

Strategic Resource Investment Methodology For Developing Countries

Prepared By

Dr. John V. Farr and LTC Kenneth McDonald
Department of Systems Engineering
United States Military Academy



**White Paper 2012- 2
July 2012**

Abstract

In order to responsibly manage and direct aid in developing countries, we need methods, processes, and quantitative analytical tools to determine where to invest scarce resources, what are the capabilities gaps, and the effectiveness of certain types of investments in closing the gaps. The methodology presented herein partially addresses this systemic issue; i.e., how to establish the context of a problem, score and prioritize investments, and ultimately assess their utility. Specifically, this reports introduces the Strategic Resource Investment Methodology (SRIM) for this purpose. This five step process includes an establish context, problem definition and conduct the needs assessment/stakeholder requirements, solution design, decision-making, and implementation and monitoring phases. The processes and supporting models presented herein are useful in enhancing decision making for allocation of resources and solidifying support for a particular portfolio of projects for investments in developing countries and other nations of strategic interest to the US government.

The SRIM is the first step by the nation reconstruction and capacity development community (NR/CD) in developing a systems process to document the cradle to grave life cycle approach for NR/CD. This five-step process is desperately needed because of the complexity and scope of international aid in countries such as Afghanistan.



**CENTER FOR NATION RECONSTRUCTION AND
CAPACITY DEVELOPMENT**
United States Military Academy
West Point, New York 10996



Photograph compliments of the Arzu Studio of Hope

Strategic Resource Investment Methodology For Developing Countries

By

John V. Farr and Kenneth W. McDonald¹

Abstract

In order to responsibly manage and direct aid in developing countries, we need methods, processes, and quantitative analytical tools to determine where to invest scarce resources, what are the capabilities gaps, and the effectiveness of certain types of investments in closing the gaps. The methodology presented herein partially addresses this systemic issue; i.e., how to establish the context of a problem, score and prioritize investments, and ultimately assess their utility. Specifically, this paper introduces the Strategic Resource Investment Methodology (SRIM) for this purpose. This five step process includes an establish context, problem definition and conduct the needs assessment/stakeholder requirements, solution design, decision-making, and implementation and monitoring phases iterative systems process. The SRIP is the first step by the nation reconstruction and capacity development community (NR/CD) in developing a systems process to document the cradle to grave life cycle approach for NR/CD.

KEY WORDS: Nation reconstruction, systems process, life cycle approach, resource allocation

Introduction

The military as an agent of the nation along with the international community and other federal and nongovernment agencies will continue to grapple with the burden of nation reconstruction (NR) and capacity development (CD) for the foreseeable future. The military in support of civilian agencies has performed this role throughout history--ensuring the safety and security of the local populace, assisting with reconstruction, and providing basic sustenance and public services. While this function is not new, its importance has increased dramatically within the past decade as prolonged conflicts continue to challenge to both civilian and military leaders.

“The greatest threats to our national security will not come from emerging ambitious states but from nations unable or unwilling to meet the basic needs and aspirations of their people. Here, the margin of victory will be measured in far different terms from the wars of our past. However, time may be the ultimate arbiter of success: time to bring safety and security to an embattled populace; time to provide for the essential, immediate humanitarian needs of the people; time to restore basic public order and a semblance of normalcy to life; and time to rebuild the institutions of government and market economy that provide the foundations for enduring peace and stability (Department of the Army, 2008).”

Given the greater demand by the United States (US) and members of the international communities for improved results from assistance funds, the US Government and its agents, must be more efficient and accountable in planning and executing its projects and programs. The guidelines presented help establish priorities for US assistance programs but can obviously be extended to members of the international community and non government organizations (NGOs). Our methods, processes, and tools (MPTs) in the stability and reconstruction (S&R) arena must be agile and support evolving objectives and a diverse set of stakeholders (see Figure 1), usually disjointed and often in conflict. This paper presents a

¹ Director and Associate Director, respectively, Center for Nation Reconstruction and Capacity Development, United States Military Academy, West Point, New York, 10996

structured methodology in developing NR and CD projects/portfolios irrespective of the operational environment.

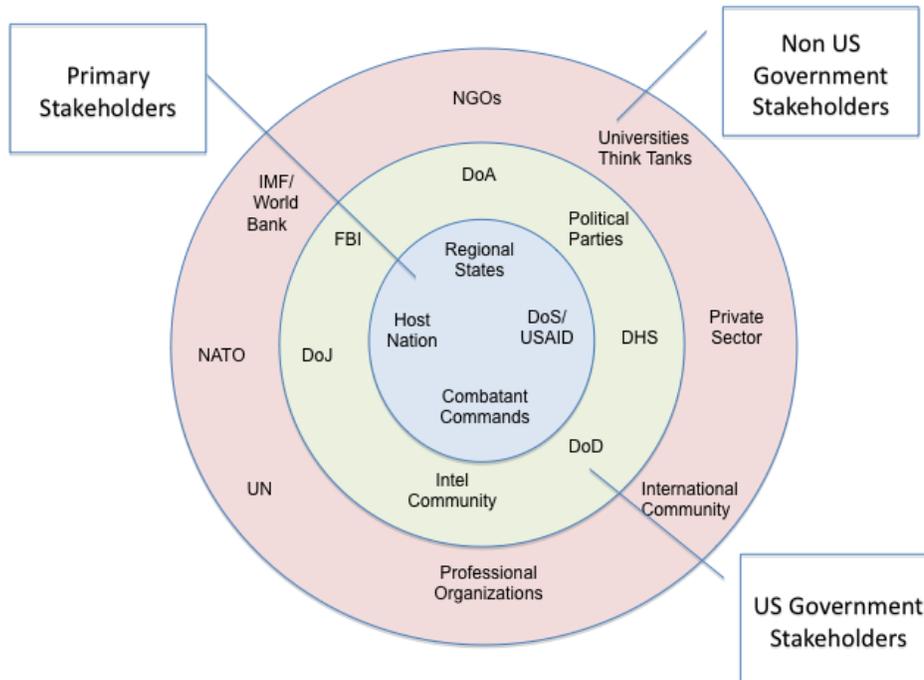


Figure 1. NR and CD stakeholders

Literature Review

A literature review was conducted to identify existing resource prioritization MPTs for allocation and prioritization of resources to support NR and CD. Secondly, we wanted to develop a summary of how various organizations, to include the US Army, approach the problem of strategic investments for nation reconstruction and capacity development. For our purposes we define NR as the planning, preparation, execution, and assessment of efforts to construct infrastructure, policy, and governance following a conflict or national hazard. Whereas, capacity building or development refers to assistance that is provided to entities, usually societies in developing countries, which have a need to develop a certain skill or competence, or for general upgrading of performance ability.

US Army Doctrine for Stability Operations

Army personnel often refer to field manual or FM 3-07 (Department of the Army, 2008) for doctrine related to S&R operations. This document contains the most common terms, definitions, and framework used by the Army. This manual uses lines of effort to assist (see Figure 2) Army commanders in visualizing how the primary stability tasks are achieved through individual tasks. Through this framework commanders can plan a pathway to a safe/secure environment, establishment of rule of law, social well-being, stable democracy and sustainable economy. The line of effort is not a sequential

process starting with establishing civil security and working step by step to economic and infrastructure development and will always be interrelated or “crosscutting”.

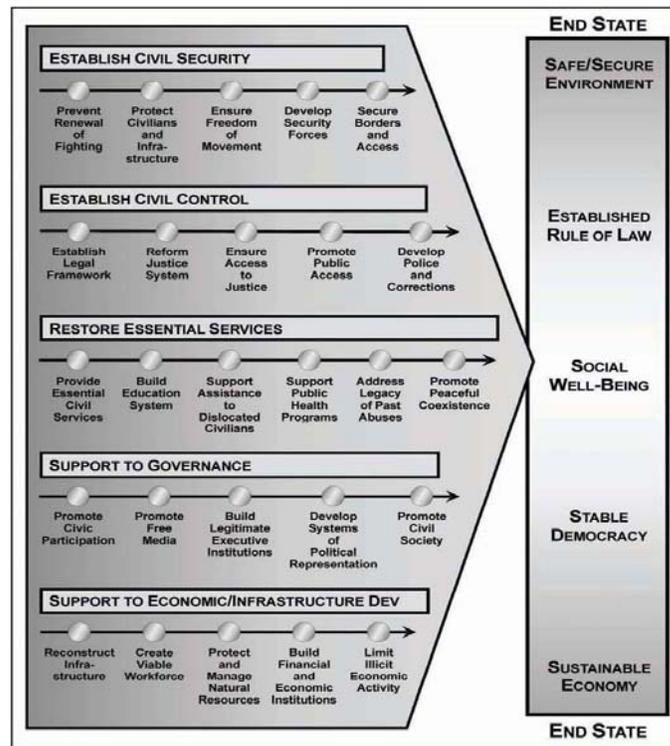


Figure 2. Example of stability lines of effort (from Department of the Army, 2008)

Joint Operations Center - Military Support to Stabilization, Security, Transition, and Reconstruction Operations

The Department of Defense (DoD) has established a similar concept for conducting SSTR (Support to Stabilization, Security, Transition, and Reconstruction) Operations. Figure 3 illustrates the central idea for conducting SSTR operations. This figure is from the Joint Operation Center (JOC) document (JOC, 2006) and is a framework to determine potential NR/CD projects that will meet the desired end state of full host nation responsibility across the mission elements in the context of a new domestic order resolving earlier sources of instability to ensure a viable, sustainable peace. It is important to note the emphasis on host nation responsibility. Buy in from the local/regional host nation governments is crucial through data analysis, project selection and design. Implementation and sustainability at the local level should always be criteria in determining course of action.

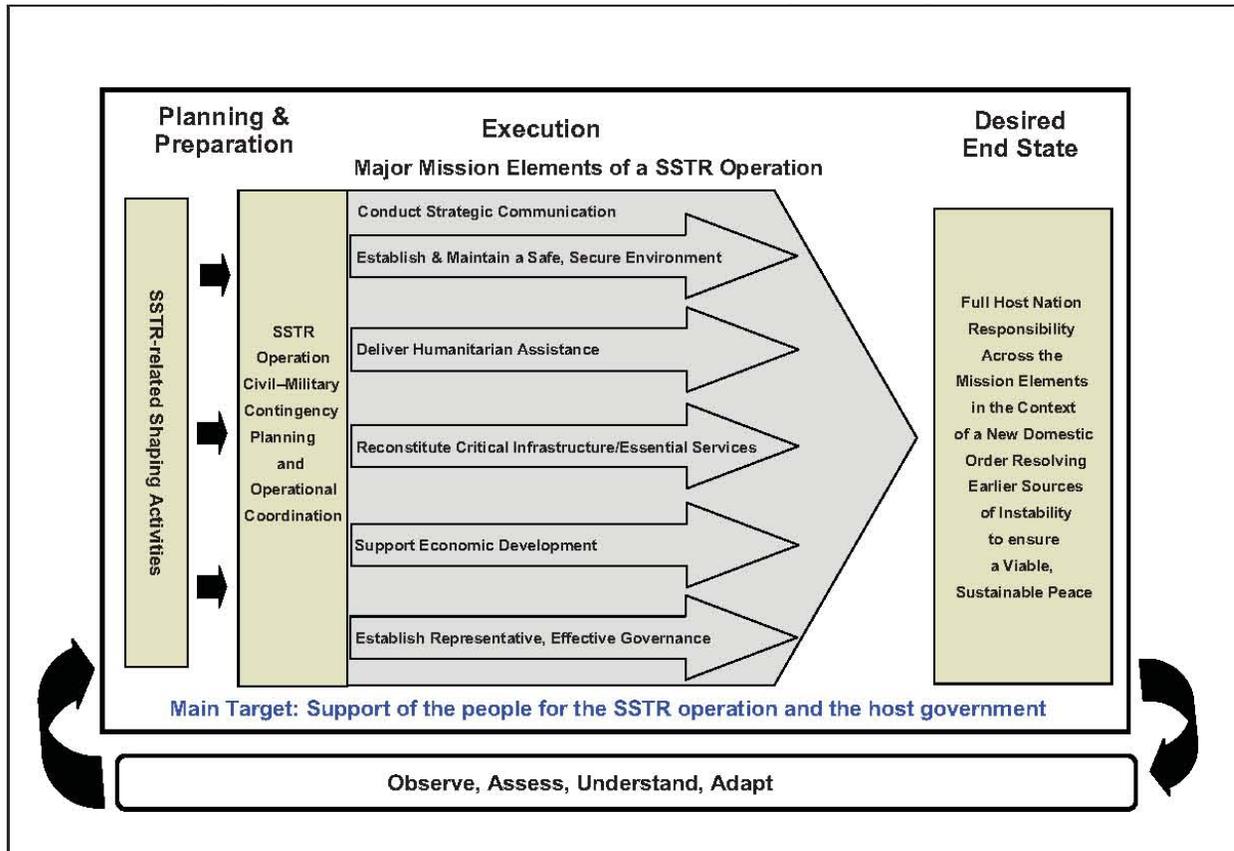


Figure 3. Central ideas for conducting SSTR operations

Department of State: Post Conflict Reconstruction Essential Tasks

Deliberate planning in conjunction with the US Department of State (DoS) is critical to long-term success of NR and capacity building (CB) efforts. During conflict and immediately after, DoD will often be the lead in NR and CB. In order to achieve the desired end state of a stable government, DoS will gradually assume responsibility of transitioning control back to the host nation.

- Security,
- Governance and participation,
- Humanitarian assistance and social well-being,
- Economic stabilization and infrastructure, and
- Justice and reconciliation.

The DoS Essential Task further breaks down the essential tasks into subtasks in their publication (see DoS, 2005 for more details).

The World Bank's Capacity Development Results Framework

The World Bank (Otoo, et al, 2009) has long sponsored projects with the goal of CD in underdeveloped countries. An assessment of projects in the 1990s highlighted that often investments in financial and other resources failed to achieve the result of increased capacity development.

A review of projects and their outcomes lead to the publication of a results oriented decision-making model. This model provides a systemic process by which decision makers can assess the appropriateness of a given project given the host nation capacity for that particular change and is shown in Figure 4. The World Bank report discusses a past project in which well-supplied health care clinics were established but the effort failed to sustain lasting results because of the inability to attract and retain doctors and staff. The host nation did not have the capacity to maintain the clinics beyond initial funding.

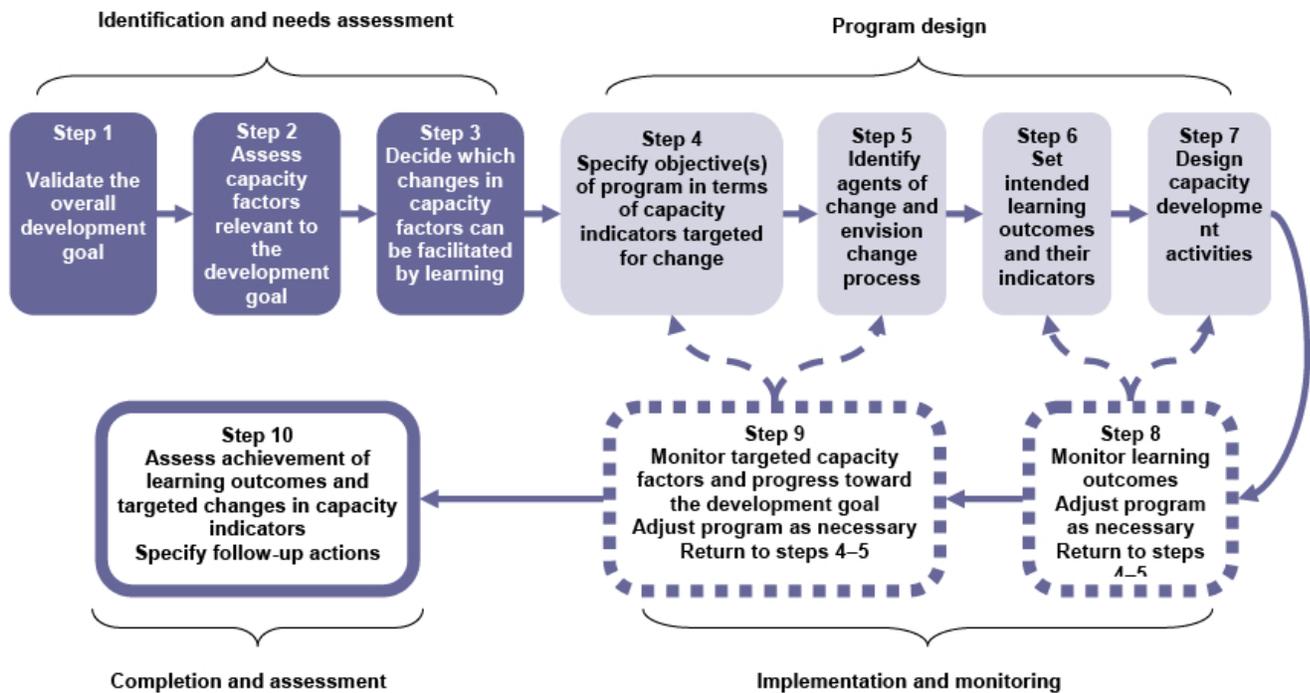


Figure 4. World Bank model for assessment methodology (from Otoo et al, 2009)

Rand Corporation's Methodology for Improving Capacity for Stabilization and Reconstruction Operations

Within the US Government, several agencies have been assigned roles in the arena of NR and CD. The DoD, DoS, the US Agency for international Development (USAID) and a new Policy Coordination Committee within the State department; State Department Office of Reconstruction and Stabilization all combine to lead the effort in different capacities. Others such as the Department of Agriculture, Federal Bureau of Investigation, and many other federal agencies continue to play a vital role in the war on terror and contribute to NR and CD efforts. The interagency coordination is complex and ambiguous as the different agency attempt to provide oversight; especially given how funds are programmed by Congress. An attempt is made to highlight the different frameworks each has set out to direct NR and CD, but not differentiate between roles and responsibilities. At the strategic level, the Rand paper (see Bensahel et al, 2010) goes into depth on the political interactions, but the focus on this is using the different approaches as a guideline in assessing projects at the local and regional levels. The Rand effort presents a value hierarchy model for determining what and whether resources should be used toward building capacity. This model is at the county level and uses a pre-defined set of attributes, weighting functions and indicators to determine a countries ability to benefit and become a strategic partner.

The Center for Strategic and International Studies and the Association of the United States Army Framework

This framework (Center for Strategic and International Studies and the Association of the United States Army or CSIS - AUSA, 2002) is organized into three conceptual phases, defined as *initial response*, *transformation*, and *fostering sustainability*. The framework tasks are organized around four distinct issue areas, or “pillars”: security; justice/reconciliation; social/economic well being; and governance/participation. Within each of these tasks are objectives and tasks that are quantifiable during the three conceptual phases. Below is a summary of the issue areas:

- **Security** addresses all aspects of public safety, in particular establishment of a safe and secure environment and development of legitimate and stable security institutions. Security encompasses the provision of collective and individual security, and is the precondition for achieving successful outcomes in the other pillars. In the most pressing sense, it concerns securing the lives of civilians from immediate and large-scale violence and the restoration of territorial integrity.
- **Justice and Reconciliation** addresses the need for an impartial and accountable legal system and for dealing with past abuses; in particular, creation of effective law enforcement, an open judicial system, fair laws, humane corrections systems, and formal and informal mechanisms for resolving grievances arising from conflict. These tasks encompass the provision of mechanisms to redress grievances, exact appropriate penalties for previous acts, and build capacity to promulgate and enforce the rule of law. Incorporating the concept of restorative justice, they include extraordinary and traditional efforts to reconcile ex-combatants, victims, and perpetrators.
- **Social and Economic Well-Being** addresses fundamental social and economic needs; in particular provision of emergency relief, restoration of essential services to the population, laying the foundation for a viable economy, and initiation of an inclusive, sustainable development program. Often accompanying the establishment of security, well being entails protecting the population from starvation, disease, and the elements. As the situation stabilizes, attention shifts from humanitarian relief to long-term social and economic development.
- **Governance and Participation** addresses the need for legitimate, effective political and administrative institutions and participatory processes; in particular, establishing a representative constitutional structure, strengthening public sector management and administration, and ensuring active and open participation of civil society in the formulation of government and its policies. Governance involves setting rules and procedures for political decision-making, and delivering public services in an efficient and transparent manner. Participation encompasses the process for giving voice to the population through the development of civil society that includes the generation and exchange of ideas through advocacy groups, civic associations, and the media.

Summary

Note that numerous other processes were reviewed in the conduct of our literature review. Specifically, the United Nation (see United Nations, 1998), value scoring methods (see Carroll, Farr, and Trainor, 2008), and others (Orr, 2008). Most of these do not approach the problem from a life cycle systems approach. Also, they do not prioritize investments.

West Point’s Strategic Resource Investment Methodology (SRIM)

Given the greater demand by the US for improved results from assistance funds, the US Government, mainly with the DoS as its agent, must be more efficient and accountable in planning and executing its projects and programs. A life cycle approach is needed to provide the processes to govern NR and CD efforts. From these processes principles, regulations, and techniques will emerge.

Figure 5 is a typical systems engineering development model. Often called the Vee or V model it is used as systems development model designed to simplify the understanding of the complexity associated with developing systems such as the processes associated with defining the need and implementing a solution

for NR and CD. We adapted the V representation for our problem because the NR and CD investment problems are complex systems requiring stakeholder analysis, development of alternatives, analysis of alternatives, implementation and assessment. Our V model allows a structured process for developing solutions to the resource allocation problems.

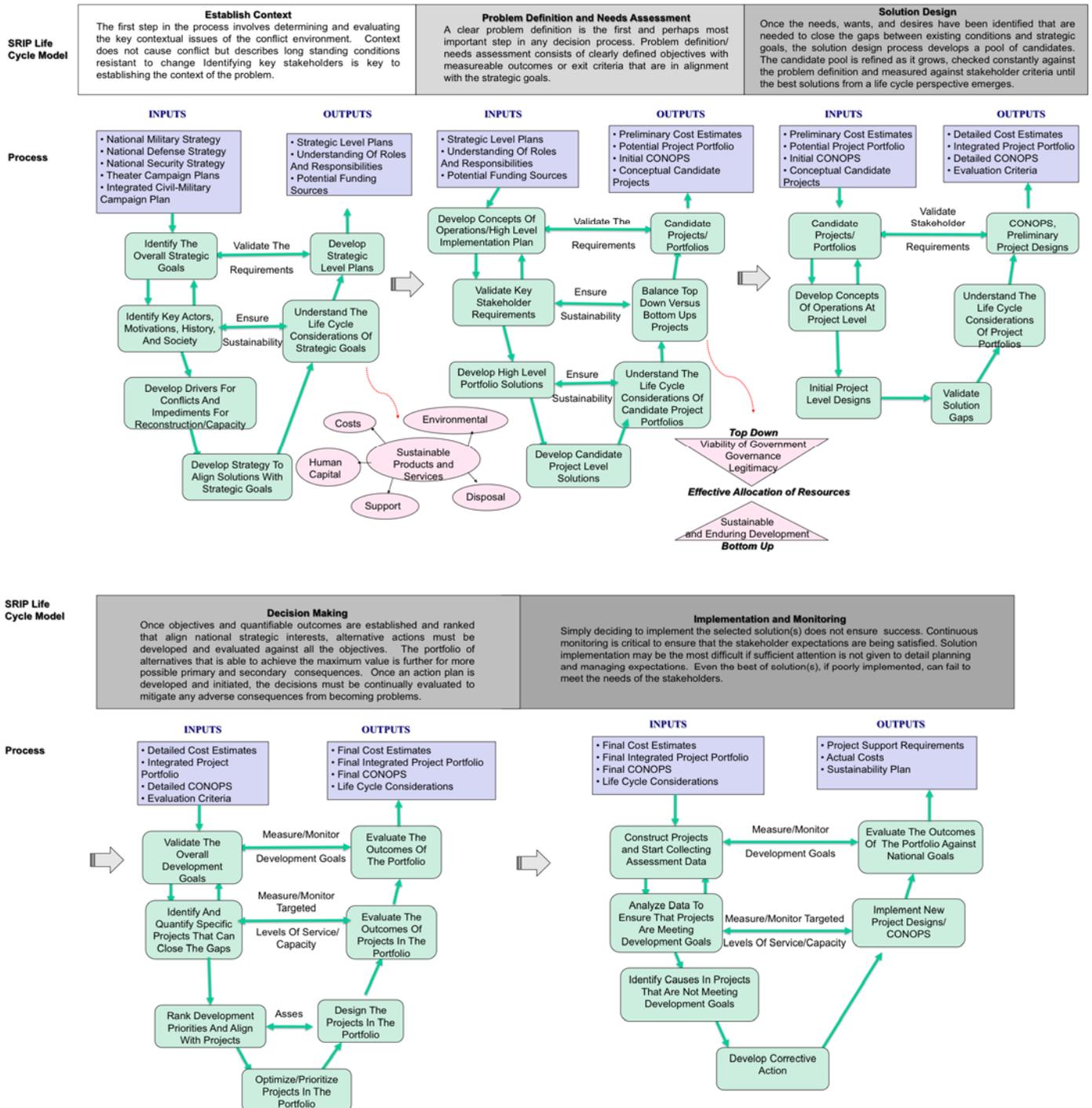


Figure 5. Methodology for assessing and developing solutions for nation construction and



capacity development problems

We chose to use five steps in our life cycle as shown in Figure 5 which include:

- Establish Context - The first step in the process involves determining and evaluating the key contextual issues of the conflict environment. Context does not cause conflict but describes long standing conditions resistant to change. Identifying key stakeholders is key to establishing the context of the problem. This step is based mainly upon the DoS Interagency Conflict Assessment Framework (ICAF) (Department of the Army, 2008).
- Problem Definition and Needs Assessment - A clear problem definition is the first and perhaps most important step in any decision process. Problem definition/needs assessment consists of clearly defined objectives with measurable outcomes or exit criteria that are in alignment with the strategic goals.
- Solution Design - Once the needs, wants, and desires have been identified that are needed to close the gaps between existing conditions and strategic goals, the solution design process develops a pool of candidates. The candidate pool is refined as it grows, checked constantly against the problem definition and measured against stakeholder criteria until the best solutions from a life cycle perspective emerges.
- Decision Making - Once objectives and quantifiable outcomes are established and ranked that align national strategic interests, alternative actions must be developed and evaluated against all the objectives. The portfolio of alternatives that is able to achieve the maximum value is further for more possible primary and secondary consequences. Once an action plan is developed and initiated, the decisions must be continually evaluated to mitigate any adverse consequences from becoming problems.
- Implementation and Monitoring- Simply deciding to implement the selected solution(s) does not ensure success. Continuous monitoring is critical to ensure that the stakeholder expectations are being satisfied. Solution implementation may be the most difficult if sufficient attention is not given to detail planning and managing expectations. Even the best of solution(s), if poorly implemented, can fail to meet the needs of the stakeholders.

Establish Context

The first step in the process involves determining and evaluating the key contextual issues of the conflict environment. Context does not cause conflict but describes long standing conditions resistant to change. Identifying key stakeholders is key to establishing the context of the problem. Figure 5 shows the Vee model developed to present the establish context phase of the SRIP methodology.

According to the standard ISO 31000 "Risk management -- Principles and guidelines on implementation," the process of risk management consists of several steps to include establishing the context which involves:

- Identification of risk in a selected domain of interest,
- Planning the remainder of the process,
- Mapping out the following:
 - the social scope of risk management,
 - the identity and objectives of stakeholders, and
 - the basis upon which risks will be evaluated, constraints.
- Defining a framework for the activity and an agenda for identification,
- Developing an analysis of risks involved in the process, and
- Mitigation or solution of risks using available technological, human and organizational resources.

NR and CD in many ways is a form of risk assessment and management.

From Figure 5, the steps in the process include,

- *Identify The Overall Strategic Goals* – Addressing the causes and consequences of weak and failed states has become an urgent priority for the US government. At the national level leadership defines these goals. However, when applying the SRIM at the tactical level the overall strategic goals must be considered when developing the local priorities.
- *Identify Key Actors, Motivations, History, and Society* – We must be able to understand the core grievances (perception by one group that their security, livelihood, and/or values are being threatened) and sources of social/institutional resilience (social structure and processes exist to meet basic needs through non-violent means). We must be able capture and understand these relationships in order to develop sustainable relationships and ensure our investments are not wasted. We must also understand how institutional performance (i.e., government, legal, banking, governance, etc) affect long-term grievances especially with regards to effectiveness and legitimacy.
- *Develop Drivers for Conflicts and Impediments for Construction/Capacity* – Once the key actors, motivation how these are driving conflict, impeding development efforts, etc. Understanding motivations and more importantly the “hows” influence is being exerted is key to mitigating that influence.
- *Develop Strategy to Align Solution with Strategic Goals* – Once the environment is understood, the next step is to develop a strategy that is designed to accomplish the strategic levels goals within the context of the drivers for conflict and impediments to construction/capacity. This is the first step in developing a systems solution.
- *Understand the Life Cycle Considerations of Strategic Goals* – Investments are a function of life cycle. This applies to both conflict and building partner capacity. The strategy must also be time phased.
- *Develop Strategic Level Plans* – The final step in establishing the context of the problem is start developing strategic level plans from a time-phased perspective. Windows of opportunity, coordinating mechanisms, etc., must all be identified and documented. At the end of the establish context phase strategic decisions must be made about the viability/sustainability of an investment in products and service.

Several tools and techniques can assist in developing the context of a NR and CD problem to include

- SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis,
- ICAF (Interagency Conflict Assessment Framework), and
- Structured stakeholder analysis (interviews, focus groups, surveys).

Problem Definition and Needs Assessment

A clear problem definition is the first and perhaps most important step in any decision process. Problem definition/needs assessment can best defined as the process of identifying performance requirements and the "gap" between what performance is required and what presently exists. Problem definition/needs assessment consists of clearly defined objectives with measureable outcomes or exit criteria that are in alignment with the strategic goals.

From Figure 5, the steps in the process include,

- *Candidate Projects/Portfolios* - As part of the Solution Design Phase we need to finalize our candidate projects so we can start designing our portfolio levels solutions. Top down versus bottom up considerations must be given with the ultimate goal of sustainable development.
- *Develop Concepts of Operations(CONOPS) at the Project Level* – The CONOPS is the master plan for integration and implementation. At this level this is an intermediate CONOPS with the focus on command and control, responsibilities, and authority. All CONOPS should address cost, partner

capacity, and other life cycle considerations. The final CONOPS will focus on detailed life cycle considerations and sustaining partner capacity.

- *Initial Project Level Designs* – Families of specific project level designs should be developed. The designs must meet the stakeholder requirements and align with the strategic levels goals. Depending upon the Phase of Development they must address validated needs. These needs must be addressed from an integrated portfolio perspective.
- *Validate Solution Gaps* – Once the initial project level design are complete. A lay down of how these address solution gaps should be accomplished. This iterative process should be continually evaluated against the nation strategic or development goals.
- *Understand The Life Cycle Considerations Of Project Portfolios* – Portfolios of projects will not meet the development goals if they are not sustainable. Not only is funding and the human capital important but other considerations must be given to support, disposal, and environmental concerns.
- *CONOPS And Preliminary Project Designs* – The exit products from the solution design phase must be an intermediate CONOPS and preliminary project designs. These documents will allow the decision makers to prioritize the final development projects. Considerations at the portfolio level on how these address the development strategic goals.

Figure 5 shows how top down versus bottom's up solution must be balanced to contain a viable yet effective portfolio or projects.

Solution Design

Once the needs, wants, and desires have been identified that are needed to close the gaps between existing conditions and strategic goals, the solution design process develops a pool of candidates. The candidate pool is refined as it grows, checked constantly against the problem definition and measured against stakeholder criteria until the best solutions from a life cycle perspective emerges.

From Figure 5., the steps in the process include,

- *Candidate Projects/Portfolios* - As part of the Solution Design Phase we need to finalize our candidate projects so we can start designing our portfolio levels solutions. Top down versus bottom up considerations must be given with the ultimate goal of sustainable development.
- *Develop Concepts Of Operations At Project Level* – The CONOPS is the master plan for integration and implementation. At this level this is an intermediate CONOPS with the focus on command and control, responsibilities, and authority. All CONOPS should address cost, partner capacity, and other life cycle considerations. The final CONOPS will focus on detailed life cycle considerations and sustaining partner capacity.
- *Initial Project Level Designs* – Families of specific project level designs should be developed. The designs must meet the stakeholder requirements and align with the strategic levels goals. Depending upon the Phase of Development they must address validated needs. These needs must be addressed from an integrated portfolio perspective.
- *Validate Solution Gaps* – Once the initial project level design are complete. A lay down of how these address solution gaps should be accomplished. This iterative process should be continually evaluated against the nation strategic or development goals.
- *Understand The Life Cycle Considerations Of Project Portfolios* – Portfolios of projects will not meet the development goals if they are not sustainable. Not only is funding and the human capital important but other considerations must be given to support, disposal, and environmental concerns.
- *CONOPS And Preliminary Project Designs* – The exit products from the solution design phase must be an intermediate CONOPS and preliminary project designs. These documents will allow the

decision makers to prioritize the final development projects. Considerations at the portfolio level on how these address the development strategic goals.

Decision Making

Once objectives and quantifiable outcomes are established and ranked that align national strategic interests, alternative actions must be developed and evaluated against all the objectives. The portfolio of alternatives that is able to achieve the maximum value is further for more possible primary and secondary consequences. Once an action plan is developed and initiated, the decisions must be continually evaluated to mitigate any adverse consequences from becoming problems.

From Figure 5, the steps in the process include,

- *Validate The Overall Development Goals* – At every step in this process we must ensure that the development goals are being addressed. After the solution design phase and we have an understanding of the CONOPS and the portfolio level solutions we must revisit the development goals. We must first ensure that from the knowledge gained from the solution design that there is alignment between the products and the needs. We must then ensure that these are the right needs.
- *Identify And Quantify Specific Projects That Can Close The Gaps* – From our intermediate level CONOPS, family of projects, and validated development goals we can start to develop viable candidates and match them against our needs. We must be able to quantify and measure their value against the gaps in current conditions that the end state needed to meet our overall strategic level goals.
- *Rank Development Priorities And Align With Projects* – The final step before developing the project portfolio is to rank priorities. We must be able to understand the synergies between projects. We must also be able to develop a time-phased approach to implementing projects.
- *Optimize/Prioritize Projects In The Portfolio* – Once our priorities are developed we can now optimize our portfolios with projects based upon sustainability, cost, and closing the gaps in current and desired capabilities.
- *Design Projects In The Portfolio* – Detailed designs are now needed to finalize budgets. In many instances the capacity of a nation to construct infrastructure, implement governance, etc., is limited by the industrial base and host nation capacity. These issues should be part of the solution design phase however the ultimate implications should be addressed during this phase.
- *Evaluate The Outcomes Of Projects In The Portfolio* – Though explicitly stated here, the process of comparing the projects/portfolios versus the strategic goals must be continuous. This will prevent wasted investments. Measurable outcomes and continuous assessment are critical to any development project.
- *Evaluate The Outcomes Of The Portfolio* – In most large-scale projects, funding is allocated at the portfolio so we must assess as this level. Also, most strategic level goals can only be measured based upon the results of a portfolio of projects.

Implementation and Monitoring

Simply deciding to implement the selected solution(s) does not ensure success. Continuous monitoring is critical to ensure that the stakeholder expectations are being satisfied. Solution implementation may be the most difficult if sufficient attention is not given to detail planning and managing expectations. Even the best of solution(s), if poorly implemented, can fail to meet the needs of the stakeholders.

From Figure 5, the steps in the process include,

- *Construct Projects And Start Collecting Assessment Data* – Host nation capacity, outsourcing, industrial base, graft, etc. all drive construction concerns. Projects must be viewed from a life

cycle perspective and built accordingly. A sustainable and actionable data collection plan must be developed to support construction and operation of the projects. Continuous assessment is key to ensuring that mistakes can quickly be corrected.

- *Analyze Data To Ensure That Project Are Meeting Development Goals* – Sustainable development and building partner capacity are complex. We must continuously assess the performance of the projects to ensure that are addressing the gaps as planned and there are no unforeseen consequences.
- *Identify Causes In Projects That Are Not Meeting Development Goals* – Root cause analysis is critical to ensure the funding is allocated in a responsible and defensible manner. We must continuously update the projects in our portfolio based upon lessons learned.
- *Develop Corrective Action* – Because of the complexity of reconstruction and building partner capacity we must be flexible in our CONOPS and product portfolio. Creative solution will emerge as we better understand the requirements and the effects of our investments.
- *Implement New Project Designs/CONOPS* – As new needs and projects emerge we must document lessons learned. CONOPS, etc., must be updated.
- *Evaluate The Outcome Of The Portfolio Against National Needs* – We must continue to sell the results of our development efforts. Documentation with quantifiable and defensible metrics me be collected and articulated to all decision makers.

Determining Gaps Between Current and Target Levels of Services and Infrastructure Performance

“Successful stability operations are predicated on identifying and reducing the causes of instability and reestablishing or building community and state capacity to diminish, manage, or prevent them from recurring in the future” (Department of the Army, 2008). This statement from FM 3-07 is critical to understanding to the interrelationships between stability operations and nation reconstruction. Unfortunately there have been few instances in modern history where they can be decoupled. Even recent events such as Hurricane Katrina and the Haiti Hurricane Relief Mission were marred by instability. Thus in most instances any type of assessment framework used to identify gaps in services and infrastructure must (from FM 3-07) include

- identifying the causes of instability,
- developing activities to diminish or mitigate them, and
- evaluating the effectiveness of the activities in fostering stability.

S&R service and project portfolios should be designed to meet strategic and local needs. As shown in Figure 6 these are time dependent and can involve a diverse set of S&R projects. Note that the phases shown in Figure 6 are for a conflict environment. Ideally, when approached from a capacity perspective tradeoffs must be made for visibility, such as large projects to support the legitimacy of the government, sustainability, impact, capacity, and development. Much of the research presented herein was focused on optimizing the projects in the portfolio. However, much research is needed relating the overall development goals to the gaps and subsequent projects needed to close the gaps.

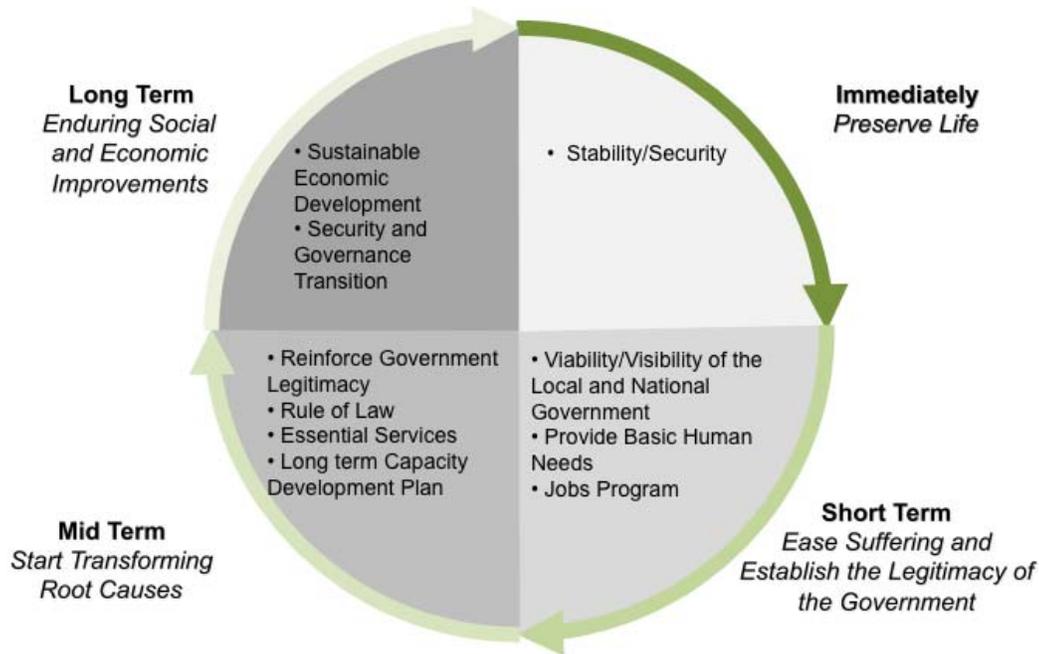


Figure 6. Life cycle view of NR and CD challenges

From Figure 6 we proposed four phases and supporting activities which have been further delineated into tasks.

Immediately – with the goal of preserving life

- Security/Stability – these are the first projects/steps that must be undertaken before economic development investment can occur. Projects should support
 - Counterinsurgency operations,
 - Support the mission of the international security force,
 - Reconstitute/Create/Improve the host nation security forces,
 - Promote local security/military organizations,
 - Demining and disposal of unexploded ordinance (UXO),
 - Improve and align government and military command and control, and
 - Improve and align the host nation and international security forces command and control.

Short Term – with the goal to ease suffering and establish government legitimacy

- Viability/Visibility of the local and national government – early in a S&R effort highly visible projects are important at the local and national levels. Fostering confidence in the local, regional, and national governments is important for other long term goals such stability and governance. Projects should
 - Ensure local officials are the ‘face’ of projects,
 - Promote ownership,
 - Select and execute low cost, transferrable, and repeatable projects, and
 - Ensure linkage between local and national authorities.

- Provide Basic Human Needs
 - *Water, shelter, food and*
 - *Basic health services.*
- Jobs Programs
 - *Job programs for targeted demographics/areas/organizations.*

Mid Term – with the of starting the transformation of root causes

- Government Legitimacy - often developing capacity takes a long-term approach. Whereas building produces instant results in terms of jobs and stimulating the economy. Also building increases visibility of legitimacy of the governments. Projects should
 - *Establish/improve banking,*
 - *Facilitate reintegration and reconciliation,*
 - *Support host nation and international goals,*
 - *Promote gender, religious, racial, ethnic equality,*
 - *Create a counter-corruption campaign,*
 - *Address refugee issues, and*
 - *Conduct fair elections.*
- Rule of Law
 - *Improve justice system,*
 - *Reduce illicit business activities, and*
 - *Provide effective public administration.*
- Essential Services - investments in human needs and basic services often come at the expense of economic development and creating some long-term capacity. These projects also often create job spikes or anomalies that are not sustainable after the development dollars no longer exist. However, beyond increasing the quality of life these projects also give legitimacy to the government and might include
 - *Move beyond basic human needs,*
 - *Sewage, trash, transportation networks, schools,*
 - *Permanent medical facilities and capacities, and*
 - *Combat large-scale, regional medical issues (HIV/AIDS, malaria, etc.).*
- Long Term Capacity Development Plan
 - *Coordinate and promote international aid/development,*
 - *Increase host nation capacity,*
 - *Increase agricultural productivity and sustainability,*
 - *Foster private sector development,*
 - *Provide sustainable infrastructure, and*
 - *Promote educational systems.*

Long Term – ensuring the existence of enduring social and economic improvement

- Sustainable Economic Development - all to often projects are built with little consideration given to sustainment and life cycle considerations and a long term strategy. Long term development projects should might address
 - *Natural resources management policy and*
 - *Targeted market sectors (minerals, energy, etc.).*
- Security and Government Transition
 - *Constitutional and election reforms,*
 - *Land and water policy,*
 - *Media and cultural reforms,*
 - *External debt management,*
 - *Reconciliation, and*
 - *Long-term partner organizations (embassies, UN, Arab League, etc.).*

We conducted a workshop consisting of seven Army and civilian subject matter experts that had development experience in both Iraq and Afghanistan. We chose to use a swing weight matrix (see Parnell and Trainor, 2008 and 2009) as a means to convey risk and variation to the decision makers and stakeholders. Tables 1 through 4 contain swing weight matrices for the four phases presented in Figure 6. The purpose is to simply assign some type of weight to each of the tasks.

Much research is needed especially with regards to assessment and the synergistic effects of different projects. However, by identifying critical needs and developing a first cut rank schema provides more defensible and credible portfolio of projects.

Table 1. Swing weight matrix for the “Immediately” phase

		Importance of the Task to the Decision Makers and Stakeholders		
		<i>High</i>	<i>Medium</i>	<i>Low</i>
Variation in Measure Ranges	<i>High</i>	<ul style="list-style-type: none"> Counterinsurgency operations 	<ul style="list-style-type: none"> Reconstitute/Create/Improve the host nation security forces Improve and align the host nation and international security forces command and control 	
	<i>Medium</i>	<ul style="list-style-type: none"> Improve and align government and military command and control Support the mission of the international security force 	<ul style="list-style-type: none"> Promote local security/military organizations 	
	<i>Low</i>			<ul style="list-style-type: none"> Demine and Dispose of UXOs Address Refugee Issues

Table 2. Swing weight matrix for the "Short Term" phase

		Importance of the Task to the Decision Makers and Stakeholders		
		High	Medium	Low
Variation in Measure Ranges	High		<ul style="list-style-type: none"> Promote ownership Select and execute low cost, transferrable, and repeatable projects 	
	Medium	<ul style="list-style-type: none"> Water, shelter, food Basic health services Job programs for targeted demographics/ areas/ organizations 	<ul style="list-style-type: none"> Ensure linkage between local and national authorities Ensure local officials are the 'face' of projects 	
	Low			

Table 3. Swing weight matrix for “Mid Term” phase

		Importance of the Task to the Decision Makers and Stakeholders		
		<i>High</i>	<i>Medium</i>	<i>Low</i>
Variation in Measure Ranges	<i>High</i>	<ul style="list-style-type: none"> Facilitate reintegration and reconciliation Create a counter-corruption campaign 	<ul style="list-style-type: none"> Promote gender, religious, racial, ethnic equality Address refugee issues Improve justice system Reduce illicit business activities Provide effective public administration Increase host nation capacity 	<ul style="list-style-type: none"> Foster private sector development
	<i>Medium</i>	<ul style="list-style-type: none"> Support host nation and international goals Conduct fair elections Move beyond basic human needs 	<ul style="list-style-type: none"> Sewage, trash, transportation networks, schools Establish/improve banking Provide sustainable infrastructure Increase agricultural productivity and sustainability 	<ul style="list-style-type: none"> Coordinate and promote international aid/development
	<i>Low</i>		<ul style="list-style-type: none"> Permanent medical facilities and capacities Combat large-scale, regional medical issues (HIV/AIDS, malaria, etc.) Promote educational systems 	

Table 4. Swing weight matrix for the “Long Term” phase

		Importance of the Value Measure to the Decision Makers and Stakeholders		
		<i>High</i>	<i>Medium</i>	<i>Low</i>
Variation in Measure Ranges	<i>High</i>	<ul style="list-style-type: none"> • Reconciliation 		
	<i>Medium</i>	<ul style="list-style-type: none"> • Constitutional and election reforms • Media and cultural reforms 	<ul style="list-style-type: none"> • Natural resources management policy • Targeted market sectors (minerals, energy, etc.) • Land and water policy 	
	<i>Low</i>	<ul style="list-style-type: none"> • External debt management 	<ul style="list-style-type: none"> • Long-term partner organizations (embassies, UN, Arab League, etc.) 	

Summary

Any methodology to develop projects and capacity as part of S&R operations involves five major phases as shown in Figure 5. A systemic and disciplined approach must be implemented in order to ensure that the right problems are being addressed in a cost effective manner.

In this paper we have presented a methodology to prioritize projects and assess their importance. Much research has been conducted on Optimize/Prioritize Projects In The Portfolio step in the Decision Making phase. Unfortunately the big research challenges lie in the “Establish Context” and “Problem Definition and Needs Assessment” phases. Referring the Figure 5, further research is still needed to

- Develop and validate an assessment methodology that addresses the interactions capacity development and infrastructure that supports improved between governance, security and stability, and economic development, and
- Metrics and how to obtain those metrics to validate the contributions of capacity development and infrastructure projects.

The SRIM methodology is the first step in developing a structured approach to understanding, developing, implementing, and assessing solutions. However, much work is still need to obtain buy-in from the nation building community.

References

Bensahel, Nora, Olga Olikier, and Heather Peterson, “*Improving Capacity for Stabilization and Reconstruction Operations*,” Santa Monica: Rand 2009

Center for Strategic and International Studies and the Association of the United States Army, “*Post-Conflict Reconstruction: Task Framework*,” May 1, 2002

Carroll, Lora M., Farr, John V., and Trainor, Timothy, "Weighted Scoring Model for Resource Allocation in Post-Conflict Reconstruction." *Journal of Infrastructure Systems*, American Society of Civil Engineers, Volume 14, No. 3, pp 169-177, September, 2008

Department of the Army, "FM3-07: Stability Operations," accessed December 6, 2010, at <http://usacac.army.mil/cac2/repository/FM307/FM3-07.pdf>, 2008

Department of State, "Post Conflict Reconstruction Essential Tasks," accessed December 6, 2010 at <http://www.crs.state.gov/index.cfm?fuseaction=public.display&shortcut=J7R3>, April 2005

Joint Operations Concept, "Military Support to Stability, Security, Transition, and Reconstruction," 2006

Otoo, Samuel, Natalia Agapitova and Joy Behrens. "The Capacity Development Results Framework," accessed December 7, 2010 at http://siteresources.worldbank.org/EXTCDRC/Resources/CDRF_Paper.pdf?resourceurlname=CDRF_Paper.pdf, World Bank, June, 2009

Parnell, Gregory S., Driscoll, Patrick J., and Henderson Dale L., Editors, *Decision Making for Systems Engineering and Management*, Wiley Series in Systems Engineering, Andrew P. Sage, Editor, Wiley & Sons Inc., 2008

Parnell, Gregory and Trainor, Timothy, "Using the Swing Weight Matrix to Weight Multiple Objectives." *Proceedings of the INCOSE International Symposium*, Singapore, July 19-23, 2009

United Nations, "Capacity Assessment And Development in a Systems and Strategic Management Context, 1998



**CENTER FOR NATION
RECONSTRUCTION
AND CAPACITY
DEVELOPMENT**

Department of Systems Engineering
United States Military Academy
West Point, New York 10096
www.nrcd.usma.edu