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Final Report
Evaluation of USAID's
Strategic Provincial Roads
Southern and Eastern Afghanistan
SPR-SEA Program

Kabul, Afghanistan
August 2011

This report was produced for review by the United States Agency for International Development (USAID). It was prepared under contract with Checchi and Company Consulting, Inc. for USAID's Afghanistan "Services under Program and Project Offices for Results Tracking" (SUPPORT) project.

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This evaluation was

**Contracted under USAID Contract Number: GS-10F-0466P
(Order Number: 306-A-00-08-00527-00)
Afghanistan Services under Program and Project Offices for
Results Tracking (SUPPORT)**

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ABBREVIATIONS AND ACRONYMS

AIRP	Afghanistan Infrastructure and Reconstruction Program
CA	Cooperative Agreement
CM	Community Mobilization
COCB	Community Outreach and Capacity Building
COP	Chief of Party
DCOP	Deputy Chief of Party
FTE	Full-time Equivalency
GIRoA	Government of the Islamic Republic of Afghanistan
IR	Intermediate Result
IRD	International Relief and Development, Inc.
KIA	Killed in Action
OIEE	Office of Infrastructure, Energy and Engineering
M&E	Monitoring and Evaluation
MOU	Memorandum of Understanding
PMP	Performance Management/Monitoring Plan
PRT	Provincial Reconstruction Team
QA	Quality Assurance
REFS	Reconstruction of Economic Facilities and Services Project
RFP	Request for Proposals
SOW	Scope of Work
SPR	Strategic Provincial Roads Project
USG	United States Government
USAID	United States Agency for International Development
WIA	Wounded in Action

1 EXECUTIVE SUMMARY

The Strategic Provincial Roads Program (SPR, hereafter) is part of the USAID funded reconstruction program for the transport sector of Afghanistan. The program aims to increase stability and security in Southern and Eastern Afghanistan by rehabilitating provincial roads and improving subcontractor capacity to build and maintain roads

SPR was expected to rehabilitate an estimated 1,500 to 2,000 kilometers of roads to an all-weather gravel standard. The roads to be rehabilitated were identified by USAID in association with officials representing NATO and the Government of the Islamic Republic of Afghanistan (GIROA). In addition, capacity building and community development were designed to facilitate construction and minimize community impact caused by road construction and ensure sustainability of the rehabilitated roads. The SPR program had the following components:

- Project Road Selection
- Road Rehabilitation/Improvement
- Mentor-Protégé Program
- Community Outreach and Capacity Building Component (COCB)
- 1-year warranty and maintenance

The evaluation team found that SPR design by USAID was a technically well-conceptualized program that involved road construction, community outreach, and capacity building for Afghan subcontractors. However, in both the design and the mechanism to implement the program, the evaluation team believes the program was fundamentally flawed and that USAID would have been better off structuring the program using a Contract rather than a Cooperative Agreement. This would have required more comprehensive reporting and provided greater oversight.

From an implementation perspective, SPR proved to be a difficult program to manage. The Roads Program and the Community Outreach and Capacity Building (COCB) Program encountered many challenges as they progressed. A fractured organizational structure, communication difficulties, and poor decision-making compounded these challenges. Security problems were also a contributing factor, as was high turnover of key personnel.

As part of its work, the evaluation team attempted to estimate the potential final results of the project in terms of kilometers of completed road. The evaluation team carefully considered the actual roadwork completed and believes it is feasible for SPR to finish close to 159 km of fully completed roads by the end of the program. If, however, we use the term “drivable/improved” (including completed crushed aggregate surface, sub-base, completed embankment, culverts, cuts) rather than “completed”, the overall total would be 649 km. Regardless of how one calculates this, the important point is that the program will have only delivered a small fraction of what it set out to do. That said

With regard to future road programs, the evaluation team also hopes to contribute with some practical recommendations:

- Focus on building rural roads that are designed to serve appropriate traffic levels rather than SPR's over-designed roads that proved expensive and difficult to build. Appropriately-designed roads will cost less and take less time to construct;
- Future projects should consider avoiding the use of Design/Build subcontracts due to the relative inexperience of many Afghan construction firms.
- USAID should consider requiring the "cost plus fixed fee" model used by contractors to also be applied to sub-contractors to avoid cost over runs due to changing market conditions for building materials, fuel, etc.;
- Develop bidding criteria that considers the experience of the contractor in delivering on-time, quality products and their relative level of capacity compared with the difficulty of the project. While lowest-price bidding for projects may be beneficial in many cases, SPR's failures can be attributed to inadequate procedures and limited understanding on the part of subcontractors;
- More attention should be provided to subcontractor capacity-building, including hands-on mentoring, in order to maximize the effectiveness and efficiency of such projects;
- A community outreach program that is well-integrated with road construction can play a positive role. The potential benefits include enhancing security and incorporating community input. SPR failed in this regard due to a poor grants design, process and monitoring;
- Management and decision-making structure of projects should be appropriately matched to the scale and structure of the initiative. The evaluation team believes that greater decentralization of authority to the field level would have resulted in a corresponding increase in accountability and allowed for better relations with subcontractors and, ultimately, more informed decision making. In the future, emphasis needs to be placed on avoiding bottlenecks created by centralizing decision-making at the COP level.

2 INTRODUCTION

USAID/Afghanistan, Office of Infrastructure Energy and Engineering (OIEE) requested a final evaluation of the Strategic Provincial Roads, Southern and Eastern Afghanistan (SPR-SEA) Program, implemented by International Relief and Development (IRD). The evaluation considers program management, performance, and effectiveness, and provides suggestions to assist USAID staff to better design future infrastructure programs. As an independent evaluation of the SPR-SEA multiyear program, the evaluation team critically examined the program's overall achievements and challenges and the performance of both USAID and the implementing partner.

3 BACKGROUND

The Strategic Provincial Roads Program (SPR, hereafter) is part of the USAID funded reconstruction program for the transport sector of Afghanistan. The program aims to increase stability and security in Southern and Eastern Afghanistan by rehabilitating provincial roads and improving subcontractor capacity to build and maintain roads.¹

USAID's reconstruction program for Afghanistan's transport sector started in 2002 as a component of the Reconstruction of Economic Facilities and Services ("REFS") Program. Under REFS, approximately 1,000 km of primary roads, 1,000 km of secondary (provincial) and urban roads were funded by USAID.

SPR was expected to rehabilitate an estimated 1,500 to 2,000 kilometers of roads to an all-weather gravel standard. The roads to be rehabilitated were identified by USAID in association with officials representing NATO and the Government of the Islamic Republic of Afghanistan (GIROA). In addition, capacity building and community development were designed to facilitate construction and minimize community impact caused by road construction and ensure sustainability of the rehabilitated roads. The SPR program had the following components:

- Project Road Selection
- Road Rehabilitation/Improvement
- Mentor-Protégé Program
- Community Outreach and Capacity Building Component (COCB)
- 1-year warranty and maintenance

3.1 Purpose of the Assessment

The evaluation team, as defined in the Statement of Work (SOW), focused on the three main components of the SPR program: (a) program design, (b) implementation and project management, and (c) program results. The SOW also outlined the questions below. Because many of the questions overlap, the Evaluation team combined the answers within the body of the report.²

3.1.1 Program Design

Was the original USAID/Afghanistan SPR Program Description, and were the intended program objectives, adequate and achievable, including the use of the Cooperative Agreement mechanism to achieve program results? If not, what specific components and/or objectives were unrealistic given the time constraints and budget?

Did IRD's proposal accurately take into account the size and scope of the program objectives, including the security context in the selected area? If not, why?

Did IRD effectively assess sub-contractor capacity prior to program implementation and make adequate sub-contractor selections based on the assessment methodology? If not, how can the methodology be improved for future programs?

Did IRD select the appropriate personnel, number of personnel, and create an appropriate organizational management structure to achieve program objectives?

3.1.2 Implementation and Project Management

In which areas did both USAID and IRD program managers fail to make strategic decisions or corrections that could have improved performance? Were there any breakdowns in the communication between USAID and IRD, or IRD and the subcontractors, which prevented the program from being successful?

Did the subcontractors receive adequate training and management support from IRD? If not, what specific interventions could have improved sub-contractor performance?

Were IRD's field support mechanisms, monitoring and evaluation, and quality assurance/quality control sufficient to ensure program success? If not, why?

Was IRD able to objectively perform quality assurance/quality control at the project sites, taking into account the fact that they were embedded with the subcontractors and dependent on support for housing, meals, transportation, and security?

3.1.3 Results

How effective was the Community Outreach and Capacity Building (COCB) component of the program? Did the COCB at times negatively impact the subcontractors' ability to begin or maintain construction operations? If so, how?

Did the emphasis on using only Afghan subcontractors, and the investment in capacity building of Afghan road construction firms, result in any benefit to, or the growth of, Afghanistan's road construction sector/value chain? If so, how and what areas in the value chain have shown improvement? Please assess or identify any remaining gaps/weaknesses in the value chain/sector.

Did the Mentor-Protégé Program achieve the intended results? If not, in what areas did the program fail in its intent?

Many roads had partial completion, but were left unfinished due to various reasons. What specific engineering deficiencies, lack of sub-contractor capacity, and/or insufficient QA/QC prevented final completion of a sample of selected roads? Why is the overall number of kilometers of road completed significantly below target?

Were there any USAID and/or USG processes or requirements that impeded successful implementation of the program?

How were program expenditures allocated between various objectives or components of SPR? Is the level of results achieved commensurate with the funds expended?

4 METHODOLOGY

The evaluation team decided that the best approach would be to interview and collect information from as many key participants from SPR, USAID, subcontractors, community stakeholders, and other participants as time allowed. The team was able to assess information provided by key players in the program. From a technical research view point, the results are valid and result in a reliable analysis.

At USAID's request, the team focused on management of the program by both the implementing partner and USAID/Afghanistan, as defined by the questions outlined in the Scope of Work (SOW). We did not conduct detailed inspections of all roads, but we did visit select roads and bridges in Nangarhar. We also reviewed QA inspection reports produced by the third party inspector, Tetra Tech. Our review of program impact was limited by the fact that so few roads have been completed and because SPR was unable to provide baseline data, and chose not to conduct an End Line Survey.

4.1 Document Review

The Evaluation team reviewed all available documents provided by USAID and SPR. These documents included the following identified in the SOW: USAID/Afghanistan/OIEE Activity Approval documents, Original Program Description, Cooperative Agreement (CA), CA Amendments, Project Correspondence, IRD Original Proposal, Request for Proposal (RFP) to Afghan subcontractors, Subcontracts with Appendices, Quarterly Reports, Monitoring and Evaluation Reports, Annual Implementation Plans, Road Rehabilitation Project Plans, Internal Assessments, Copies of Subcontracts, Engineering Reports, SPR Mid-Term Evaluation, Tetra Tech Monitoring Reports, Tetra Tech SOW, Road Maps, and aerial photography. Appendix B contains a comprehensive list of the documents reviewed.

4.2 Interviews

SPR involved all levels of the government, input from local communities, and attempted to build the capacity of local construction companies. The Team interviewed a variety of people related to the program including: Subcontractors, Government Officials, SPR COCB and Engineering Staff and Management, USAID Officials, Community Leaders, and Shuras.

4.3 Field Visit

The team visited two bridges to review progress and observed SPR personnel in action. During these visits, were able to see results first hand and observe SPR and subcontractors solving problems. Determination of which sites to visit were based on (a) security factors and (b) where work was ongoing during the evaluation.

The evaluation team is satisfied that the methodology used and the documentation provided by the client was sufficient to be able to reach reliable conclusions about the program. The team felt that more comprehensive research would not have resulted in substantial changes to the conclusions reached.

5 PROGRAM DESIGN

The evaluation team examined key issues related to SPR's program design. These issues included IRD's original application, the implementing mechanism selected by USAID, the program's size and scope, and IRD's solicitation and evaluation process for selecting subcontractors. In each area the evaluation team found positive elements but also found critical weaknesses that, when combined, contributed to the program's inability to meet its stated objectives.

5.1 Request for Applications

The SPR proposal was of high quality. It was designed to address problems in remote areas exposed to security problems. It also addresses the low skill level of workers and subcontractors with capacity building and training. The proposal took into consideration field conditions, labor pools and capabilities, ethnic and political factors, and operational considerations.

In 2007, at the time of the Request for Applications (RFA), USAID and IRD were optimistic about improving stability in Afghanistan. The evaluation team agrees with the SPR strategy for reaching out to communities through its community outreach program. The program design includes other positive factors, including the following:

- IRD had experience in Afghanistan and was aware of the conditions in the field
- IRD had experience with complex development programs involving small infrastructure
- IRD identified prequalified subcontractors, giving its incoming management team a head start
- The proposal emphasized a strong capacity building component
- The workflow diagram covered all steps of each intervention: identification of road projects to design and community outreach all the way to completion
- The proposal placed strong emphasis on relations with community leaders, Shuras, local government, and other stakeholders

These factors were important because they work to facilitate and ensure the implementation of each intervention. The Evaluation team also found positive factors relevant to program implementation, such as security, human resources, management

structure, and communication. We believe that IRD understood the program's challenges and solutions.

The proposal does a fine job of integrating security with the community outreach and road rehabilitation components. Security was not to be addressed simply with a show of force. Rather, IRD proposed to seek full participation of local community leaders to reduce the occurrence of attacks.

In addition, by employing local labor with the help of Shuras, SPR would win community support and thereby help to keep insurgents away. This alternative often works better than overt security teams. The geographic focus of the program in remote areas of Southern and Eastern Afghanistan made this a sensible approach. This approach to security has the potential to reduce operational costs, increase local community involvement, and reduce unemployment.

IRD was clearly aware that subcontractor capacity for road construction was limited. The proposal states, "Our experience gained in Afghanistan shows us that nearly all Afghan contractors have deficiencies in construction management skills."³ As a solution, IRD proposed two levels of training: construction management training by skilled experts in Kabul and hands-on mentoring performed by engineers in the field. IRD also discusses On-The-Job Training (OJT) but does not elaborate further. However, OJT requires a training plan, supervision, monitoring, and ongoing evaluation. It is not necessarily appropriate for road construction.

Furthermore, the proposal makes the following promises:

- Extensive use of Afghan labor
- Exclusive use of Afghan subcontractors
- Minimum cost to USAID
- Minimum involvement of IRD headquarters
- Two regional locations: Kabul and Kandahar
- Direct return to the local economy

Many of these objectives can prove difficult to implement and increase the complexity of the project. For instance, extensive use of local nationals is necessary, as is the use of Afghan subcontractors. However, this increases the need for a well-organized, efficient, and frontloaded capacity building program.

Finally, one area in the proposal provided cause for concern. The organizational structure did not address the need for an efficient system with authority delegated to the field for decision-making and implementation. We also note that the organizational structure was complex - including a QA/QC Manager, a Security Coordinator, a Director of Finance, a Grants/Sub-contract Manager, a Capacity Building Manager and a Road Manager – all of whom reported directly to the COP. While an experienced COP can handle this level of organizational complexity, it does run the risk of centralizing too much decision-making authority in the hands of one individual, resulting in sub-optimal implementation

efficiency. And this was indeed the case in the implementation of SPR and the flow of information and decision-making was jeopardized, resulting in delays in resolving field problems.

We suggest that better model would be to place responsibility for Program Operations, including the Grants Manager, Chief Engineer and Capacity Building Specialist, with a DCOP.

To conclude, our analysis of the program design indicates that the concepts described by IRD's proposal were thoughtful. IRD had enough experience both in Afghanistan and with this type of development to implement the program. The objectives for the program described in the proposal were feasible and realistic. However, the key problematic area was the organizational structure and its adverse impact on implementation.

5.2 Implementing Mechanism

In addition to road rehabilitation, the SPR had a community outreach component to build support for the project. It was also designed to have a capacity building component to improve the ability of Afghan subcontractors in road construction and maintenance. USAID selected the Cooperative Agreement as the appropriate implementing mechanism partly because of these two components. Cooperative Agreements typically bring a number of advantages, such as increasing transfer of knowledge to local organizations and supporting NGO innovation. They do, however, carry certain disadvantages, such as (critically) less accountability.

The alternative implementing mechanism - a Contract – has a different set of advantages including contractor responsiveness to USAID, high accountability, strong technical skills and a high USAID design input. But as with Cooperative Agreements, Contracts also have disadvantages such as mixed capacity building, minimal NGO innovation, greater USAID management and the possibility that higher overhead will equal higher program costs

The evaluation team feels that the greater responsiveness found in contracts (typically through details reporting requirement) and accountability would have better served SPR. Implementing partners under contracts are required to secure USAID approvals to enter into subcontracts. This, however, does require greater USAID resources to administer. While Cooperative Agreements can contain a provision for USAID “substantial involvement”, such involvement is typically lower than under a Contract. The evaluation team, based on its review of both USAID and IRD's management believes that greater oversight would have allowed USAID and IRD to identify problems and allow for corrective actions to be undertaken at an earlier stage.

5.3 Program Size and Scope

Size and complexity had a major impact on IRD's capacity to implement SPR. The program's organizational structure had two major flaws:

- It placed too much responsibility on the COP in technical and program development areas.
- Even though it had enough flexibility to expand and contract, IRD did not have the capacity to be more flexible because of its dysfunctional organizational structure.

For example, when it became clear that the proposed road design was excessive, and that the 1500-2000 km target length was not possible, SPR could have used (a) more appropriate road designs, (b) more appropriate technology, and (c) more local labor. With such an approach, SPR could have achieved substantially more road construction, possibly as much as 1000 km. Ironically, the Rural Roads program – a subset of SPR – did utilize such an approach. But the lessons were not transferred due to communication bottlenecks and organizational dysfunction cited elsewhere. Had this approach been implemented sooner and more broadly we believe SPR's results would have been more positive.

The original design had the Roads Program Manager, Capacity Building Specialist, Chief Engineer, and Grants and Sub-Contractor Manager reporting directly to the COP. This placed an overload on the COP, resulting in delaying the decision making process and causing unnecessary conflicts with subcontractors. SPR tried to resolve this by adding senior personnel, who all reported to the COP. This made the problem worse.

In a program like SPR with multiple sites and complex operations, problem solving and decision making should happen in the field as much as possible. Ideally, Afghan engineers would have sufficient experience and management skills to resolve problems and prevent delays. The COP and the Senior Manager in charge of Program Operations should manage field projects without micromanagement. This should have been accomplished through weekly reports and periodic visits to check progress and make adjustments. The evaluation team is cognizant that the deteriorating security environment limited site visits by senior managers. But this reinforces the need for greater decentralization to capable mid level local management.

SPR had two components: road rehabilitation and COCB. As noted, these components were to be integrated, with COCB enhancing the security for the road rehabilitation projects. However, the high number of security problems indicates that this approach did not work. The 2010 Annual Implementation Plan calls for better communication between COCB and construction staff.⁴ Based on the team's interviews with IRD staff, this problem was never fully resolved.

Rather than organize program operations into groups according to responsibility, SPR created more senior positions reporting to the COP. One indication that the COP was

overwhelmed, possibly caused by the organization structure, is that a new position, DCOP USG Liaison Officer was created. Originally, relations with USG were part of the COP's responsibilities.

In the 2010 Annual Implementation Plan, SPR acknowledged the problem, suggesting that "efforts were needed to modify and reinforce the organizational structure to manage the integration of construction and community outreach and bring resources to bear for the resolution of issues arising in the field." This however, resulted in adding more senior staff and "more boots on the ground."

The size and scope of the program objectives only became a problem when the organization became unresponsive to changing conditions. The solid proposal design gave SPR management a road map to implement a well-integrated program. However, it diverged from this road map by creating and recreating an organization that could not address the realities in the field. It appears that these problems were due in large part to a poor management structure.

5.4 Subcontractor Evaluation and Selection

The methodology IRD used for screening and pre-qualification of subcontractors followed USAID standards for similar projects in Afghanistan and other countries. Requests for Proposals (RFPs) were sent to over 450 contractors.⁵ Typically from two to 30 bidders responded to each RFP. IRD evaluated each bid as "responsive" or "unresponsive" based on fulfillment of the requirements stated in the RFP. One component of their proposal was a description of their construction qualifications, which were scored and rated against other contractors. The subcontractor with the highest overall score, which usually included the lowest bid price, was awarded the contract. This is standard practice for subcontractor selection. IRD also included in their SPR proposal a list of pre-screened subcontractors "inherited" from the Afghanistan Infrastructure and Reconstruction Program (AIRP).

It is the team's opinion that SPR followed an acceptable, well-documented subcontractor selection process that would be typical of other USAID programs in Afghanistan or elsewhere. Because of the competitive nature of construction contracting, in which every contracting agency wants a qualified subcontractor for the lowest price, one of the risks is that of selecting marginally qualified subcontractors. The process used by SPR was designed to minimize the risk of selecting unqualified or under-qualified subcontractors.

Unfortunately, SPR sometimes selected less than capable subcontractors. In most cases, capable subcontractors were selected who became severely impacted, financially and materially, from self-inflicted delays due to underestimating the scope of work, unforeseeable delays, deadly insurgent attacks, floods, and winter conditions. In some cases, the claims from subcontractors attempting to recover lost expenses were paid, in other cases they were totally or partially rejected. In the worst cases, subcontractors working on projects most severely impacted by insurgent attacks had their contracts terminated for convenience, or for default.

SPR's process for evaluating and selecting subcontractors followed industry norms. It first determined whether the proposal was acceptable, and then scored the acceptable proposals according to objective criteria. Many of SPR's subcontractors were relatively capable firms, given those operating in Afghanistan. Others firms selected were less than capable.

6 PROGRAM MANAGEMENT

Despite a well-designed proposal, managing the SPR program proved difficult. The Roads Program and the Community Outreach and Capacity Building (COCB) Program proved to be steep, uphill climbs. Management problems, including communication and decision-making, compounded these challenges. Finally, high turnover of key personnel was both a symptom of and a contributing factor to an already difficult situation.

6.1 Roads Program

SPR's central focus was the Roads Program. However, mistakes were made in the beginning with the decision to engage inexperienced subcontractors in "Design/Build" projects. This reflects a flaw in the overall design in that there was a tendency to overly rely upon "inherited" subcontractors from the AIRP project and a management flaw to not take corrective measures earlier. Continuing the overdesigning of roads that carried low traffic volumes was unnecessarily expensive and the organizational structure was such that concerns were slow to filter upwards and decision-making was equally slow to flow downwards. The combined effect severely limited the SPR's outputs and will likely bankrupt many subcontractors. The Roads Program was plagued with management problems, poor problem solving, and one bad decision after another. It did however produce some results and success stories.

6.1.1 Underbidding

SPR initiated bid tendering almost immediately, giving subcontractors four to six weeks to prepare their bids. RFP tender documents for "Design/Build" subcontracts were based upon the following:

- SPR providing 30% completed designs, including an estimated Bill of Quantities, or
- No design data was provided, other than "...build road X km between Point A and Point B..." with road design specifications based on AASHTO6 and FHWA7 standards

In the latter case, bidders were instructed to provide an estimated Bill of Quantities and overall cost estimate. In both cases, the subcontract was indicated as "Firm-Fixed Price Contract," meaning that no cost adjustments would be allowed during the life of the subcontract. Clearly, as delays grew longer due to deteriorating security situations, it was clear that this mechanism was inappropriate as subcontractors invariably faced increases in the cost of commodities. Bidders were also instructed to submit unit prices which were used for issuing progress payment, not to exceed the overall contract total.

One of the aspects of this type of contract is the contract terms established in the beginning are fixed and difficult to change. Thus, the subcontractors were liable for everything encountered during the execution of the agreement, unless it was an “Act of God” such as flooding. SPR was not responsible for additional expenses that subcontractors should have anticipated during pre-bid site investigations. Change orders were time consuming to approve in these Firm-Fixed Price Contracts.

According to the RFP, the bidders were held responsible for geotechnical, hydrological, and hydraulic data collection as well as the geometric alignment and roadway designs. Most bidders were likely familiar with CERP (Commanders Emergency Response Program) standards, which are typically used on military road construction projects. CERP standards required six-meter roadway surfaces, narrow shoulders, standards for compaction, culverts, retaining walls, and other requirements. SPR required a much higher international code for the 30%, 60% and 90% drawings, storm water analysis, material specifications, and QA testing.

The decision by SPR to use Design/Build subcontracts resulted in transferring responsibility to the subcontractors. However, those subcontractors who recognized that there was a higher cost liability in SPR projects compared to CERP projects submitted higher bids than those who were less diligent. Unfortunately, many subcontractors dramatically underbid their projects, without fully understanding their liability. SPR typically selected the lowest bidder and problems flowed from this decision.

6.1.2 Design and Construction

By mid-2008, the majority of the subcontracts had been finalized and several subcontractors had mobilized, set up compounds, and established relations with local communities. SPR provided “30% drawings” for ten projects, which was to allow these projects to quickly ramp-up. After mobilization, having 30% drawings allowed the subcontractors to start clearing, layout roadway, and begin excavation. In parallel with preparation of the project compound, subcontractors would then set-up the rock crusher plant and produce aggregate in advance of road building.

In some cases, having 30% drawings had the intended beneficial effect. In others, the 30% designs provided by IRD were incomplete and required additional attention for field verification. In all, 42 provincial roads were identified and 32 were brought to contract and work started. Only seven roads were 100% completed (#4, #5, #7, #11, #14, #15, #18). USAID provided SPR design data in the form of aerial photogrammetric imaging. However, the technology known by Afghan engineers was to physically survey the topography of the ground using standard surveying equipment to establish physical benchmarks, drive alignment stakes in the ground, and layout the project.

Subcontractors reported during interviews that they could not locate benchmarks, markers were moved by local people, or kicked over by animals. One subcontractor explained, “It took us two months just to verify the data in the field! If we could have done it by ourselves, we could have completed that work in two weeks.”

Other problems directly attributable to design work were evident early. Subcontractors hired inexperienced design engineers or subcontracted design responsibilities to poorly-trained design consultants. In most projects, even after they were able to use the new design technology, they generally lacked either experience or engineering skills for:

- Hydrologic and hydraulic design for culverts and causeways;
- Geometric design for horizontal and vertical layout of roads;
- Structural design for retaining walls and bridges.

Because of this, subcontractors struggled to produce acceptable design sets suitable for road and bridge construction. This deficit led to multiple rejections by SPR-Kabul engineers of the more detailed and complex 60% and 90%-100% drawings. Eventually, the lack of designs prevented many subcontractors from efficiently managing their projects, even though they could mobilize, set up the compound, and meet with the local communities. Another problem related to the initial emphasis on beginning physical construction activities as soon as possible. This meant that COCB was unable to establish the positive community relations that it hoped would ensure physical safety and good community relations.

After the first year, very few design drawings were complete. SPR decided to complete the design documents by sending their own engineers to meet with the subcontractor engineers, as a way to build capacity. This arrangement was never fully implemented because few engineers were provided by the subcontractors. Further, when SPR explained that the quantities required to complete construction were in excess of their original bid quantity and that SPR would not pay additional funds for this, many subcontractors needless to say were disappointed. Many tried to re-negotiate their contracts, but none were fully compensated.⁸

During this same period, early 2008 to 2010, Afghanistan experienced the “surge” in Coalition Forces. This had the indirect effect of increasing fuel prices, crushed aggregate prices, and salaries for laborers, equipment operators, truck drivers and engineers.

Despite all this, most subcontractors did try to complete their contracts by making up the difference by over-reporting work completed, producing lower quality roads, or not paying their suppliers. Such efforts to survive financially eventually caught up with them. SPR QA/QC inspectors rejected poorly-executed work, suppliers and local security contractors required payments, and ultimately, the subcontractors had no cash to pay. One could argue that these subcontractors could not have fully known the scope of work in their contracts because of a lack of field data and clarity presented in the RFPs.

6.1.3 Security

Each of these challenges, within the context of an unstable, war-torn country, had compounding negative effects. Impacts to each project and eventually the overall program were never overcome. As the projects progressed from the early design phase to

mobilization and implementation, SPR Quarterly Program Reports show that insurgent attacks increased significantly by October 2009.

In all projects, subcontractors hired security forces from local villages, hoping that this would provide adequate protection from insurgents and bandits. This was supposed to build upon the COCB program activities, which were to provide a security buffer around the roadway, enforced by the goodwill of local citizens, and recognition of the intrinsic benefits of having an improved roadway system. Local workers and security forces were to be employed on each project and receive substantial wages.

However, the Q3 2009 Program Report notes that insurgent attacks increased substantially, which resulted in a proportionate increase in subcontractor security costs. Costs from attacks included additional security, personnel, increased salaries demanded for increased risks, and loss of destroyed property.

Minor insurgent attacks were fairly common throughout the program but were dealt with by local security. Eventually, the increase in attacks delayed or in some cases, totally prevented subcontractors from mobilizing their equipment to the jobsite. There were numerous delays, during which subcontractors were required to bear the cost of their entire operations until they reached a claims settlement with SPR, or until SPR, in consultation with USAID, made the decision to “terminate for convenience”.

The cumulative effect of these constraints was to significantly impact subcontractor cash-flow, such that many could no longer meet payroll, pay local security, or pay their suppliers. Because they were not receiving progress payments, they could no longer perform work and eventually defaulted on their contracts. This generally resulted in “termination for default”.

Subcontractors who were interviewed for this evaluation said that during their pre-bid site visits, community members assured them that they would provide sufficient security forces. They also assured them that insurgency in their regions was not a significant problem, particularly for those contracts that were finalized during 2008. USAID and SPR stated that the program was conceived on the notion that violence was decreasing. This may be part of the reason we did not find significant risk analysis or contingency planning in the original concept proposal.

As discussed, the problems related to the Roads Program are multifaceted. They involved lack of subcontractor capacity; SPR’s bidding process, the decision to use Design/Build, and security. This said, IRD failed to modify its practices to changing circumstances and off loaded responsibility and accountability to its subcontractors. Eventually, it became evident that the overall number of kilometers completed was unacceptably low, which prompted USAID to terminate the program.

6.2 Community Outreach and Capacity Building (COCB)

The COCB concept was solid and well-designed. To facilitate the road building process, it was necessary to work with community leaders and seek the support and input of affected communities. In theory, COCB was supposed to reduce opposition by addressing the impact of road construction. At nearly \$32 million, the COCB budget was substantial. To prepare communities for road construction, COCB divided its activities into three components:

- Grants;
- Program development;
- Community mobilization.

Grants were divided into small (<\$25K), medium (\$25K to \$100K) and large (>\$100K). The results, however, were less than anticipated as grants were not wisely disbursed. Combined data for all three grants indicates low activity involving enterprise development (69 new businesses) and employment (854 FTEs). The evaluation team's conclusion is that the most important elements of COCB were not correctly implemented or monitored in areas of community development, enterprise development, and employment generation. Even in agricultural training, there was not substantial grant activity dedicated to job and enterprise creation.

The second element of the program, called program development, was comprised of gender and rural development. COCB management made gender a central focus. However, this may have been misguided as the efforts did not directly support the central SPR objective of road construction. There was a tendency for the gender interventions to concentrate on soft programs, rather than interventions that would improve economic conditions. For instance, animal husbandry could have greatly benefitted Kuchi women in Kandahar and Helmand. While animal husbandry did receive funding (\$4,103,895) and had a large number of participants (4,607), relatively few women were beneficiaries. SPR lacked of a coherent gender implementation plan.

Furthermore, based on the documentation presented in Quarterly Program Reports, the team's research indicates that little was done to support rural development. Grants were concentrated in agricultural and business practices but produced few results. They were also highly concentrated, as almost all of the interventions took place in one province, Nangarhar.

The third element of COCB was community mobilization (CM). It was expected that CM teams would go to the communities affected by roads program before construction began. Our research found that CM teams played a secondary role and were often uninformed about new roads plans. CM activities usually concentrated on Community Development Councils and the formal political structure. They avoided the Shuras, which was perhaps due to COCB's poor understanding of traditional rural social and political structures.

The COCB dimension ultimately failed due to a poor grant process and weak implementation and monitoring; a gender component that was ill-conceived; and a community mobilization process that had a poor understanding of traditional rural socio-political structures. Moreover, the role of COCB as presented in the proposal was important but not central to the project. The central activity was road rehabilitation. Furthermore, because of a lack of communication between COCB and the Roads Program, SPR was unable to prepare the community groundwork essential to the arrival of road teams. Ultimate responsibility for this failure can be attributed to organizational/management weaknesses.

6.3 Security Impact

SPR road crews suffered attacks during the entire program. These attacks resulted in the death of 127 staff, the injury of 258 staff, and the intimidation and retaliation of numerous others.⁹ The objective was to stop road construction. The consequences were always real, and in many cases, the attacks prevented roads from being completed.

These attacks clearly had an impact on implementation. However, the data shows that the attacks did not happen everywhere, did not cover the entire road length, and were not constant. On the contrary, the attacks were sporadic, and such irregular attacks imply that it was possible to work during periods of relative calm. Without a doubt, many attacks had a devastating physical and psychological impact on SPR and subcontractor staff.

In all, 34 active roads were attacked 928 times (WIA and KIA incidents). This happened during 290 total working quarters, which is the sum of the total quarters for each road.¹⁰ The average number of attacks per road was 34, with an average of three attacks per road per quarter. There are clear differences between provinces. Key highlights include the following:

- Road #18 in Paktika had 122 attacks during an 8 quarter period.
- Road #34 in Helmand had 117 attacks during a 12 quarter period.
- Roads with lowest reported attacks were spread out all over the region from Uruzgan to Nangarhar.
- Road #36 in Uruzgan, Road #22 in Paktika, Road #4 and Bridge #4 in Laghman, and Road #5 in Nangarhar all suffered an average of 0 to 3 attacks during periods ranging from 6 quarters to 14 quarters.

Interestingly, Paktika had four roads operating for a combined total of 36 quarters with an average duration per road of nine quarters. They were attacked 211 times, averaging 5.86 attacks per quarter, 52.75 per road, and 1.47 per quarter per road. However, when we examined the number of attacks per road, we found that one road - #18- was attacked 122 times in eight quarters, while another road - #22 - was attacked only two times in six quarters.

Clearly security had an impact on implementation. However, the data we analyzed was inconclusive. It shows a strong impact on some roads and much lighter impact on the

others. Further, security affected different parts of each road differently. We found that some areas were heavily attacked repeatedly. Other areas were never attacked or only seldom attacked.

The team was unable to determine what caused deadly attacks in one area and none in another. We can speculate that these discrepancies were the result of varying levels of community support: Nangahar and Laghman were, initially, much more stable whereas work in Paktika, Uruzgan and other provinces were much less permissive. However, we could not determine the reasons behind these incidents. Nor could we determine whether SPR could have prevented them.

6.4 Decision Making and Communication

Problems related to SPR's management were interwoven with its road construction and COCB problems. These management problems were mostly related to communication and decision-making. Before SPR, road building was conducted with heavy security forces, armored vehicles, and secured perimeters. Expatriate civilian engineers were in control of all aspects of management and field operations, and paid minimum attention to subcontractor capacity building.

The SPR program required all road construction work to be conducted through Afghan subcontractors. No expatriate engineers were to be stationed at the project sites. Expats were limited to senior positions and would be used to train and mentor Afghan managers and engineers. Quality control was the responsibility of the subcontractors and quality assurance was to be enforced by SPR Afghan field engineers.

As previously described, the violence did not decrease. Even though subcontractors were staffed with hard-working, well-intended employees, they were incapable of forecasting cash flow and maximizing resource utilization through optimization. There were also gaps in their basic understanding of construction management, which handicapped their ability to compose financial bid proposals and manage major road-building contracts.

6.5 Management Decisions

Given this background, SPR should have made a number of decisions once it became apparent that subcontractors lacked the capacity for Design/Build and professional/experienced management, and that road projects were behind schedule so early.

6.5.1 Focus on the Field

SPR should have stationed well-qualified expatriate engineers in each major project office or at arm's-length within reach of each project. This could have complemented SPR's capacity building strategy through a mentoring approach used successfully in other areas. These experts could have been assigned to remain until projects were clearly operational and on a successful path. Continuous monitoring was necessary. However,

organizational structures and management practices failed to identify such a solution until late in 2010, by which point USAID had already decided to no longer fund the program.

SPR's model was for field managers to submit requests for information to Area Managers in Kabul. However, Area Managers were overwhelmed by the number of subcontracts under their responsibility. They were also swamped by amount of daily correspondence required to be responsive to critical field questions and decisions. Afghan field engineers did not have the ability or the authority to make critical decisions themselves.

6.5.2 Risk Management

SPR should have done a better job in managing risk in the project. There may have been risk analysis and contingency planning during the program, but our research did not uncover it. Rather, field managers were not given authority to make decisions in the field. As critical decisions were passed up the chain of command, the senior-level Area Managers and DCOPs were overwhelmed with day to day issues. It appears as though this preoccupation with the details of daily management obscured their broader view and direction of the program.

Even given the absence of contingency planning, SPR could have established short term consulting agreements to take-over project assignments. The objective should have been to finish the near-complete designs so construction could begin quickly. This might have involved well-vetted Afghan and international design companies, involving penalty clauses for delays caused by consultant errors and omissions.

Risk management also ties into security. SPR should have had a contingency strategy for responding to escalating insecurity. This should have been done with risk analysis and rapid response strategies. As a part of this effort, SPR could have developed a list of second-tier projects, including rural road projects, for which designs and RFP documents were produced quickly or ahead of time.

6.5.3 Over-Designed Roads

The projected level of traffic is much less than the 1,000 Average Daily Traffic used as the design criteria for SPR roads. Conducting accurate traffic analysis and designing appropriate roads would have reduced cost and accelerated construction. Basically, the profile used for designing provincial roads was the same as the profile for the paved Ring Road design criteria, only without the pavement. This is no surprise if one considers that SPR used many of the same designers who worked on the Ring Road.

SPR failed to take into account the value of lower-standard roadways. This value includes a narrower "foot print", less impact on land owners, ease of local access when the road is less elevated, and many other considerations. It appears that no one at SPR or USAID considered this option until later in the program.

6.5.4 *Compensable Claims*

SPR and USAID eventually recognized that subcontractors were experiencing compensable claims and were responsible for significantly more quantities than originally calculated in the proposed Bill of Quantities. At the time of this evaluation, it is evident that subcontractors were entitled to additional payments above their Firm-Fixed Price contracts. However, SPR and USAID first had the attitude that “you bid the project knowing that it was a Firm-Fixed Price Contract, therefore any additional costs are disallowed.”

Eventually, SPR did recognize that subcontractors could not be held liable for conditions which were unforeseeable at the time of the original bid. This implied that SPR was liable for compensating subcontractors for additional costs and related damages and that USAID was liable as well for additional costs. However, based upon statements in Quarterly Program Reports regarding unresolved claims, six-months after they were submitted by the subcontractors, it appears that SPR did not:

- Anticipate unforeseeable risks of implementing a construction program;
- Have standard operating procedures for resolving claims quickly, fairly, and incrementally over time;
- Have a mechanism for passing those costs through to USAID.

An alternative approach from the beginning would have been to use a more flexible subcontract agreement such as a “Firm-Fixed Price with Economic Adjustment and Quantity Adjustment.” It also appears as though USAID remained rigidly opposed to considering payments to subcontractors for changed conditions. Examples include:

- Unforeseeable additional costs encountered as a result of escalating insecurity;
- Increased embankment quantities;
- Resulting costs when SPR directed subcontractors to relocate the road alignment.

Regardless of how poorly subcontractors managed their financial resources, many suffered substantial damages because of delays in paying for these unforeseen additional costs. USAID eventually recognized their part in these damages. However, better risk assessment, contingency planning, and rapid response planning should have received greater attention at a much earlier stage.

6.5.5 *Learn from Mistakes*

If new projects appear to have similar risk factors as previously failed projects, with respect to potential delays, future implementers should not duplicate the failed strategy. They should improve their standard operating procedures. For example, future implementers shouldn’t give subcontractors more than 10% advance payments.

Another example is the decision to use Design/Build for these roads. At some point, it should have been evident that this approach was negatively impacting the program and that another alternative was necessary. SPR should have been more pragmatic and

objective about building capacity versus expediting the project. Future implementers should be clear and take action when cost outweighs the benefits.

6.5.6 Managing Delays

SPR should have allocated cost per day when construction activities were prohibited. This is a standard procedure in many countries and makes sense given this program's location in a war zone. Senior SPR staff should have been consulted when a non-working day was declared. This of course assumes that either SPR had a senior representative on-site, in nearby regional office or available by mobile phone. As we have addressed elsewhere, this was not always the case.

If delays extend beyond X-weeks, SPR should have temporarily suspended the project and transferred all equipment and operations to an alternative project. Basic contract law would not normally allow such a shift, but with the help of creative negotiations, it may have been possible to abandon one site and move to another, safer project, had there been better risk analysis. This might have included a rural road project or another provincial road. This is an example of a case in which contingency planning would have been useful.

Coupled with this should have been rewards for subcontractors for good performance or cooperation. For example, "If you finish this small rural road quickly and with high quality, then we will move you back to the original project." This would have allowed subcontractors to earn more money through productive work, rather than sit idle, hoping to collect payment for unproductive delays. At the same time, COCB could have been working with the original community to help ensure security. The community may be more motivated to help, if they saw the project was on hold due to security.

6.5.7 Rural Roads Program

SPR should have decided much earlier to use every means possible to employ more local people. It is essential to tie program success to the economic success of local communities. However, we do give SPR credit for eventually piloting the Rural Roads Program, which built roads by hand with the limited help of equipment when necessary.

Rural Roads was a "cash-for-work" program that provided short term employment for local laborers. The program focused on excavation, leveling of gravel and embankment material, and construction of culverts, causeways, and retaining walls. On an as-needed basis, SPR hired local equipment owners with dump trucks, tractors with trailers, pull-behind compactors, and bulldozers. In the future, such projects could use appropriate technology as a way to build construction management capacity in Afghan subcontractors. As well, the projects typically have a lower risk of losing money or falling behind schedule.

6.5.8 Decision Making Process

One of the areas that the evaluation team paid close attention to during interviews, research, consultations, and meetings was how the decision making process took place

within SPR. The flow of authority was top-down, starting from the COP all the way down to the field. Few decisions were delegated to the technical personnel in the field.

The fact that the decision-making process was concentrated with the COP and other senior managers slowed program implementation. Field staff and subcontractors waited for decisions from Kabul, which in general took too long. Time delays were expensive and unproductive.

However, senior managers could not manage a complex program like SPR without a well-organized structure composed of competent managers authorized to make decisions. The more direct participation senior managers had in field decisions, the slower the construction process moved. In the end, this basic management responsibility impacted the efficiency of road construction.

6.5.9 Communication

From the evaluation team's interviews with subcontractors and SPR staff, as well as our review of Quarterly Reports, it is apparent that there were problems between SPR and its subcontractors. These problems are documented in previous sections. Undoubtedly, many exchanges were heated as subcontractors attributed cash flow problems and delays to SPR, and SPR conversely attributed schedule delays to subcontractor's lack of capacity.

From both sides, there was a failure of expectations. Subcontractors held the unrealistic notion that SPR would keep the payments flowing. Meanwhile, SPR rightfully expected subcontractors to implement basic concepts of construction management, productivity, and efficient utilization of resources. Nonetheless, when those things didn't happen, SPR should have considered alternative measures sooner and more decisively. Rather, SPR waited until the burden of carrying the project was too much for the subcontractors, when they were unable or unwilling to accelerate their work to catch up.

Failure to staff the field offices with expat managers and engineers early in the program caused irreparable damage. It left the SPR national field staff with a sense of dysfunction, lack of coordination between field and Kabul, and lowered morale as time went on. From interviews with former SPR staff, the feeling in the field was a general lack of support from SPR Kabul. Site visits by senior engineers to monitor field progress became meaningless. They were insufficient to get damaged projects back on track. Both SPR staff and the subcontractors needed senior level supervision continuously from the beginning.

Projects should not have been started without first establishing at least a regional field office to oversee two to four projects near at hand. The field offices were established by subcontractors and were tied to each subcontract. The only advantage to this strategy is that it shifted the responsibility of setting up project facilities to the subcontractor, which should have been recognized sooner as being unenforceable. Alternatively, SPR could have written into each subcontract a lump sum price for set-up and support of facilities and operations and paid for the compounds separately. This would have involved paying for each field office/living quarters as a direct cost to each project.

There is no indication based on the documentation submitted to the Evaluation team that substantial communication existed between USAID and SPR. In fact, USAID confirmed that little official correspondence exists. However, USAID did make final decisions on all subcontracts, which are called the “Status of AID Consent” in the Program Reports. Beyond the regular approval process for expenditure, both parties seemed to have kept communication to a minimum. Quarterly Reports were long, often over 600 pages, and did not indicate implementation problems, except those involving subcontracts and security.

Woven in with the problems SPR had with road construction and COCB, they faced management problems that involved communication and decision making. SPR’s communication and organizational structure were poorly managed, which led to internal divisions. The program also had a dysfunctional decision-making process, which resulted in a series of poor decisions that ultimately resulted in program termination.

6.6 Monitoring and Evaluation

SPR’s Monitoring and Evaluation (M&E) system was designed in conjunction with USAID to monitor the program and help ensure success. It started by reporting a small number of performance indicators that did not fully address all of USAID’s Intermediate Results (IR). SPR gradually made improvements, including adjustments to the performance indicators and changes to the M&E departmental structure. However, quarterly reports remained disorganized and difficult to review.

Taking a step back, the goal of an M&E system is to ensure that USAID meets its strategic objectives. As such, SPR is responsible for seven IRs that flow to a Program Objective, which flows to one of USAID’s Objectives. In this case, the primary objective is promoting economic growth and prosperity. This is depicted in the chart below. From this point, partners work with USAID to design a Performance Monitoring Plan (PMP) that defines practical performance indicators, which in turn, tie into each IR.



6.6.1 Evolution of the M&E System

SPR's M&E system revolves around the performance indicators. However, it's difficult to get a sense for program performance over time because the performance indicators changed nearly every year. Thus, reviewing the evolution of the M&E system helps in understanding how well SPR ensured program success. Over the life of the program, SPR's M&E system evolved as the program grew and as staff reacted to changing conditions in the field.

In early-2008, SPR had just completed its first quarter and did not yet have a USAID-approved PMP. In coordination with USAID, SPR drafted a set of performance indicators and began reporting in their Q1 2008 Program Report. In Q2 2008, after completing program start up, SPR submitted a draft PMP to USAID. Performance Indicators, Version 1, which is for the first two quarters, can be found on the table below. The indicators marked "NA" were to be reported on after road completion. One problem with this system is that the indicators do not tie into all of SPR's Intermediate Results.

Performance Indicators, Version 1	Q1 08	Q2 08
Km of roads rehabilitated	0	1
Time to drive from A to B - shortened	NA	NA
# Shops and stalls created	NA	NA
# People trained	35	66
Skilled Laborers	35	66
# Jobs created	197	514
Km of road built by women owned biz	0	0

Following that, ostensibly in response to initial comments from USAID on the PMP, SPR modified the performance indicators to provide more detailed information. Those are provided on the table below, Performance Indicators, Version 2. This includes far more detail on indicators such as Number of People Trained, which is broken out into Technical and Management.

Performance Indicators, Version 2	Q3 08	Q4 08	Q1 09	Q2 09	Q3 09
Km of roads rehabilitated	180	336	227	423	No Data
Km of roads constructed	10	10	10	19	
Km of design completed	225	638	638	825	
# People benefitting from roads	-	2.8M	2.8M	2.8M	
# People trained	245	1,619	2,796	3,528	
Technical	183	1,349	2,392	2,925	
Male	162	937	1,471	1,718	
Female	21	412	921	1,207	
Management	62	270	404	603	
Male	45	255	379	578	
Female	17	15	25	25	
Jobs created (man-days)	72,073	195,242	398,900	687,948	
Km of road built by women owned biz	12	12	22	22	

Note that the first indicator, even though it is cumulative, shows a dip in Q1 2009. This is due to a change in the way the data was calculated. In the first two quarters, it was calculated as roads rehabilitated as a percentage of all work completed in design,

construction, contracting, and COCB. In the next two quarters, the Roads Rehabilitated indicator only accounts for design and construction work.

In Q2 2009, USAID approved the previously-submitted PMP. SPR then had to implement the changes to the performance indicators, which were significant. In addition, SPR made the departmental changes described in the next section. These two factors meant that it took some extra time to roll out the new M&E system.

As such, in the Q3 2009 Program Report, SPR did not report on the program's performance indicators. This is shown as "No Data" on the Version 2 table. The report does not mention the absence of the indicators nor does it provide an explanation for their absence. Given the high turnover, we were unable uncover all the background related to their absence.

In Version 3, shown below, the first statistic was revised again. Even though it is now combined with Km of Roads Constructed, in Q4 2009 there is a significant dip, going from 423 to 78. The new figure is the most conservative way to calculate road completion, counting only those road projects which are 100% complete. Since there were no additional roads completed for three quarters, this number stays static. In addition, the figure "78 Km completed" is questionable considering that by SPR's own accounting, 54 Km of roads completed were reported at the time USAID decided to end the program, January 2011.

In the next quarter, the formula was changed to Earned Value x Final Project Scope = Equivalent kilometers completed. The formula is changed again in the following quarter, but SPR reported the same figure as the previous quarter because they did not want to reduce the figure reported. Given the importance of reporting accurate data, this is a bad practice. In Q1 2011, the indicator is calculated by taking the percentage of completed construction work for each contract and multiplying it by the total kilometers required by that contract, and then summing all the contract figures together.

Performance Indicators, Version 3	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10	Q1 11
Km of roads constructed / rehabilitated	78	78	78	440	440	507
# FTE jobs created	5,675	7,172	8,763	10,203	11,130	11,130
Amount paid in wages to Afghans (\$)	246,555	11,309,480	15,948,660	18,569,460	20,256,600	20,256,600
# Afghan trained in business practices	776	776	816	1,590	1,620	1,620
# Afghan trained in agriculture practices	430	430	2,940	4,636	4,636	4,636
# Afghans trained on road maint & related	1,646	1,755	2,154	2,270	2,270	2,345
# Youths & adults enrolled in literacy prog	140	740	740	1,168	1,174	1,174
# Families benefitting directly from interventions	113,894	125,294	181,694	134,694	134,694	134,694
# New small business opened	67	67	67	67	67	69

Since these indicators are cumulative, they should not decrease, as the # of families benefitting does from Q2 2010 to Q3 2010. This was a clerical error. Other statistics remain flat towards to end due to the winding down of COCB.

6.6.2 Performance Indicators Over Time

The three “versions” of SPR’s Performance Indicators explained above are compiled on a single table for the life of the program. That chart is located in Appendix J. The timeline below summarizes how the M&E program evolved.

Timeline - M&E System	Q1 08 → Q2 08		Q3 08 → Q3 09			Q4 09 → Q1 11	
Key events	<u>Q1 08:</u> Draft new PI	<u>Q2 08:</u> Submit PMP to USAID	<u>Q3 08:</u> Modify PI	<u>Q2 09:</u> USAID approves PMP	<u>Q3 09:</u> Design new M&E dept, No data reported	<u>Q4 09:</u> Implement new M&E system	<u>Q1 11:</u> Last quarter analyzed for evaluation
Version number	PI, v1		PI, v2			PI, v3	
PI = Performance Indicators							
PMP = Performance Monitoring Plan							

Given how frequently the indicators were modified, Appendix J does not communicate SPR’s cumulative progress. For example, the “Roads Rehabilitated” indicator is truly central to what SPR tried to achieve. However, the indicator’s lack on continuity makes it difficult for both USAID and SPR to oversee the program. Likewise, since COCB was often tailored to community needs, projects often varied by community. This made it difficult to capture all the results in the performance indicators. The COCB performance indicators were also frequently revised, which again makes it difficult to see progress over time.

The structure of the M&E Department also evolved. SPR management discovered discrepancies in the data collected, including double counting. Initially, M&E Officers based in the field worked in the same office as COCB staff and reported to the local manager. SPR modified this structure so that M&E Officers reported directly to the M&E Director in Kabul. This change produced positive results in terms of communication and coordination. The goal was to separate the M&E from COCB to ensure an unchecked flow of data from the field office to the Kabul Office. From there, the M&E staff collated the data and compiled the Program Reports for USAID.

6.6.3 Intermediate Results

Most of the performance indicators were reported on a quarterly basis. The Performance Monitoring Plan (PMP) defines additional performance indicators, the data for which would compare Baseline Data with Endline Data. However, the Evaluation team did not review the latter indicators because SPR did not provide Baseline or Endline Data. Early in the program, SPR engaged a research firm to conduct a Baseline Survey in the Zone of Influence for each road. However, all of these surveys yielded poor quality data.

For the Endline, when USAID put a final cap on program funding, SPR had some difficult decisions to make in prioritizing how to spend the remaining funds. One of the decisions was whether or not to conduct an Endline Survey. Given the poor quality of the Baseline Data, SPR reduced the budget from \$1 million to \$10,000 and spent the remaining funds on road construction. Rather than a formal Endline Survey, SPR

collected qualitative data from focus groups composed of residents living along the roads. However, SPR staff did not record the results of these discussions and thus could not provide the results.

SPR's M&E system evolved over time in response to changing conditions, lessons learned, and USAID input. It's not possible to compare results over time because the indicators changed frequently. In its final program report, SPR can finalize the data on SPR's contribution to the program's Intermediate Results. However, this analysis will be incomplete because of the lack of Baseline and Endline Data. Given all of this, should USAID decide to design a similar program in the future, the implementing partner should pay special attention to designing an effective M&E system.

6.7 QA/QC Engineers

Within the subcontract for each road, the subcontractor was required to provide support facilities (living and office) for IRD field staff. A former IRD Quality Assurance (QA) Engineer in Kandahar revealed during an interview that the subcontractor was unable to build a compound at the jobsite due to attacks and threats. Five IRD engineers lived with the subcontractor's field staff in the subcontractor's office compound. This was located in Kandahar City, which was a 1 ½ hour drive from the jobsite.

The only vehicle that was available to the IRD engineers for transportation to and from the jobsite was controlled by the subcontractor. The project was slow and behind schedule. The person interviewed, one of the four IRD QA Engineers assigned to the project, said that he went to the jobsite typically once every two weeks. When the QA engineers did visit the jobsite, the subcontractor's staff was instructed to "prepare" for their visit.

Once at the jobsite, the QA engineers conducted various spot-tests for embankment compaction, quality of aggregate, concrete, and then filled out inspection tickets indicating the results of their tests and observations. Often times, he said, the results of their quality tests were in fact not up to standards but recorded as being in compliance.

When Kabul-based SPR senior engineers visited the Kandahar field office, they were never able to travel to the jobsite during the 1 ½ years that our interviewee worked for SPR due to security restrictions. One senior manager noted that when a pile of QA inspection tickets came in from the field, often all of them would show 100% passing. This issue was apparently never formally addressed. Or if someone did address it, they were unable to follow through to verify that field inspectors were not compromised in some way.

The question remains, "Was IRD able to objectively perform QA/QC at the project sites...?" The short answer is probably not. The subcontract clearly described a list of items to be provided by each subcontractor, including 6 vehicles and separate living accommodations for subcontractor and IRD staff.

If every subcontract was enforceable and if all staff were correctly performing their duties, then SPR's QA/QC system would have provided professional, objective oversight. However, this clearly was not the case. IRD engineers were virtually forced into a living and working situation which favored the subcontractor, allowing control over IRD's movements and restricting access to the jobsite.

Interviews with subcontractors revealed the opposite occurred with respect to progress payments. IRD field staff arbitrarily reduced pay because, they claimed, IRD engineers lacked the technical skills to calculate properly. Another reason they provided was the threat of attacks restricted the time on the jobsite to properly monitor daily activities and the quality of the workmanship. However, often the quality of some components of the subcontractor's work was unacceptable. In such cases, partial payment, or no payment for those items was justified.

SPR's QA/QC function was weak. This was partially due to the living quarters, which contributed to a lack of objective oversight responsibilities. Also intertwined with this issue is SPR's management and communication problems identified previously. USAID recognized by 2010 the weakness of SPR's QA process and, in April 2010, hired Tetra Tech to establish a third-party QA process for SPR projects. Tetra Tech's project manager arrived in Kabul in July 2010 and began to hire a staff. A peak of 13 were involved in the program by Sept 2010, it included two managers (project manager and deputy), one clerical, one accountant, and 9 field engineers. Nine road/bridge projects were visited on a regular basis as construction proceeded, beginning in August 2010. Tetra Tech produced monthly QA reports from Sept 2010 until current. Field tests included a full range of investigations standard for road construction, such as earthwork density, concrete compressive strength, aggregate gradations, etc.

6.8 Human Resources

One key HR statistic is the length of tenure for the program leadership. We reviewed data for SPR key personnel, the results of which are displayed on the table below. The average tenure is 8.3 months, which indicates relatively high turnover, even by Afghanistan standards. As shown on the timeline located in Appendix K, only 29% of key personnel held their position for 12 months or more.

To a certain extent, such turnover will be true for many programs in conflict-affected areas. We were unable to find turnover data for other programs in Afghanistan and thus were unable to compare SPR to other programs. Nonetheless, few would argue that the program leadership turning over every eight months made it difficult to manage the program effectively.

Key Personnel	Avg months in position
Chief of Party	14.0
DCOP, Ops/Roads	4.0
DCOP, Road Prog Manager	8.8
Chief Engineer	9.3
Subcontracts Manager	5.0
Grants Manager	8.5
COCB Manager	8.7
Average for all positions	8.3

The Chief of Party position had the most consistency, with an average tenure of 14 months. Greater consistency at the top level usually has a positive impact.

Timeline - Subcontract Manager									
Jan 2008 - Dec 2008				Jan 2009 - Dec 2009			Jan 2010 - Dec 2010		Jan 2011 - Jun 2011
Flor Rivera	Frantz Colon	Vacant	Ken Barberi	Vacant	Ken Pujdowski	Vacant	Gretchn Soule	Gary Potts	Holly Te
2 mo	1 mo	2 mo	3 mo	5 mo	3 mo	4 mo	6 mo	10 mo	10 mo

However, of particular concern is the Subcontracts Manager. This position had an average tenure of only five months and had no one in the position for more than 10 months. Likewise, as shown on the timeline above, there are multiple gaps in which nobody held this position.

In the first year and a half, this position was vacant about half the time. In total, these gaps add up to eleven months, or 26% of the program. While SPR likely assigned these duties to another staff person, having a sole qualified employee overseeing this important function likely would have improved subcontract management.

The evaluation team also reviewed the CVs for most of the key personnel. However, we were unable to conduct interviews of all key personnel to determine whether SPR made the right hiring decisions throughout the life of the program. Nonetheless, from our conversations with SPR staff, we were satisfied that they hired qualified staff most of the time. There were probably exceptions but without observing job performance, it is not possible to determine whether SPR selected the right personnel.

In terms of organizational structure, as noted previously, there were issues related to the organizational structure at the top level. However, on a pragmatic level, SPR had to adapt to the available personnel and build an appropriate organizational structure. As well, the organization would have benefitted from stronger project managers in the field. All project managers were based in Kabul. This is also covered elsewhere, and it is notable that SPR recognized as much in its December 2010 lessons learned document. However, this was already a full three years into the program.

SPR suffered from high turnover amongst key personnel. The turnover rate of 8.3 months likely had a negative impact on the program's performance.

7 CASE STUDIES: A TALE OF TWO ROADS

The Evaluation team selected two illustrative roads in an attempt to better understand how SPR involved road construction, community outreach, and capacity building. We also examined how security affected project implementation. We selected Road #6 in Nangarhar and Road #27 in Kandahar based on the following criteria:

- Location in different parts of the country;
- Community and government participation;
- Problems with sub-contracts;

- Similar results.

These roads have different stories. However, both had security-related problems. Road #6 was plagued by threats and attacks, but there were pragmatic solutions in many cases. Road #27 had fewer security problems. However, a lack of subcontractor payment to security guards contributed to SPR terminating the subcontract.

In war zones, security is extremely difficult to control. Generally, it is only possible to manage risk to reduce security threats. Often, a reduction is impossible and the work should be stopped or postponed. There are no guarantees that a safe area at the time of awarding a contract will be safe during implementation. The opposite is also true.

When analyzing security data, it is important to review the facts closely. Some types of attacks are more serious than others. An organized attack by insurgents resulting in casualties and/or a destruction of assets is a serious matter. Small arms fire, on the other hand, is often not always serious. Further, attacks often occur for discrete reasons. However, security reports typically only list the number of attacks and leave out possible reasons. This can produce an incomplete analysis.

7.1 Road #6

Road #6 is located in Nangarhar and Logar provinces, going from Shirzad to Azra in Logar province. The length is 63 km covering Azra district (18km), Hisarak (34km), and Sherzad (11km), serving a population of 83,365 dispersed in 26 villages. SPR initially conducted a rapid assessment that covered the communities affected by the road work and this was followed by meetings with the provincial governor, district governors, and other officials.

IRD then organized their operations with Community District Councils (CDC), which involved 14 male CDCs (211 members) and 8 female CDCs (116 members). SPR reported over 500 meetings with CDCs to help the subcontractor identify laborers and potential security problems. The CM Team also reported over 75 meetings with several government officials at different levels. SPR also identified Shuras in the area and provided grants to the local population varying from fish farms to literacy training. In all, there was extensive work done in the community prior to starting the work.

SPR awarded the subcontract to Azad Construction, one of five bidders. Azad was not a local contractor from this region but rather the lowest bidder. The subcontract was for approximately \$13 million, which was \$1 million above the SPR budget. The contract was finalized in August 2008.

Azad then sent their management staff and senior engineers to the SPR offices for training. During their initial sessions, Azad managers were given CDs with templates for various reports and submittals. They learned the Primavera Contracts Management System and received training on SureTrak scheduling software. In late August, Azad's

project manager and survey engineers visited the project site to meet community and provincial leaders.

Between August 2008 and January 2009, Azad mobilized equipment, set up the base compound, living quarters, and office facilities. Survey and clearing teams worked at the site throughout the winter. In Kabul, Azad management staff participated in the Mentor/Protégé program in SPR offices, learning to prepare monthly invoices and progress reports according to USAID and SPR guidelines. Design engineers were already behind in the 30% drawings.

By July 2009, after months of training and mentoring on the jobsite and in Kabul, SPR issued a warning letter to Azad to speed up field operations, to which Azad responded in August by increasing road-building activities from two to four segments.

Meanwhile, areas along Road #6 were experiencing increasing insurgent attacks. Community members were forced to feed and shelter insurgents while simultaneously trying to support the subcontractor. The subcontractor received numerous threat letters and insurgents damaged equipment. Why was this project continually plagued by problems? It was located in a region not known as exceptionally dangerous. It had extensive contacts with the community and government officials and SPR awarded more grants here than to any other road.

COCB meeting reports covering this period are important both for what they say and what is left out. The Nangarhar governor stopped Road construction on June 5, 2010, except for Sherzad district. Construction was also stopped in Sherzad due to NATO and Taliban clashes. During this time, CM Teams worked to get road construction back on schedule. Their reports made clear what worked and which key players were most helpful. This should have been a resource for SPR to adjust its field operations.

Once the governor stopped roadwork, CM Teams began to work in the community, organizing meetings with CDCs and tribal elders. CDCs quickly disappeared from view and pressure mounted from different sides on SPR. The Taliban wanted subcontractors to pay fees to them. The governor requested a weapons inventory, expat passports, and other documents. Neither party was satisfied with project operations.

CM Teams pressured the subcontractor to resume work but were told that they would do it only with tribal elders' approval and community support. By August 2010, tribal elders played a more important role in the project by stating that, "they will not allow anyone to disturb the construction work." Then, the governor suggested that the CM Teams meet with supportive tribal leaders to request that they meet with insurgents. Finally, once all the Shuras supported the project, subcontractors were told to hire employees approved by the community elders. Work resumed in October.

In December 2010, USAID informed IRD that SPR would be concluded by December 2011 as per the previously amended Cooperative Agreement. By April 2011, nine roads

were terminated, including Road #6. The project will leave behind an improved, widened, and drivable road up to 40 km and a cleared right of way for the full length of 63 km.

From a community outreach perspective, SPR learned that CDCs and CDGs are often not effective. A well-respected social and political structure already existed, which was composed of Shuras, Maliks, and Mullahs. The role played by tribal elders was essential to resolve problems. Even the political officials such as the provincial governor suggested that SPR should confer with tribal elders. This was a key factor to getting work started again.

7.2 Road #27

Road #27 in Kandahar goes from Shah Wali Kot to Nesh in Khakrez District, which is 103 km and passes through 90 communities of varying sizes with a combined population of 35,000 people. SPR conducted 34 introductory meetings in November 2008 with government officials and tribal elders. Due to security conditions, CM Teams only dealt with one CDC with 5 members and established one female CDG with 10 members and 12 male CDGs with 134 members. They held 496 meetings with CDGs and “existing tribal Shuras.” SPR also attended 90 meetings with various government officials.

In August 2008, the RFP was issued, and in September, SPR awarded the contract. The subcontractor began 30% designs and mobilized in November. In Kabul, the subcontractor attended Mentor Protégé trainings to learn reporting procedures, Suretrak scheduling, and Primavera software. During December, January and February, severe winter weather caused delays in field surveying which delayed the design process.

By July 2009, the subcontractor was three months behind schedule. They had completed 30% designs and received approval for 20 km at the north end (Nesh) of the project. They then completed embankment and sub grade for first 5 km. Due to this, SPR issued a Notice to Cure to the subcontractor, which stipulated the scope of road construction work and identified specific deadlines as well as the requirement to increase daily production rates. Even though the subcontractor failed to meet most of the deadlines, they made reasonable attempts to mobilize additional equipment and increase production.

The subcontractor eventually achieved the required productivity rates and recovered some time. They completed the first 8 km at the south end (Shah Wali Kot) and transferred all assets to the north (Nesh). During this time, SPR looked for additional construction firms to work with the subcontractor on Km 8 to Km 55. According to SPR reports, a number of security incidents contributed to delays, and, “It is highly likely that the subcontractor will be entitled to a compensable time extension.” SPR continued to work with the subcontractor to get him back on track to complete construction by December 2010.

By October 2009, according to SPR reports, the subcontractor was 6 1/2 months behind schedule due to delays in preparation and approval of designs, late mobilization, and volatile security. The subcontractor had already received \$3.3 million from SPR. The 30% designs had been approved for 83 km, and the 60% designs had been approved for 33 km.

At the south end of the project, the subcontractor completed 10 km of clearing and grubbing, 8 km of embankment, and 2 km subgrade.

By January 2010, full construction efforts continued at both the north and south ends. At the end of the reporting period, the following major work items had been completed:

- Embankment - 3.8 kilometers
- Subgrade - 9.8 kilometers
- Subbase - 4.5 kilometers
- Base course - 4.3 kilometers
- Structures - 8 culverts

Second crushing plant installed for work at the south end

Meanwhile, Shuras in the Nesh District were complaining about the poor quality of the engineering work. The CM Team went to CDG members for support and scheduled a meeting with the subcontractor. By July 2010, the project remained significantly behind schedule. Despite the efforts of SPR engineers, the subcontractor completed design more than 12 months behind schedule.

SPR then determined that a partial “de-scoping” of work was necessary to focus and complete the maximum kilometers with the remaining time. However, no cost reduction was possible because the subcontractor had already received more than the value of the work completed. There were also delays related to mismanagement. CDG members notified SPR that the subcontractor could not proceed because it had not paid the security guards for three months. SPR met with the subcontractor and stopped the work. They cited security problems for the reason.

By October 2010, the subcontractor remained behind schedule due in part to lack of cash resources, even though he had received \$5.6 million from SPR for work completed. After the Eid holiday in November 2010, work stopped on Road #27. The subcontractor was terminated for default in December 2010.

On both roads, the evaluation team found a variety of factors that affected implementation. Lack of subcontractor capacity played a strong role. Not consulting the traditional social and political structures also played a role. As well, security often slowed subcontractor efforts to stay on schedule. Taking a close look at the two case studies highlighted how these and other factors combined to impact implementation.

8 PROGRAM RESULTS

The Evaluation team carefully considered the actual roadwork completed. It is clear that SPR only completed a small fraction of its intended results. On top of this, while SPR had limited success in building the capacity of Afghan subcontractors, even senior management recognizes that it may actually end up putting many subcontractors out of business.

8.1 Program Impact

USAID asked the evaluation team to review cost allocation and determine if results were commensurate with expenditures. However, SPR does not allocate program expenditures by objective or component. The Finance staff provided us with a financial statement that showed expenses allocated by two methods: (a) by direct and indirect expenses and (b) by reporting lines. This report is located in Appendix L.

What is notable in the first method is that one line item, Contracts and Grants, is nearly \$173 million over the life of the program. This equates to 64% of the value of the cooperative agreement. Given that much of the program's "impact" is contained as a single item, this is not a useful allocation method.

In the second method, program expenditures are allocated as shown below. SPR spent 38% of the budget on administration. The combination of road construction, called Program Activities, and COCB, simply called Capacity Building here, account for 62% of the budget.

Cost Allocation by Reporting Lines	Amount	%
Administration	103,113,910	38%
Program Activities	146,644,903	54%
Capacity Building	19,079,218	7%
Cost Share	614,312	0%
Total	269,452,343	

As for the question of whether results were commensurate with expenditures, we analyze the Roads Program below. The COCB results are harder to measure because the performance indicators are diverse. SPR was unable to provide the cost breakdowns by program area that would allow us to conduct such an analysis. Nonetheless, our comprehensive COCB analysis of this program is located in the appendices. We conclude the results are not impressive. Further, given that SPR will have spent over \$19 million on COCB when all is said and done, the Evaluation team feels comfortable saying that USAID did not receive enough value for the funds spent.

8.2 Roads Program

In December 2010, 54 kilometers of road were 100% complete when USAID notified SPR that their funding would be limited. SPR's Final Implementation Plan describes how it would complete an additional 105 km of roadway for a total projected 159 km of roadway 100% completed by September 2011. Additionally, 174km with "significant improvements" (essentially everything but the crushed stone layer on top), and 316km with "improvements" (cuts, culverts, embankment, significant improvement to traffic ability). The table in Appendix M lists the 13 roads and two bridges (159 km of roads) that are anticipated to be completed. SPR will have spent over \$121 million on direct subcontractor payments.

If SPR is successful in producing 159 km of “completed” roads, the average cost would be \$1,695,500 per kilometer, which clearly falls short of the goals of the original proposal. This takes into account the full cost of the program, \$269,585,603. Some might argue that COCB should be excluded. However, our view is that community outreach is a necessary expense in road construction. In order to properly serve communities along the roadway, you must involve them in the process. It is notable that the projection in the proposal is for rehabilitated roads, and SPR ended up designing and constructing many more new roads than previously anticipated. Nonetheless, we would be stretched to justify nearly \$1.7 million per km. Few that we interviewed disagreed.

It is also notable that approximately 314 km of roadway were either 100% completed or partially completed.¹¹ Even with SPR did not finish a roadway, they often dramatically improved drivability. Using 314 kilometers, the average cost would be \$858,000 per equivalent kilometer.¹²

The overall number of kilometers of road was low because of the cumulative impacts of the problems we discuss in the previous chapter. Put succinctly, the low number of kilometers produced can be attributed to the following:

8.2.1 Poor Management Practices

- Lack of jobsite management and supervision

- Lack of contingency planning and risk management

- Breakdown in communication and confidence between Field and SPR Kabul HQ managers

- Top-down management which concentrated decision-making to mid-level and above personnel

- Reliance on subcontractors and COCB to establish and maintain positive community relations without appropriate supervision by senior leadership

8.2.2 Poor Management of Subcontractors

- Limited capacity of SPR field engineers to adequately supervise subcontractors caused delayed payments, which contributed to subcontractor cash-flow problems

- Lack of recognition by senior management that every administrative delay, every day in the field without engineers to monitor progress, and every misplaced document had a significant impact on project schedules and confidence among project partners

- Reliance on subcontractors to provide quality designs

- Poor coordination and communication between SPR field engineers and subcontractors, SPR field engineers and SPR Kabul staff

8.2.3 Poor Management by Subcontractors

- Poor cash-flow management

- Poor productivity management of labor and equipment

- Basic misunderstanding or disregard of legal obligations of contracts

- Reliance on SPR to provide leadership and solve their problems

Underestimation of scope of work required by basic specifications described in RFPs.

8.2.4 *Unforeseeable problems*

Major flooding, in July 2009

Inaccuracies in the data provide by USAID/SPR to design subcontractors needed for preparation of designs

Additional expenses as a result of delays caused by district governments, local Shuras, property owners and friendly, but angry, private security forces

The dramatic escalation of deadly military attacks, road-side bombs, kidnappings by insurgents

Erosion of community support caused by insurgents and non-payment of local security commanders

Escalation of labor and material prices caused by surge of expat forces, and of fuel prices on world markets

Because of SPR's accounting procedures, it was difficult to determine whether COCB results were commensurate with expenditures. Our opinion is that USAID did not receive value for money when you consider the actual number of kilometers of roads completed. The reason for this relates to a variety of management problems as well a certain unforeseeable factors.

8.3 **USG Relations**

There is some indication of USG processes that impeded SPR from achieving program results. For example, some Quarterly Reports show a certain frustration with PRT and military relations. The Mid-Term Evaluation points out the negative impact of the high turnover rate on PRTs and also notes, "A new set of PRT personnel may have a different priority regarding sustaining economic development within the SPR road locations."¹³

The mid-term also notes problems with poor coordination, "The PRT's and the military's objectives may not be coordinated with each other."¹⁴ Further, SPR reported, "The fact that the PRT's have taken over some projects has resulted in some aborted efforts. Three roads have been taken by the PRT's for construction (Road #1, #3 and #13). Road #35 is being constructed by another donor."¹⁵

In 2008, USAID took an active role in managing the program because of SPR's slow response to the lack of subcontractor progress in finalizing road designs. "USAID opted to exercise its option in the Cooperative Agreement to assign 100% of the design activities for Stages II and III to IRD in order to reduce our dependency on the performance of third parties. IRD is in the process of adjusting program resources and its implementation strategy to accommodate this additional scope of work and is discussed in detail in the financial section of this report."¹⁶

USG agencies, including USAID, may not have facilitated SPR's work in all cases. However, it is likely that USG processes did not have a significantly negative impact.

8.4 Subcontractor Capacity Building

One of the hallmarks of the SPR program is the exclusive use of Afghan subcontractors. However, IRD knew that success would require a focused program in capacity building. Most subcontractors are small businesses with relatively unsophisticated business operations. Likewise, many are new to the construction industry and have much to learn about construction management.

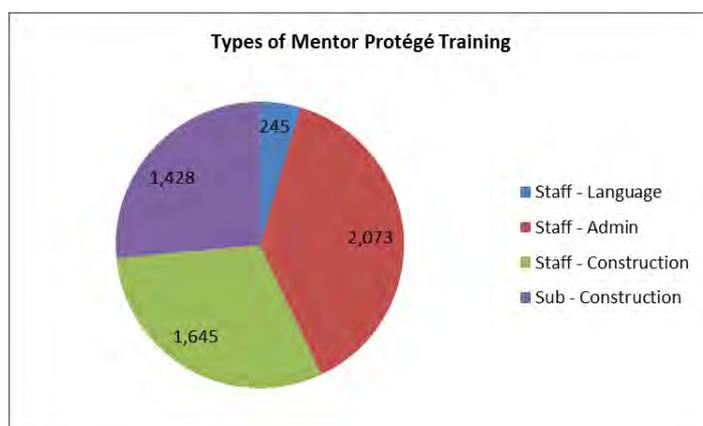
The Mentor Protégé Program was the centerpiece of SPR’s capacity building efforts. As explained in Q1 2008 Program Report, “This program is intended to provide comprehensive training for subcontractors in construction management techniques.”¹⁷ The program approached capacity building in three ways: subcontractor training, subcontractor mentoring, and student internships.

Mentor Protégé and the subcontractor requirement had the potential to improve and grow the road construction value chain. There were both positive and negative impacts. Even where the impact was positive, if more attention had been paid to the program, they could have significantly increased the impact.

8.4.1 Subcontractor Training

In addition to working with subcontractors that needed help, SPR faced HR challenges of its own, such as improving staff knowledge of construction management. In fact, many of the trainings required for SPR staff were the same as those needed by the subcontractors. It is perhaps for this reason that this HR function merged with Mentor Protégé.

In fact, the SPR staff trainings reported under Mentor Protégé came to dominate, comprising 74% of all trainings and 54% of all construction-related trainings. Of all Mentor Protégé trainings, 57% were construction-related. This information is displayed on the chart below, which compares trainings for staff and subcontractors.



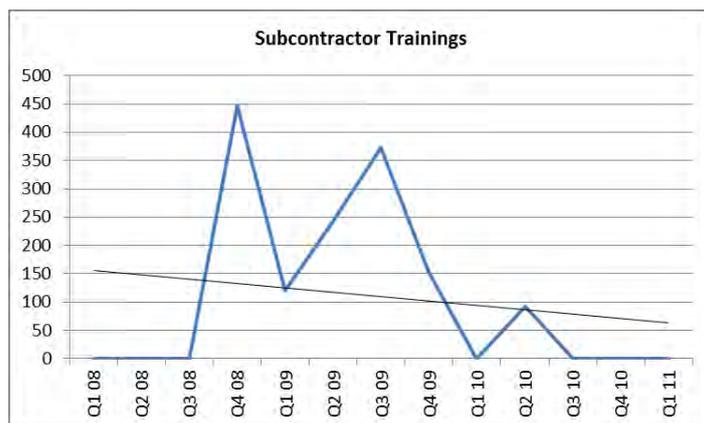
Strictly speaking, SPR should not report staff training under the Mentor Protégé Program. Such training is an HR function. Certainly, if SPR needed to improve staff performance, it is a valid expenditure. However, SPR employees are not beneficiaries, and SPR’s reports should not confuse these two groups.

Nonetheless, SPR provided trainings for 1,428 subcontractor employees, which may include some double counting. Such training improved subcontractor understanding of construction management. This likely had a positive effect on the value chain. What is unclear is how well the participants implemented what they learned in the training or transferred these skills to other employees of the firm.

By encouraging this, SPR could have significantly increased the impact of these trainings. Attending a course and showing improvement on a test is one thing, but taking newly learned skills and changing your organizations is tougher and more complex. Not surprisingly, it's the latter that produces real world results. Some subcontractors claimed their firms improved as a result of the road construction contract, but not as a result of SPR's capacity building efforts.

As noted, most of the construction-related trainings were for SPR staff. These trainings will also likely have a positive impact on the value chain in the future. After the program closes down, many SPR staff will go on to work for construction firms and will bring their newfound skills with them. This evaluation does not attempt to measure the impact on the value chain, only to determine if the impact was positive or negative.

As shown on the graph below, SPR waited until the fourth quarter of 2008 to start the subcontractor trainings, and their frequency waned during the course of the program. In 54% of quarters analyzed, there were no subcontractor trainings at all. Over half the time, SPR did not provide training to their subcontractors.



Even in mid-2011, SPR still believes their subcontractors have much to learn about basic construction management. Interviewees pointed out that subcontractors failed to implement basic concepts, such as project scheduling, into their projects. This was true even though their test scores improved, which is how Mentor Protégé measured success.

In late-2010, after carefully considering their lessons learned, SPR presented a plan to USAID for 2011. This would have included a revamped training program that would reach beyond its own subcontractors to serve the whole construction industry. However, SPR did not implement this plan due to the early conclusion of the program. Regardless, from Q4 2009 to Q4 2010, there was a dramatic decrease in subcontractor training. The reasons for the decision to decrease this key function for SPR are unclear.

8.4.2 Subcontractor Mentoring

SPR's capacity building program involved more than just training. It responded to key problems during the program with mentoring tailored to the specific needs of subcontractors. For example, SPR fell behind in 2008 due in part to a lack of subcontractor capacity in road design. In response, SPR sent design experts directly to subcontractor offices to work hand in hand with their design teams. This approach improved subcontractor capacity and produced better road designs.

However, SPR stopped short of applying this approach in other situations in which it would have added value. For example, many subcontractors had room to improve their business practices. SPR identified cash flow management as a subcontractor weakness that affected performance. However, none of the subcontractor trainings focused on this topic, nor did SPR attempt to send experts to subcontractor offices to help solve the problem. There were other factors that contributed to subcontractor cash flow management, but few would dispute that this was an area in which subcontractors had plenty of room for improvement.

8.4.3 Student Internships

Another component of Mentor Protégé was internships for Afghan university students. In all, 30 students benefitted from this program, including 10 women. The interns worked for SPR in various roles, including engineering, information technology, and human resources. Presuming they go into construction management after graduation, this may strengthen the value chain in the future by giving a new generation their first professional experience.

The program's impact would have been significantly greater, however, if SPR would have provided interns directly to road construction firms. This would be beneficial in providing immediate value to construction firms in areas identified by the firms in advance. For the students, it would have provided experience in construction management with a real construction firm, rather than a donor-funded program. As well, this approach would provide the students with relationships that would help determine their future success in the Afghan construction industry.

8.4.4 Subcontractor Requirement

SPR's requirement to use Afghan firms had the potential to help grow the value chain. The growth of the value chain is largely a function of demand for road construction services. At this time in Afghanistan's history, international donors and military funding largely determine growth. If managed properly, profits earned from each contract could have been reinvested in the firm to expand the business and improve its future performance. If enough firms do this, it may lead to growth and improvement within the value chain. Likewise, more contracts for Afghan firms means more firms are likely to enter the field, which increases competition, and potentially increases quality. However, greater competition may also lead to lower profits.

The subcontractors interviewed by the evaluation team claimed to have lost money on SPR contracts. One subcontractor claimed he lost \$1 million. While we were unable to verify the truth of these claims, it's not totally unbelievable given that most subcontractors underbid their contracts or bid at cost. This was done in hopes of making a profit on the change orders, an approach that works well on military contracts.

SPR senior management confirmed that many subcontractors lost money and a certain number will go out of business, if their claims remain unpaid. Thus, many firms now have fewer resources to grow, and as a result, the value chain is weaker. Suppliers are also part of the value chain and may not have been paid as a result of low subcontractor cash flow. Thus, it appears that in this respect SPR had a negative impact on the value chain.

Some subcontractors did say, however, that they benefitted through exposure to a road construction contract. They claimed to now be better prepared for future road construction projects and seemed eager to secure future contracts. When all is accounted for, it's fair to say that the subcontractor requirement had a mixed impact on the value chain.

A related requirement that likely had a positive impact was the requirement for subcontractors to train a certain number of community members in road construction and maintenance. As of Q1 2011, subcontractors had trained 2,345 in road maintenance and related topics. If SPR had finished more roads and more subcontractors had entered the maintenance component of their contracts, this number would likely be considerably higher. Nonetheless, it's fair to say that to a small degree, the country is better prepared to handle its road maintenance responsibilities.

The Mentor Protégé Program positively impacted the road construction value chain in many respects. However, it did not cause the value chain to grow. While the subcontractor requirement had potential to significantly grow the value chain, it likely caused harm to some or many firms. SPR's impact on the value chain could have been increased significantly with some sensible program modifications.

9 RECOMMENDATIONS

USAID tasked the evaluation team to not only assess SPR's performance, but also document its problems for the benefit of those involved in similar programs in the future. The team hopes this report will prove useful in that regard. The team also hopes to also contribute to future programs by making practical recommendations.

9.1 Appropriate Roads

Designing and building roads that are appropriate for the communities they will serve is the foundation for a successful road construction program. In rural areas, this means basic roads designed for relatively light traffic. IRD's Rural Roads program designed appropriate roads and used a nonstandard construction strategy that should be considered for other areas. This approach has the potential to save precious funds, reduce project timelines, and employ more local people.

9.2 Design/Build

Design/Build subcontracts can be successful in the right situations. However, they also require relatively sophisticated firms experienced in both design and construction. Further, when combined with Firm-Fixed Price Contracts, Design/Build subcontracts pose special risks to those responsible for cost overruns. Depending on the specific program, it will likely prove wise to avoid Design/Build in the future, given that many Afghan construction firms are relatively new businesses that are inexperienced in bidding on projects.

9.3 Subcontractor Selection

There are many good reasons to select the lowest bidder, including the efficient use of precious development funds. However, the right decision depends entirely on the context. Future implementing partners should give more weight to the subcontractor's history of successfully completing similar projects and the other factors described herein that determine success. Another suggestion to consider is to match subcontractor capacity with the level of difficulty of infrastructure projects. This can be done by segregating the overall portfolio of road and bridge projects into a range of difficulties.

9.4 Subcontractor Capacity Building

Many Afghan subcontractors are relatively new businesses with limited capabilities. Future capacity building programs should thus address business management skills in addition to construction management. However, they will not achieve real world results unless they build a bridge between theory and practice. Thus, future programs should not just provide training but should be followed by expert mentoring tailored to each firm's unique needs.

9.5 Implementation Mechanism

The implementation mechanism should be appropriate for the program type and size and allow for proper USAID monitoring and guidance. Contracts and Cooperative Agreements each have many advantages individually. However, the success of the program is not based on the legal instrument but on the contractor's ability to implement a program. USAID should select the implementation mechanism based on program type, size, and complexity. It should also consider the implementing partner's capacity to oversee the program.

9.6 Community Mobilization

In order to facilitate implementation, USAID partners should have a firm understanding of the country's social, political, and economic conditions. Community interventions are not the primary solution to development problems. However, properly implemented, community mobilization using grants through the local power structure can be a critical factor in facilitating security and program success.

9.7 Communication and Organization

Effective decision making and a well-designed organizational structure will communicate the implementing partner's commitment to effective management and concrete results to those involved in the program. This should involve qualified senior management who are able to analyze problems and efficiently manage projects.

9.8 Monitoring and Evaluation

If USAID decides to design a similar road construction program in the future, it would be more efficient not to reinvent the M&E system. USAID should provide future implementing partners with guidance on what did and did not work for SPR.

9.9 Project Size

Especially in the south, SPR solicited road projects in excess of 50 km lengths, including Road 27 of 103 km. The sheer size of these projects tended to overwhelm relatively inexperienced Afghan subcontractors' capacities. IRD realized by late 2010 that road contracts should have been limited to a maximum of about 25 km lengths in order to expect successful management.

REFERENCES

- ¹ This section borrows from Midterm Evaluation for Strategic Provincial Roads Program, 2009.
- ² Statement of Work for Evaluation of USAID/Afghanistan's Strategic Provincial Roads – Southern and Eastern Afghanistan, 2010.
- ³ IRD proposal, August 2007.
- ⁴ SPR Annual Implementation Plan, 2010.
- ⁵ Cognizant Technical Officer (CTO) Approval Request Submittals.
- ⁶ AASHTO is the American Association of State Highway and Transportation Officials.
- ⁷ FHWA is the Federal Highway Administration.
- ⁸ Subcontractor Interviews and various SPR Quarterly Reports.
- ⁹ Appendix H: Security by Road, June 2008 to June 2011; Appendix I: Security by Project Duration and Location; and Appendix Q: SPR Incident and Casualties Data Sheet.
- ¹⁰ SPR used quarters as the unit of measurement in its security reports.
- ¹¹ 314 Km equivalent length represents “drivable” improved roadways, including completed crushed aggregate surface, subbase, and embankment completed. This recognizes the length of roadway that was 100% completed is 159 Km. Source of data in table: FIP 2011 SPR-SEA (Final); page 11 of 21, with additional information from FIP p. 4 of 20.
- ¹² SPR-SEA Final Implementation Plan, 2011.
- ¹³ Midterm Evaluation for Strategic Provincial Roads Program, 2009.
- ¹⁴ Midterm Evaluation for Strategic Provincial Roads Program, 2009.
- ¹⁵ Q3 2008 Program Report.
- ¹⁶ Q1 2008 Program Report.
- ¹⁷ Q1 2008 Program Report.

