the recipient of reconstruction spending, and to fund the program in the future (Martins, 2005). According to the newly established CERP guidance, the construction contracts had to show direct benefit to the Iraqi people and meet urgent humanitarian need before military engineers could obligate the money. Congress' action not only allocated U.S. dollars to fund the CERP, but also expanded the program to be used in Afghanistan.

CERP Evolution

Since the expansion of CERP as a tool to be used in Afghanistan, CERP has been used to build new infrastructure. Building infrastructure where it did not previously exist is an example of CERP's evolution from being a *rebuilding* tool to simply a building tool. This expanded use led to questions about how "urgent humanitarian need" was being determined. The U.S. Congress has questioned if money allocated under the program has been effective at addressing urgent humanitarian need, and fulfilling its intended strategic

purpose for Afghanistan, drawing Afghan people closer to their government as a means to weaken popular support for the insurgency.

CERP Perspectives

There are several key CERP project stakeholders. The perspective of each of these stakeholders reflects varying interests and motivations which contribute to how project success is defined. Depending on the project, different interests are met and in some cases competing interests emerge. Also, key stakeholders often have decidedly different ideas about how CERP projects should be implemented or what the projects should seek to achieve.

Congress vs Military

One such issue is the difference in opinion between American politicians and military commanders about CERP. CERP is both disliked by members of Congress while being lauded by military implementers because of its speed, flexibility, and ease of execution. Congress wants greater accountability, oversight and a more robust nomination and planning phase with defined project outcomes and success criteria leading to increased quality in projects where U.S. money is spent. The military has a greater interest in the outcome of spending the money and appears to care less about the quality of the product provided that the desired outcome is achieved.

Tactical vs Tactical

There is also a division between how CERP has been used by tactical commanders with different missions. CERP effects have suffered from a lack of communication and coordination between units carrying out missions in the same area of

operations (AO). From personal experience, sometimes missions within the same AO have had contradictory effects.

Common differences between tactical implementers of CERP are summarized in the United States Institute of Peace publication of three sets of “recurring tradeoffs”:

1. **Stability vs. Host Nation Legitimacy:** This tradeoff refers to the conflict between the urgent need for international actors to secure the peace, and the possibility that these actions are not seen by the host nation population as connected to their local leaders or government and do not build the legitimacy or capacity of the host nation;
2. **Expediency vs. Sustainability:** This tradeoff refers to differences between targeting short-term actions that show a peace dividend and signal that violent conflict is over, but are not sustainable by the host nation over time, and those actions that may not have an immediate impact on the perceptions of peace, but develop over time and establish conditions that can be sustained by the local population after the intervening party is gone;
3. **Meeting Needs vs. Building Capacity:** This third tradeoff refers to the quandary faced by international actors- governmental and nongovernmental- when it is easier to fulfill needs directly than to build host nation capacity to deliver critical assistance (Cole et. al., 2009).

The tradeoffs illustrate the differences among commanders as to how they spend CERP funding. As an example, Infantry units are likely to nominate projects that will aid in establishing stability, expediency, and basic needs in an AO to create peaceful

conditions and reduce the violence for their team and the local population. As a counter example, a Provincial Reconstruction Team (PRT) is more likely to use CERP to execute the host nation government's development plan. Executing the development plan would advance the capacity of the local leaders and, over the long term, create conditions where international intervention is not needed to maintain peace and rule of law within their AO. In the two examples, neither position is wrong. The Infantry unit and the PRT have different missions and use the CERP to help to achieve their respective tactical objectives.

Tactical vs. Host Nation Government

Some PRT projects, however, have been identified as performing tasks that properly belong to local and provincial governments, conflicting with the capacity development mission of coalition PRTs (Bowen Testimony, 2007). The United Nations Secretary-General's Special Advisor on Development, Mark Ward (2010), criticized the U.S. PRTs for pursuing small projects that provide services for the Afghan people that local governments are capable of providing and thus undermining their authority. The overlapping lines of authority and lanes of responsibility have weakened an otherwise capable government. These actions led to Afghan President Hamid Karzai, early in 2011, calling for PRTs to be withdrawn from Afghanistan. This accusation emphasizes the point that CERP projects have lacked the ability to plan projects that build sustainable capacity into the future and look beyond current needs.

Tactical vs Strategic

Additionally, there are complaints that CERP and its usefulness for tactical commanders have failed to address strategic objectives (Bowen, 2007). Tactical units

and local governments must align their actions with higher authority and plans. Tactical military units do themselves a disservice by fulfilling needs and meeting short term self-serving objectives, never addressing long term conditions for withdrawal and establishing strategic conditions. Similarly, local governments cannot implement independent strategies from their national government from whom they seek funding and support if they want sustainable efforts to be supported with national funding. The local actions must be within the bounds of larger strategic plans so that coordinated response can be achieved across multiple tactical spaces.

In fairness to tactical commanders, the higher level plans have not always been made clear, nor training sufficient to understand the intricacies of imbedding efforts within the Afghan development and sustainability plans. Previous research reinforces this issue and raises others that will be elaborated on in the coming paragraphs (Inguagiato, 2010). Inguagiato highlighted the following list of the shortcomings of CERP at the Tactical and Strategic levels in his report entitled Operational Art and the Commanders' Emergency Response Program.

At the tactical level: decentralized project selection and execution, intentionally minimalist controls, great availability of resources that are sometimes in excess of capacity to execute them, and susceptibility to fraud, waste and abuse.

At the operational level: lack of unity of effort within DOD commands as well as between these commands and the interagency, the

international community, and the host nation. There is also a lack of clearly defined objectives and effectiveness metrics (Inguagiato, 2010).

CERP Complaints

As time passed, reports of program effectiveness were mixed. Domestically, political and military leaders have questioned the results of the program and called for accountability of the funding. According to the Special Investigator General for Afghanistan reports investigations into the CERP's use in Afghanistan and Iraq yielded little certainty about the motivations behind projects implemented using the program and their link to a larger strategic objective. Additionally, CERP projects have had questionable results and inconclusive outcomes (SIGAR Audit 11-7). Another complaint includes the existence of competing objectives of CERP role players at various operational levels, each with different interests and affected by the program uniquely.

Oversight

Government Accountability Office (GAO) reports have also cited CERP personnel for having "limited capacity to manage and oversee contractor performance properly" and for "having no performance metrics" (GOA, 2008). The GAO report went on to say that "federal agencies should develop plans that establish objective, quantifiable, and measurable performance goals that should be achieved by a program" (GOA, 2008). Projects cited often used anecdotal information or informal means to assess the projects. This failure to account for the effects of a project means that there is insufficient data to accurately assess the results and outcomes of the money that has been

spent on CERP projects. Additionally, the report states that without the information there is insufficient evidence to evaluate additional requests for funding (GOA, 2008).

Inconclusive Results

The CERP projects that are used to target the hearts and minds of the Afghan population in the counterinsurgency battle have had inconclusive results. Failing to yield conclusive evidence of CERP effects, the DoD has received criticism from Congress, the Government Accountability Office and SIGAR for continuing to spend U.S. dollars without knowing what to expect. Congress implemented changes to the CERP project nomination documents that requires measures of effectiveness be included in each project's nomination package. The change was intended to aid assessment of a nominated project's anticipated results in order to determine the project's worthiness for funding and implementation. However, these measures of effectiveness have failed to provide post-project-closeout accounting of quantifiable results for individual CERP project's impacts (SIGAR Audit 11-7).

Measurement

Inconclusive results of projects and the output described by the nomination packages' measures of effectiveness have led to a desire for research into how outcomes of these projects can be quantified. In a hearing before the House Armed Services Committee, Congresswoman Susan Davis (Cal) asked, "How are we measuring effectiveness of PRTs?" (HASC No. 110-96). The questions and hearings that followed outlined a string of unanswered questions about how the United States Military is implementing the Congressionally appropriated CERP.

Planning, Management, Direction

In his expert testimony before Congress, Stuart Bowen cited CERP for having weak planning, repeated shifts in program direction, poor management oversight, and inconclusive outcomes, as sources of wasteful government spending (Bowen, 2007).

The U.S. Government has outlined problems with CERP in numerous government reports and testimony before Congress that document each complaint. In order to be more effective as a tool for gaining popular favor for the Afghan Government, CERP needs to undergo change. There must be a unified position for American political and military leaders with regard to the CERP purpose, objectives, intent, and goals. As a tool for military implementation, it is important that it remains flexible for diverse sets of objectives and quick to implement to meet rapidly changing battlefield conditions. CERP projects must have clear direction supporting sustainable strategic goals, and they must also have outcomes that can be measured and do not undermine host nation authority.

Problem Statement

The question is: how to move beyond the current state of the program to meet these new requirements?

However, program guidance is unclear about what CERP is supposed to achieve and how the results are to be recorded and measured with regard to each perspective highlighted previously. Without clear guidance, the program has become a tool that meets the needs of its implementers rather than its beneficiaries. Additionally, specific plans for the program need to be provided to project nominators to provide direction for a variety of military implementers, linking strategic and tactical objectives, and offering a

timeline, payback period, and well-defined project planning horizon to define success for individual projects and the program.

The problems need to be addressed so that U.S. dollars are spent with specific purposes and to achieve specific outcomes. Without the means and requirement to drive the change, money will continue to be spent with uncertain results, there will continue to be an inability to learn from earlier successes or failures, and there can be no course correction in the ongoing conflict. By studying these issues, implementers of the program will: gain insight into how to better yield beneficial results for Afghans and Americans, have better use of resources, and produce increased satisfaction with the program.

The current tight U.S. economy has heightened the public's awareness of where personal resources are spent. In consideration for thrifty citizens, their Government should also increase its consciousness of how taxpayer money is spent. Therefore, it is desirable to improve the impact to cost ratio in terms of lives and money, especially under current economic conditions. Executing due diligence for protecting taxpayer money will contribute to the willingness of Americans to support foreign operations and stave off the degrading effects unconstrained spending with uncertain results has on morale.

Beyond course correction, economic responsibility, and combating degrading public morale, it is imperative to analyze and address problems with U.S. CERP program spending to learn about its effectiveness as a tool for future use. The method by which the U.S. will fight wars of the future is being developed today, and as much as the

development of next generation fighters is important, so too is the development of effective and efficient means to fight asymmetric, non-state foes.

In light of this problem, several research attempts have been made to address the issues stated in this section. The following section provides an overview of some of these previous research efforts and shows how they contribute to this study.

Previous Research Review

“Dozens of reports and articles published during the past six years have sought to analyze, criticize and recommend action regarding the progress of reconstruction aid” (Tarnoff, 2009). The following section will provide a brief overview of some of the relevant research that contributes to the current state of attempts to address the problems, specifically focusing on the methods that have been used to address the issues and provide recommendations.

System Modeling

To evaluate the effectiveness of various counterinsurgency tools many authors have attempted to model tools’ effects leading to varying outcomes. Likewise descriptive models have yielded various prescriptions for successful counterinsurgency strategies (Howell, 2007; Damalas, 2008; Kress and Szechtman, 2009; Atkinson, et al., 2010; Condrey, 2010; Kaplan, 2010; Berman, 2011). One issue that has arisen is the intense information requirements for modeling counterinsurgency systems without recorded data available to support the research, as with attempts to model the effects of CERP. Previous attempts at COIN modeling have relied heavily on data that are often incomplete, statistically noisy, or unavailable (Atkinson, Kress, Szechtman, 2010). For

this reason, this research will not include simulations and complex mathematical models that rely on intensive data requirements. Because of the many variables regarding the time, place, environment and effects of the CERP and the lack of programmed records of this nature, other research methods are explored.

Other Previous Methods

Johnson (2008) implemented a three step method to evaluate another counterinsurgency tool, the Combined Action Program. She began with extensive surveying of primary sources, including the program's standard operating procedures and secondary sources to expand the contextual base for the research. Second, she compared and contrasted the characteristics of the uses of the program including interviews and individual memoirs. Finally, Johnson focused on comparing and contrasting the insurgencies of Vietnam and Iraq to evaluate differences in the results.

In another study, Weber (2010) outlined a model for post-conflict planning, which highlighted project selection criteria. To validate the conclusions, he used a non-experimental design method that enforced conceptual criterion and relied on personal experience before submitting the model for peer review and senior military comment.

Research Objectives, Goals, and Intent

The objective of this thesis was to investigate methods that will further understanding about how implementation of the Commander's Emergency Response Program (CERP) can return improved strategic outcomes in Afghanistan that contribute to U.S. foreign interests. This research sought to identify CERP guidance changes that are necessary in CERP processes to move the system toward increased accountability and

effectiveness. The goal of the research was to contribute system perspective that may help yield change and lead to improvements in the CERP. Additionally, the desired results of the research could eventually address how to provide a targeted system that reinforces strategic goals and is aligned with supporting the Afghan government, and how to provide a system that records metrics within each project enabling course correction should it be needed.

Scope and Limitations

Results from previous studies have not been able to quantify the benefits of construction projects executed under CERP. Data collected about the construction projects have historically addressed the outputs of the program, but failed to target the outcomes. Current data include what was accomplished and how well, but not if efforts were correct in order to achieve intended effects. This research is not be able to quantify outcomes because of limitations in previously collected data available for the study. The research attempts to identify data requirements and program changes, so future researchers may have the tools necessary to meet Congress' call for accountability.

This study does not quantify benefits or suggest how they ought to be quantified. Rather, this study addresses the guidance and process for executing a project, from nomination through contract closeout. The research offers suggestions about how the process may be improved so that cost-benefit analysis might be accomplished during future project planning. The scope is limited to the guiding documents and process because the burden of revisiting completed projects to determine their effectiveness and benefits is time consuming and cost prohibitive. Additionally, preventing the researchers

from doing a more quantitative analysis, the right information about projects, outcomes, resource allocation and the true cost of the projects has not been recorded under the current system.

This research is supported by information and contributions from members of the United States Forces-Afghanistan (USFOR-A) and the office of the United States Secretary of Defense for Policy (OSD-P-CERP) and is intended to be a cooperative effort to improve oversight and accountability for U.S. taxpayer dollars used in Afghanistan. It is not intended to solve the problem, but further highlight the issue and begin an AFIT research stream that can eventually address program outcomes and improve program effectiveness. The research is not intended to conjecture about the strategy that drives the CERP program, but accepting the strategic intent of the program, this research strives to address concerns identified within reports, audits and by critics.

This research is based on CERP project data reported in project files on the Afghan common operating picture database of record, Combined Information Data Network Exchange (CIDNE) between 2004 and 2010. The data reported previously do not include information concerning confounding variables about the local population that impact project success and outcomes, such as ethnicity, political affiliation, ideological association, or other indicators of predisposition to accept the impact of CERP projects. The research will not be able to provide any analysis about what projects are effective or distinguish between groups for targeting of future projects.

Other large development agencies commonly base outcomes on qualitative sampling (World Bank IEG, 2006). Afghans are not included or accessible for the research to evaluate previous project outcomes through this method. Also, reliable CERP

project outcome measurements are unavailable for previous projects. In the past, CERP contracts have not included provisions directly measuring or observing public reaction to CERP projects with quantitative measures. Therefore, outcomes of previous projects will be based on SIGAR reports about project success, wherever possible.

“Success” is intentionally left undefined to allow varying conditions within a specific AO to be accommodated by a broad definition and to account for incongruent definitions across AOs. The intent is not to identify success, but to allow local circumstances to determine how to define the conditions of a successful project.

In addition to the availability of data, the research is constrained by the time available to conduct the research. First, the research is conducted during an 18 month Master’s Degree program at the Air Force Institute of Technology and must be concluded within this window of time as a graduation requirement. Second, the ongoing mission and changing operational environment the research addresses limits the usefulness of the information and research results to a defined time period and set of regulations. In an effort to remain current and useful, the research must be conducted within a cycle of guidance and policy so that it may contribute relevant findings to future policy decisions.

Finally, the research includes personal experiences and observations among the sources of data included in the research. The introduction of personal experience introduces bias to the research. Among these biases are anchoring, availability, recency, and cognitive dissonance. The reliance on the personal memory of the researcher’s experiences has an accepted and acknowledged impact on the research results. By understanding possible impacts of the introduced bias, the researcher intentionally

attempts to mitigate the effects by reviewing findings considering possible biases and identifying them in the research so that the reader may also consider their implications.

Research Question

How can the CERP be improved to yield measurable, positive outcomes across tactical level partners and aligned with strategic level intentions?

Scope and Approach

To explore this research question, this study utilizes a method that capitalizes on some results of descriptive models and employs a Causal Chain risk analysis technique to illustrate points of failure in the current process and suggest interventions. In order to address the research question the researcher implements a phased approach seeking answers to a series of investigative questions. Phase one is a process analysis of CERP construction projects, phase two is a systems dynamics interpretation of the system using a causal chain analysis to develop recommendations for program change across a spectrum of program perspectives.

Phase One:

A process analysis is conducted to identify gaps in CERP process execution where program guidance fails to achieve greater project impact. The data sources used for the analysis are CERP policy, guidance, and funding requirements. In this phase of the analysis researchers look at CERP construction project implementation from project inception, through nomination and approval, to closeout and evaluation. The analysis illustrates the flow of information between stakeholders and key activities that contribute to project outcome. Stakeholders and activities are those that are outlined in the guidance

and standard operating procedures for the CERP program. Completing this research phase provides answers for the following investigative questions:

Phase One Investigative Questions:

1. In the CERP execution process, what value do required inputs contribute to project success?
2. Which project stakeholders are considered, emphasized in current project nomination requirements?
3. What consideration is given to process outcomes vs. outputs in the current CERP process?

Phase One Intent and Anticipated Results:

Having answered the investigative questions for phase one, the research is in a position to investigate what may be insufficient and likely causes of underperformance within project processes, and what impact the current processes have had on project outcomes. Results contribute to the development of process interventions that nest within the larger causal chain of events described in Phase two of the research. It is expected that the results of phase one indicate that current process requirements fall short of ensuring a cohesive plan to improve stakeholder positions and maximize the benefits of the program and achieve optimal CERP funding success.

Phase Two:

The knowledge gained from phase one contributes to the researcher's ability to target changes to the process and program guidance in order to develop a plan for how to

transform the program from the current state to a desired program for the future that improves measurability, yields positive outcomes across tactical level partners while remaining aligned with strategic level intentions.

Phase two of the research includes a notional system view of the CERP reconstruction project process to help facilitate process implementer decision making and communication between various stakeholders. The systems view is described using a Causal Chain method to illustrate the links between events, their intended consequences and the impact on the system as a whole.

The Causal Chain method is a way to describe a system of linked events that contribute to a particular incident, effect outcomes and lead to consequence. As a framework it is useful to describe each of the links in the chain that represent event milestones and how they contribute to the overall path toward a culminating consequence. Typically, the Causal Chain is used to highlight the events leading up to a catastrophic event and its resulting consequences in the hazard management field of study. An example of a Causal Chain can be found in Appendix A. It is a method that describes the key events that take place in some linear time sequence and lead to a major event and some consequence. The consequence in emergency management is generally something that ideally would be avoided or prevented, like flood damage or loss of life. In order to avoid this consequence, feedback loops that represent the learning that takes place out of the occurrence of such a consequence, are added to the causal chain in the form of interventions resulting from the learning. An example of an intervention might be establishing a flood plain to educate builders of the risks associated with building within the plain. This learning from previous floods can lead to a positive impact on the

causal chain toward preventing further damages from floods. Feedback represents learning and the resulting interventions that can be made to impact the causal chain. These interventions may have both positive impact and negative consequences on the causal chain that should each be considered.

For the purposes of this research, rather than the chain leading to a negative occurrence, the Causal Chain seeks positive consequences or a “successful” outcome of a given CERP project. The events along the causal chain represents a tactical CERP timeline that begins with events that shape the program and the implementer, contributes to a defined incident, and finally leads to an outcome and resulting consequences. Results from phase one of the research fit within the Causal Chain as interventions between the incident and its effect. The proposed interventions to the project chain are designed to break a chain of negative events leading to a negative consequence. Other interventions represent current standard operating procedures and training that are in place at the time of the research and are intended to help shape project implementers decision making capability and provide sufficient cultural and background knowledge to influence the course of events that will lead to a successful project.

Through this method this phase seeks to answer the following investigative questions:

Phase Two Investigative Questions:

1. How does the current preparation of the CERP battle space effect events and consequences of the CERP process?

2. How may proposed interventions from Phase One contribute and affect the CERP causal chain?

Phase Two Intent and Anticipated Results:

The key contribution of this phase is helping to identify a structure to describe the impact of interventions on the Causal Chain leading to a project outcome, hopefully project “success.” Each intervention addresses a key perspective of various stakeholders in the CERP project. The perspectives contribute to how outcome success is defined. Key perspectives include, but are not limited to those contrasting viewpoints described in the CERP Complaints section of this paper.

Assumptions

The following assumptions are important to the validity of the results, and for the purposes of this research are assumed to be true.

1. CERP’s target population is composed of rational decision makers that act in their own best interest when presented with varying inputs from either side of the counterinsurgency.
2. The data reported about CERP projects is accurate.
3. The complaints and questions about CERP that drive this research are justified and are accepted by researcher and experts. This will allow the research to move forward with providing recommendations and methods to address concerns without being a specific critique itself.

Anticipated Significance

This research may help identify shortfalls in CERP guidance and their contribution to the larger COIN strategy and help illuminate a need for more reliable outcome measurement practices for projects and better targeting of project selection to attain strategic ends.

Overview of Remaining Chapters

This thesis employs a scholarly article format. The following chapter is the article produced from the research, which has been accepted by the 2012 Western Decision Science Institute Annual Conference. The article provides the body of this thesis and contains all the elements of research in its layout as prescribed by the peer review conference. As an independent chapter, it includes an abstract, introduction, literature review, objective, limitations, project descriptions, research question and methods, analysis and results, recommendation, and conclusions. Chapter 3 follows the article with a more comprehensive discussion of the research results and conclusions along with possibilities for future research and the research summary.

II. Scholarly Article

Presented to the April 2012 Western Decision Science Institute

Conference

Tactical Counterinsurgency Decision Tool for the Commander's Emergency Response Program

Seth Lorimer, Peter Feng, Tay Johannes

Abstract

Tenuous political and economic times call for increased oversight and improved results from military counterinsurgency programs in Afghanistan, programs that provide agile non-kinetic weapons, critical for commanders fighting in today's asymmetric battle space. This paper proposes a decision tool for construction projects executed under the Commanders Emergency Response Program, designed to meet the changing demands of fighting an amorphous insurgency among dynamic systems of stakeholders.

Research Question: How can the CERP be improved to yield measurable, positive outcomes across tactical level partners and aligned with strategic level intentions?

Purpose: The purpose of this research is to enhance understanding about the impact of project selection on the intended outcomes intended to benefit a vulnerable population in Afghanistan.

Research Method: Systems Analysis applying a Causal Chain method borrowed from the Emergency Management field.

Findings: This paper documents how preparatory events contribute to project selection and ultimately the outcome and consequences of the projects. The decision

point at project selection has strong implications for long-term outcomes of strategic objectives.

Implications: The research indicates a need to reexamine impetus for project selection practices in the pursuit of measurable effects that are tied to strategic objectives.

Value for Practitioners: This paper will help identify program shortfalls and promotes an application the Causal Chain to aid project selection.

Keywords: CERP, COIN, reconstruction, causal chain, development, process control, construction management.

Paper type: Full paper

Introduction

In the aftermath of September 11, 2001 the United States (U.S.) and allies invaded Afghanistan to seek justice, making no distinction between those responsible for the attacks and people that harbored them. In the continuing effort to deny Al-Qaeda safe haven in Afghanistan, America would face a different type of war, a counterinsurgency (COIN) fight. In COIN operations, opponents battle for support of the population in order to create stability and deny the opposition a source of recruits and resources. The Commander's Emergency Response Program (CERP) has been a powerful weapon in this fight and "is an absolutely critical and flexible counterinsurgency tool," according to the Under Secretary of Defense for Policy, Hon. Michele A. Flournoy. (Levin, 2010).

A decade after the initial forces deployed to Afghanistan, Usama Bin Laden is dead and U.S. political and military leaders face increasing challenges at home and abroad associated with justifying the ongoing engagement in Afghanistan. Among them

are challenges to produce visible and quantifiable results, accounting for progress and justifying the cost of the burdensome conflict. Previous attempts have failed to provide sufficient results to satisfy America's insatiable appetite for answers. However, this paper outlines a new perspective and provides a decision tool to meet the need.

Background

In the aftermath of the 2003 invasion in Iraq, seized money funded rebuilding projects that repaired destroyed infrastructure and provided humanitarian assistance to aid affected Iraqis. While implementing these small-scale rebuilding projects, American Forces discovered reconstruction was a powerful non-kinetic weapon for winning the hearts and minds of local people. "CERP dollars have been of enormous value to the effort in Iraq (and in Afghanistan, to which the concept migrated in 2003 as well)" (Petraeus, 2006). Sen. Jim Inhofe (R-Okla.), a senior member of the Senate Armed Services Committee (SASC), added "CERP provides an immediate and tangible impact on the people of Afghanistan, providing basic services such as water, energy and roads which in turn affect security and economic well-being" (Levin, 2010). Since its expansion to Afghanistan, CERP has been used to build new infrastructure. Building new infrastructure illustrates the evolution of CERP from a rebuilding tool to an offensive counterinsurgency weapon. For 2011, CERP was funded up to \$800M by U.S. National Defense Authorization Act "for the purpose of enabling United States military commanders in [Afghanistan] to respond to urgent humanitarian relief and reconstruction requirements within their areas of responsibility by carrying out programs that will immediately assist the [Afghan] people" (Skelton, 2010). This evolution led to questions

about how “urgent humanitarian need” was being determined in CERP. Additionally, the U.S. Congress has questioned if money allocated under the program, for Afghanistan, has been effective at fulfilling its intended strategic purpose. It is important to note, under this appropriation CERP contracts are not subject to the Federal Acquisition Regulation (FAR) and thus the process common to other federal contracts will be explained further.

Research

To demonstrate the process the following discussion will describe a common generic CERP reconstruction effort as outlined in Figure 1. CERP reconstruction project efforts are led by a military project manager (PM) most commonly, although not exclusively, of a Provincial Reconstruction Team (PRT), typically a Company Grade Officer. Ideally the driving force leading to project nomination would be the Afghan local government officials acting on the guidance and priorities of the provincial development council (PDC) in concert with the local provincial development plan (PDP) which supports the Afghan National Development Strategy (ANDS) outlined by the government of Afghanistan. A nominated project must meet a series of checks for CERP funding outlined by the current Money As A Weapon System-Afghanistan (MAAWS-A) standard operating procedure. The PM then validates the requirement, and should the project meet the criteria, it will be placed in the cue to be programmed in accordance with a unit determined prioritization process.

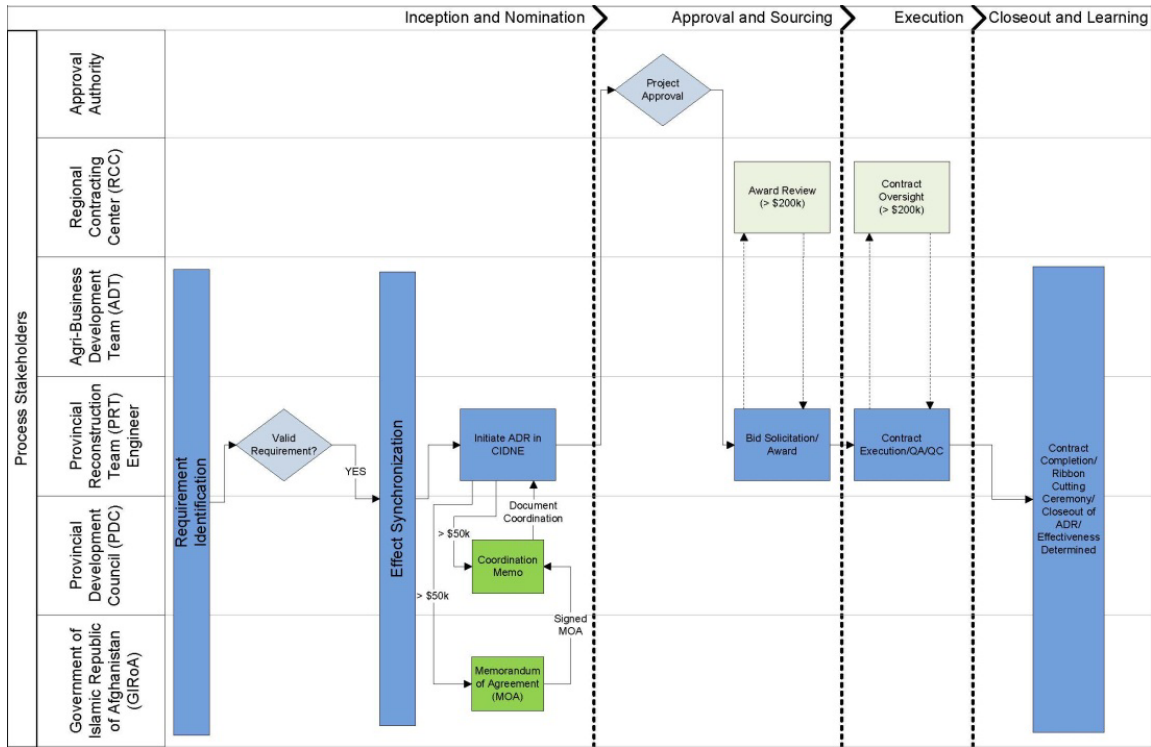


Figure 1: CERP Project Flowchart

In order to program a CERP project and nominate it for funding, several things are required to be documented. There must be a signed land use agreement demonstrating the legal allocation of the parcel of land to the project. A memorandum outlining the operations and maintenance (O&M) plan for the completed project must be included, documenting to whom it will be transferred within the host nation. A statement must be included that documents the sustainability of the project and must outline the measures taken to ensure the project will last. A letter of justification for the project is also included as a part of the package, and a statement about why Afghan Government funds were not available to fund the project. Finally, the PM compiles the documents along with a draft statement of work (SOW) in an Afghan Development Report (ADR) on the Combined Information Data Network Exchange (CIDNE) server. The PM adds to

the ADR, his own estimated project statistics including the project cost based on an independent government estimate (IGE), the number of people will be employed by and benefit from the project, and a statement of the anticipated executability of the project should it be funded. With the above documents included, the compiled ADR must be signed by the unit commander and submitted to the approval chain for funding.

Remembering that CERP projects are not subject to the FAR, the approval authority reevaluates the nominated project and forwards the decision according to the cost of the project as outlined in Figure 2. After the appropriate approval for a project is granted, funding is allocated by the Resource Manager (RM) to the project. In order to obligate the allocated funds the PM must next work with the Contracting Officer (KO) to solicit bids from local contractors. Competitive bids are reviewed and commonly the contractor (KTR) with the lowest priced bid that is technically acceptable is awarded the contract. Generally, CERP construction contracts are firm fixed price, design-build contracts. After the KO awards the contract, the PM maintains day-to-day oversight over the obligated construction contract throughout the project execution. General tasks during project execution include frequent site visits, maintain quality control, assess contract compliance, review construction documents, maintain project schedule, and evaluate progress to authorize payments.

Upon substantial completion of the project, the PM will perform a pre-final inspection in coordination with the local government appointed recipient to begin the process of acceptance and transfer. After U.S. acceptance of the project and transfer to the Afghan recipient, a one year warranty period begins during which the KTR remains liable for defects caused by negligence or poor craftsmanship. Finally, the PM closes out

the project's ADR by reevaluating the anticipated project metrics of costs, schedule, Afghans employed and beneficiaries, and providing a statement documenting the project's outcome.

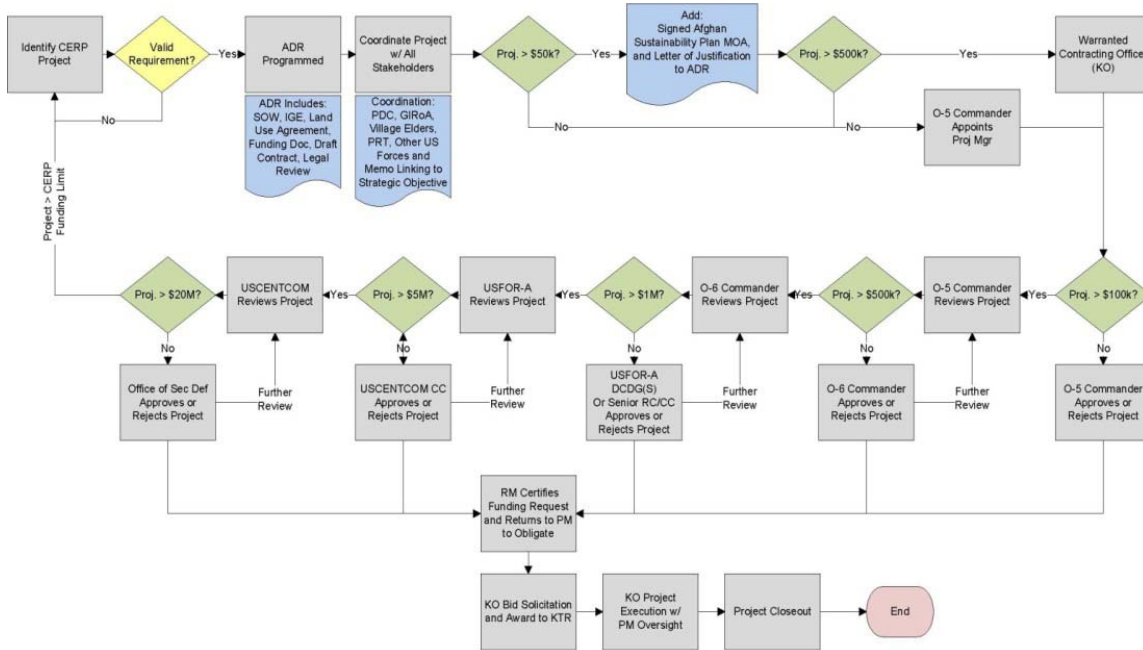


Figure 2: Current CERP Project Flow

CERP Reconstruction Project Considerations

CERP project stakeholders, illustrated by the swim lanes in Figure 1 are the first critical contributor to consider in project evaluation. Project success is defined by the perspectives of each of these stakeholders, each with varying interests and motivations. Stakeholders often have very different ideas about how CERP projects should be implemented or what the projects should seek to achieve. Depending on the project, different interests are met and in some cases competing interests emerge. Also, projects do not take place in a vacuum; projects may conflict within a battle space and have competing objectives. In order to effectively achieve intended results through CERP

reconstruction and development, the process must consider the perspectives of each stakeholder throughout the project.

The failure to consider stakeholders is evident in the case of some PRT projects that have been identified for performing tasks that properly belong to local governments, directly conflicting with the capacity development mission (Bowen, 2010). The United Nations Secretary-General's Special Advisor on Development, Mark Ward, criticized the U.S. for pursuing small projects that provide services for the Afghan people that local governments are capable of providing thus undermining their authority. Overlapping lines of authority and lanes of responsibility have weakened an otherwise capable government (Ward, 2010). These indictments emphasize CERP's inability to plan projects that consider stakeholder interests, build sustainable capacity and maintain a horizon beyond immediate needs, leading to Afghan President Hamid Karzai calling for the withdrawal of PRTs from Afghanistan.

Common differences between perspectives of some CERP stakeholders were summarized in the United States Institute of Peace publication of three sets of "recurring tradeoffs."

Stability vs. Host Nation Legitimacy: This tradeoff refers to the conflict between the urgent need for international actors to secure the peace, and the possibility that these actions are not seen by the host nation population as connected to their local leaders or government and do not build the legitimacy or capacity of the host nation.

Expediency vs. Sustainability: This tradeoff refers to differences between targeting short-term actions that show a peace dividend and signal that violent conflict is over, but are not sustainable by the host nation over time, and those actions that may not have an immediate impact on the perceptions of peace, but develop over time and establish conditions that can be sustained by the local population after the intervening party is gone.

Meeting Needs vs. Building Capacity: This third tradeoff refers to the quandary faced by international actors- governmental and nongovernmental- when it is easier to fulfill needs directly than to build host nation capacity to deliver critical assistance (Cole et. Al., 2009).

The tradeoffs illustrate commanders' differences about how to spend CERP funds. As an example, infantry units are likely to nominate projects that will aid in establishing stability, expediency, and basic needs in an area of operations to create peaceful conditions for their team and the local population. As a counter example, a Provincial Reconstruction Team (PRT) is more likely to use CERP to execute the host nation government's development plan that would develop the capacity of the local leaders and, over the long term, establish the host nation government's legitimacy creating a sustainable environment where international intervention is not needed to maintain peace and rule of law. In the two examples, neither position is wrong. The Infantry unit and the PRT have different missions and use the CERP to help to achieve their respective tactical objectives, but the tool is degraded when local nationals cannot distinguish between the motives of the coalition partner with whom they are working.

Additionally, there are complaints that CERP, despite proven usefulness for tactical commanders, has failed to address U.S. strategic objectives. Tactical units and local governments must align their actions with higher authority and plans. Tactical military units, for example, will not be relieved of additional responsibility and further action until strategic conditions for withdrawal have been satisfied. Similarly, local governments must not implement independent strategies from their national government from whom they seek funding and support. Local actions must be within the bounds of

larger strategic plans so that coordinated response can be achieved across multiple tactical spaces.

In order to provide the kind of results Congress and the American public are seeking, tactical CERP implementers must reconcile the interests of process stakeholders and Cole's tradeoffs during project execution. This research utilizes a Causal Chain to illustrate the impact of key events on the CERP process across a spectrum of program perspectives.

Causal Chain

The Causal Chain is a tool that has been adapted from the Emergency Management field that is used to show how events, exposures and consequences are connected through causal sequences, and how incident prevention and mitigation can be attained through interruption of the path (van Dorp, 1999). Figure 3 shows a Causal Chain relating to the current CERP process that identifies the key stages of the chain. At its center, the "Incident" refers to a particular event along CERP's chain with major implications for the outcome of projects, the decision point where a project is approved and funded. It is this incident that links the causes of failed projects to the outcomes of the failures that have been previously identified from the literature.

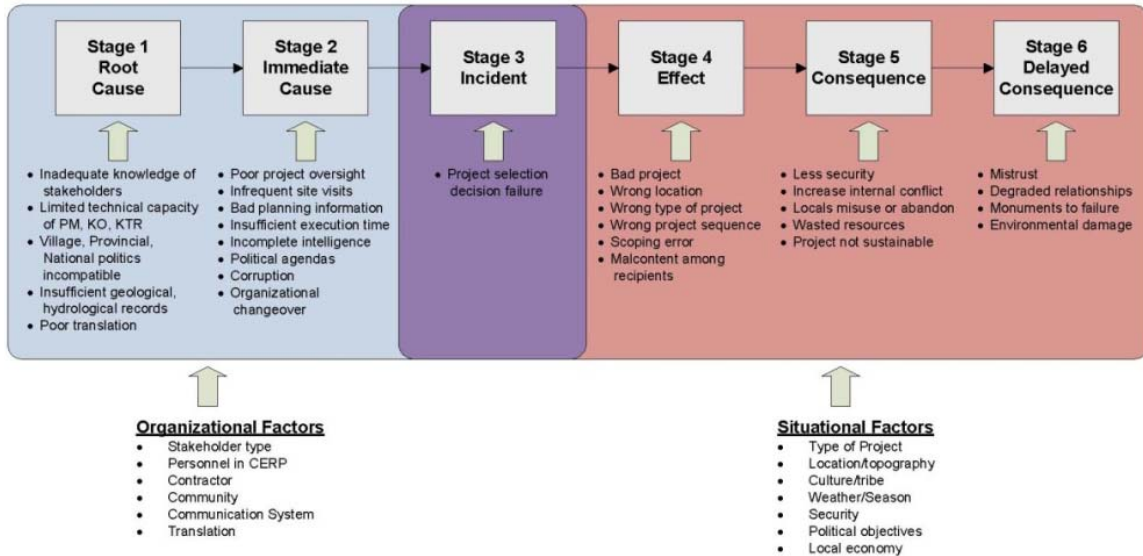


Figure 3: Causal Chain for Project Selection

The first link, including stages one to three, is moderated by organizational factors that contribute to the cause of the incident. Moderating the second link, including stages three to six, are situational factors that impact the outcomes of the incident. In each case the factors have been identified from previous reports, testimonies, SIGAR inspections and personal experience as sources that have likely contributed to project failures. The two links are connected by the project decision to create the causal chain.

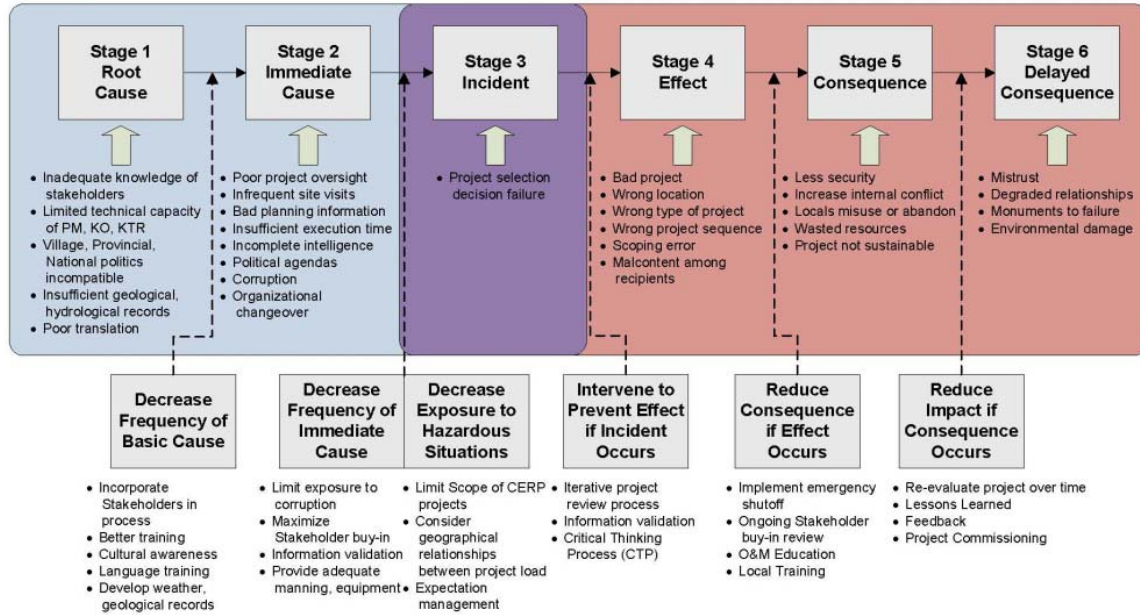


Figure 4: Causal Chain Interventions

The purpose for outlining the Causal Chain is to identify how the links can be broken to prevent the negative outcomes identified in past projects. Figure 4 provides interventions that can be implemented in the CERP process in order to break the chain of events leading to projects of questionable outcomes or inconclusive results identified in congressional testimony and inspection reports. The Causal Chain provides the decision maker a tool to break down previous projects and target programmatic changes at critical points that contribute to the outcome they desire to change. Modifying the CERP process flow in Figure 2, the proposed interventions and identified new process steps for CERP have been incorporated and are presented in Figure 5. The addition of Critical Thinking Processes (CTP) at each approval level provides a framework by which the approval authority can consider the merits of a project that they are otherwise unfamiliar with and may be geographically separated from with different political, cultural and social norms

the project may impact and the reviewer should understand. By driving the evaluation criteria, the nomination package must also adapt to provide the requisite information. Additionally, the Causal Chain identified a need for lessons learned and feedback from previous projects and is incorporated in the updated flow.

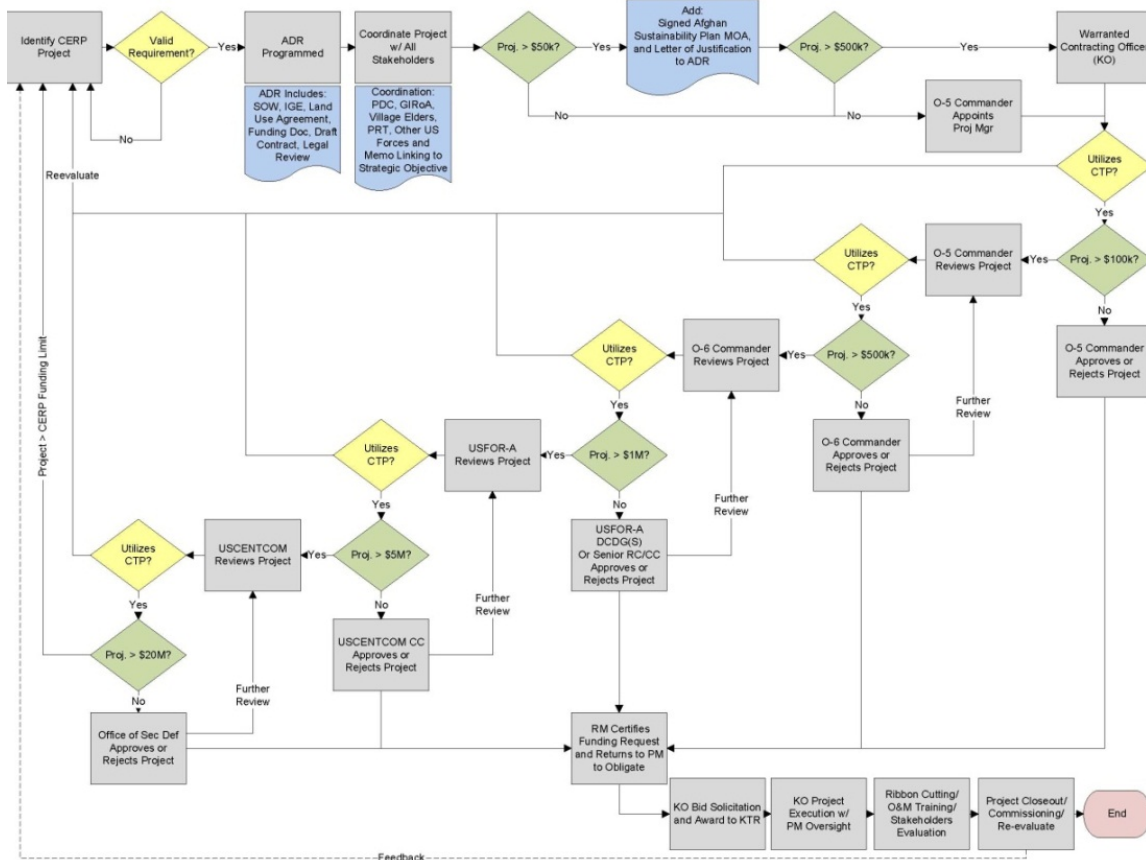


Figure 5: Future CERP Project Flow

“Increasing the number of stakeholders is critical to success” (Petraeus, 2006).

Stakeholder buy-in is a key change from Figure 1 in the proposed future system state in Figure 6 (changes denoted in red). The proposed future state process diagram highlights key stakeholders and incorporates a broader analysis of nominated projects by each stakeholder and a shift to Afghan centered nomination and execution to address the

incident cause link findings. As an example, note the addition of the Local Land Owner (shaded in grey) as an addition as a stakeholder.

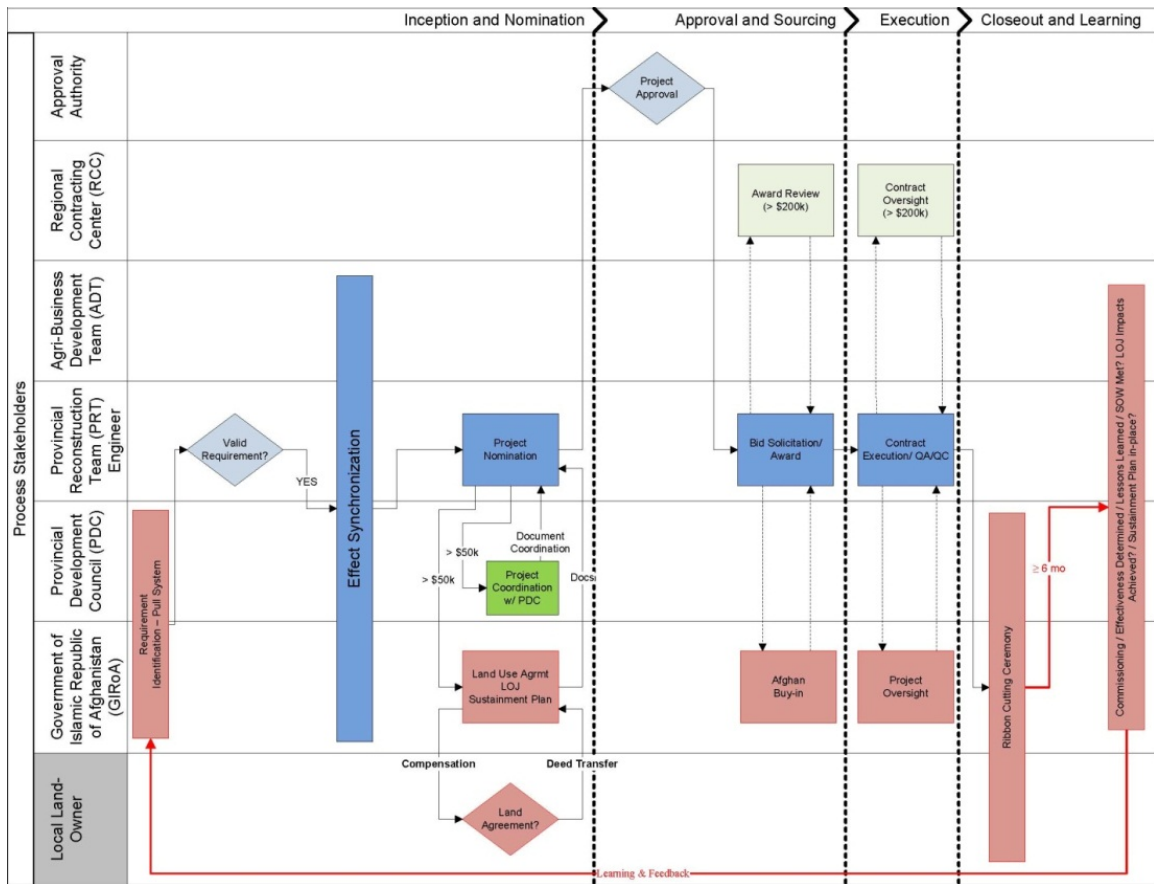


Figure 6: Future CERP Flow Chart

Another important change is the delay (represented by the red line) between ribbon cutting of the completed project and when project evaluation occurs. The contract performance period extends to include commissioning a facility, where the KTR must show that the facility is performing to the specifications of the contract rather than just providing the items required by the contract. This is a fundamental change from delivery of a project output toward CERP delivering desired outcomes. Finally, as an input to

future projects the learning and feedback information return provides important lessons learned by formalizing knowledge sharing and decreases the impact of unit changeover.

Discussion

Considering the stages of the Causal Chain can help illuminate the effect of process adjustments on project outcomes. The Causal Chain presented above highlights the importance of different considerations within project nomination and how they contribute to the eventual project outcome. These considerations must continually be addressed and reevaluated within each project to minimize the likelihood of a negative incident. Implementing the tools presented here can help decision makers evaluate CERP project nomination packages, increase the effectiveness of resources allocated to the effort, and aid interested parties in evaluation of CERP project outcomes.

Additionally, to meet the call for outcome measurement and accountability for CERP, policy makers should seek to incorporate changes to guidance that encourages cooperative stakeholder planning and a partnership for project success. Through flexible guidance that allows for an iterative process of SOP changes, the CERP program will be better equipped to bridge the gap between the program's historical tradeoffs: strategic-tactical, stability-legitimacy, expediency-sustainability, and addressing needs-building capacity. Implementing the change will help to ensure CERP remains relevant and targeted at combating the insurgency as it reacts and continues to evolve in the future.

Finally, this paper describes the evaluation, reflection and learning process that can accompany the Causal Chain method when applied to the CERP process in Afghanistan. The utility of the method is not limited to military decisions regarding

COIN efforts. This paper is but one example of how the tool can be applied across a spectrum of applications as a means for process evaluation and improvement.

Disclaimer

The views expressed in this paper are those of the authors and do not reflect the official policy or position of the United States Air Force, The Department of Defense, or the United States Government.

Bibliography

The references of this article are combined with the thesis following appendixes.

III. Results and Conclusions

This chapter discusses the research findings in relation to the original questions outlined in Chapter One. The scholarly article submitted to the 2012 Western Decision Science Institute Conference communicates some of the prominent results of the research. However, due to particular constraints in the manuscript length and formatting standards, the article does not include a portion of results discussion beyond the Causal Chain tool. This expanded format will fully address the conclusions and findings not included in the paper. This chapter first discusses the research findings with respect to the research and investigative questions that generated the research. The significance of the research is then discussed. Finally, future research and a summary of the thesis form the concluding portion of the thesis.

Phase One Investigative Questions' Results and Conclusions Discussions:

The following section provides each of the research questions outlined in the methodology described in Chapter One and a consolidated narrative of the findings resulting from the previously outlined methodology. Process analysis diagrams created from the available data sources were created and have been presented in the scholarly article and are also available in the appendices.

Question One: In the CERP execution process, what value do required inputs contribute to project success?

Nomination Phase

The requirements of the DoD FMR 7000.14 and the Feb 2011 MAAWS-A SOP include project nomination inputs designed to facilitate coordination of CERP project intentions with local Afghan leaders, land owners, PRTs and BSOs. The required documents are intended to facilitate further action on the part of the coordinating parties during project nomination prior to project approval and funding commitment. (1) These documents alone do not add value that contributes to project success. The intended contribution requires additional actions on the part of the coordinating parties to realize the benefit. (2) Implied obligations from the nomination documents, of the parties that must take action to create the intended value, should not be assumed to have taken place. Rather than providing the documents as outlined in the MAAWS-A SOP and called for in the ADR, an effective practice might require the action directly rather than a memorandum expressing a commitment to conduct the action.

For example, the MAAWS-A requires a coordination memorandum of agreement (MOA) that, according to the template, must stipulate an arrangement has been made to sustain the project after U.S. transference of control to the Afghan partner. The MOA itself does not add value unless its creation is accompanied by the necessary planning, programming, budgeting and execution (PPBE) required to implement the stipulations of the MOA. (3) To add the intended value, CERP implementers could look into the

Afghan partner's plan with more scrutiny for the obligatory PPBE strategy and provide mentorship to the Afghan Ministry Line Director where necessary. (4)

If CERP is to ask its implementers to act as a mentor and execute a "Building Capacity" intention, then the request should be supported with necessary training of those implementers that addresses the Afghan PPBE process. Observing current PRT training at Camp Atterbury, it is apparent that the focus is on combat skills and lacks the necessary resources to provide training for a capacity building mission. Such training would require CERP implementer activities integrated throughout the training and subject matter experts to facilitate said training.

(5) Additionally, for the greatest return the nomination process should not be a single linear flow of project programming documents and communication between stakeholders as described in the process diagrams. The process could incorporate a series of iterative feedback loops where, among various other inputs, stakeholders and their plan for project sustainment could impact the initial design. to ensure that it is effectively maintainable and adequate resources are available or attainable. That is to say, the entire lifecycle of a project must be considered.

Project Execution

During project execution the MAAWS-A requires that the PM update the Afghan Development Report (ADR) in the Combined Information Data Network Exchange (CIDNE) throughout the project lifecycle as significant changes, milestones and/or events occur and at a minimum by the fifth day of each calendar month. (1) Maintaining consistent documentation of the project is vital to project success in an environment where project executors may not remain constant throughout the duration of the project.

Often CERP projects span multiple PMs and without proper documentation any agreements between the contracting officer's representative (COR) and the contractor or commitments to the local people are not transparent to a new PM or COR upon their arrival. (2) Additionally, contracting officers are commonly geographically separated from the COR and PM and unable to regularly visit the project site or personally interact with the contractor. Because of geographic separation, the volume of contracts and the availability of the low density high value asset, the contracting officer, oversight depends on delegated responsibility, trained representatives and thorough documentation. Regular updates ensure that a consistent message is presented from CERP implementers. As an example, value that has been paid for is one element that is recorded and doing so helps to ensure that payments are not made twice without additional progress. (3) The status is maintained on a U.S. Secure computer network and is only declassified when appropriate classifications to the entire ADR are such that it may be transferred to a lower security system. The classified system does not allow for good collaboration between the contractor and the U.S. Government and reports are often misclassified. (4) CERP does not use industry standard methods to record project schedule, progress and earned value. Tools such as Gantt charts and other scheduling and project accountability methods standard to other military construction contract types could be implemented to record this progress and earned value accumulation for the CERP ADR, but should be on a system that can be common to all project execution partners. A common system would allow better coordination, communication and cooperation, required elements for successful project teams (Badiru, 2009).

(5) Maintaining appropriate payment intervals for completed work is also critical to the success of project execution. Unfulfilled commitments of incurred costs may lead to project delays, degraded relationships from hardship of contractor and laborers, and other unintended negative consequences. To ensure that commitments are paid in a timely manner, the CERP PM is required to maintain a funding log and reconcile payments with the resource manager. To verify that payments are made for value that is received, CERP implementers must make periodic site visits and quality checks to ensure that progress is in accordance with the SOW. The value of these required checks is their ability to ensure that the product that is being produced will meet the anticipated targets for the desired outcome of the effort. (6) Where quality in project execution is not maintained projects struggle to fulfill and sustain their intended purpose and therefore does not provide value commensurate with its costs. Therefore, the volume of quality assurance site visits and the capacity to support the requirement should be considered when choosing among alternatives for how to achieve an effect, both during project nomination and the approval authority's evaluation. Once nominated by a commander, their signature should indicate a commitment to providing the oversight capability outlined in the nomination package, and if funded, planned missions should support that commitment. Additionally, in return for their commitment to project oversight support, commanders should expect to see regular evaluations of progress and earned value leading toward desired outcomes.

(7) Should indications point toward diminished returns from continued inputs and support, a process should be established to terminate or descope contracts based on a

cost/benefit analysis to maximize the return on investment or at worst, minimize the cost and control impact of disbenefits.

Project Closure

Per current guidance projects must be closed in CIDNE within thirty days of issuing the final payment on the contract. CERP construction projects commonly have a one year warranty period, however this warranty period is not justification for the project to remain open or funds to be withheld from the contractor. Without economic incentive under the contract, warranty periods are hard to enforce. (1) The project executor's leverage to enforce contract warranty issues is limited to the threat of a poor performance memorandum in the project file and therefore a weaker performance history when competing for future CERP project awards. However, contracting officers have not consistently allowed past performance alone as sufficient justification for disqualification when their bid would otherwise be the lowest price technically acceptable. The finding emphasizes the importance of a thorough punch list and project review before acceptance. Additionally, to avoid premature acceptance, it must be clear to the Afghan recipients that premature occupation may constitute acceptance and therefore must be avoided until the fulfillment of contract obligations to the satisfaction of the contracting officer or their representative.

During project closeout of the ADR in CIDNE, the system requires input in the following categories: project completion date, last payment date, actual contract jobs created, actual permanent jobs created, actual completion percentage, additional explanation for closure/termination, project results, media, project status. (2) These categories and what is measured and recorded at the end of a project drive the actions

throughout the process (Bullock, 2006). The measured metrics are a comparison between the number of jobs anticipated and those reported to have been created by the contract, which as a quantitative number could provide a useful statistic given the necessary support to record these numbers. Without the requisite support, the recorded number becomes a subjective estimate of the number of jobs created, therefore limiting the metric's reliability and usefulness. Additionally, focusing in on the "Project Results" field, the MAAWS-A instructs "Identify the results of the project and articulate if/how the project goals and performance metrics were met." (3) Keeping in mind the requirement to close out the project within thirty days of final payment on the contract, the project results cannot fully be understood by the PM by the time that this field is populated. Again, without the necessary support and time to accurately measure performance metrics the usefulness of any metrics reported are diminished. (4) Finally, the instructions themselves are leading in their language, "if/how the project goals and performance metrics were met;" presumes that goals and metrics were evaluated, but does not ask for the metric to be reported on the ADR.

Overall Process

The CERP process requirements attempt to drive oversight and accountability for U.S. funds across all projects in a manner resembling project execution processes in garrison locations. (1) However, the resources necessary to provide garrison level support for the volume of work done under CERP contracts does not hold the same resemblance. (2) As the number of projects increases toward the limit where all the implementer's time is spent on the required documentation, universal requirements for projects drives implementers' time toward being divided equally among every project's

requirements regardless of the scope and cost of the project. The equal division of time and attention resources is disproportionate to project size. The program is designed to be an agile, quick reaction tool that can be implemented by all forces in the field seeking to meet urgent humanitarian needs. (3) In an effort to improve the process, the value creating inputs that have been added under the MAAWS-A over time have created additional encumbrances on tactical units seeking to take advantage of the agility and responsiveness the CERP tool is intended to offer. Perhaps the next step is to further divide the program, its requirements and the intent of each subgroup at the tactical level beyond the current bulk CERP/traditional CERP divisions within the MAAWS-A.

Question Two: Which project stakeholders are considered, emphasized in current project nomination requirements?

Among the lessons from his 2006 *Lessons from Soldiering in Iraq*, Gen Petraeus identified “increasing the number of stakeholders” as critical to the success of a COIN effort (Petraeus, 2006). Accordingly CERP must also seek to increase its consideration for as many stakeholders as possible. The research identified the following stakeholders, the associated program requirement that drives the consideration, and stakeholder’s interest:

Table 1: CERP Stakeholders

Stakeholder	CERP Requirement	Interest
GIRoA	Sustainment MOA	Sustainment costs, Impact on governance and populace support
PDC	Letter of Justification	Impact and benefit to Afghan populace
Land Owner	Land Use Agreement	Maximizing personal benefit in exchange for land
Battle Space Owner	Coordination Memorandum	Tactical effect synchronization, Increased security
PRT	ADR, SOW, IGE, PMP, LoJ Memo	Meet Urgent Humanitarian Need, Project executability, Oversight capacity, Minimize exposure to liability, Increase Afghan independence, Build capacity
Contractor	Signed Contract	Executability of SOW, Maximize benefit to company, Minimize exposure to risk
Project Approval Authority	CERP Slide, Approved Funding documents	Operational and strategic effect synchronization, Financial accountability

As apparent in the swim lanes from the project flow diagram in Figure 1, the project stakeholders that are emphasized in the current process appear to be the PRT, the contractor and GIRoA. These three stakeholders are central to project nomination, coordination and execution. The PRT and contractor represent the CERP implementer and the project manager and executer. GIRoA plays a large role in identifying, prioritizing, and committing to the sustainment of projects. Also, GIRoA should receive enhanced governance as a result of the project and serves as the face of the donor of the project to the Afghan populace. Finally, the contractor holds great impact over the

outcome of the project and the greatest risk in the contracting vehicle that is used in the firm mixed price – design build implementation style.

(1) The stakeholders that are emphasized are not necessarily the stakeholders that are intended to be targeted by the program required to provide “urgent humanitarian need.” CERP projects by design should be about addressing urgent Afghan needs. In order to provide the greatest benefit the process must consider other stakeholders, but additional stakeholders should be subordinate to the objective of fulfilling urgent humanitarian need and the stakeholder recipient that has the need. When the process implementer becomes the customer of the process, the program has either gone astray or misled the financiers about its intent. Much of the emphasis of the nomination process does not specifically address the need of recipient, but that of the implementer. To maintain focus on the needs of the stakeholders with urgent humanitarian need, the process should tie each document back to its contribution to fulfilling the identified need, and measure its effectiveness at fulfilling the need at the end of the project.

(2) If the provider of the benefits to the needy is to be the customer, some potential missing stakeholder documents might include: a Benefit to Cost Ratio analysis of a project to ensure the proportionality of its outcomes; a review of the assessability of purposed outcomes; a formal outline of how projects tie to strategic objectives; an earned value accountability system to demonstrate the value gained by spending U.S. Taxpayers’ treasure.

(3) If the recipient of the intended benefits of a project is to be the primary stakeholder then there should likewise be additional program requirements. To focus project nomination on stakeholder needs there should be: articulated needs that are

clearly defined so that they might be effectively evaluated at the end of a project and understood if they were met; free from constraints; in the appropriate sequence among other ongoing projects and needs; sized appropriately to be implemented by CERP; benefiting from the learning of previous projects. This Definition, Soundness, Sequence, Size and Learning (Ballard, 2001) check should be included among project nomination documentation.

Question Three: What consideration is given to process outcomes vs. outputs in the current CERP process?

The current MAAWS-A CERP SOP includes Outcomes and Outputs within the ADR in the CIDNE program. The ADR serves as the living project database of record throughout the project lifecycle from inception through closeout. At project nomination the ADR requires an anticipated number of Afghans employed and effected by the project to be reported. This number may be adjusted throughout the project until project closeout when the final actual values are to be reported. Additionally, project funding status is also tracked on the ADR in addition to side by side comparisons of numeric values of the current status of funds that have been disbursed and the contract execution progress value. Finally, at project nomination a letter of justification (LOJ) is required that must identify the reason the project is needed and its anticipated effects. At project closeout these effects are to be revisited and the results of the project must be determined.

(1) The ADR does not allow for a delayed determination of project outcomes or measures of success, nor does it afford the opportunity for the reevaluation of closed projects by the implementing organization that would drive learning from prior efforts

and potential improvements. The past projects are generally only revisited for effectiveness by evaluation teams such as the Special Investigative General for Afghanistan Reconstruction (SIGAR). An added status within the ADR in CIDNE could be added after project transfer to its intended recipient and prior to full project closure. This could allow for continued evaluation of the project and additional contribution to both the recipient and the CERP implementer. The additional oversight and learning that could occur would contribute to future projects and the measurement of previous projects that has been called for by Congress.

Phase Two Investigative Questions' Results Discussions:

Question One: How does the current preparation of the CERP battle space effect events and consequences of the CERP process.

Current preparation of the program implementers is identified in the Causal Chain within each of the first two stages identified as Root Causes and Immediate Causes. The result is identified in the Causal Chain within each of the final three stages identified as the Effect, Consequence and Delayed Consequence. The following discussion will address the current result of the preparation on CERP projects and outcomes.

In the example of the Causal Chain method presented in the published article in Chapter two, Tactical Counterinsurgency Decision Tool, the method analyzes project failure preceded by evolving negative events. This is not to say that all projects have failed in this way, but is meant to be a tool to identify interjections to preclude events leading to failure.

In the example many negative events precede the point where poor CERP project selection occurs. The root cause stage identifies underlying causes systemic to CERP that fundamentally shape CERP's capacity to operate across the theater. Immediately preceding project selection, a list of localized factors contribute to the ability of an individual project's ability to meet its objectives in the immediate cause stage.

An example of this stage and its contribution are the competing interests within CERP that pull a project nominator to disperse projects throughout an AO. However, the more dispersed projects are the less oversight and site visits will be available to

contribute to project success. In the absence of guidance or direction, limited understanding of the paradox and how to strike a balance, between oversight and project dispersion across isolated locations by a project nominator, contributes to the outcomes identified in stages succeeding the incident. Selecting a project that does not receive sufficient oversight may lead to poor construction, wasted resources and time. Rework resulting from limited frequency of site visits costs the contractor, the government and the project recipient. Poor quality in construction leads to unsafe and abandoned projects or increased operations and maintenance requirements. If the project provides initial benefit to the population, CERP has increased pressure on the recipient to sustain the project's benefit at high cost, potentially beyond what had been planned for in the original Sustainment MOA without receiving support from the project implementer that may have caused the increase in cost. The added pressure may lead to mistrust and degraded relationships, a decrease in CERP's future impacts. Ultimately it may have been better to never implement the project, avoiding both the direct costs of the project and the unaccounted for indirect costs such as degraded relationships and making governance harder on GIRoA. The example is not to say that all CERP leads to disproportionate costs to benefits, however many reports about the result of the current process indicate it has led to mixed outcomes of projects. For example results of SIGAR inquiries have yielded "CERP... provided some benefits, but oversight weaknesses and sustainment concerns led to questionable outcomes and potential waste" (SIGAR Audit 11-7, 2011).

In some cases projects have been determined to be a success on ribbon cutting day and the CERP project to have a positive outcome. In the Causal Chain described in this

research the effect is some positive reaction and its consequence is a gain of benefit as described by the LOJ for the project. On ribbon cutting day it is determined that the cost of the project can be expected to yield some benefit and feedback and learning contributes this determination to the CERP implementers' body of knowledge that will contribute to future projects. However, according to the SIGAR report these same projects did not receive the same benefit described in the closeout documentation. In fact, some cases describe projects that were originally reported to have created a benefit but over time yield no benefit, or worse a net-negative benefit.

What changed between ribbon cutting day and the SIGAR Audit? Time. (1) The aperture of outcome determination is too small. Project benefits and dis-benefits are not constant and are not insulated from the effects other projects and events in the area, nor from availability biases of recipients. With an availability bias, a project is like last year's birthday gift, it has all but been forgotten by the time the next gift is ready to be unwrapped. Time diminishes the impact of a project's outcome. (2) The rate at which these effects may degrade can be slowed with intentional actions to keep the project actively providing benefit to the people by ensuring that PPBE takes place. However, should the project not be maintained, necessary equipment or supplies not be sustained or the quality of the project fail, the project's benefits will be diminished to zero benefit or perhaps worse, create a liability.

Another thing that may change between ribbon cutting day and the delayed project effects might be other developments in the battle space. The perception of a project is shaped not only by its own outcome, but by those of the other events affecting the same stakeholders. (3) While a villager may love a school that provides education to

their children, any positive gains can be eliminated by the liability of negative events that dominate that of the school, such as collateral damage from U.S. forces operating in the area. (4) Also, the law of diminishing returns applies. As an area becomes saturated with CERP projects the anticipated benefit return is diminished by the volume of other positive events within the same area.

A pessimistic view of the program might say that on a long enough timeline the best case scenario for a project would be the benefit returned to the project implementer slowly degrades to zero as the memory of who provided the project fades and only its functional benefit to the recipient remains. This assumes the project is sustained and continues to function as intended. If however, for some reason the project does not maintain some operational function it becomes a lasting reminder of a failed promise, a Monument to Failure. While CERP implementers turnover and do not see the lasting effects of failed commitments to the local stakeholders, the delayed consequence is a compounding effect of previous failed projects. Each day an Afghan crosses by an empty building, a washed out bridge or another abandoned project, they are reminded. The compounding effects of these Monuments to Failure make it more and more difficult to obtain the same benefit that was once available. (5) Therefore, CERP has a limited useful life in a given area or conflict. (6) Project timelines must consider how long effects must last and if they must maintain their benefit for the duration of the conflict or beyond to truly be effective.

Question Two: How may proposed interventions from Phase One contribute and affect the CERP causal chain?

The proposed interventions along the Causal Chain are intended to address identified deficiencies in the CERP process and those identified contributions of events that precede the CERP process but still contribute to shaping CERP implementation. The following discussion will address the anticipated effects of proposed process interventions.

Question One, Phase One identified that training must address PPBE within the Afghan government to be able to capture benefits or achieve real sustainment and effectively mentor Afghans and build their capacity. This intervention would address root causes contributing to how we prepare CERP implementers to make appropriate project selection decisions thus leading to improved outcomes. Also, the same phase one question identified suggestions to improve the oversight and execution of CERP projects. Maintaining a consistent U.S. sight picture with documentation, a collaborative and accessible computer network for all involved parties and progress measurement tools based on industry construction practices, CERP will increase the quality of its output and therefore decrease the cost and strain on the project recipients and as a result our long term impact. The project closeout suggestions include better recording of metrics, considering the usefulness of statistics and what is required to measure them and actually reporting the outcome results. These closeout measures will help to drive the process by directing what is measure and reported. By caring about and focusing on the measurements of outcomes the process should improve results for the recipients and indirectly the U.S. motives that drive the funding of the projects. Finally, overall

suggestions about the process include considering the scope of the project, who is appropriate to implement it and the support required to do so effectively. Is this truly what CERP is supposed to do? An honest appraisal of this question when considered through the Causal Chain would require significant change, but would also drive dramatic results in the effects of projects, the consequences and intended consequences.

Question Two, Phase One addresses the stakeholders of the CERP process. When considering who the process is really intended to benefit the focus of the last three stages of the causal chain may change. This research has assumed that the later stages of the chain have referred to the impact on the Afghan recipient's perspective.

Question Three, Phase One focuses the research on the idea that there is a fundamental difference between outputs and outcomes of the CERP process. The Causal Chain is indeed focused on outcomes of a project rather than the outputs. The intent of applying a tool to see how the project itself fits within the context of a larger system is truly the intent of the tool.

Research Question Revisited

How can the CERP be improved to yield measurable, positive outcomes across tactical level partners and aligned with strategic level intentions?

By implementing the Causal Chain as a means to view a CERP project within the context of the larger system this research suggests that CERP would return improved results in the effect, consequence and delayed consequence stages. By opening the aperture of the program and considering the final three stages of the causal chain helps to better align CERP with both tactical and strategic level intentions.

Review of Findings

This research posed the question: How can the CERP be improved to yield measurable, positive outcomes across tactical level partners and aligned with strategic level intentions?

The CERP project lifecycle extends beyond the current aperture of the program. As the Causal Chain perspective indicates any given project's timeline is shaped by events well preceding the creation of the ADR and the CERP nomination package. Additionally, the effects and consequences of CERP extend well beyond ribbon cutting day. The assumption inherent to the current CERP is that projects are discrete events with lasting effects that remain constant. This is a poor assumption and without programmatic adjustment CERP will continue to yield unremarkable results and continue to build Monuments to Failure. Also, stakeholders are the key to defining success of CERP projects. The process stakeholders with the greatest interest in the project outcomes should be given a larger proportion over the direction of implemented projects. Afghan stakeholders are the external customer of the process and the larger COIN strategy. Although, the fundamental assumption of the CERP program is flawed, that project recipients in a COIN environment will act rationally and support the cause that provides them the greatest benefit. In fact, in the face of highly emotional events and unmet basic needs a person does not act rationally and their emotional state will trump rationality. Project targeting must include both an assessment of the recipient's state as well as the intended benefit that should be realized through each project. This analysis could be done considering Maslow's Hierarchy of Needs and Herzberg's Motivation and Hygiene Factors. Additionally, CERP is implemented by a diverse group of practitioners

with a broad spectrum of resource levels to support program requirements while seeking assorted outcomes from projects. The implementers' needs should be addressed as internal customers of the process and varying levels of support and purpose considered during future program changes.

Significance of Research

The Causal Chain framework provides a tool that can help facilitate discussion among CERP policy makers to identify contributions of elements outside the program that provide constraints within which projects are implemented. Some limitations and constraints identified herein can be removed or their effects minimized. The research framework offers a perspective that can provide insight into the program and the effects of system elements, including project nomination requirements and project evaluation techniques, on program contributions to the overall strategic intent and how it might be improved. The research offers specific identification of areas to target for improvement. Also, the benefit of the research is not only for the high level CERP managers, but tactical and operational implementers of CERP. For CERP implementers the research will illuminate the importance of the contribution of more than just the engineer element within project execution and should unify the interdependent elements of a team that contribute to situational awareness of the local conditions, limits of capacity to execute projects and all elements maneuvering in and among the population. Also, CERP implementers must also widen their focal point beyond a single project to how it is nested among other tactical elements, operational plans and ultimately strategic objectives.

Future Research

This study touches on several facets within CERP project selection and reconstruction and development planning. These facets offer opportunities for future research. The general topics are as follows:

- Through the application of geographic information systems, a researcher could investigate quantitatively the effect of project density and frequency on anticipated outcomes or progress indicators for strategic gains.
- An expert research panel could look at paired comparisons of stakeholders and determine a hierarchy among them to determine the current emphasis of the program.
- How can CERP as a weapon system be preserved and applied for future use in asymmetric war in other environments? Application of the CERP could be considered for other locations, Africa, South America and other developing locations. How would differing environments impact the program and what is required for it to be effective?
- USAID, World Bank and other development organizations use various metrics and means to assess and report project outcomes beyond self-declaration. How can these be adapted for use with CERP? What benefit would qualitative measurements used by these development organizations provide and at what cost?
- A quantitative investigation into the value of construction inspection in a contingency environment under the current CERP conditions could indicate the real value of some of the program requirements. Are there plateaus where different levels of supporting resources return varying levels of benefit to maximize the return? How sensitive are

project outcomes to oversight for construction projects of various degrees of complexity?

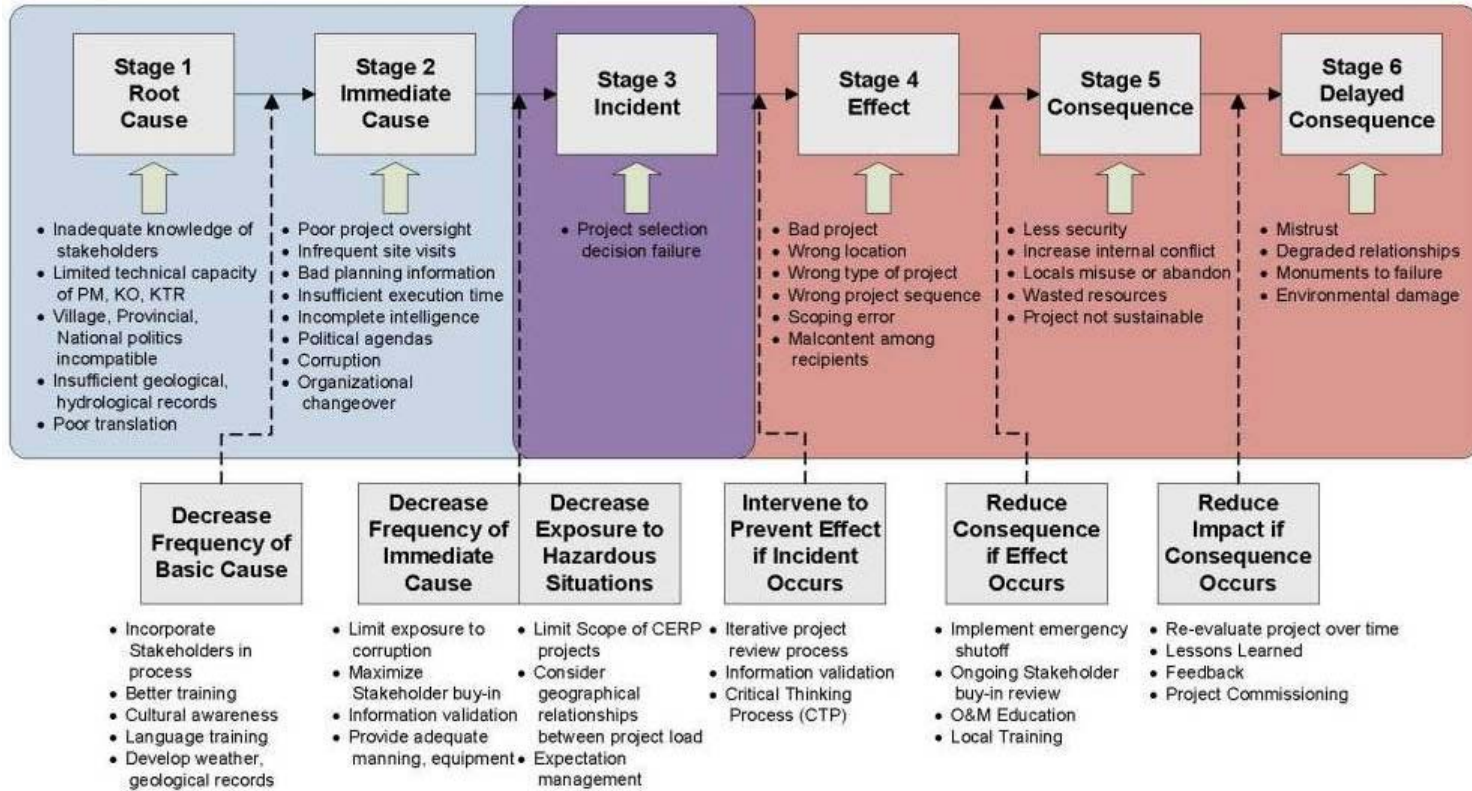
- A Cost-Benefit analysis of a CERP project requires both an ability to assess the outcomes of a project, but also the true cost of the project. There is great variability in how CERP can be implemented with equally great variation in cost. It would be prudent to weigh the costs of varying levels of oversight and the sensitivity of project benefits to these different levels.
- As U.S. forces begin to draw down in Afghanistan, the timing of when ongoing projects conclude may not coincide with the transition in each province to the transitional authority. In the event that transition occurs prior to CERP commitments close out, what impacts are expected by terminating incomplete projects or turning them over for Afghan oversight?

Summary

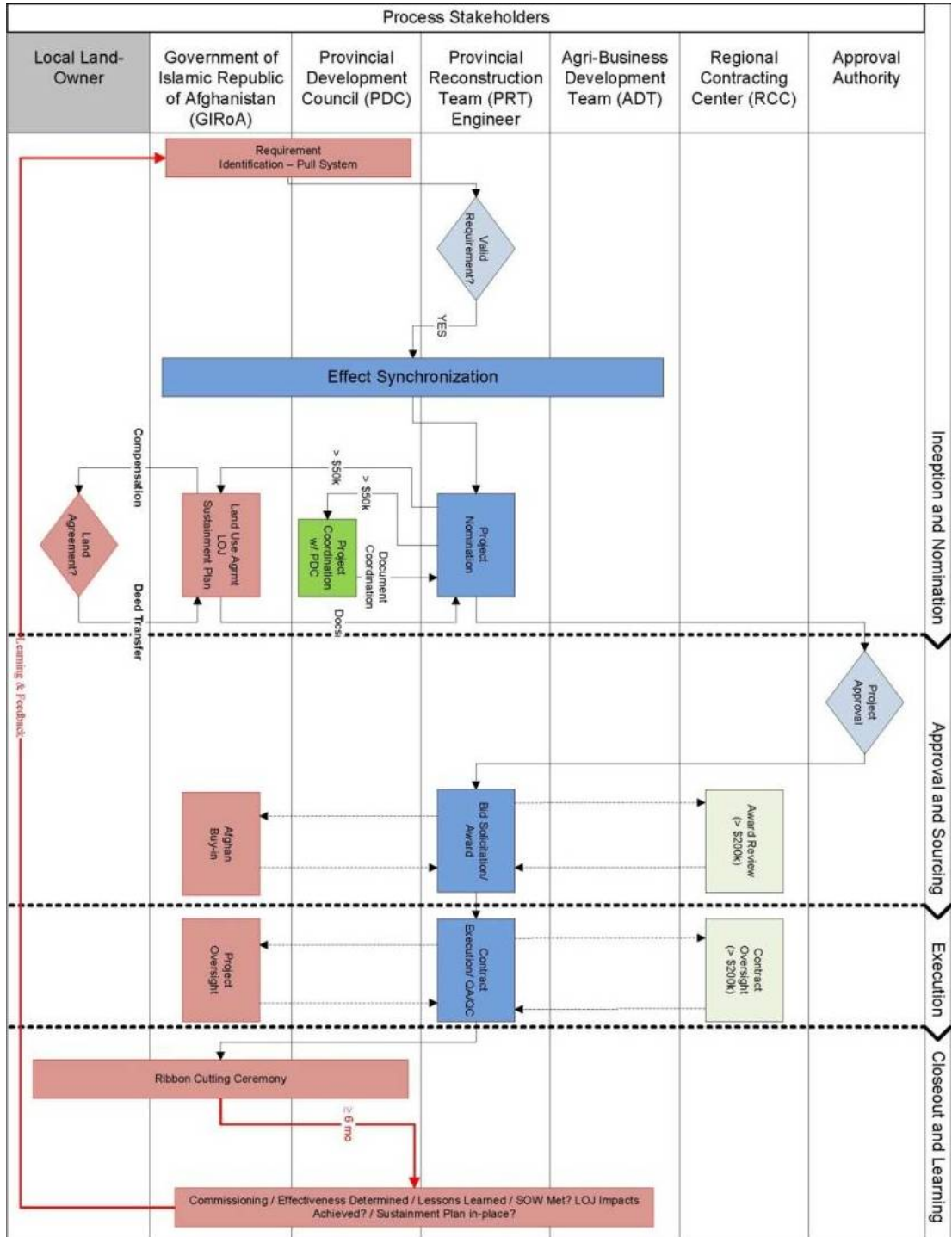
This research explored previously identified complaints about the reconstruction funding tool, the Commanders Emergency Response Program in order to assess the potential for programmatic changes that might enhance the ability to understand outcomes and improve program effectiveness. The research methodology involved a series of investigative questions that led to a system analysis of the program and a descriptive causal chain framework to facilitate analysis of program inputs and outcomes. The investigation documents how the current system evaluates projects and highlights potential deficiencies that can be addressed. The research was limited to CERP projects implemented in Afghanistan and evaluates the February 2011 version of the MAAWS-A

CERP SOP. Future implications resulting from the research include a dilated perspective of how a project must be evaluated and the contributions of elements outside nomination documents on the ability of a selected project to achieve success. Overall, the analysis promotes an application of a Causal Chain framework for discussion about the CERP reconstruction process in an attempt to link the anticipated outcomes of selected projects and strategic outcomes.

Appendix A: CERP Causal Chain



Appendix B: CERP Value Stream Map



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Vita

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14. ABSTRACT Tenuous political and economic times call for increased oversight and improved results from military counterinsurgency programs in Afghanistan, programs that provide agile non-kinetic weapons, critical for commanders fighting in today's asymmetric battle space. This paper proposes a decision tool for construction projects executed under the Commanders Emergency Response Program, designed to meet the changing demands of fighting an amorphous insurgency among dynamic systems of stakeholders. The research first conducted a system analysis of the CERP project execution process identifying key findings addressing value adding inputs. The research then applies a Causal Chain, borrowed from the Emergency Management field to identify contributions of early system inputs and expand the aperture on project outcomes to include their long-term impacts. The research suggests that the Commanders Emergency Response Program can improve outcomes by considering a broader perspective of the system using the Causal Chain, delaying project outcome determination, expanding the pool and increasing the meaningful involvement of stakeholders, driving outcome focused decision making. The research hopes to contribute to improving the outcomes of the Commanders Emergency Response Program and provide a useful framework to describe the system during future policy decisions for the program.					
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