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**REPORT OUTLINE:
MID-TERM EVALUATION OF
STRATEGIC PROVINCIAL ROADS -SOUTHERN AND EASTERN AFGHANISTAN ROADS
PROGRAM
COOPERATIVE AGREEMENT # 306-A-00-08-00509-00**

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ABBREVIATIONS AND ACCRONYMS

AASHTO: American Association of State Highway and Transport Officials
AADT: Average Annual Daily Traffic
ADT: Average Daily Traffic
ADB: Asian Development Bank
ADS (USAID): Automated Directives Systems
AIDC: Afghan Information Data Center
AIRP: Afghanistan Infrastructure Rehabilitation Program
ANA: Afghan National Army
BEO (USAID): Bureau Environmental Officer
CA (USAID): Cooperative Agreement
COCB (SPR-SEA): Community Outreach and Capacity Building
CCN: Cooperative Country National
CBO: Community Based Organizations
CDC: Community Development Council
CDG: Community Development Group
CEAP (USAID): Corrective Environmental Action Plan
CEDAW: Convention on the Elimination of all forms of Discrimination Against Women
COIN: Counter Insurgency
CoP: Chief of Party
CTTC: Champion Technical Training Center
DBST: Double Bituminous Surface Treatment
DTM: Digital Terrain Model
EA: Environmental Assessments
EMP: Environmental Mitigation Plans
ETD (USAID): Environmental Threshold Decision
FAO (UN): Food and Agricultural Organization
FPO (USAID): Field Program Officer
GC: Group Coordinator
GIRoA/GoA: Government of Islamic Republic of Afghanistan
HDI: Human Development Indicators
HDM-4: Highway Development and Management (software)
HEC-RAS: Hydrologic Engineering Center (software)
IEE: Initial Environmental Examination
IRD: International Relief and Development (Inc.)
NERA (WB): National Emergency Rural Access
NGO: Non-Government Office
NSP (MRRD): National Solidarity Program
M&E: Monitoring and Evaluation
MDG: Millennium Development Goals
MEO (USAID): Mission Environmental Officer
MRP: Master Road Plan (i.e., Master Plan for Road Improvement Project)
MoPW / MPW: Ministry of Public Works
MoWA: Ministry of Women's Affairs
MRRD (GIRoA): Ministry of Reconstruction and Rural Development
PM: Project Manager
PO (SPR-SEA): Program Officer
PRT: Provincial reconstruction Team

QA/QC: Quality Control/Quality Assurance
REFS: Rehabilitation of Economic Facilities and Services Program
RFP: Request for Proposals
ROD (USAID): Record of Decision
SPR-SEA: Strategic Provincial Roads – Southern and Eastern Afghanistan
(Program)
TCN: Third Country National
TO14 (AIRP): Task Order 14
UN: United Nations
USACE: US Army Corp of Engineers
USAID: United States Agency for International Development
VOC: Vehicle Operating Cost
WB: World Bank



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**EVALUATION REPORT:
MID-TERM EVALUATION OF
STRATEGIC PROVINCIAL ROADS -SOUTHERN AND EASTERN AFGHANISTAN ROADS
PROGRAM
COOPERATIVE AGREEMENT # 306-A-00-08-00509-00**

I. EXECUTIVE SUMMARY

The Strategic Provincial Roads-Southern and Eastern Afghanistan (SPR-SEA) Program is the latest of a series of road rehabilitation projects funded by USAID since the latter part of 2002. The road rehabilitation projects started with the reconstruction of Afghanistan's ring road (2002) then were continued with the rehabilitation of the national roads that connects the ring road to the provincial capitals (2006). This SPR-SEA program (2008) follows through by further extending the reach of well-engineered all-weather good-conditioned roads by rehabilitating provincial roads that lead from the provincial capitals to district centers.

USAID's road rehabilitation programs complement those of other donors. While USAID focused on rehabilitating the Kabul-Kandahar segment of the ring road, the ADB (Asian Development Bank) led another set of donors in rehabilitating the rest of the ring road. Further, the World Bank (WB) and the Provincial Reconstruction Teams (PRT's) financed countrywide rehabilitation of rural farm-to-market roads.

A cumulative total of around 1,300km of provincial roads (that lead from the provincial capitals to district centers) are included in this 4-year \$400M Program. Of the 9,000+ kilometers of provincial roads, the program focused on those located in the eastern and southern portions of Afghanistan where hopefully the road rehabilitation will help contribute to the stability and security of these areas. It is because of this core objective that the PRT and sub-national GIROA officials were consulted when the roads to be included in the SPR-SEA were being selected.

Besides focusing on secondary roads, the SPR-SEA differs from the implementation of the past primary roads projects in several ways:

- There is more emphasis on utilizing Afghan firms to undertake most of the road works, consistent with the motto of the SPR-SEA: "Funded by the American people but built by the people of Afghanistan". That is, as few expatriate staff as possible will be deployed to the field (which will also result in less overhead/security costs).
- The above localization approach necessitated developing and institutionalizing the road design and construction industry in Afghanistan by putting in place a mentor-protégé component where Cooperative Country National (CCN) engineers are trained in road design and construction.
- Inclusion of community outreach programs to build buy-in and community support that will result in a sense of belonging to the road beneficiaries. The livelihood projects funded by the Program will also assist in accelerating the economic development within the road's influence area.

As the program is still on its roll-out stage with only one or two of the 28 provincial road projects being completed, it is too early to quantitatively gauge progress made in achieving the specific objectives of the SPR-SEA program except for anecdotal evidence gathered from past completed road projects. It is possible though to evaluate project strategies and approaches, objectives, internal coherence and the logical design of the program's conceptual framework, whether resources are being spent as planned, and whether the general parameters imposed by USAID (e.g., environmental and gender guidelines) are being followed by the program's grantee.

In using new approaches in Afghanistan it is expected that the SPR-SEA program will face challenges. There were start-up problems in coordinating the submission of the road designs—the designs are supposed to be prepared by another contractor of another program while the construction is undertaken in this Program using the prepared designs. The solution was to transfer all the road design responsibilities to the grantee. To ensure a fast roll-out of the designs, the road contracts were now bid out as design-build contracts instead of the originally planned build contracts. But since the design capacities of CCN firms are limited, the now much-emulated mentor-protégé component was introduced. Roll-out was also combined into a single phase instead of staggering the roll-out in three phases as originally planned. There are other problem areas noted by the evaluators:

- The geographic locations of the road projects are in non-permissive conflict areas. It is then imperative that the military focus their 'clear-hold-and-build' operations in those areas where the road projects are located. Unfortunately, this is not always the case as is expected in conflict areas.
- It is too early for a road program to devolve the field aspects of road design and construction (and possibly also road maintenance) entirely to still-learning CCN engineers. Their current state of inexperience necessitates extending mentoring beyond the confines of the Kabul offices and into the field where ground verification of the designs and consistency of the construction to the designs have to be continuously checked.
- There is a need to expand the project documentation activities following the ISO 9000 model especially in preparing M&E and engineering procedures manuals

The above policy issues, as well as other suggestions (on project activities) to improve efficiency, are summarized in **Table 1-1**.

Nevertheless, the evaluators are of the opinion that the SPR-SEA is on track and will achieve its objectives. The evaluators see no objection in USAID maintaining the current momentum by continuing and expanding the SPR-SEA or by implementing similarly configured provincial road programs albeit incorporating improvements: such as implementation as contracts instead of as Cooperative Agreements; increased application of transport planning principles; and in synchronizing with the military's planned geographic areas of operations. The SPR-SEA and future road programs will contribute further in the rehabilitation of Afghanistan's infrastructure. Lastly, the community outreach and the mentor-protégé components have proved to be successful and it is recommended these components (and hopefully with a to-be-developed compiled procedures manual and a working M&E system) be replicated in future infrastructure initiatives of USAID (and other donors).

December 2009 (Kabul, Afghanistan)

Table 1-1: SUMMARY MATRIX
MID -PROGRAM ASSESSMENT
STRATEGIC PROVINCIAL ROADS - SOUTHERN AND EASTERN AFGHANISTAN (SPR-SEA)

PROGRAM COMPONENT	ASSESSMENT AREAS	OBSERVATIONS	RECOMMENDATIONS	SECTION
Program Achievements				
Achievement of the Project Roads' Objectives	Impact of the road	Road impacts cannot be assessed as roads are still under construction	institutionalize the M&E Plan so impact can be measured in the future	3.2 / 3.3.2
		Assessments are made on other completed roads to extrapolate impacts	VOC's increased (possibly due to fuel cost increases and the Pakistani rupee's exchange rate fluctuations)	3.3.2
	Cost-effectiveness of the program	Contract prices average \$185,000/km comparable to prices in other developing countries		3.2
Transport Economics Aspects				
Selection of the Project Roads	Effectiveness of the selection process	10 of 28 of the project roads not included in the road masterplan (MRP)	Not necessary to be listed in the MRP as other criteria may override economic ones	3.3.1a
		Insufficient coordination between the SPR-SEA and the military to account for changing priorities	Need to establish a military steering committee	3.3.3a
		Development benefits along the road's influence area is not maximized due to the absence of an integrated corridor development plan to account for medium to long term plans	Need to establish a steering committee composed of donors and representatives from other ministries	3.3.3a
Road Ranking Process	Normally, highly feasible roads are ranked high for implementation	Not undertaken during the road selection stage. (Currently being undertaken.)	Not necessary as other objectives override economic ones but more transport economics is needed.	3.3.1
Transportation Economics	Feasibility studies are normally undertaken in selecting project	No transport economics undertaken in road selection	Not necessary given the conflict situation	3.3.1a

**Table 1-1: SUMMARY MATRIX
MID -PROGRAM ASSESSMENT
STRATEGIC PROVINCIAL ROADS - SOUTHERN AND EASTERN AFGHANISTAN (SPR-SEA)**

PROGRAM COMPONENT	ASSESSMENT AREAS	OBSERVATIONS	RECOMMENDATIONS	SECTION
	roads	No transport-related baseline data available for feasibility studies though traffic counts and a (COCB) baseline survey have been conducted.	Threshold analysis is recommended instead.. Traffic count data is the only input needed here.	3.3.2
		Nonresponsive design standards. A narrower paved road might be more cost effective as a wider gravel road.)	Review design standards with MoPW putting emphasis on road economics	3.3.1b
Program Management				
Program-wide Procedures Manual	Work consistency	SPR-SEA is a complex road rehabilitation <i>cum</i> training program	Need an expanded procedures manual detailing flowcharts, plans, job descriptions, etc.	3.5.4
			May need to create a new department to maintain the procedures manual and to continuously check for compliance	3.5.4
			Alternatively, more regular independent assessments may be necessary	3.5.5
	Identified gaps	No mechanism (at least in Road 4) for the villagers to air their complaints	A Procedures Manual may have identified who (COCB?) should attend to this	3.5.6
Deadline Setting	Reasonableness of the deadlines	Pace of the program depends on how fast the trainees learn	Completion rates and deadlines may have to be relaxed to account for the training period needed for the contractors	3.4.2
		Program approaches and procedures need to be constantly adjusted affecting delivery dates	Completion rates and deadlines may have to be relaxed to account for IRD's learning curve too	3.4.2

Table 1-1: SUMMARY MATRIX
MID -PROGRAM ASSESSMENT
STRATEGIC PROVINCIAL ROADS - SOUTHERN AND EASTERN AFGHANISTAN (SPR-SEA)

PROGRAM COMPONENT	ASSESSMENT AREAS	OBSERVATIONS	RECOMMENDATIONS	SECTION
Program Performance				
Contractor Selection Process	Fair competition should be present	Contractor's SPR-SEA trained staff may have the tendency to work in other programs	Not necessarily bad but bidders nominating previously trained staff should be given more points Staff retention measures can be adopted	
		TCN's are nominated due to difficulties in hiring CCN engineers	Current requirements that 70% of the labor should be from the province be retained	3.4.2
		Harassment of the contractors by some governors whose 'favored' contractors did not win	Hold dialogues with the governors with the assistance of other government officials	3.2
	Check for apparent collusion between bidders	Large number of bidders result in contract prices of about \$185,000/km comparable to prices in other developing countries		3.2
	Check for low bids that would lead to default	Most bids are from experienced contractors. Design-Build scheme is not a hurdle to them	But SPR-SEA should still continue to check winning bids for responsiveness	3.4.2
Road Design	Design Capabilities	Insufficient design capacities of the contractors	This is the reason why the program is a training program	3.4.2
	Design Check	90% designs needs to be checked	design checkers needs to go to the site to check the designs for responsiveness to field conditions	3.5.2
	Design Changes	Design changes proposed by contractors needs to be checked in the field for responsiveness to field conditions	Kabul-based designers will have to check if the RPM/PM is not versed in road design	3.5.2

**Table 1-1: SUMMARY MATRIX
MID -PROGRAM ASSESSMENT
STRATEGIC PROVINCIAL ROADS - SOUTHERN AND EASTERN AFGHANISTAN (SPR-SEA)**

PROGRAM COMPONENT	ASSESSMENT AREAS	OBSERVATIONS	RECOMMENDATIONS	SECTION
Road Rehabilitation and Maintenance	Construction Management Capabilities	Insufficient construction management capacities of the contractors	This is the reason why the program is a training program	3.4.2
			Closer supervision of the IRD PM's by the RMP's so that potential problems can be anticipated	3.5.3
			More field visits by the RPM's so that potential problems can be anticipated	3.5.3
	Security Situation	Poor security situation lead to work stoppages and delays	Military should conduct their 'clear-hold-build' maneuvers in the same area as the roads	3.3.3a
	Road Maintenance	No maintenance being undertaken after completion of the works	Contracts should incorporate performance-based payment schemes	3.8
QA/QC		Localization objectives are being achieved		3.9
Mentor/Protégé Program	Screening of Trainees	As complained by the contractors, trainees are of different intellectual capacities. Poor trainees slow down the training	Better screening. Trainees will become field and design engineers so non-qualified ones can be screened	3.4.3
			Should be checked if true	3.4.3
	Quality of Trainors	As complained by the contractors, mentors do not go to the field and never familiarize themselves to the field conditions	Mentoring should extend to the field works. (Refer to the recommendations on design checks.)	3.5.2
COCB	Small grants	Grants are limited to soap making, carpet making, etc.	More variety of cottage industries are needed to maximize development benefits	3.5.8

**Table 1-1: SUMMARY MATRIX
MID -PROGRAM ASSESSMENT
STRATEGIC PROVINCIAL ROADS - SOUTHERN AND EASTERN AFGHANISTAN (SPR-SEA)**

PROGRAM COMPONENT	ASSESSMENT AREAS	OBSERVATIONS	RECOMMENDATIONS	SECTION
	Monitoring and Evaluation	Impacts of the small grants on the areas development is not being evaluated well	The baseline survey may have to be improved	3.5.7
Environmental Aspects	Compliance to USAID Reg 216	No documentation of approval by the BEO		3.6
	EMP's (Environmental Mitigation Plans) for the Road Works	Prepared by the contractors and approved by IRD but not being checked for compliance	IRD's environmental team should check for compliance in the field	3.6
	Environmental guidelines for the grantees	Grantees not being checked for compliance to the environmental guidelines	IRD's environmental team should check for compliance in the field	3.6
Gender Equality Aspects	Women's needs	Women's neds are not being considered in the design of the COCB grantees' projects	Need to prepare (written) gender gudelines for the grantees	3.7
Post SPR-SEA				
Road Maintenance	Transition	No apparent maintenance program lined up	Study of a program the likes of AIRP's TO14	3.8
Baseline Surveys	Institutionalizing	The M&E Plan has not been implemented in full	Traffic counts and other baseline surveys should be continued after road completion	3.5.7 / 3.8
Micro-financing Schemes	Sustainability of the development along the corridor	No sustainability for the cottage industries established	NGO's engaging in micro-financing should be encouraged in the area	3.8
Road Construction Industry	Further assistance	No system in place to facilitate pre-qualification	establishment of a contractors accreditation board	3.8
		Improved procurement/bidding laws	Review	3.8
	Continuing training	Primavera P6 and SureTrak, Civil Soft, HEC	Create informal groups, blogs, etc	3.8

II. INTRODUCTION AND BACKGROUND

2.1 Introduction

This report presents a mid-term review of the Strategic Provincial Roads – Southern and Eastern Afghanistan (SPR-SEA) Program undertaken under Cooperative Agreement # 306-A-00-08-00509-00 between the US Agency for International Development (USAID) and International Relief and Development Inc. (IRD).

The period of performance for this Cooperative Agreement (CA) is November 30, 2007 through December 31, 2011. The ceiling for the CA is \$399,999,346 and \$269,585,689 has been obligated to the CA. As of mid-2009, \$104,650,990 has been spent for this activity¹. Originally scheduled to end December 31, 2010 the CA was amended at no additional cost in January 2009 to extend the completion date to December 31, 2011 with the last year of the program basically covering the 1-year warranty and maintenance period required for each road contractor.

2.2 Purpose of the Assessment

As stated in the Scope of Work (SOW), the purpose of this mid-term evaluation is to make an independent evaluation of the progress made toward achieving the objectives of the SPR-SEA Program. The core objective of the Program is to help to increase stability and security by rehabilitating selected provincial roads and by increasing institutional capacity. More specific objectives of the Program include the following:

- facilitate the efficient movement of goods and people;
- increase access to government and social services;
- facilitate the development of agriculture;
- improve regional integration, security and stability;
- increase the capacity for road works, and
- provide employment opportunities.

This report presents a mid-term assessment of whether the above-mentioned objectives of the SPR-SEA are being achieved and whether program performance is proceeding as scheduled. Ultimately, the objectives would result in roads providing better access and helping to generate economic development in their influence areas, contributing to an improved peace and order situation, and producing a pool of contractors with well trained engineers capable of building roads on their own.

The evaluation of the Program's performance is intended to answer questions raised in the following key areas:

- project design, objectives, implementation and performance;
- actual and/or potential impact on livelihood;

¹ It is estimated that about a third of the budget should have been spent by now. The current expenditure level is 25% the total budget. However, with more of the road projects leaving the design stage and entering the construction stage, cash disbursements are expected to increase in the spring of 2010.

- contribution to the rehabilitation of infrastructure; and,
- logic of the project concept.

The assessment also covers compliance of the SPR-SEA Program with US government environmental regulations, specifically USAID ADS 204.2 Title 22 of the US Code of Federal Regulations, Part 216, and includes a review of gender equality issues.

The SOW of this assessment is attached as **Appendix 1**.

2.3 Background Information

2.3.1 Transportation in Afghanistan

Afghanistan is a landlocked country far from the nearest seaport. In terms of economic significance, it has few navigable waterways, no railway and no pipelines. For any but non-motorized transport, it is dependent almost entirely on road and air transport. Incomes are very low and there are relatively few internal commercial airports, meaning that internal air transport currently has a very limited role in the economy. Thus, road transport is of exceptional importance to the economy. The Government of Afghanistan and the many foreign donors have concentrated on this mode of transport. At this stage of the development of the country, within the transportation sector, the focus of USAID on road projects is appropriate under the circumstances.

2.3.2 Road Transportation

Afghanistan's hierarchal road network is made up of: regional roads (a ring road and other highways connecting the country to its neighbors); national roads (a series of roads connecting provincial centers with each other and to the regional roads); provincial roads (intended to improve the contacts between district headquarters and their provincial capitals and between important district headquarters and which are of the greatest interest to this evaluation); and, rural roads (basically farm-to-market roads which bring the hinterland into contact with markets and administrative centers). Estimated total lengths as of 2009 are as shown in **Table 2.1**.

Table 2.1 Afghanistan Road Network

Road Classification	Length (km.)
National Highways	4,884
Regional Highways	3,242
Provincial Roads	9,656
Rural Roads (est.)	<u>17,000</u>
Total	34,782

Urban roads excluded

Source: Afghanistan Ministry of Public Works

The regional, national, and provincial roads are under the auspices of the Ministry of Public Works (MoPW) while the rural roads are under the responsibility of the Ministry of Reconstruction and Rural Development (MRRD). Reconstruction of Afghanistan's road infrastructure began in earnest since the latter half of 2002 when USAID (United States Agency for International Development) funded and oversaw the rehabilitation of the 400km Kabul-Kandahar portion of the ring road under the Rehabilitation of Economic Facilities and Services (REFS) program. The design and bidding out of the 550km Kandahar-Herat segment of the ring road was also funded by USAID (also under the REFS) while the reconstruction of the western and northern sections of the ring road were taken up by other donors, notably the Asian Development Bank (ADB). USAID also started in 2006 the \$1.3B Afghanistan Infrastructure Reconstruction Program (AIRP), successor to the REFS, which includes the design and reconstruction of a series of national roads. The AIRP is ongoing to date and will end 2011.

2.3.3 The SPR-SEA Program

The 4-year \$400M SPR-SEA Program, focusing on provincial roads, is the first road rehabilitation program in Afghanistan emphasizing the development of a sustainable road design and construction industry. This is to be done by further localizing (local contractors were already being engaged by the REFS and AIRP) the road reconstruction activities such that almost no expatriate staff is doing field works. In the SPR-SEA, it is mandatory that engineers of the contractors undergo mentoring at the SPR-SEA's training centers prior to deployment in the field. Being a first especially in terms of training, it was recognized that the SPR-SEA is a pilot program and so a CA was signed between USAID and IRD, the CA recipient, instead of signing a regular contract. The list of roads included under the Program is constantly evolving but as of this assessment, about 28 provincial roads totaling some 1,300 kms are included in the SPR-SEA. More roads are to be added until the Program's budget is exhausted.

The roads selected for inclusion in the SPR-SEA Program, their lengths and the estimated percentage completed as of 30 August 2009 are listed in **Table 2.2**. The locations of the SPR-SEA roads are shown in the maps of **Figure 1.1** which also shows Afghanistan's road network (*i.e.*, regional, national, and provincial roads) and the road projects of other donor agencies.

The SPR-SEA has the following major components:

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

Table 2.2 SPR - SEA PROJECT ROADS

Road Number	From	To	Province	Distance (Km.)	Percent Complete(4)
					(%)
1	Asmar	Nishagam	Kunar	18	(1)
2	Chawki	Khas Kunar Bridge	Kunar	5	48
3	Khes Kunar	Nowa Pass	Kunar	11	(1)
4	Mendrawol Jct.	Qarghayi	Laghman	3	93
5	Shinwar	Dur Baba Rd.	Nangarhar	23	66
6	Azra	Shirzad	Nangarhar	63	46
7	Wazir	Khadakhel	Nangarhar	8	99
8	Chamkani	Jani Khel Rd.	Paktya	22	68
9	Ghazni	Gardez	Ghazni/Paktya	93	11
10	Qasem Khel Rd.	Ali Khel - Berkaray	Paktya/Logar	53	49
11	Hassan Khel Rd.	Ster Village	Paktya	12	43
12	Musa Khel	Khost Mela Rd.	Khost	12	22
13	Yagobi	Zambar	Khost	18	(1)
14	Tani	Shekhamir Rd.	Khost	10	100
15	Ring Rd.	Dado Zana Khan	Ghazni	16	63
16	Jaghuri	Malistan	Ghazni	64	39
17	Nawa	Dila	Ghazni/Paktika	59	21
18	Mest	Yah. Khel-Ghundekay	Paktika	21	61
19	Ghundekay	Omna	Paktika	7	34
20	Yahya Kh.-Baki Kh.	Khayr Khot	Paktika	30	26
21	Waza Khawa	Mamay	Paktika	69	(3)
22	Waza Khawa	Terwah	Paktika	59	23
23	Shahjoy	Day Chopan	Zabul	110	(3)
24	Shamulzayi	Pakistan Border	Zabul	48	26
25	Nawa	Shinkay	Ghazni/Zabul	83	17
26	Shinkay	Shamulzayi		22	(1)
27	Shah Wali Kot	Nesh	Kandahar	103	32
28	Nesh Rd.	Ghorak	Kandahar	45	12
29	Nesh Rd.	Khakrez	Kandahar	17	(3)
30A	Bakah	Maruf (Sec. A)	Kandahar	40	18
30B	Bakah	Maruf (Sec. B)	Kandahar	40	0
31					(1)
32	Spin Boldak	Bikoh	Helmand		(2)
33	Nad Ali	Lashkar Gah	Helmand	16	(1)
34	Garmser	Lashkar Gah	Helmand	71	35
35	Tirin Kot Jct.	Chora	Uruzghan	35	(1)
36	Tirin Kot Jct.	Khas Uruzgan	Uruzghan	106	15
37	Chora	Gizab	Uruzghan	91	19
38	Khas Uruzgan	Malistan	Uruzghan	80	31
39A	Day Kundi	Gizab (Sec. A)	Day Kundi	70	33
39B	Day Kundi	Gizab (Sec. B)	Day Kundi	55	0
40A	Kajran	DayKundi-Gizab Rd. A	Day Kundi	59	31
40B	Kajran	DayKundi-Gizab Rd. B	Day Kundi	101	0
			Total km.	1764	

(1) Cancelled by USAID. (2) Excluded for other reasons. (3) On hold pending additional funds. (4) As of 30 Aug. 09.

Sources: USAID International Relief and Development (IRD) Quarterly Report - April 2009 for the Strategic Provincial Roads Project, Southern and Eastern Afghanistan (SPR-SEA); IRD RFP No. SPR-PO-04-0128-2009

The roads were selected in 2007 for rehabilitation and/or improvement through a logical selection procedure, described here in simplified terms. The Afghanistan Master Road Plan (MRP), completed in 2006, was used as the starting point.² In the MRP the roads of Afghanistan, including provincial roads, were classified into high, medium and low priorities for improvement, using a multi-criteria analysis which included traffic forecasts, population density, agricultural potential, connectivity and development potential. Approximately 270 rural roads were identified and classified in this way. About 160 were considered to be high priority roads, 60 medium priority and the remaining 50 low priority. The regional balance of the proposed projects, and the effects on the continuity of road corridors, were also considered in the preparation of the MRP.

In the preparation of the SPR-SEA Program, the initial provincial road program derived from the MRP was reviewed by USAID and a number of other agencies, including the MoPW, provincial governments, district officials, the military, and the Provincial Reconstruction Teams (PRT's) to select roads for further reconnaissance and inclusion in the SPR-SEA Program. Approximately 40 roads, with a total length of approximately 1,700 kilometers (to be later pared down), were selected for inclusion in the SPR-SEA in this way.

Strictly speaking the road works are not road rehabilitation works (defined as restoring the road to its original state) but are road improvement works (defined as upgrading the road to a higher standard) given that some road widening and embankment raising are involved.

The original intent was for the initial or 30% designs (as defined by IRD) to be prepared under the AIRP but as mentioned that strategy has been changed. The road designs that have been turned over from the AIRP (some 6 roads) had been bid out to local contractors as 'build' contracts. The related construction supervision was undertaken either by IRD or also bid out. (The winning contractor will still have to undertake the 60% design and the 90% design of the project roads³.) This design to construction assembly line strategy avoided work disruption while the rest of the project roads are being bid out as Design-Build contracts. In some cases, IRD prepared the 30% designs to allow for faster roll-outs especially if the design pace slows down.

The SPR-SEA road works contracts with the local firms are now mostly Design-Build contracts and the contractors would now undertake the 30% designs, 60% designs, and the 90% designs of the road rehabilitation to allow for faster roll-outs.

² Master Plan for Road Improvement Project, Afghanistan Ministry of Public Works, ADB/Sheladia Associates Inc., April 2006. The plan covers the period from 2006 to 2015.

³ For purposes of implementation, the IRD engineers treat road designs in 3 steps—a 30% design that basically includes only the plan and culvert locations so that road clearing for road widening can start early; a 60% design that included road profile design and culvert sizing and positioning; and 90% design that involves design fine-tuning.

Further, the initial intention was for the SPR-SEA to be implemented in 3 phases of 10 to 12 roads totaling 600 km in each phase and with AIRP's Task Order 12 preparing the full designs for the first phase. This did not materialize. The preliminary designs for 6 roads were turned over to the SPR-SEA from the AIRP when USAID decided on February 2008 to let the rest of the road designs be undertaken under the SPR-SEA. The SPR-SEA was then also shifted from the original 3-phase approach and decided to implement all the SPR-SEA roads under a single phase so that all road designs could commence early. The Design-Build contracts were also employed to decentralize designs to the contractors and enable simultaneous road project roll-outs.

Aside from the road design and construction, localization also extended to Quality Assurance/Quality Control (QA/QC). Instead of entirely depending on IRD's material testing laboratory, QC is decentralized by allowing the contractors to have their soil samples tested at privately-owned third party materials testing laboratories located near their project roads. QA is still performed by IRD through random testing and by including a materials technician in IRD's field teams embedded in the contractors' teams. The number of QA testing staff is dependent upon the length of the road and the number of concurrent construction activities taking place by the contractor.

The Mentor/Protégé Program focuses on construction management, project scheduling, cost estimating, QA/QC, and other managerial skills as the road building skills are already present. Training of road building equipment operators is also mandatory. Consisting of several modules/subjects, the 6-week training courses are undertaken through the Kabul-based Afghan Builders Association and the courses scheduled so that the contractors' engineers training schedule will not adversely affect their field work schedules. Instructors are selected using standards developed by the American Association of Civil engineers (ASCE). Trainees are given tests prior to the courses and the same tests are administered after the courses to measure progress.

IRD's CCN staff is composed of project managers, project schedulers, and field engineers. They are trained in the US Army Corp of Engineers (USACE)-established Champion Technical Training Center (CTTC) in Jalalabad. Having a staff of 600, the SRP-SEA is virtually an on-the-job-training and educational facility by itself. Clerks and household staff also undertake basic English literacy and other courses. Being under a subcontract, the CCN security coordinators are not allowed to undergo these trainings.

Road design is undertaken by the contractors' designers at the IRD offices where they can be guided and mentored in the finer points of road design using various engineering software (*e.g.*, Civilsoft, Eaglepoint, MX-Roads, HEC-RAS, etc.) The more complex design work (*e.g.*, digital terrain modeling-DTM, hydrology) is still undertaken by the IRD engineers and the outputs passed to the contractors for further processing. The DTM's are being created through an airplane taking stereoscopic photographs along the roads' corridors. The photographs are then processed into a digital terrain and the engineers then work on this DTM—road alignment, estimating earthworks, defining rainfall/snow catchment areas, location points for the culverts, etc.

The COCB component is included to mobilize support from the community for the road projects and inculcate a sense of the road belonging to the community. This is being done through dialogues with the Community Development Councils (CDCs) established under the WB-funded National Solidarity Program (NSP) of the MRRD. In areas where CDC's were not established, the COCB teams would establish similar organizations called Community Development Groups (CDGs). In parallel and also through the CDC's/CDG's, small grants up to \$25,000 each are also given for small cottage industries such as soap making, carpet weaving, bakeries, farms, etc. as well as small infrastructures such as retaining walls, drainage and irrigation ditches, wells, and especially those that would compensate for or replace infrastructures demolished for the road projects. (It is intended for the CDG's to eventually be formally recognized by the NSP as formal CDC's.)

Lastly, each contract requires a 1-year warranty period as well as the responsibility to maintain the road for that year. The roads will then be turned over to the MoPW.

2.4 Assessment Methodology

2.4.1 General

This section describes the methods used to analyze the progress made toward the objectives of the SPR–SEA Program.

The assessment team:

- collected information through written documents such as studies, donor reports, transport master plans, transport feasibility studies, environmental compliance reports, engineering standards and specifications, and USAID/Afghanistan programs, descriptions and scopes of work, as well as IRD's progress reports, maps, and other program documents.
- interviewed and discussed with USAID and GIRoA officials, donor representatives, implementing partners, participants, and stakeholders;
- went on field trips to representative road project sites, and
- analyzed data.

2.4.2 Organization

The above activities were undertaken by a team of experts. The list of experts and brief descriptions of their SOW are as shown below:

Road Engineer (and Team Leader)	To assess compliance with the program schedules, note the engineering difficulties involved, and if the road rehabilitation is not on schedule, recommend remedial actions
Transport Economist	To assess the effectiveness of the road projects—if the development goals are being achieved
Environmental Protection Specialist	To assess compliance with USAID Title 22 of the US Code of Federal Regulations, Part 216

Gender Specialist	To assess gender issues being considered
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A translator also acting as administrative assistant was also assigned to the team.

2.4.3 Analysis Plan

The questions raised in the key areas mentioned in **Section 2.2** are as follows:

1. Project design, objectives, implementation and performance to date, answering the following questions:

- Is the program and its activities progressing as planned?
- Is the project achieving its current stated objectives? Are the stated objectives proving useful for achieving project goals?
- Is the project achieving USAID’s core objective of the SPR-SEA Roads Program to increase stability and security in Eastern and Southern Afghanistan?
- What is the experience of SPR-SEA in operating in non-permissive areas?
- What special challenges does this pose to the project?
- How is the program being administered and is the program unfolding “on the ground” as intended.
- Determine whether the program is reaching targeted populations.
- Assess the reasons for successful or unsuccessful performance and provide information for potential replication of successful initiatives.
- Identify what planned resources and inputs were for this program and whether they have actually been allocated.
- Where relevant, assess whether desired outcomes are not being achieved because of lack of resources or because of discrepancies between services that were planned and those that are actually being implemented.

2. Actual and/or potential grassroots impact on livelihood within the Zone of Influence – Key project impacts/results to date related to the following questions:

- What is the contribution of this project towards the rehabilitation of Afghanistan Infrastructure?
- To what extent has the road construction facilitated efficient movement of goods and people in its zone of influence?
- What is the effect of the road relative to access to government and social services, such as education and health care?
- To what extent has the roads project contributed to :
 - I. Decreasing ethnic divisions between regions;
 - II. Facilitating development of the agriculture sector;
 - III. Improving regional integration, security and stability;
- Is the project staff able to build the capacity of Afghans for sustainable road construction, rehabilitation and maintenance in the zone of influence, and improve the capacity of provincial local staff when expatriate staffs depart?
- Has the project created any road maintenance employment opportunities for

local Afghans in its zone of influence?

3. Project contribution to the rehabilitation of Afghanistan's infrastructure
4. Internal coherence and logic of the conceptual framework

The analysis addressed these questions including the reasons behind the answers. The analysis is presented in this assessment report as follows:

- Overall Assessment
- On Current Achievements
- On Transport Planning Considerations
- Identified External Challenges to the Program
- Identified Internal Challenges to the Program
- Adherence to USAID's Environmental Regulations
- Consideration of Gender Issues
- Recommendations for Post-SPR Implementation

2.4.4 Assessing the Impacts of the SPR-SEA Road Projects

This section describes the methods used to analyze the progress made toward the objectives of the SPR-SEA Program, primarily from the viewpoint of transportation economics.

Roads are a permissive factor in economic and social development. They are necessary but are not by themselves adequate. The roads themselves, and the road vehicles, provide basic access at a cost. The cost includes road capital and maintenance costs, vehicle operating costs (VOC), time costs, the costs of loss and damage to goods in transportation, and accident costs. In this case, security costs should also be included.

The primary benefit of the road improvements is to reduce these costs. There is also a psychological benefit in the form of a perception that action is being taken to assist the people in the region. In economic terms, the initial and primary effect of the road improvements will be to reduce the costs of road transportation. These reduced costs are then expected to lead to a number of other benefits, including those listed above: increased efficiency in transport, improved access, development of agriculture and other economic activities, and improvement in regional integration, security and stability

In the economic feasibility study of a proposed road improvement project, before the project is accepted for implementation, the situation over the next (say) 20 years as it will be without the project is compared with the situation as it will be with the project. For the project to be accepted, the benefits of the project – reductions in VOC, travel time, loss and damage and accidents – must be greater than the capital costs and the difference in road maintenance costs. However, this is not a feasibility evaluation in that sense. This is a post-project evaluation. It is an attempt to determine whether or

not the completed project actually achieved the benefits expected from the project. Did it meet the objectives of the sponsors of the project? Thus, this is not a pre-project “without and with” comparison where the forecast costs and benefits are compared over the next 20-year period. Instead, it is a “before and after” comparison, comparing the situation before the project was implemented with the situation after implementation.

This type of analysis requires information on the situation as it was before the project was undertaken and the actual situation after the road improvement has been in service for a reasonable period of time. There were baseline surveys carried out in the early stages of the project to provide much of the “before” information. However, at the time of writing, only two of the project roads are either recently completed or nearing completion. The degree of completion of the project roads was shown in **Table 1.2**. It was determined through field trip observations and discussions with project road users, people in the road influence areas and others that even the completed roads have not been in service for a long enough time to generate new traffic or to demonstrate the other effects of the road improvements. These circumstances left three possibilities:

1. Focus on what the effects logically should be after the roads have been in service for a sufficient time to allow the effects to be manifested. This would essentially be a reprise of what were considered to be the potential benefits in the pre-project planning and would still be speculative. This approach would add little new to the evaluation but could provide some insight.
2. A cross-section analysis. This would be based on a review of roads in other projects and/or other areas which have been rehabilitated to similar standards in the past, have been in service long enough to indicate the effects of the road improvements, but not so long that the conditions prior to the road improvements would not be remembered. These would be used as analogies to the SPR-SEA roads. The problem was to find roads in circumstances which are sufficiently similar to those of the Program roads to provide a valid comparison.
3. A combination of the two.

Strategy 3 was adopted. This was essentially based on an attempt to identify similar road improvement projects in other areas or other rehabilitation programs to find if there were completed projects for which “before and after” information was available. The planned primary contacts in this respect were with USAID and other donors and funding agencies such as the World Bank and ADB; trucking associations and individual road users, and to the extent possible, people in the affected communities. Interviews were conducted with residents along two selected SPR-SEA roads under construction and two non-project roads to learn from the perceptions of road users and residents of the areas. However, few cases with sufficiently similar circumstances were found. Most of the completed projects were for roads with considerably higher traffic volumes and with road improvements to asphalt or double bituminous surface treatment (DBST) standards. The main exception was the World Bank National Emergency Rural Access (NERA) program for the rehabilitation of rural roads, which

started in 2007 and included the upgrading of rural roads to gravel, DBST and asphalt road standards. The World Bank conducted comprehensive baseline studies prior to the upgrading. It plans to carry out intermediate surveys by impact evaluation teams, and a set of final surveys on completion of the project. However, the intermediate surveys are in their initial stages and the results will not be available for some time. A sample of these roads was to be selected for visits as part of the SPR-SEA evaluation, using the criteria that the roads had been completed to gravel standards and had been in operation for about six months or a year but not so long that users would not remember the situation before the road improvement. However, the visits were prevented by time limitations and security considerations.

Thus, the evidence for the effects of the road improvements to gravel standards on low-traffic roads is largely anecdotal. However, although the sample was small, there was sufficient consistency in the perceptions of those affected by the road projects that some degree of confidence is warranted.

2.4.5 Data Collection

The evaluation team reviewed key documents which included, at a minimum, the CA, program statement and/or stated objectives, program strategies and approaches, work plans, quarterly progress reports and program performance indicators.

A proliferation of publications containing data on the socio-economic profile of Afghanistan, including a description of Afghanistan's transport network, was also reviewed. This review was in connection with the assessment of whether the planning and selection of the individual road projects are sufficient or not.

Regarding the performance of the SPR-SEA Program, documents related to a completed (or almost completed) road project were reviewed by the Road Engineer. As specified in the Cooperative Agreement (CA), these documents included:

1. Instructions to Tenders;
2. Draft Forms of Contracts;
3. General Conditions of Contracts (FIDIC - *Federation Internationale des Ingenieurs Conseils* or the International Federation of Consulting Engineers);
4. Conditions of Particular Application;
5. Road Specifications;
6. Standard Cross-sections and design details;
7. Estimated Bill of Quantities (BOQ);
8. Road Reconnaissance Report;
9. Drainage/Hydrologic Report;
10. Geotechnical Report;
11. Environmental Assessment;
12. Photo Log;
13. Centerline Level Survey; and
14. Confidential Cost Estimate

The Environmental Protection Specialist and the Gender Specialist also reviewed the applicable above-mentioned documents.

The list of documents reviewed is as shown in **Appendix 2**.

2.4.6 Interviews

The list of individuals and agencies contacted is as shown in **Appendix 3**.

2.4.7 Field Trips

Road projects to be inspected were selected based on the following criteria:

1. Completed roads
2. Roads under construction. (Assessors will interview on site the contractor's and IRD's resident engineers.)
3. Roads to be inspected should be in various stages of construction--embankment filling and grading, subbase/base being compacted, culverts being installed or cast, side ditching, etc.
4. A remote road (under construction or not) that would pose logistics problems--lack of unskilled laborers, no suitable quarry site, long hauling distances, etc. will be inspected
5. A mountain road that would pose construction difficulties--side cutting, slope protection works, etc. would be visited
6. A road project on flat terrain will be visited
7. A bridge under construction will be visited
8. Quarry sites with ongoing quarrying operations will be visited
9. Site camps and site motor pool garages will be visited

As specified in the SOW, a minimum of 5 sites will be visited. The list of roads inspected is as shown in **Appendix 4**. The list also includes the 'cross-section' roads mentioned in **Section 2.4.4**.

2.5 **Limitations of the Assessment**

This assessment report has its limitations:

- Documentary review (*e.g.*, program strategies, annual work plans, complete set of progress reports) is to the extent possible
- Technical indicators and financial performance review is to the extent possible
- Only 3 (less than 30km) field trips to the SPR-SEA project roads
- Only 2 field trips to 'cross-reference' (*i.e.*, completed but non-SPR) roads

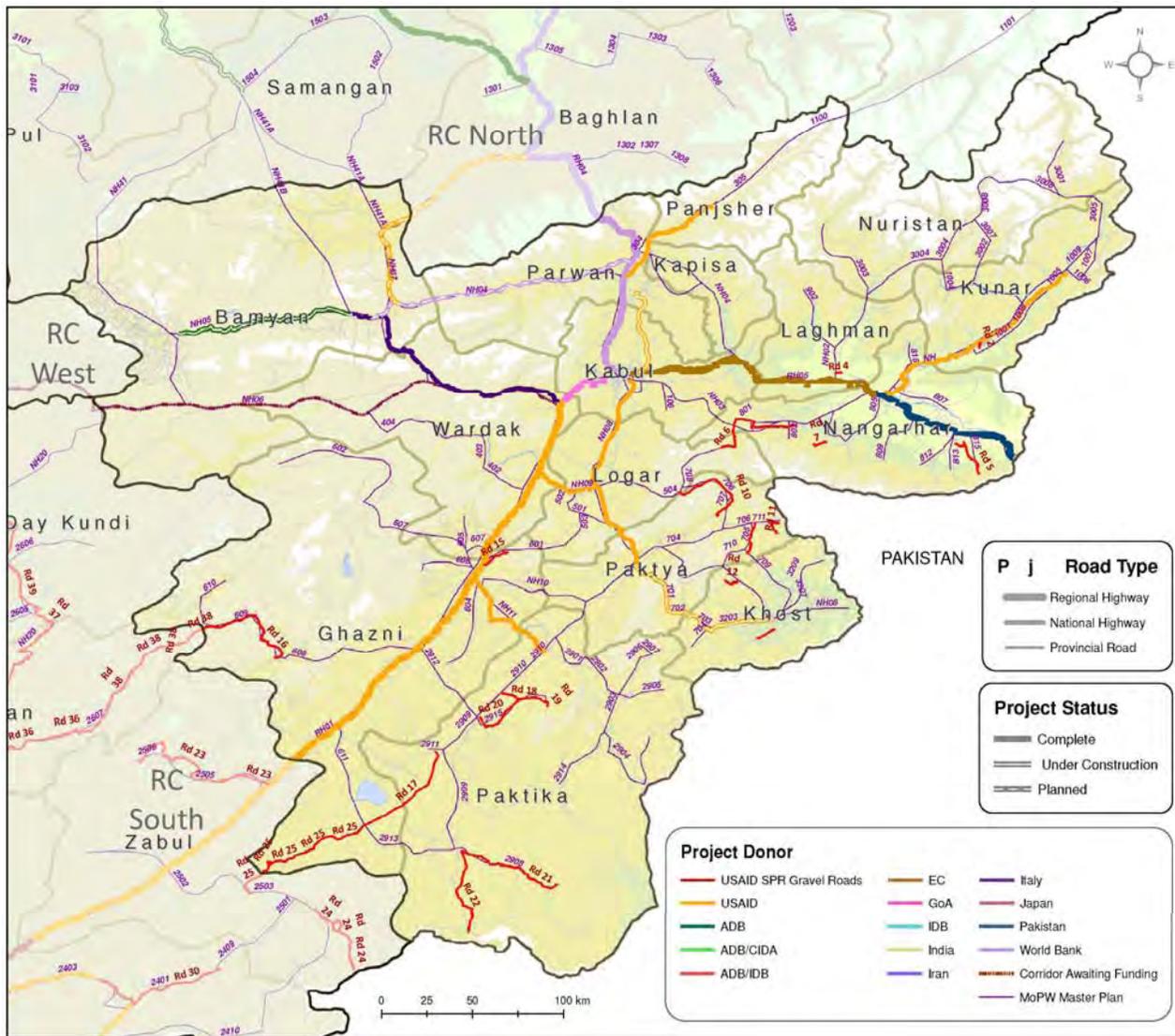
IRD has provided the assessment team access to more than 10,000 pages of program documentation. Not all documentation can be read and analyzed so that the team depended too on interviews with key staff knowledgeable of the documentation. Even then, not all of the staff could be interviewed given the time frame of the assessment. (The SPR-SEA organizational chart was used as a guide of whom to interview.)

Due to limited time, the team was not able to validate the financial performance and physical accomplishment reports stated in the progress reports.

Due to the security situation and the time and resources required to prepare for the field trips, only three of the project roads were inspected: Roads 4, 5, and 14—the last under heavy PRT security. The assessment team would have preferred to inspect Roads 2, 6, 7, and 15 too but the security situation prevented it. Nevertheless IRD volunteered several helicopter flyovers—Roads 8, 10, 16, 36, and 38—as well as allowed participation as an observer in two PRT briefings (Paktika and Zabul).

As the SPR-SEA project roads are still not yet in service (only 2 have been completed—Roads 7 and 14), the assessment team conducted ‘cross-reference’ trips or trips to similar roads completed for more than a year (and not necessarily funded by USAID) for their impacts.

Considering the factors noted above, the assessors are confident that a thorough, responsive, and hopefully, acceptable assessment has been conducted consistent with the circumstances of the assignment.



Afghanistan Road RC East Information October 2009

Legend

- International Boundary
- Region Boundary
- Provincial Boundary
- Lake
- Road Network

Map Information

Map Produced: November 9, 2009
 Cartographer: Abdul Razaq Niazi
 Afghanistan Infrastructure Data Center
 Projection: WGS 1984
 Document Path: GIS, Map Catalog
 Email: afdc@ird-hrls.org

Data Source

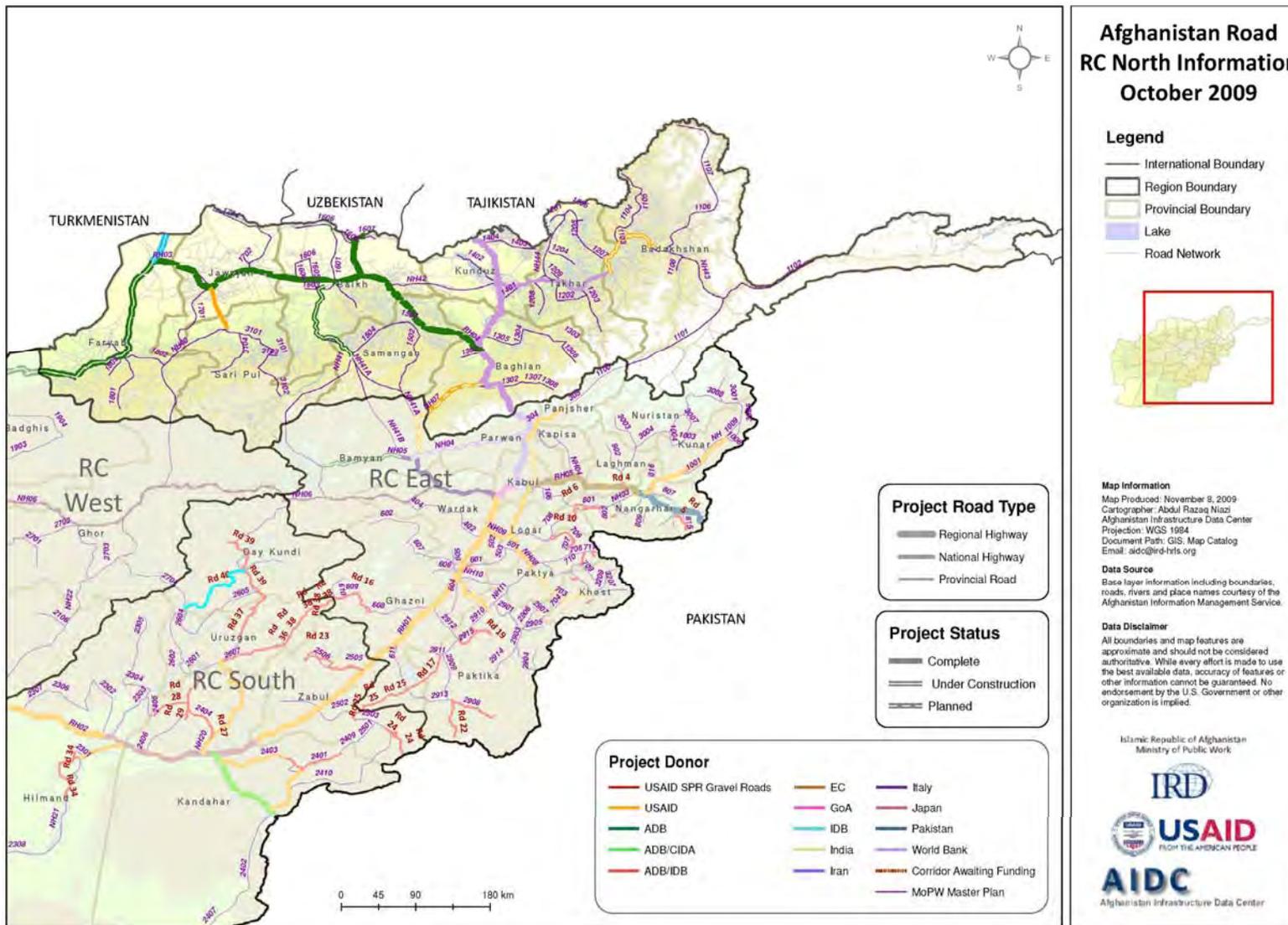
Base layer information including boundaries, roads, rivers and place names courtesy of the Afghanistan Information Management Service.

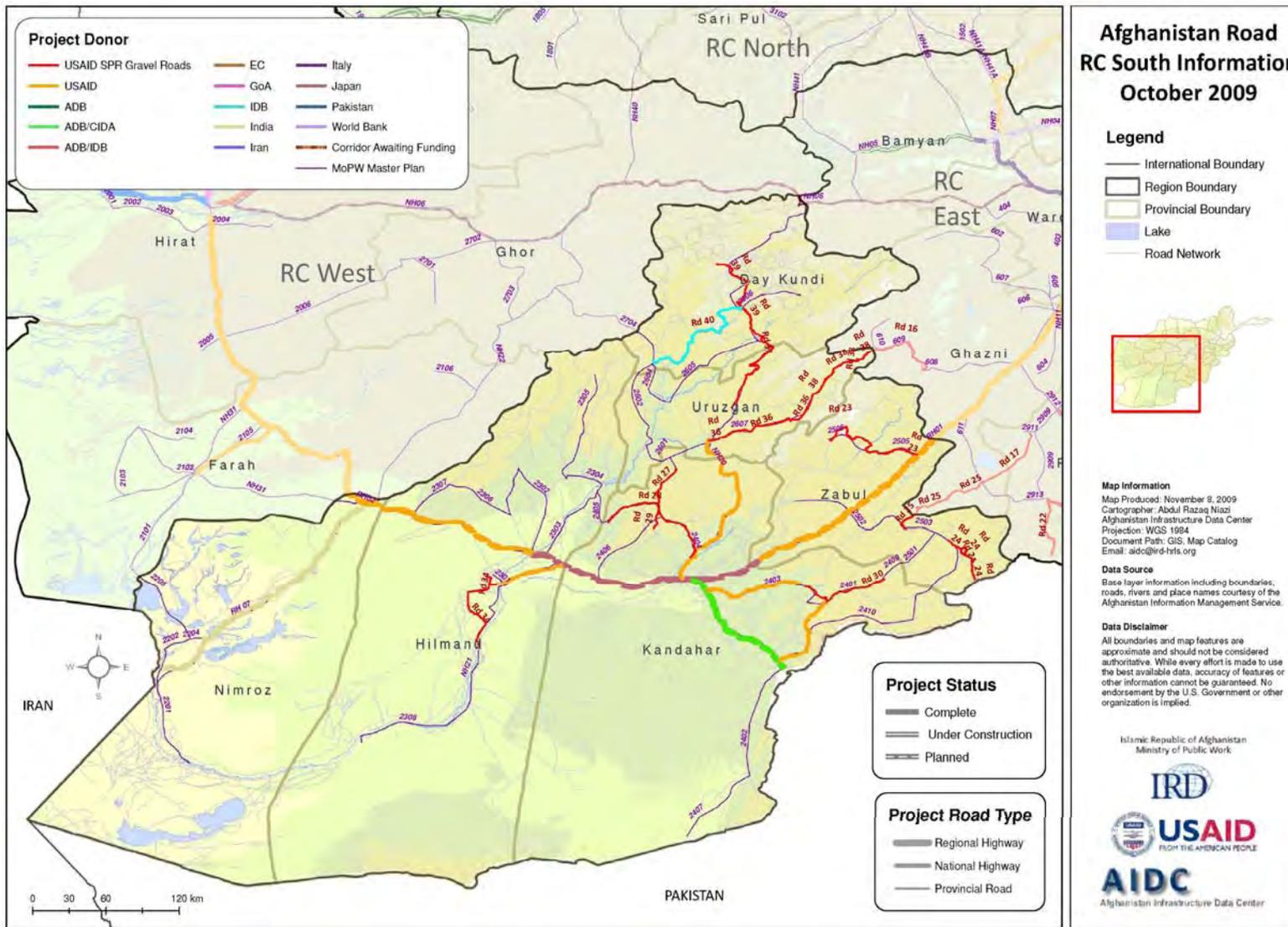
Data Disclaimer

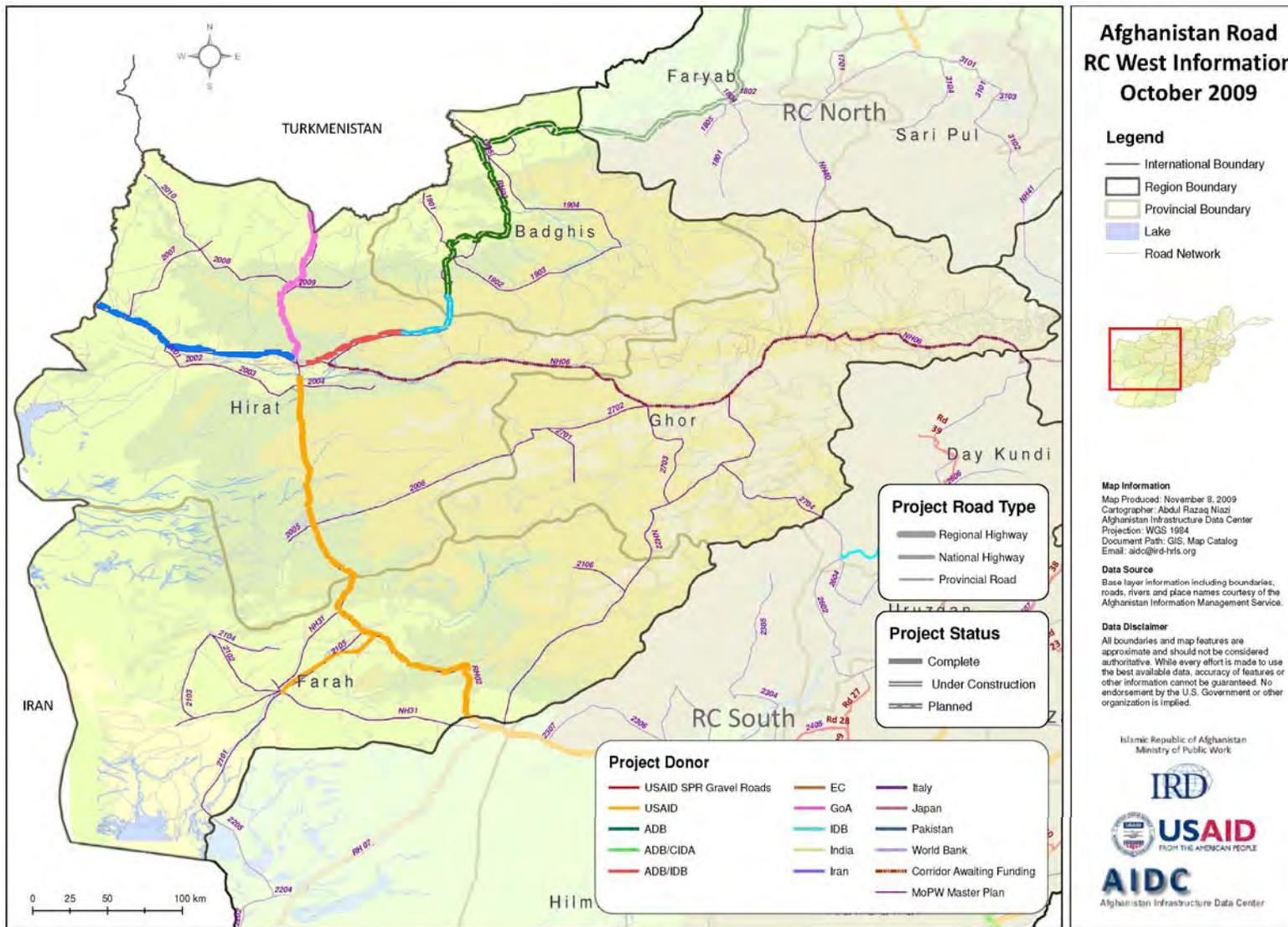
All boundaries and map features are approximate and should not be considered authoritative. While every effort is made to use the best available data, accuracy of features or other information cannot be guaranteed. No endorsement by the U.S. Government or other organization is implied.

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 Ministry of Public Work

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AIDC
 Afghanistan Infrastructure Data Center







III. ASSESSMENT OF THE SPR-SEA PROGRAM

3.1 Findings and Recommendations: Overall Assessment

A summary of the assessment in a narrative format that addresses the above-mentioned questions raised in the SOW (as enumerated in **Section 2.4.3**) is as follows:

Is the program and its activities progressing as planned?

The SPR-SEA is satisfactorily progressing despite problems in security and insufficient capacity of the contractors. While the program is not performing as scheduled, the causes are not that significant to further move back the program completion date. That is, except for one or two of the project roads, if the catch-up measures are successfully implemented, the target completion date of December 31, 2011 can still be met.

Is the project achieving its current stated objectives? Are the stated objectives proving useful for achieving project goals?

Because only two (2) of the twenty six (26) road projects have been completed, it is too early to tell if the program objectives are being achieved

Is the project achieving USAID's core objective of the SPR-SEA Roads Program to increase stability and security in Eastern and Southern Afghanistan?

If the areas where the SPR-SEA roads will not be stabilized security-wise it is hard to imagine how all of the road's objectives will be met. If it is any indication, Road 7 is currently in a 'red' area though on the opposite end, Road 14 seems on track in inducing development in the area.

What is the experience of SPR-SEA in operating in non-permissive areas?

To date IRD contractors have a cumulative casualties of 100 KIA's. A high percentage of the casualties is probably in roads where the influence areas have not yet been cleared and stabilized by the military (e.g., Ghazni and Zabul roads).

What special challenges does this pose to the project?

The security situation prevents regular inspections of the road works (especially the appropriateness of the road designs to field conditions) by experienced expatriate engineers. Reliance on the less experienced CCN engineers leads to inappropriate or poor road designs and deviation of the constructed works from the designs.

The challenge foreseen is in synchronizing the military's long term geographic strategies with the SPR-SEA's program.

How is the program being administered and is the program unfolding “on the ground” as intended.

Determine whether the program is reaching targeted populations.

Assess the reasons for successful or unsuccessful performance and provide information for potential replication of successful initiatives.

Identify what planned resources and inputs were for this program and whether they have actually been allocated.

Where relevant, assess whether desired outcomes are not being achieved because of lack of resources or because of discrepancies between services that were planned and those that are actually being implemented

Further, poor road design would lead to dissatisfaction among those affected by the road construction (e.g., roadside flooding, property disruptions). The need for expatriate engineers to conduct more field trips to check the correctness of the designs and construction works could expose them to serious risks. The risks can be mitigated if the ISAF would focus their ‘clear, hold, and build’ operations in the SPR-SEA roads’ areas or conduct joint inspections by the military and civilian engineers.

Generally and despite some implementation problems discussed in the body of assessment report, the SPR-SEA is ‘unfolding on the ground as intended’.

Due to the requirement that contractors hire at least 70% of their laborers from the province where the road project is located and at least 50% of their laborers are from the villages along the project road, the program is reaching the targeted population (in terms of employment generation objectives).

The COCB is an innovative and successful component and should be replicated in other infrastructure projects. So too is the mentor-protégé system. But definitely, a road construction project in an unstable area cannot be implemented (e.g., Road 22).

Program administration is cost-effective. Considering a markup for security, contract prices of the road works are comparable to those in other developing countries. At a rehabilitation cost of \$186,000/km for the SPR-SEA roads compared to the cost of about a million dollars per km for the national road projects. While this is not a fair comparison considering the vastly different road standards applied, the SPR-SEA roads are inexpensive.

The small grants being given for small enterprises are meant to induce economic development in the roads’ influence areas and are also for buy-in and community support purposes. Whether this objective is being realized is not yet known. There is a possibility that the objective is not being met due to the limited variety of the enterprises being financed by the small grants (e.g., soap making, carpet

What is the contribution of this project towards the rehabilitation of Afghanistan infrastructure?

To what extent has the road construction facilitated efficient movement of goods and people in its zone of influence?

What is the effect of the road relative to access to government and social services, such as education and health care?

*To what extent has the roads project contributed to :
Decreasing ethnic divisions between regions; Facilitating development of the agriculture sector; Improving regional integration, security and stability;*

Is the project staff able to build the capacity of Afghans for sustainable road construction, rehabilitation and maintenance in the zone of influence, and improve the capacity of provincial local staff when expatriate staffs depart?

weaving) that are not consistent with the needs study undertaken as well as the insistence of the grants beneficiaries for funding of enterprises not identified in the needs assessment studies. This will be revealed in time after follow up surveys corresponding to the baseline surveys will have been conducted.

The SPR-SEA is part of the overall approach of rehabilitating the regional roads first (REFS), the national roads (IRP) and now the provincial roads (SPR-SEA). On the opposite scale, the WB has their rural roads program. It is clear that the project road works, when completed and in service, will make an important contribution to the rehabilitation of the infrastructure.

Because only two (2) of the twenty six (26) road projects have been completed, it is too early to tell if the program objectives are being achieved. However, there is little question that the road improvements will facilitate the efficient movement of goods and people.

To optimize the benefits from the SPR-SEA as well as benefits from infrastructure programs in other sectors (e.g., education, health), more coordination is needed in planning so that this road infrastructure program would integrate with the other programs in terms of benefits.

Though it was observed that while an M&E Plan to measure the achievements has been prepared including performance indicators, the related baseline survey is yet to be conducted. (Baseline Surveys covering socio-economic data and Needs Assessment Surveys were undertaken in support to the COCB component.) Nevertheless and as mentioned, it is too early to gauge the achievements of the SPR-SEA.

The mentor-protégé program could well be one of the more successful components of the SPR-SEA. Sustainability of future and similar road construction programs will be enhanced through the development and strengthening of the country's road construction industry.

Has the project created any road maintenance employment opportunities for local Afghans in its zone of influence?

The road rehabilitation itself certainly resulted in employment opportunities. The maintenance of the rehabilitated roads will certainly result in employment opportunities, provided the maintenance is funded and actually carried out. (But if Road 14 is any indication at all, rehabilitated roads may not be maintained at all.)

Internal coherence and logic of the conceptual framework

The SPR-SEA is a complex program but has generally been well-planned and executed. A failing is that there was no consideration of transportation economics in the selection of the roads and the determination of the road standards.

The SPR-SEA is not without shortcomings and a list of areas for further improvements is discussed in the following sections. Although this assessment report might seem to focus on deficiencies, it is recognized that the SPR-SEA project has resulted in impressive progress in a beneficial endeavor under very difficult circumstances. A summary of the discussions below is as shown in **Table 1-1**.

3.2 Findings and Recommendations: Current Achievements

It is too early to assess the full impact of the SPR-SEA roads on the development of the areas influenced by the road. However, the SPR-SEA is so far successful in helping develop and strengthen the road design, construction, and hopefully also the road maintenance industry in Afghanistan. This is mostly due to the Mentor/Protégé Program as well as strict supervision and monitoring of the contractors' performances in complying with the project milestones. The strict supervision ensures application of the principles the contractors were trained on. Eventually, a sustainable locally-driven road rehabilitation program should be possible. (It cannot be helped that the road construction industry's strengthening under the SPR-SEA be compared with the evolution of the ANA-Afghan National Army. Both programs will necessitate several years of training.)

Because the road contracts are awarded to local firms, the SPR-SEA program is also cost-effective with the road contracts averaging \$185,000/km. This includes a 6% cost for security. Other expatriate-heavy (and therefore security-heavy) road building programs would easily cost in the realm of \$1m/km. While this is not a fair comparison considering the vastly different road standards and pavement vtypes applied, the SPR-SEA roads are inexpensive.

The low and reasonable contract prices may be an indication of the absence of graft and corruption in the bidding process. (This statement may not entirely be true as there are reports of governors harassing winning bidders not favored by them. There are also reports of favored subcontractors being forced on the contractors. It is not known if the latter reports are true but the SPR-SEA engineers are advising the contractors to terminate underperforming subcontractors and engaging the services of more reliable subcontractors.)

3.3 Findings and Recommendations: Transportation Economics Aspects⁴

3.3.1 Selection of the SPR-SEA Roads and Design Standards

a. *The Selection Procedure*

Road selection for inclusion in the SPR-SEA was somewhat different from the normal procedure, which consists of conducting an overall transport sector study followed by economic feasibility studies of individual proposed road link rehabilitation and improvement projects. These studies indicate the economic feasibility of the proposed road improvements and the appropriate road standards and capacities to be applied. In the case of the SPR-SEA Program, the departure from the more common procedure seems appropriate under the circumstances, considering the objectives of national stability, security and cohesion and the perceived need for positive action in a relatively short time. The economic aspects of the investments were not the ruling criterion in such a case. While the resulting selections differed significantly from what the priorities in the MRT would have suggested, it is unlikely that significant errors resulted from this procedure, other than some possible misplaced priorities in the cases of individual roads. It is highly likely that the roads selected in this way will serve their purposes, whether economic, social, political or military. Detailed economic and financial feasibility studies for each proposed road would not have been a practical procedure under the circumstances, especially considering the large number of road links involved and the perceived need for rapid improvements. However, a more simplified application of transport economics would have been appropriate.

b. *Road Design Standards*

The MRP project, in consultation with the Ministry of Public Works, established standards for different road categories and expected future traffic volumes. Many of the provincial roads are expected to have relatively low traffic volumes. The Highway Development and Management program (HDM-4) was used in the MRP to establish design standards for use with different road functional classifications and traffic volumes. The model considers the road characteristics, capital and maintenance costs, vehicle characteristics and operating costs, the progression of road roughness with different traffic volumes and axle loads and similar factors to approximate the most economical configuration of the roads for each set of circumstances.

On the basis of this analysis, the MRP recommended that the design standards already established by the Ministry of Public Works (based mainly on that of AASHTO – American Association of State Highway and Transport Officials) generally be retained. For “low volume roads” with annual average daily traffic (AADT) below 5,000 vehicles per day the MPW standard specifies a gravel surface with a carriageway width of 6 meters plus shoulders of 1.5 meters, for a total width of 9 meters. However, the MRP further recommended an additional category for roads having traffic below 400 AADT, recognizing that most provincial roads are likely to

⁴ Discussions regarding transport economics are paraphrased from a fuller report on the subject attached as **Appendix 5**.

carry volumes less than 400 ADT, which cannot justify a 6.0m two-lane carriageway. The standard in this case would be for a gravel road with a total width of 6 meters, which would allow for design speeds of up to about 60 kilometers per hour⁵.

The standard design used in the SPR-SEA Program on relatively flat terrain is for a gravel surface with a carriageway of 7 meters and shoulders of 1.5 meters, for a total width of 10 meters. This is wider than the MPW standard.⁶ Also, as noted in the MRP, most provincial roads will carry less than 400 vehicles per day and the standard width of 10 meters is considerably wider than the MRP recommendation in these cases. In addition, there is a considerable gap between the 5,000 AADT for the MPW “low volume roads” and the 400 vehicles in the additional low-volume category recommended by the MRP. The MRP traffic forecasts for provincial roads for the year 2015 show volumes as high as 5,500 vehicles per day and as low as 200. An AADT of (say) 4000 vehicles might be considered a high volume for a gravel-surfaced road, although this depends on the mix of traffic in the totals. In summary, the standard gravel surface and the standard widths could result in considerably less than optimum solutions from the economic viewpoint.⁷ It is suggested that additional levels of improvement, to double bituminous surface treatment (DBST) or asphalt surface standards, and with more flexible widths, depending on the levels of traffic, be considered in the future. This could be especially important considering that current traffic volumes are low for a number of reasons, including hostilities, security, poor road conditions, lack of all-weather serviceability and a depressed economy. As these factors are overcome there could be rapid growth in traffic and a pattern of under-design of some of the roads.

As noted above, from the viewpoint of transportation economics, the use of a ‘one size fits all’ approach, whereby all of the selected roads were improved to a common gravel standard with a common total width of 10 meters, regardless of traffic volumes, is not a good procedure. Very low-volume roads would tend to be over-designed while high-volume roads might be under-designed. Since traffic counts and forecasts were available for the project roads, it would have been a relatively simple matter to make a number of runs of HDM-4 or of a simpler, more transparent spreadsheet procedure to estimate the traffic levels at which each succeeding level of road improvement would be economically justified. The “thresholds” determined in this way could then be used to identify more accurately the appropriate width, surface type and bearing strength for each road. This would not be as accurate a procedure as full feasibility studies but would be a considerable improvement over the ‘one size fits all’ approach and would not be difficult to apply. Other simplified approaches could also be considered as alternatives to full economic feasibility studies. Considering that the road component of the project entailed a large investment with funding of more than 300 million US dollars and considering the relative ease of the suggested

⁵ Four (4) meter wide sub-arterial roads (excluding shoulders) are being advocated by the World Bank, ADB, JICA, in developing countries

⁶ It is understood that the MoPW standard is now gravel surface for up to 1000 vehicles per day and DBST or asphalt beyond that level of traffic.

⁷The application of the standard gravel surface used for all SPR-SEA roads is not to be considered a criticism of the executing agency, IRD. The Cooperative Agreement for the Program specified that the roads were to be rehabilitated to an all-weather gravel standard (Cooperative Agreement No. 306-A-00-08-00509-00, November 30, 2007, p. 10).

procedure, it is reasonable to ask why this or a similar procedure was not specified in the development of this program.

The Cooperative Agreement between USAID and IRD does not specify the width of the rehabilitated roads. Again, the common total width of 10 meters (except in some terrain types) will likely be adequate for the forecast traffic in all cases, but will almost certainly be wider than required, and therefore more costly than necessary, for the low-volume roads.

In summary, there is no element of economic analysis in the Cooperative Agreement, the selection of the roads and the determination of the design standards. This should be remedied. Subsequent road programs will include the improvement of additional provincial roads and the additional upgrading of the roads already improved to gravel standards. It is suggested that the traffic monitoring program (part of the M&E Plan) be implemented on both the roads already included in the SPR-SEA Program and those additional roads which might be included in any future program, regardless of the funding source. Additional runs of the HDM-4 program or similar routines could be made, using current road construction and maintenance costs and vehicle operating costs, to determine more specifically the traffic volume thresholds at which different road design standards would become appropriate. In order to encourage a sustained and comprehensive planning organization, it is recommended that this work be located in the Ministry of Public Works rather than being carried out separately from the ministry.

IRD has engaged the services of a consulting firm to prepare feasibility studies of the SPR-SEA roads. The study is on-going but if that firm will have difficulties in conducting the study due to lack of baseline data, perhaps the mentioned threshold-approach can be considered. (The traffic count surveys conducted as needed in the pavement thickness design is available as baseline data. It has not been assessed in detail but the COCB component did survey some traffic and household baseline surveys too.)

3.3.2 Expected and Actual Benefits

A primary objective of the economic evaluation was to assess the performance of the specified roads after the improvement of the roads. All but two of the roads were not yet finished and the improvements were not in effective service. The two finished roads had been finished only recently. For this reason the project roads have not yet had an impact on the operation of the transportation system and the results of the road improvements in terms of their effects on economic and social development cannot yet be judged. This situation will correct itself after the improved roads have been in operation for a reasonable length of time and the post-project M&E system is instituted.

An attempt was made to make a judgment of what the probable effects of the program would be based on the performance of similar roads in other projects which had been completed and in service for at least one year. This had some success but was limited because other donors, apart from the case of the World Bank rural roads program, were not generally building gravel-surfaced low volume roads. In addition, there were

many factors at work in a dynamic situation, such that the effects of road improvements alone would be very difficult to isolate.

The primary economic benefit of the road improvements is expected to be significant reductions in the costs of the operators of vehicles on the roads. This in turn is expected to lead to other benefits, such as increased efficiency in transport, improved access to various facilities, development of agriculture and other economic activities, and improvement in regional integration, security and stability. (Refer to the specific objectives of the SPR-SEA as examples.)

The improvements to the roads will clearly and obviously lead to reductions in vehicle operating costs as long as the roads are maintained to reasonable standards. The costs of vehicle utilization, fuel, tires, maintenance and crew will be reduced significantly, with the amounts of the reductions depending on the conditions of the roads before the improvements. However, the secondary effects of these cost reductions will depend on the degree to which the savings are actually realized by the commercial vehicle operators and are passed on to the users of the transport services. If much of the benefit is absorbed by unofficial toll collections, the secondary effects will be reduced. If much of the benefit is absorbed by the transport operators and not passed on to the users of the services, the secondary effects will be reduced. Some of the anecdotal evidence suggests that there is a problem in these respects. The existence of the unofficial tolls is common knowledge and was mentioned frequently in discussions with representatives of truck operators and with roadside residents.

The passing on of the savings by the transport operators could be an important issue. Discussion with representatives of truck operators suggest that the savings for the most part are not passed on to the users of the services. The trucking industry is said to be largely a one-man one-truck operation. This normally leads to strong competition and tariffs reasonably related to costs. However, the industry in Afghanistan is said to be organized into formal or informal cooperative structures. Truckers get loads by waiting their turn in line rather than competing to attract the loads. The charges are set by common consensus among the operators. There is very little competition in the economic sense.

Discussions with transportation users along the roadside confirm that tariffs do not tend to be reduced when the roads are improved. In fact, the most common perception among the users of the services was that the costs of transport had increased. This was often attributed to increases in fuel prices and changes in currency exchange rates, but on balance it appears that much of the benefit of the improvements may be retained by the operators. Possible solutions for future consideration might include government regulation of tariffs, establishment of some publicly-owned transporters to introduce a further element of competition, establishment and initial funding of village truck and bus cooperatives or financial assistance to agricultural producers, for example, so that they could own their own vehicles and thus realize the cost savings.

Benefits other than vehicle operating cost savings will clearly be realized by the users of the transport services. Times en route will be reduced. The incidence of loss and damage to agricultural produce will be significantly reduced, both because of reduced travel times and less agitation of the produce on the previous rough roads. Comfort

and convenience of access to markets, clinics, schools and other facilities will be increased.

Further, it is important to consider the differences between intentions, performance and perceptions. The objectives and intentions of the program are commendable. The performance has not been without problems but a great deal has been accomplished under difficult circumstances. However, these positive aspects are not generally reflected in the perceptions of the roadside communities. The most common and repeated comments were related to the inconvenience experienced during construction, lack of information and communication (which leads to the conclusion that the COCB component is not as effective), appropriation of land and structures without adequate discussion, agreement and in some cases compensation, and in general a sense of dissatisfaction with the experience. A frequent complaint related to the amount of dust generated during construction and concern regarding the dust the traffic will raise following completion of the gravel roads when there will be more traffic and higher speeds than before.

These negative perceptions will for the most part be short-lived and may be forgotten after the improved roads are in service and the benefits become apparent. Steps should be taken to improve communications with the affected roadside residents in an attempt to improve the perceptions of the intended beneficiaries of the improvements.

Aside from the low-key public relations program during the construction period undertaken in the COCB component, consideration should also be given to the possibility of dust amelioration measures during and after construction on stretches where the roads pass through villages. The ubiquitous dust problem also suggests that somewhat lower cross-over thresholds between the use of gravel on the one hand and DBST or asphalt on the other should be considered.

In summary, the SPR-SEA Program will clearly improve the roads. It will do most or all that the improvement of the roads can do in terms of reducing the transport barrier to further social and economic development. But it is a permissive factor; a necessary condition but not an adequate condition by itself. The other elements of development must also be present, including the passing on of the benefits, agricultural and other productive potential and initiative, clinics and schools, security and similar requisites. Perhaps a “package” project including all of these elements could be organized as a trial or demonstration case, either through a single donor or as an integrated, cooperative project among the donors and with the participation of the Government and the local authorities.

3.3.3 Other Planning Observations

a. Need to synchronize activities of donors, PRT's, and the military

An implementation problem related to planning is that the ground dynamics do change so that the situation last 2007 in which the road selection was based do not necessarily apply when the road is ready for construction this 2009. This is especially apparent when the military's 'Clear-Hold-and Build' strategies are focused in a

different geographic area than where the project roads are located⁸. The provincial road projects have a project gestation period of around 3 years so that the military tactics and related timelines should be synchronized to this.

The obvious solution is to hold more frequent and continuing dialogues between the SPR-SEA, the military, and the PRT as was done during the project roads identification stage. However, military front lines do change in the field through time and the areas where the project roads are located should always be classified as 'cleared'. To ensure this, perhaps the SPR-SEA should regularly report to a steering committee composed of USAID, the military, and the PRT's so that appropriate military actions in support to the SPR-SEA can be undertaken.

A separate steering (or advisory) committee composed of other donors and the various government agencies can also be created to ensure synergism with the other development projects in the project roads' corridors. That is, a road by itself cannot assure development of an area but that road will make easier access by other government services (e.g., health workers, agricultural extension workers), NGO's, as well as for new infrastructures (e.g., farm-to-market roads, irrigation systems, educational centers.).

b. There seems to be a pattern of what might be considered to be unrealistic expectations.

The environmental requirements to be applied to the project are apparently based on USA environmental legislation. The author of the economics part of the report is not qualified to judge the applicability of the legislation specifically to the circumstances in Afghanistan. Is it realistic to expect the legislation to be fully observed considering the stage of development of the country, the security aspects of the situation and the importance of environmental factors relative to more compelling considerations?

Similarly, the desire to have construction and other Afghan workers covered by workplace protective measures, such as use of hard hats, safety boots, dust masks and other safety gear similar to that mandated in more developed countries is commendable. It was frequently commented that little such gear was observed on the field trips carried out as part of this evaluation. Is it realistic to expect the common use of such gear on these road improvement projects in Afghanistan?

c. Possible future role of MoPW

The possibility of restoring some degree of force account construction by the Ministry of Public Works might be considered.

In meetings with Government officials the evaluation consultants were informed that, in the past, some road construction had been carried out by the Ministry of Public Works, using in part army personnel as construction workers. This is no longer the case. Such "force account" road construction and maintenance was common in the past in many countries, both developed and less developed, but some has been

⁸ As examples will be Roads 21 and 22 in Paktika. The military and PRT is still unable to operate in the areas where the roads are located. Another example is Roads 23, 24, and 25 in Zabul which are considered by the PRT is 'red' areas.

discontinued as part of the drive toward privatization. This is in part attributable to the currently-popular privatization policies of the World Bank, Asian Development Bank and some governments, based at least partly on the political or economic ideology of the time. However, it should be recognized that full privatization has not always been successful and is not always appropriate to the circumstances of a particular country or situation. There are many success stories but also many accounts of failed privatization initiatives. The existence of a publicly-owned contractor could have beneficial effects in terms of the setting of standards, stimulating competition and the training of construction workers, as well as adding to the capacity of the construction industry. Considering the current pressure on the Afghan construction industry, donors might consider discussions with the appropriate Government departments with a view to reviewing this situation.

Further, there appears to be a tendency to plan and carry out the road improvements with less than full institutional interchange and coordination with the Afghanistan Ministry of Public Works, the Government entity responsible for Provincial roads. It is intended to strengthen the Planning Department of the Ministry into a fully-functional road planning organization. The SPR-SEA project and any successors should include specific provision for the support of the Ministry's responsibilities to the maximum extent practicable under the circumstances. Without necessarily referring to the specific situation in Afghanistan, it has been observed in many countries that the tendency for donors to carry out their projects through separate agencies such as dedicated Project Management Units, outside of the normal functioning of the government departments normally responsible, tends to undermine the government structure rather than support and strengthen it.

3.4 Findings and Recommendations: External Challenges

3.4.1 Need for more effective turnovers for the PRT's, military, and USAID FPO

Personnel of the PRT's and the military (at least for the US forces) rotate every six months. The USAID Field Program Officers (FPO's) embedded within the PRT's rotate every nine months. An effective turnover is needed or priorities may change and the 3-year SPR-SEA will be adversely affected. A new set of PRT force personnel may have a different priority regarding sustaining economic development within the SPR-SEA roads' locations. Worse, the PRT's and the military's objectives may not be coordinated with each other. (In 80/20 counter insurgency (COIN) strategy, PRT's provide the 80% development while the military provides the 20% 'muscle'.)

3.4.2 Need to account for the insufficient capacity of the contractors and to consider realistic deadlines in program scheduling

While the SPR-SEA is more of a training program, it is still a road building program and contractors with sufficient road building skills are necessary. Continuous training and advisory services to the contractors are then needed for the road building component to succeed.

This is exacerbated by the fact that considering the many ongoing and planned road construction projects along with the many construction projects in other sectors of the

economy, there is presumably an unusually heavy demand for construction capability. This could have an important impact on the SPR-SEA. This requires difficult balancing between the need for progress and the desire for development of the construction industry.

In another vein, progress in construction projects is normally dictated by the worker and equipment productivities. Unfortunately, the productivities of inexperienced workers, equipment operators and engineers cannot be easily gauged and this has to be accounted for when setting program milestones and deadlines.

It is to be noted that IRD, as implementer of the SPR-SEA, is also learning from the program and adjustments are constantly being made⁹.

The first of the road projects were awarded during the last quarter of 2008. Thus, 3 quarters were allocated to setting up the program and training the first batch of trainees—a reasonable accomplishment.

All road rehabilitation works should be completed by end-December 2010. The security situation (discussed next) and contractors' learning curves will dictate if this target can be met.

In fairness to the contractors, Design-Build tenders are difficult to bid on due to the absence of data like quantities which will make cost estimating more of a guess work. However, the contractors manage to submit reasonable bid prices (i.e., not erring on the low side) likely due to their familiarity with the area as well as previous road construction experience with other donors. Further, given the difficulties in finding experienced (or willing) CCN engineers (the large number of simultaneously ongoing infrastructure projects in Afghanistan is taking its toll), the contractors are resorting to engaging the services of TCN engineers (mostly from Pakistan). It was also observed that expatriate staff from western countries are being engaged for business development and proposal writing purposes¹⁰.

3.4.3 Need to carefully screen the trainees who are attending the Mentor/Protégé Program

Some contractors are complaining that:

- Trainees are of varying intellectual capacities such that the slow learners pull down the speed of the training
- Some trainees are not the engineers assigned to the project

This should be verified. Perhaps for the good of the project, the trainees should also be carefully screened.

3.4.4 Need to account for the poor security situation in construction planning

⁹ An example is use of the simpler MS-Excel based linear diagrams developed as an intermediate product prior to inputting in Primavera SureTrak and P6 files.

¹⁰ Reportedly, the CCN contractors retain western TCN staff at a retainership of \$3,000 monthly and with a promise of a percentage commission if a contract is awarded. TCN engineers from Pakistan are paid from \$3,000~6,000 monthly.

The poor security situation threatens normal construction procedures and pace. Contractors have to work by sections. That is, instead of separate work crews setting the embankment/widening and building the culverts ahead of the road paving crew, all teams have to work together in ‘security bubbles’ and move camps as the ‘bubble’ moves. On the part of IRD, billings by the contractors for their accomplishments have to be verified by helicopter flyovers. (The field reports of the IRD staff embedded into the contractor’s staff are rightfully not made the outright basis for the approval of the invoices and their reports have to be further verified. Specialist ‘tiger’ teams composed of experienced expatriate staff are one of the means to verify the billings. The tiger teams are functioning more in contractor problem resolutions but with the use of a helicopter, 3 flyover trips in a week can be undertaken to also confirm visually the accomplishments/billings¹¹.)

3.5 Findings and Recommendations: Internal Challenges

3.5.1 Need to constantly change program approaches and configurations

As mentioned, the SPR-SEA is a pilot program so that new approaches and configurations are constantly being tried and changed. Among them are the procedures for providing water wells which are built by the contractors for construction purposes (contractors are prohibited from drawing water from the villagers’ wells) then turned over to the villagers after the construction. Through time, it was decided that the villagers will decide where to drill the wells to optimize the locations from the point of view of the villagers. Then later, it was realized that tests for water potability are not being conducted so that three NGO’s were given medium-sized grants (greater than \$100,000) to test the potability of the wells installed by the contractors. A variation of the well drilling is that the contractor will not drill the required wells but the well drilling will be undertaken separately as part of a COCB grant.

Another example is the first aid stations set up by the contractors for use of their laborers in road construction-related injuries. The first aid stations are to be turned over to the villagers after the construction so that they were constructed not as temporary structures but as permanent ones. Since USAID has stringent structural requirements for health-related facilities, the first aid stations were turned over to the villagers not as health centers but as permanent structures for which the villagers will determine the function.

The last example is the template for the Design-Build contracts which is evolving as each contract is let out.

3.5.2 Need for the design mentors to go out to the field more often and check the design work of their protégés

While it is recognized that the security situation inhibits field inspections, nowhere are field visits more required than in the design checks.

¹¹ Refer to the IRD CY2009 Annual Report for a discussion about the tiger teams

As planned, the 30% designs are supposed to include plans and profiles in the mountainous sections. This is to ensure that the mountainous sections do not exceed the maximum prescribed gradients as doing so might necessitate changing the road's alignment. The 60% designs include both plan and profiles with the culverts sized. The 90% design are the 60% designs adjusted to the field conditions, e.g., change in culvert orientation and location, slope protection works, etc. The 100% designs are the 90% designs as approved by IRD. After the construction, the contractor needs to submit 'as-built' drawings.

It is more of an academic exercise up to the 60% designs depending more on the Digital Terrain Model's (DTM's), 3-dimensional photographs, software, etc. Conformance to actual field conditions (*i.e.*, adjusting the DTM's and designs) is included in preparing the 90% designs and this is where oversights and mistakes can occur. The design of the SPR-SEA is such that all the design works in the field are to be performed by the contractors. However and as mentioned, the design experience is still insufficient for the contractors to prepare good designs so that design checks in the field are necessary to ensure correctness of the designs¹². A non-responsive design might lead to dissatisfied road users¹³.

The non-familiarization of the design mentors regarding the field conditions can also lead to an impasse during discussions for the design changes. Contractors are complaining that they cannot insist on their points or basis for the design changes as the IRD designers will not check the field conditions. (IRD has 3D aerial photographs but fine details may not be visible.)

It is noted that expatriate visits to the project site require a high level of security support. This then raises the profile of the project and makes it subject to further security incidents in the field.

3.5.3 Need for the IRD Regional Project Managers to go out to the field more often to be able to identify potential problems

The need for field inspections is not limited to the design checks. IRD Project Managers, site engineers, and QA/QC technicians are assigned to each of the road projects to assist the contractor prepare his reports, especially the accomplishment reports (e.g., linear diagrams, SureTrak inputs) and billings. (The PM's are not authorized to direct changes that will impact either the design or cost of the works. However, they are authorized to issue any direction that is necessary to assure that the contractor is complying with the technical provisions of the contract.) However, the PM's sometimes lack the experience to identify potential problems so that site visits would then have to be conducted by the Regional Project Managers and problems

¹² An example is Road 5 which is in rugged but flat terrain. The contractor designed a series of culverts to account for the floodwaters across the flood plain. However, it has to be checked if indeed the floodwaters will flow towards the culverts annually or if the floodwaters will flow in different paths. The contractor claims that river training works (e.g., gabion walls) are included though it may be the case that perhaps a series of causeways or low embankment but slope protected fills where floods can flow over will be more cost-effective.

¹³ Design oversight (e.g., lack of drainage facilities to counter floods due to the embankment, disrupted irrigation canals with no replacement provisions) in Road 4a led to complaints by the villagers. In fairness to the IRD engineers and the contractors the road work was explained to the villagers but design suggestions from the villagers was not possible until the villagers could see the finished work.

anticipated or identified for the Construction Superintendent to solve which may involve reordering the contractor to re-allocate resources, engage the services of a better sub-contractor, etc. (The Construction Manager ensures project documentation is complete to enable proper and more detailed analysis.)

3.5.4 Need for better tools to manage this complex combined road building and training program

While flowcharts, job descriptions, bar charts, plans, log frames, etc. are being used, they are not uniformly institutionalized across the various departments of the SPR-SEA. This results in work gaps and institutional lapses¹⁴. A solution may be to prepare and compile the flowcharts, job descriptions, plans, log frames, etc. into a procedures manual not unlike those prescribed when being certified for ISO9001. To be able to implement this scheme, a QA/QC Department (as distinguished from the current QA/QC Department) would have to be created. (The current QA/QC Department would have to be renamed Materials Testing Department or similar.) The responsibility of this newly created QA/QC Department would be to conduct continuous random checks for compliance with the SPR-SEA Procedures Manual which that department also maintains. As the program progresses, changes to the procedures manual (and as mentioned, program approaches) will be inevitable and the QA/QC Department will be responsible for incorporating the changes. (A Program Controls Department performing duties and responsibilities as stated for the QA/QC Department is currently in place. However, the procedures manuals do not yet cover the whole program and are currently limited to budget controls, cash flows, project scheduling review, COCB procedures, invoicing, etc.¹⁵)

IRD has many successful procedures in place that are worth citing. An example is the procedure for checking the contractors' invoices. The engineering departments check entries to confirm that they are billable items, the quantities were as agreed upon, there are no double billings, etc. and carry out helicopter flyovers to cross check the reports of the IRD PM's. The Finance Department does a parallel check of the invoices' arithmetic, compliance to formats, proper ledgering, etc; and if both checks coincide, then the invoice is recommended for approval.

3.5.5 Need to conduct regular independent assessments

An alternative or supplement to the integrated program-wide procedures manual is to conduct more regular independent assessments of the Program. This seems to be the IRD culture as IRD has engaged the services of another firm to conduct an internal assessment of the Program.

3.5.6 Need to establish a feedback mechanism so that those affected by the road construction can air their grievances

¹⁴ An example is in Road 4a again where the grievances of the road users (e.g., flooding caused by high embankments) are not being addressed to. A 'job description' will readily point out who is responsible for initially entertaining the complaints (e.g., COCB field personnel?) and a 'flowchart' will direct that person what to do (e.g., inform the IRD PM about the matter?)

¹⁵ SPR-SEA Project Controls Procedures Manual

In connection with the previous observation, there seems to be no system wherein the complaints of the villagers as far as road design and construction are concerned can be ventilated. While the SPR-SEA is contemplating integrating both COCB and road rehabilitation functions in the field¹⁶, in the process of preparing a procedures manual, a scenario like this can be identified and incorporated.

3.5.7 Need for COCB's M&E system to focus on the effectiveness of the grants

Another identified gap is a more useful Monitoring and Evaluation (M&E) system for the COCB component. Currently, disbursements to the grantees are accurately monitored but accomplishment reports should go beyond just reporting the amounts being disbursed.

The COCB component is also intended to induce economic development within the project roads' influence areas. How these grants affect commerce in the area should be monitored more effectively. A baseline survey was conducted in February 2009 and included a household income component as well as measurements of road user statistics (e.g., vehicle counts, speeds, etc.), commercial establishment inventories, commodity flow survey, etc. The baseline survey also attempted to cover performance indicators related to achieving the project road's objectives albeit the performance indicators were not as complete as those enumerated in the SPR-SEA M&E Plan which was prepared a year earlier. Hopefully, future surveys will be conducted to evaluate the changes to the baselines as well as to measure the achievement of the project road's objectives.

An incidental product of the M&E plan is a household-based baseline that can be used by the transport planners in future road programs (e.g., upgrading the road to asphalt).

Incidentally, if the achievement of the Program's objectives is to be monitored, an expanded baseline survey covering the performance indicators shown in the 2008 M&E Plan should be implemented.

3.5.8 Need for more variety of the enterprises in COCB's small grants program

It was observed that most small grants gravitate towards soap making, carpet weaving and other cottage industries. The CDC's/CDG's should be assisted in conceptualizing more imaginative enterprises consistent with the needs assessment studies conducted (e.g., agricultural based enterprises). It is understood that the COCB was implemented as a 'buy in' to the community for the road project (and as a result most of the villagers would want small-scale infrastructures built) but this should not always be the case.

3.6 **Findings and Recommendations: Compliance with USAID Environmental Regulations**¹⁷

Following are the major identified environmental issues:

¹⁶ Another experiment is to let the contractor be responsible for the COCB activities as what is being done in the biddings for Roads 9a and 9b.

¹⁷ Discussions regarding compliance to USAID environmental regulations are paraphrased from a fuller report on the subject attached as **Appendix 6**.

- The Program is somewhat meeting the of requirements 22CFR216 on paper, but it cannot demonstrate that it has USAID BEO-approved Initial Environmental Examination (IEE), Environmental Threshold Decision (ETD), and Record of Decisions (ROD's) for Scoping Statements and Environmental Assessments (EA's).
- The program does not appear to be implementing appropriate mitigation measures in its road rehabilitation and sub-grant activities through a systematic, verifiable process. As part of the Reg 216 procedures, Environmental Assessments (EA's) are prepared by IRD and approved by USAID, then the contractors are required to prepare Environmental Mitigation Plans (EMP's). The EMP's are reviewed and approved by IRD's environmental specialist. However, the contractors are never monitored for compliance with the EMP's
- IRD produced Environmental Guidelines for use in the COCB grants. Compliance checking to these environmental guidelines by the grantees is not being undertaken. It is currently unclear who has responsibility for and is in fact carrying out the environmental requirements for these activities under the determination of a Negative Determination with Conditions. The Program was slow to develop its Community Outreach and Capacity Building components and has yet to develop and implement an effective communication, monitoring, evaluation, and corrective action protocol for environmental compliance.

It does not help that the USAID Kabul Mission had a high turn-over rate of COTR's and MEO's to monitor compliance to the environmental regulations. In fact, the USAID/ Asia-Middle East Bureau prepared a Corrective Environmental Action Plan (CEAP) in fall 2008 for the Mission to implement to correct deficiencies; this apparently is not being implemented.

Copies of the EMP's prepared by the contractors were submitted for assessment. Both EA's and EMP's consider possible negative effects on the physical environment, *e.g.*, dust pollution, siltation of the waterways, flooding to be caused by the embankments, etc. and proposed valid mitigation measures, *e.g.*, proper waste disposal, protection of flora and fauna, etc. Mention was also made of the social environment, *e.g.*, road widening along graveyards. It is not known if scoping sessions were conducted during the preparation of the EMP's.

The recommendation is then for IRD's implementing environmental group to check compliances in the field and possibly expanded and its scope should including early and throughout the subcontracting process and its activities function process to raise the level of environmental mitigation and compliance, including liaising with COCB and contractors through inspections, training, and implementing mitigation measures. In addition, an independent, on-site environmental auditing and inspection team should be empowered to perform ongoing environmental compliance monitoring, evaluation, reporting, and corrective actions, of both road and COCB activities.

To address the high turn-over rate at the USAID Kabul Mission, perhaps the Mission Director should implement a continuous education and training program in 22CFR216 with a dedicated staff, cross-training, overlapping of entering/ exiting staff.

3.7 Findings and Recommendations: Gender Equality¹⁸

Gender considerations (i.e., women participation/employment) are not being fully addressed in the COCB small grants program.

IRD has an unwritten policy of: ensuring that the program will not put the women at risk; and, will not add more burden to the daily chores of the women. Further, even in the Mentor/Protégé Program, the number of female participants is being monitored.

However, specific gender related activities (e.g., use of separate toilets for female workers, provision of day-care centers) are not part of the requirements to be complied with by the grant applicants. It is recommended that they be required. More generally, women's needs guidelines similar to the environmental guidelines may have to be issued.

3.8 Recommendations for Post-SPR Implementation

The following are recommended:

- Road maintenance programs (noting Road 14 is to be turned over to the MoPW in 3 months as the first 9 months of the contractor's maintenance period has elapsed)
- Road planning/baseline creation programs including traffic counts and road condition inventories
- Micro-financing schemes to sustain economic development
- Continuing support to develop the road construction industry through the creation of a contractor accreditation/ratings board
- Improve and implement Afghanistan's procurement laws in future programs
- Blogs on Primavera Suretrack and P6, QA/QC, and construction management

Gravel roads are maintenance-intensive and neglected maintenance would lead to rapid deterioration of the road. The first of the completed roads (Road 14) is to be turned over to the MoPW in three months (the road having been completed nine months ago so that the one-year maintenance and warranty period is about to expire) and it has been noted no steps are being undertaken by USAID/IRD for a transition of maintenance responsibilities for the road. Perhaps a provincial roads maintenance program similar to AIRP's Task Order 14 may have to be implemented. It is understood that AIRP's TO14 is looking into the applicability of several road maintenance models—maintenance by contract, maintenance by force account, etc.

Incidentally, it is also recommended that during the maintenance period of the SPR-SEA roads, a performance-based payment scheme should be imposed to ensure that the contractor actually maintains the road¹⁹.

¹⁸ Discussions regarding gender considerations are paraphrased from a fuller report on the subject attached as **Appendix 7**.

¹⁹ In Road 14, there are evidences (e.g., proliferation of humps, vandalized road signs, eroding road crowns) that imply that the contractor has not performed any maintenance work since road completion nine months ago. In Road 7, also completed but not yet accepted, floodwaters scoured a 700 meter

Baseline surveys, conducted during the SPR-SEA (*e.g.*, traffic counts, needs assessments) should be a continuing concern for use in the road's future upgrading as well as in future road feasibility studies. The importance of implementing the prepared M&E Plan (2008) cannot be over-emphasized.

NGO's providing micro-financing should be encouraged to do work in the Program area so that economic development will be sustainable.

The SPR-SEA can help established a contractor's accreditation/ratings board to facilitate prequalification in future road construction projects. For example, contractors can be rated based on the training their engineers received, size of road projects implemented, blacklisting history, etc.

The contractors (or their staff) can also form into an association to serve as a forum for continuing technical training. For example, blogs on Primavera SureTrak, P6, HEC, Civil soft can be created.

3.9 Overall Conclusions

The SPR-SEA Program did not have a significant transport economics element in its planning and execution. But from the transportation economics viewpoint, the design of the Program seems well thought out and logical except for the lack of even a preliminary economic analysis of the relative costs and benefits. Such an analysis might have resulted in somewhat different pavement types and road widths.

The most important recommendation from the viewpoint of transportation economics is that an element of economics should be introduced into the program. This should be based on a simplified threshold or similar approach rather than full feasibility studies of each road improvement project. The analysis should be applied first to those projects which can still be modified to reflect any changes the analysis might suggest.

The SPR-SEA objectives are commendable and set good targets. The actual impact on livelihood to date is reflected in negative perceptions during the construction period. The positive aspects will be apparent as the roads go into service. The potential impact could be profound if the roads are viewed as part of a comprehensive social and economic development package and the necessary non-transportation inputs materialize. The Program will clearly make a significant contribution to the rehabilitation of the infrastructure.

Overall, the SPR-SEA is on the road toward achievement of its objectives. It is clear that the Program will meet the objective of improving the roads. It is also clear that the road improvements will meet other objectives, such as facilitating the efficient movement of goods and people. They will also increase access to government and social services, providing that the services are available. They should facilitate the development of agriculture, providing that the other necessary inputs are there. They will remove some of the transportation barriers to integration, security and stability,

section and initial investigations are pointing to blocked drainage facilities as the cause of the road damage—implying contractor neglect of maintenance duties.

but again, other necessary conditions must be present for improvements in these areas. By training contractors and providing experience for them, the road improvements will increase the local capacity for road works. They are clearly providing employment opportunities during construction and will continue to do so in the maintenance of the roads, providing steps are taken to ensure sustained maintenance of the roads.

As planned, the road rehabilitation works are being localized to the extent possible and this is being achieved, albeit with difficulty. (The localization of the QA/QC work is a success. The preparation of the linear diagrams, and SureTrak and P6 work schedules is to a certain degree also successful.) However, at this stage of the program where physical accomplishments are only about a third, it cannot be predicted if all the project roads will be rehabilitated by end-2010 as targeted. It will depend on how well the external challenges can be overcome. (The internal challenges pertain more to how efficiently the program is managed.)

As this is a pilot program, it is inevitable that adjustments will be made as the Program progresses. A summary of the findings and recommendations which can be treated as part of the adjustments to be made are as shown in **Table 1-1**. The more salient of the recommendations are the following:

- The military/PRT should adjust their current strategies to coincide with the geographical locations of the SPR-SEA roads
- To tighten program management, an integrated program-wide SPR-SEA Procedures Manual should be prepared and maintained by a department to be created (or by an expanded Project Controls Department) and whose sole purpose is such.
- The design mentors should go out more often to the field to check on the designs of their protégés
- The (expatriate) regional project managers should inspect the roads more often together with IRD's CCN project managers.
- The SPR-SEA environmental specialists (both expatriate and CCN's) to go out to the field and monitor compliance of the road and grantee projects with the EMP's

Future provincial road rehabilitation programs can follow the SPR-SEA template although perhaps the time for pilot programs is over and these future programs can be implemented as contracts instead of as Cooperative Agreements. Experience in the SPR-SEA may now translate into more realistic timelines. Contractor productivities, procedures manuals, sample designs, etc. would also be available for the next program implementer to use.

Plans for the maintenance of the SPR-SEA roads after the one-year warranty and maintenance period has elapsed should be in place for early implementation. A road maintenance model similar to AIRP's Task Order 14 may be applicable in the case of the SPR-SEA roads.

APPENDIX 1
Mid-program Assessment Scope of Work (SOW)



**STATEMENT OF WORK:
MID-TERM EVALUATION OF
STRATEGIC PROVINCIAL ROADS -SOUTHERN AND EASTERN AFGHANISTAN ROADS
PROGRAM
COOPERATIVE AGREEMENT # 306-A-00-08-00509-00**

I. INTRODUCTION

The purpose of this activity is to perform an independent mid-term evaluation of the Strategic Provincial Roads -Southern and Eastern Afghanistan (SPR-SEA) Program. The review will focus on the following two issues: (1) The progress made toward achieving the project objectives; and (2) The recommendation of modification (s) to the project activities, if necessary.

II. BACKGROUND

The SPR-SEA cooperative agreement (CA) was awarded to International Relief and Development, Inc. The period of performance for this CA is November 30, 2007 through December 31, 2010 and the ceiling for the CA is \$399,999,346 and \$269,585,689 has been obligated to the CA. To date, \$104,650,990 has been spent for this activity.

The core objective of the SPR-SEA Program is to assist the Government of the Islamic Republic of Afghanistan in increasing stability and security in Eastern and Southern Afghanistan by rehabilitating selected existing provincial roads and increasing institutional capacity to:

- Facilitate efficient movement of goods and people;
- Increase access to government and social services, such as education and health care;
- Decrease ethnic divisions between regions;
- Facilitate development of the agriculture sector;
- Improve regional integration, security and stability;
- Increase capacity for sustainable road construction, rehabilitation and maintenance; and
- Provide employment opportunities.

The program activities focus on supporting a regional roads program for Eastern and Southern Afghanistan. This program centers on rehabilitating an estimated 1,500 to 2,000 kilometers of existing dirt roads to an engineered, all-weather gravel standard. The roads to be rehabilitated were identified by USAID in association with the U.S. Military and Local and National Government agencies of the GIROA. In addition to rehabilitating 1500-2000 kilometers of provincial roads, special development assistance components, such as capacity building and community development activities, are an integral part of the SPR-SEA program. These activities are used to maximize the beneficial impacts of the roads and ensure sustainability of the rehabilitated roads.

III. SCOPE OF WORK

The SUPPORT Program Contractor's evaluation team shall assess the following key areas:

1. Project design, objectives, implementation and performance to date, answering the following questions:
 - Is the program and its activities progressing as planned?
 - Is the project achieving its current stated objectives? Are the stated objectives proving useful for achieving project goals?
 - Is the project achieving USAID's core objective of the SPR-SEA Roads Program to increase stability and security in Eastern and Southern Afghanistan?
 - What is the experience of SPR-SEA in operating in non-permissive areas?
 - What special challenges does this pose to the project?
 - How is the program being administered and is the program unfolding "on the ground" as intended.
 - Determine whether the program is reaching targeted populations.
 - Assess the reasons for successful or unsuccessful performance and provide information for potential replication of successful initiatives.
 - Identify what planned resources and inputs were for this program and whether they have actually been allocated.
 - Where relevant, assess whether desired outcomes are not being achieved because of lack of resources or because of discrepancies between services that were planned and those that are actually being implemented.
2. Actual and/or potential grassroots impact on livelihood within the Zone of Influence – Key project impacts/results to date related to the following questions:
 - What is the contribution of this project towards the rehabilitation of Afghanistan Infrastructure?
 - To what extent has the road construction facilitated efficient movement of goods and people in its zone of influence?
 - What is the effect of the road relative to access to government and social services, such as education and health care?
 - To what extent has the roads project contributed to :
 - I. Decreasing ethnic divisions between regions;
 - II. Facilitating development of the agriculture sector;
 - III. Improving regional integration, security and stability;
 - Is the project staff able to build the capacity of Afghans for sustainable road construction, rehabilitation and maintenance in the zone of influence, and improve the capacity of provincial local staff when expatriate staffs depart?
 - Has the project created any road maintenance employment opportunities for local Afghans in its zone of influence?
3. Project contribution to the rehabilitation of Afghanistan's infrastructure
4. Internal coherence and logic of the conceptual framework

1. General Parameters

This section sets forth some general guidelines that apply to the entire program. The areas where guidelines are specified are: (A) Geographic Scope; (B) Gender; (C) Environment; and (D) Use of Local Resources/Community Outreach. The general parameters of the scope of work are outlined below.

A. *Geographic Scope*

This program focuses on achieving its objectives in the Southern and Eastern Regions of Afghanistan. The Southern Region is comprised of the following provinces: Day Kundi, Helmand, Kandahar, Uruzgan, Zabul. The Eastern Region is comprised of Ghazni, Khost, Kunar, Laghman, Nangarhar, Paktika, and Paktya Provinces.

B. *Gender*

The program addresses significant gender issues in its design, implementation, and monitoring and evaluation. These issues should reflect consideration of the different ways in which men and women are involved in or affected by the activity or the work to be undertaken, including a description of how gender considerations are mainstreamed into project implementation. Examples of such issues include ways in which women are brought into the capacity building/skills development component of the activity; possible employment opportunities for women; women's need for transport to clinics, girls' schools, markets, and for employment or income generation and the selection of roads for rehabilitation; maximizing the potential for new roads to enhance women's mobility and access to development opportunities; minimizing the potential for new roads to further restrict women's mobility by enabling strangers' access to villages; women's roles in the road selection process; and women's need for road safety and security. If it is determined that there were no significant gender issues with respect to any part of this program, a brief rationale to that effect must be provided.

C. *Environmental Considerations*

Environmental sustainability is integral to USAID's overall goal. To meet this goal, environmental considerations were incorporated into results planning, achieving and monitoring as per ADS 204.2. Title 22 of the US Code of Federal Regulations, Part 216, codifies USAID's environmental procedures. Compliance is a legal requirement as well as Agency policy. The activities under the proposed program are covered under the Environmental Threshold Decision for Afghanistan/ANE approved by the Bureau Environmental Officer on 19 September 2005. The rehabilitation work is taking place on existing gravel roads and in most cases does not require any realignment of the road. The main construction activities include raising the existing ground level, roadbed preparation to improve the sub-grade, filling and compaction, and construction of new drainage systems or the rehabilitation of existing drainage systems to improve drainage. The aforementioned threshold decision states that public works and infrastructure including road maintenance and repair and land leveling qualify for Positive Determination per 22 CFR 216.

D. *Use of Local Resources/Community Outreach*

The Grantee was strongly encouraged to sub-contract road rehabilitation activities and to maximize the involvement of Afghan resources. This effort was critical both in order to build Afghan capacity, but also to reach out to local communities in order to

obtain buy-in and community support for the road rehabilitation efforts. Community outreach is critical in every step of the program.

2. Road Rehabilitation Component

The road rehabilitation component involves activities to rehabilitate an estimated 1,500 to 2,000 kilometers (the exact amount of roads rehabilitated is based on the final program requirements in terms of the design work required and the actual conditions encountered) of selected, existing provincial roads, including all bridges, causeways, culverts and retaining walls necessary to ensure that the road is passable during all seasons of the year. The road rehabilitation component involves two stages: (1) the project selection/design stage; and (2) the road rehabilitation stage.

A. Project Selection/Design Stage

As previously stated, the first stage in the road rehabilitation process was to identify the provincial road segments that are to be rehabilitated and to do the 30% design work. In Phase I, all of the roads chosen for rehabilitations were first selected from the Master Road Plan. The list of roads were then reviewed by the Provincial Reconstruction Teams (PRTs), Military Entities, USAID/Afghanistan/OIEE, and the Ministry of Public Works, with input from the Provincial Governments. Based on comments received by the various agencies and groups, the present groups of roads were selected. Once prioritized, this list was given to the Grantee.. The Grantee was responsible for conducting a reconnaissance of each identified road to determine the existing condition and constructability of the roads. Based on results of the initial Phase I reconnaissance, approximately 10 to 12 provincial roads located in the Eastern and Southern Regions were selected for further study/survey as described below. In Phases II and III, additional 10 to 12 provincial roads were selected for each of these two phases. The urgent requirement for roads and access in the project area dictates a modified Design-Build approach. Regardless of whether USAID provides the Recipient with the 30% road design packages or the Recipient was required to complete the initial 30% design itself, the 30% design included: developing standard road cross-sections; centerline/alignment survey; size and location of all drainage structures; identification of all special design issues such as irrigation ditches, rock excavation, urban centers; location of borrow pits and quarries and an updated cost estimate that reflects a total project cost including estimates for construction management, security and construction costs.

B. Road Rehabilitation Stage

The Grantee was responsible for the actual road rehabilitation and quality control of that rehabilitation. The Grantee provided the technical, managerial, administrative and financial management required to procure, construct and assure the quality of the road rehabilitation efforts. The Grantee's Sub-Contractor was responsible for site security and was responsible for carrying-out additional de-mining and design work as required during the construction phase. The Grantee was responsible for planning, managing and executing the road rehabilitation activities, including technical oversight of the road rehabilitation work, quality control, quality assurance and measurement of completed work. The Grantee was fully responsible for the quality of work carried out on all road rehabilitation projects and for the timely and cost effective, accomplishments of the work, whether subcontracted or otherwise. The Grantee's Sub-Contractor is required to provide all superintendence, labor, materials, plant, equipment and all other provisions, whether of a temporary or permanent

nature, required to execute and complete the road project in accordance with the approved design. This included construction of all necessary bridges, causeways, culverts, and retaining walls to ensure that the road is passable during all seasons of the year.

IV. METHODOLOGY

The evaluation framework will consider the objective statement, approach, activities, deliverables, and indicators. The evaluation methodology for this activity will consist of the following:

- The evaluation team will review key documents which will include, at a minimum, the CA, program statement and/or stated objectives, program strategies and approaches, work plans, quarterly progress reports, program performance indicators.
- The evaluation team will visit at least five sites.
- The evaluation framework will also include a draft list of questions to ask stakeholders, participants, and other interviewees.

V. DELIVERABLES

1. Draft Work Plan presented to OIEE AOTR within five working days of arrival in Kabul.

2. *Evaluation Report*

Based upon the data collected, the evaluation team shall prepare a report summarizing its findings. The report should briefly summarize its approach and framework, outline how data was collected and present the results.

The evaluation report should address whether the program is meeting its intended objectives, key findings and results/impacts, qualitative elements and financial sustainability.

Where areas for improvement are identified, the evaluation team must make specific recommendations for how such issues can be addressed by IRD and its Sub-Contractors in the future. Such areas may include, but are not limited to, the following:

- Objectives: If appropriate, the evaluation team should make recommendations for amending the objective statement in order to better focus and clarify the program.
- Overall strategic approach: If there are broad recommendations, such as with the overall approach, these should be presented for consideration. If an alternate approach is needed, the evaluation team should recommend a specific approach or alternatively, recommend a methodology for enhancing the program design, which should include barrier analysis, development of specific activities to address each barrier, and development of indicators to measure progress.
- Indicators: If there are insufficient, inappropriate or un-measurable indicators, etc. these should be noted and recommendations presented for consideration. The SPR-SEA program should have very clear and measurable indicators, and should report on these indicators quarterly.

Minimum requirements for the report include the following: (i) the report should, to the greatest extent possible, contain complete and accurate data; (ii) the report should include a sufficient synthesis and analysis of the data to fully support and justify its conclusions and recommendations; (iii) the report should be on time and professionally prepared (e.g., well structured, consistent formatting, clearly written, proper spelling/grammar); and (iv) the report should be about 45 pages long, without annexes, and include a 2-3 page Executive Summary, and (v) the final evaluation will follow USAID branding guidelines. A draft of the report will be submitted to USAID. USAID will share the draft report with IRD and solicit the comments directly. An outline of the Final Report is provided below:

Executive Summary

The Executive Summary will state the development objectives of the program/project evaluated; purpose of the evaluation; study method; findings; conclusions, lessons learned and future design implications.

Table of Contents

Introduction

The context of what is evaluated including the relevant history, demography socioeconomic, and basic political arrangements.

Body of the Paper

1. The purpose and study questions of the evaluation. Brief description of the program.
2. Evidence, findings and analysis of the study questions.
3. Conclusions drawn from the analysis of findings stated succinctly.
4. Recommendations.

Appendices shall include:

1. Follow-on program description
 2. Evaluation scope of work
 3. List of relevant USAID targets and results (Operational Plan Program Elements)
 4. List of documents consulted
 5. List of individuals and agencies contacted
 6. Technical topics including study methodology if necessary
 7. Schedule of activities in an Excel format.
 8. Evaluation Team composition
- Included as an Annex of the Final Report will be a draft program description for an amended and/or follow-on program to meet the objective and Intermediate Results laid out for Tech-Serve.
 - Power Point Presentation: The Evaluation Team shall prepare a Power Point presentation detailing observations made and recommendations, and present this on the results and outcomes of the project at an exit briefing at USAID.
 - A draft Final Report will be due no later than five days before the Evaluation Team is scheduled to depart Kabul, and said Final Report will be limited to 45 pages, excluding Annexes, and include a copy of the original Scope of Work for this activity.

Three hard copies of the final report and three DVD/CDs of the final report as well as electronic versions of all deliverables will be required unless otherwise specified.

VI. TEAM MEMBERS

The Evaluation Team shall consist of three expatriates with 10+ years of development expertise in low-income countries with USAID and/or other donors, and two CCNs to serve as translators' administrative assistants. Team members will be required to travel to pre-determined locations throughout Afghanistan to obtain an understanding of the program's field activities and progress.

A six day work week is authorized for this activity. This activity is proposed to be started in early August, 2009 and completed before September 15, 2009

LOE Days	Team Leader – Engineer	Transport Specialist	Other Expat – Environmental Specialist	CCN Gender Specialist	CCN
Prep work	1-2	1	1	0	0
Travel Days	2	2	2		
Afghanistan	38	38	38	37	37
Travel Days	2	2	2	0	0
Total	43-44	43	42-43	37	37

APPENDIX 2
List of References

LIST OF REFERENCES

IRD Documents Submitted by IRD for Review:

1. Cooperative Agreement between IRD and USAID (November 2007)
2. IRD CY2008 and CY2009 Annual Implementation Plans submitted by IRD on March 4, 2008 and February 16, 2009 respectively
3. CY2008 (4 numbers) and CY2009 (2 numbers) Quarterly (Progress) Reports submitted to USAID by IRD
4. Biweekly Design/Constraints Report (as of September 13, 2009) prepared by the Chief Design engineer for internal reporting purposes
5. IRD QA/QC Plan (February 9, 2008)
6. IRD Safety Manual (February 25, 2008)
7. IRD Monitoring & Evaluation Plan (April 1, 2008)
8. IRD Risk Management Plan (April 26, 2008)
9. IRD COCB Strategic Plan submitted (April 2008)
10. Individual Rapid Assessments Survey (32 reports) conducted by IRD throughout 2008 for each of the SPR-SEA project roads
11. Needs Assessment Survey Report (January 2009) prepared by SDLR for IRD
12. Baseline Survey (February 2009) conducted by OMFA for IRD
13. IRD COCB Environmental Guidelines (2009)
14. Working Draft Public Outreach and Information Framework (undated) prepared by IRD
15. Numerous COCB briefing papers including backgrounders, overviews, statistics, process flowcharts, procedures, sample grant documentation, sample reports, etc. prepared by IRD
16. IRD Security Plan (March 2008)
17. IRD De-mining Security Plan (May 2008)
18. IRD Construction Procedures Manual (May 15, 2008)
19. Environmental Assessments (EA's) performed by IRD on the project roads in 2009
20. Environmental Mitigation Plans (EMP's) performed by the contractors on their project roads (various dates depending on when the contracts were awarded)
21. Sample (Road No. 4) Environmental Mitigation Monitoring Report (November 15, 2008) prepared by IRD's environmental team
22. Program Controls Procedure Manual (July/August 2009) prepared by the IRD Program Controls Department for internal use
23. IRD Organization Charts (as of August 2009)
24. IRD Road Rehabilitation Plans (one for each road project) prepared as part of the RFP's
25. Sample RFP (Road 30B)
26. Sample (Road No. 9) Pre-bid Presentation of IRD
27. Sample Bridge Designs (Roads 2 and 4 bridges) prepared by the respective contractors
28. Sample Road Designs (Roads 7, 14, and 15) prepared by the respective contractors
29. Sample Road Designs (Roads 9A and 9B) prepared by the AIRP contractor
30. IRD Traffic Counts on 26 project roads
31. IRD Road Vicinity Maps on 41 project roads

32. Various briefing papers on the mentor-protégé program including overviews, course materials, test results, monitoring and evaluation reports, etc.

Other Major References:

1. Master Plan for Road Improvement Project, Afghanistan Ministry of Public Works, ADB/Sheladia Associates Inc., April 2006.
2. U.S. Foreign Assistance Act, Environmental Procedures. 22 Code of Federal Regulations (CFR) 216.
http://www.usaid.gov/our_work/environment/compliance/ane/regulations.htm
3. Government Accountability Office (GAO), July 8, 2008. Afghanistan Reconstruction: Progress Made in Constructing Roads, but Assessments for Determining Impact and a Sustainable Maintenance Program Are Needed. GAO report number GAO-08-689, Washington, DC.
<http://www.gao.gov/htext/d08689.html>
4. U.S. Agency for International Development (USAID), Asia and Near East Bureau (ANE), Environmental Compliance at
http://www.usaid.gov/our_work/environment/compliance/ane/
5. Policy on Afghanistan Civil Services Gender Equality (draft)
6. Afghanistan National Development Strategy (ANDS)
7. Report of the EC Rapid Reaction Mechanism Assessment Mission – Afghanistan Gender Guidelines
8. USAID Policy Paper (Women in Development)
9. National Action Plan for the Women of Afghanistan (NAPWA)
10. National Solidarity Program Overview and Reports
11. various other websites (e.g., WB, ADB, JBIC, UN, REFS, AIRP, IRD, LBG, DAI, Checchi, GIRoA, etc.)

APPENDIX 3
List of Agencies and Individuals Contacted

IRD RESOURCE PERSONS

Name	Title	Affiliation	Address	Contact Information
Program Management Team				
Frederick C. Chace	CoP	IRD - SPR-SEA	Kabul	fchace@ird-spr.org
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OTHER RESOURCE PERSONS

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CDC's				
Zakia	Trainer	CDC member	Jalalabad	
Mehbuba	Trainer	CDC member	Jalalabad	
Rana	Trainer	CDC member	Jalalabad	
Others				
Truckers Association			Kabul	
Street venders / Community Elders / Roadside Residents	Roads 4, 5 and in Panjshir		Laghman, Nangahar, Panjshir	

APPENDIX 4
Field Trips Conducted

FIELD TRIPS CONDUCTED

Ground Visits

- Road 4 in Laghman
- Road 5 in Nangarhar
- Road 14 in Khost

Flyovers

- Road 8 in Paktya
- Road 10 in Paktya/Logar
- Road 16 in Ghazni
- Road 36 in Uruzghan
- Road 38 in Uruzghan

Cross Section Roads

- Panjshir Road

APPENDIX 5
Transport Economics Report



USAID | AFGHANISTAN

AFGHANISTAN STRATEGIC PROVINCIAL ROADS SOUTHERN AND EASTERN ROADS PROGRAM

MID-TERM EVALUATION

OF THE

TRANSPORTATION ECONOMICS ASPECTS OF THE PROGRAM

**Mid-Term Evaluation of the Transportation Economics Aspects of the
Strategic Provincial Roads - Southern and Eastern Afghanistan Roads Program**

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Table 1.1 Afghanistan Road Network

Table 1.2 SPR-SEA Program Roads

Figure 1.1 Map of the Program Roads

**Mid-Term Evaluation of Strategic Provincial Roads – Southern and Eastern Afghanistan Roads
Program
(The SPR – SEA Program)**

Transportation Economics and Related Aspects

EXECUTIVE SUMMARY

The purpose of this economic evaluation is to emphasize areas in which improvements might be made to the benefit of this project and future projects. Although this transport economics part of the report might seem to focus on deficiencies, it is recognized that the SPR-SEA project has resulted in impressive progress in a beneficial endeavor under very difficult circumstances.

1. The SPR-SEA Program did not have a significant transport economics element in its planning and execution. For this reason the evaluation of the performance in this respect is somewhat limited. As a general comment, the planning of a road program with costs in the neighborhood of US\$ 400 million should include consideration of the economics of the program, and the economics should have significant influence in the structuring of the program.
2. A primary objective of the economic evaluation was to assess the performance of the specified roads after the improvement of the roads. All but two of the roads were not yet finished and the improvements were not in effective service. The two finished roads had been finished only recently. For this reason the project roads have not yet had an impact on the operation of the transportation system and the results of the road improvements in terms of their effects on economic and social development cannot yet be judged. This situation will correct itself after the improved roads have been in operation for a reasonable length of time and the post-project monitoring system is instituted.
3. An attempt was made to make a judgment of what the probable effects of the Program would be based on the performance of similar roads in other projects which had been completed and in service for at least one year. This had some success but was limited because other donors, apart from the case of the World Bank rural roads program, were not generally building gravel-surfaced low volume roads. In addition, there were many factors at work in a dynamic situation, such that the effects of road improvements alone would be very difficult to isolate. The beneficial effects of already-completed road improvements were not fully perceived since transportation costs had increased after the roads were completed because of increases in fuel costs, changes in currency exchange rates and possibly a failure of the transport operators to pass on the cost reductions to the users of the transport services. However, savings in travel time and reduced damage to agricultural produce were said to be substantial and were appreciated.
4. Discussions with groups living along the project roads under construction indicated a generally negative perception of the projects. This was clearly related to the inconveniences imposed by the construction operations and in some cases by the appropriation of land and buildings without adequate discussion and compensation. These were not offset by the benefits of the projects as the roads were not yet in operation. There was recognition of the fact that the situation would be much improved with the completion of the roads but concerns regarding the effects of dust from the gravel roads were expressed. Possible measures to improve the perceptions of the affected residents during the construction periods should be considered.

5. In some respects there appears to be a pattern of a “one-size-fits-all” approach to the improvement of the project roads and some of the related activities.
 - a. With some terrain-related exceptions, the roads are designed for gravel surfaces with a standard total width of 10 meters, regardless of the traffic volumes. This is in conformance with the instructions of USAID to IRD but is not appropriate from the viewpoint of transportation economics. It would be relatively easy to remedy this situation using a suggested modified procedure.¹
 - b. All of the road projects are being designed and built by private enterprise consultants and contractors. Participation in the contracting function has been removed from the MPW. This is consistent with the currently-popular privatization policies of the World Bank, Asian Development Bank and some of the donor governments, based at least partly on the political or economic ideology of the time. However, it should be recognized that full privatization has not always been successful and is not always appropriate to the circumstances of a particular country or situation. Possible modifications to this approach are suggested.
 - c. There appears to be the imposition of a set of environmental, labor and social standards without adequate recognition of the particular circumstances of Afghanistan. These will be addressed in the environmental and social parts of the report.
6. It was not possible to see as many of the roads as would have been desired because of security reasons. However, one partially-completed road, Road No. 5 from to Shinwar to Dur Baba on the Pakistan border, to the extent it could be seen by the evaluation consultants, was located across an area that could best be described as an almost-unoccupied barren desert. It is highly unlikely that there would be adequate economic justification for the construction of this road, although it might have been considered to have strategic or other justification. It is not known if this is also representative of other roads in the Program. From the viewpoint of transportation economics, the economic benefits of such roads would not justify their costs.
7. The project concept is good in that it attempts to achieve much-needed improvements to the Provincial road system in a short time and under difficult circumstances while still contributing to the development of the Afghanistan construction industry. This requires difficult balancing between the need for progress and the desire for development of the construction industry. Considering not only this project but also the demands of the many other construction projects in all sectors of the economy, the capacity of the Afghanistan construction industry might not be sufficient to meet the expectations. If not already done, there should be a realistic assessment of the capacity of the construction industry.
8. There appears to be a tendency to plan and carry out the road improvements with less than full institutional interchange and coordination with the Afghanistan Ministry of Public Works, the Government entity responsible for Provincial roads. It is intended to strengthen the Planning Department of the Ministry into a fully-functional road planning organization. The SPR-SEA project and any successors should include specific provision for the support of the Ministry’s responsibilities to the maximum extent practicable under the circumstances. Without necessarily referring to the specific situation in Afghanistan, it has been observed in many countries that the tendency for donors to carry out their projects through separate agencies such as dedicated Project

¹ Following drafting of this section it was found that USAID had been instructed to conduct feasibility studies of the roads and that IRD had started this work. The nature of the studies was not yet defined.

Management Units, outside of the normal functioning of the government departments normally responsible, tends to undermine the government structure rather than support and strengthen it.

9. Although the project has made impressive progress, there is still much to be done. It is suggested that some of the possible modifications identified in this assessment be considered for implementation during the remaining stages of the project. It might be especially useful to carry out brief economic analyses of the road sections with particularly high or low traffic volumes, and for which the construction has not yet progressed significantly. Full economic feasibility studies of each road link are not suggested. The evaluations could be based on relatively simple threshold analyses.
10. During discussions with residents along some parts of the project roads it has been noted that the water courses vary considerably during flash floods and that there cannot be a high degree of confidence that the culverts will be in the right positions to accommodate the flood streams. It is suggested that “Irish bridges” be considered as a possible solution in some cases where the circumstances may be appropriate.

As a footnote, the evaluation consultants will have had approximately five weeks in Afghanistan over a period in which there were elections, Ramadan, Eid and considerable security problems. The ability to travel to the project roads and to other areas outside of Kabul was very restricted. A more comprehensive, better-documented and substantiated report would have been possible under other circumstances.

Mid-Term Evaluation of Strategic Provincial Roads – Southern and Eastern Afghanistan Roads Program (The SPR – SEA Program)

Transportation Economics and Related Aspects

1. INTRODUCTION

1.1 Transportation in Afghanistan

Afghanistan is a landlocked country far from the nearest seaport. In terms of economic significance, it has few navigable waterways, no railway and no pipelines. For any but non-motorized transport, it is dependent almost entirely on road and air transport. Incomes are very low and there are relatively few internal commercial airports, meaning that internal air transport currently has a very limited role in the economy. Thus, road transport is of exceptional importance to the economy. The Government of Afghanistan and the many foreign donors have concentrated on this mode of transport. At this stage of the development of the country, within the transportation sector, the focus of USAID on road projects is appropriate under the circumstances.

1.2 Road Transportation

The roads of Afghanistan are administratively categorized as Regional Highways, National Highways, Provincial Roads and Rural Roads, with estimated total lengths as of 2009 as shown in Table 1.1.

Table 1.1 Afghanistan Road Network

Road Classification	Length (km.)
National Highways	4,884
Regional Highways	3,242
Provincial Roads	9,656
Rural Roads (est.)	<u>17,000</u>
Total	34,782

Urban roads excluded

Source: Afghanistan Ministry of Public Works

The Regional Highways are major roads connecting Afghanistan with neighboring countries. National Highways are intended to promote trade and economic linkages and extend Regional Highways to provincial capitals. The Provincial Roads, which are of the greatest interest to this evaluation, are intended to improve the contacts between district headquarters and their provincial capitals and between important district headquarters. The primary function of the rural roads is to bring the hinterland into contact with markets and administrative centers.

1.3 The SPR-SEA Program Roads

The SPR-SEA Program is being carried out for USAID by International Relief and Development Inc. (IRD). The purpose of the Program is to rehabilitate between 1,500 and 2,000 kilometers of Provincial-category roads to all-weather gravel standards. The roads selected for inclusion in the

Program, their lengths and the estimated percentage completed as of 30 August 2009 are listed in Table 1.2. The locations of the roads are shown in the map in Figure 1.

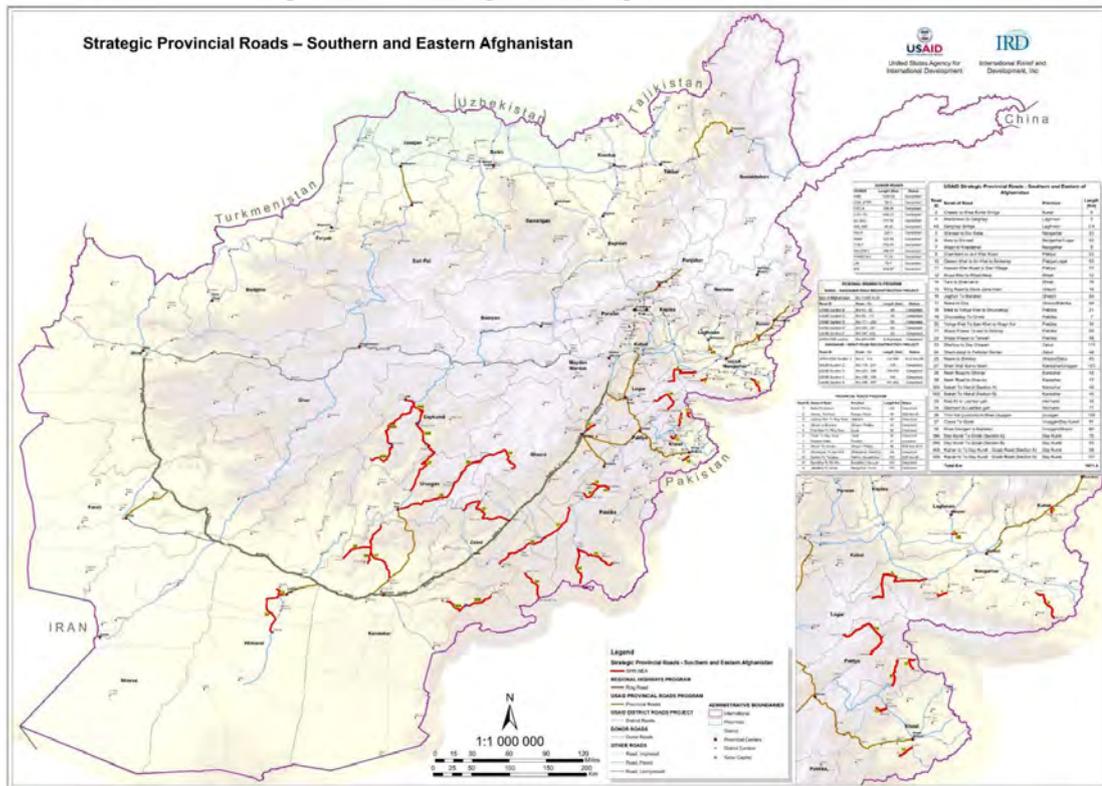
Table 1.2 SPR - SEA PROJECT ROADS

Road Number	From	To	Province	Distance (Km.)	Percent Complete(4) (%)
1	Asmar	Nishagam	Kunar	18	(1)
2	Chawki	Khas Kunar Bridge	Kunar	5	48
3	Khes Kunar	Nowa Pass	Kunar	11	(1)
4	Mendrawol Jct.	Qarghayi	Laghman	3	93
5	Shinwar	Dur Baba Rd.	Nangarhar	23	66
6	Azra	Shirzad	Nangarhar	63	46
7	Wazir	Khadakhel	Nangarhar	8	99
8	Chamkani	Jani Khel Rd.	Paktya	22	68
9	Ghazni	Gardez	Ghazni/Paktya	93	11
10	Qasem Khel Rd.	Ali Khel - Berkaray	Paktya/Logar	53	49
11	Hassan Khel Rd.	Ster Village	Paktya	12	43
12	Musa Khel	Khost Mela Rd.	Khost	12	22
13	Yagobi	Zambar	Khost	18	(1)
14	Tani	Shekhamir Rd.	Khost	10	100
15	Ring Rd.	Dado Zana Khan	Ghazni	16	63
16	Jaghuri	Malistan	Ghazni	64	39
17	Nawa	Dila	Ghazni/Paktika	59	21
18	Mest	Yah. Khel-Ghundekay	Paktika	21	61
19	Ghundekay	Omna	Paktika	7	34
20	Yahya Kh.-Baki Kh.	Khayr Khot	Paktika	30	26
21	Waza Khawa	Mamay	Paktika	69	(3)
22	Waza Khawa	Terwah	Paktika	59	23
23	Shahjoy	Day Chopan	Zabul	110	(3)
24	Shamulzayi	Pakistan Border	Zabul	48	26
25	Nawa	Shinkay	Ghazni/Zabul	83	17
26	Shinkay	Shamulzayi		22	(1)
27	Shah Wali Kot	Nesh	Kandahar	103	32
28	Nesh Rd.	Ghorak	Kandahar	45	12
29	Nesh Rd.	Khakrez	Kandahar	17	(3)
30A	Bakah	Maruf (Sec. A)	Kandahar	40	18
30B	Bakah	Maruf (Sec. B)	Kandahar	40	0
31					(1)
32	Spin Boldak	Bikoh	Helmand		(2)
33	Nad Ali	Lashkar Gah	Helmand	16	(1)
34	Garmser	Lashkar Gah	Helmand	71	35
35	Tirin Kot Jct.	Chora	Uruzghan	35	(1)
36	Tirin Kot Jct.	Khas Uruzgan	Uruzghan	106	15
37	Chora	Gizab	Uruzghan	91	19
38	Khas Uruzgan	Malistan	Uruzghan	80	31
39A	Day Kundi	Gizab (Sec. A)	Day Kundi	70	33
39B	Day Kundi	Gizab (Sec. B)	Day Kundi	55	0
40A	Kajran	DayKundi-Gizab Rd. A	Day Kundi	59	31
40B	Kajran	DayKundi-Gizab Rd. B	Day Kundi	101	0
			Total km.	1764	

(1) Cancelled by USAID. (2) Excluded: other reasons. (3) On hold pending additional funds. (4) As of 30 Aug. 09.

Sources: USAID International Relief and Development (IRD) Quarterly Report - April 2009 for the Strategic Provincial Roads Project, Southern and Eastern Afghanistan (SPR-SEA); IRD RFP No. SPR-PO-04-0128-2009.

Figure 1.1 Map of the Program Roads



2. PURPOSES OF THE ECONOMIC PORTION OF THE MID-TERM EVALUATION

The purpose of this mid-term evaluation is to make an independent evaluation of the progress made toward achieving the objectives of the SPR–SEA Program. The core objective of the Program is to help to increase stability and security by rehabilitating selected Provincial roads and by increasing institutional capacity. More specific objectives of the Program include the following:

- facilitate the efficient movement of goods and people;
- increase access to government and social services;
- facilitate the development of agriculture;
- improve regional integration, security and stability;
- increase the capacity for road works, and
- provide employment opportunities.

The evaluation is also to include an assessment of the following:

- project design, objectives, implementation and performance;
- logic of the project concept;
- actual and/or potential impact on livelihood, and
- contribution to the rehabilitation of infrastructure.

The following section of this report describes the methods used to analyse the progress made toward the objectives of the SPR–SEA Program, primarily from the viewpoint of transportation economics.

3. METHOD OF EVALUATION

Roads are a permissive factor in economic and social development. They are necessary but are not by themselves adequate. The roads themselves, and the road vehicles, provide basic access at a cost. The cost includes road capital and maintenance costs, vehicle operating costs (VOC), time costs, the costs of loss and damage to goods in transportation, and accident costs. In this case, security costs should also be included.

The primary benefit of the road improvements is to reduce these costs. There is also a psychological benefit in the form of a perception that action is being taken to assist the people in the region. In economic terms, the initial and primary effect of the road improvements will be to reduce the costs of road transportation. These reduced costs are then expected to lead to a number of other benefits, including those listed above: increased efficiency in transport, improved access, development of agriculture and other economic activities, and improvement in regional integration, security and stability

In the economic feasibility study of a proposed road improvement project, before the project is accepted for implementation, the situation over the next (say) 20 years as it will be without the project is compared with the situation as it will be with the project. For the project to be accepted, the benefits of the project – reductions in VOC, travel time, loss and damage and accidents – must be greater than the capital costs and the difference in road maintenance costs. However, this is not a feasibility evaluation in that sense. This is a post-project evaluation. It is an attempt to determine whether or not the completed project actually achieved the benefits expected from the project. Did it meet the objectives of the sponsors of the project? Thus, this is not a pre-project “without and with” comparison where the forecast costs and benefits are compared over the next 20-year period. Instead, it is a “before and after” comparison, comparing the situation before the project was implemented with the situation after implementation.

This type of analysis requires information on the situation as it was before the project was undertaken and the actual situation after the road improvement has been in service for a reasonable period of time. There were good baseline surveys carried out in the early stages of the project to provide much of the “before” information. However, at the time of writing, only two of the project roads are either recently completed or nearing completion. The degree of completion of the project roads was shown in Table 1.2. It was determined through field trip observations and discussions with project road users, people in the road influence areas and others that even the completed roads have not been in service for a long enough time to generate new traffic or to demonstrate the other effects of the road improvements. These circumstances left three possibilities:

1. Focus on what the effects logically should be after the roads have been in service for a sufficient time to allow the effects to be manifested. This would essentially be a reprise of what were considered to be the potential benefits in the pre-project planning and would still be speculative. This approach would add little new to the evaluation but could provide some insight.
2. A cross-section analysis. This would be based on a review of roads in other projects and/or other areas which have been rehabilitated to similar standards in the past, have been in service long enough to indicate the effects of the road improvements, but not so long that the conditions prior to the road improvements would not be remembered. These

would be used as analogies to the SPR-SEA roads. The problem was to find roads in circumstances which are sufficiently similar to those of the Program roads to provide a valid comparison.

3. A combination of the two.

Strategy 3 was adopted. This was essentially based on an attempt to identify similar road improvement projects in other areas or other rehabilitation programs to find if there were completed projects for which “before and after” information was available. The planned primary contacts in this respect were with USAID and other donors and funding agencies such as the World Bank and ADB; trucking associations and individual road users, and to the extent possible, people in the affected communities. Interviews were conducted with residents along two selected SPR-SEA roads under construction and two non-project roads to learn from the perceptions of road users and residents of the areas. However, few cases with sufficiently similar circumstances were found. Most of the completed projects were for roads with considerably higher traffic volumes and with road improvements to asphalt or double bituminous surface treatment (DBST) standards. The main exception was the World Bank National Emergency Rural Access (NERA) program for the rehabilitation of rural roads, which started in 2007 and included the upgrading of rural roads to gravel, DBST and asphalt road standards. The World Bank conducted comprehensive baseline studies prior to the upgrading. It plans to carry out intermediate surveys by impact evaluation teams, and a set of final surveys on completion of the project. However, the intermediate surveys are in their initial stages and the results will not be available for some time. A sample of these roads was to be selected for visits as part of the SPR-SEA evaluation, using the criteria that the roads had been completed to gravel standards and had been in operation for about six months or a year but not so long that users would not remember situation before the road improvement. However, the visits were prevented by time limitations and security considerations.

Thus, the evidence for the effects of the road improvements to gravel standards on low-traffic roads is largely anecdotal. However, although the sample was small, there was sufficient consistency in the perceptions of those affected by the road projects that some degree of confidence is warranted. A record of the roads visited and the roadside interviews conducted is shown in Appendix I. The probable effects of the roads in achieving the objectives of the road improvement program are assessed in Section 5 of this report.

4. SELECTION OF THE ROADS AND DESIGN STANDARDS

4.1 The Selection Procedure

The roads were selected for rehabilitation and/or improvement through a logical selection procedure, described here in simplified terms. The Afghanistan Master Road Plan (MRP), completed in 2006, was used as the starting point.² In the MRP the roads of Afghanistan, including Provincial roads, were classified into high, medium and low priorities for improvement, using a multi-criteria analysis which included traffic forecasts, population density, agricultural potential, connectivity and development potential. Approximately 270 rural roads were identified and classified in this way. About 160 were considered to be high priority roads,

² Master Plan for Road Improvement Project, Afghanistan Ministry of Public Works, ADB/Sheladia Associates Inc., April 2006. The plan covers the period from 2006 to 2015.

60 medium priority and the remaining 50 low priority. The regional balance of the proposed projects, and the effects on the continuity of road corridors, were also considered in the preparation of the MRP.

In the preparation of the SPR-SEA Program, the initial Provincial road program derived from the MRP was reviewed by USAID and a number of other agencies, including the Ministry of Public Works, Provincial governments, the military and the Provincial Reconstruction Teams to select roads for further reconnaissance and inclusion in the SPR-SEA Program. Approximately 40 roads, with a total length of approximately 1,500 kilometers, were selected for inclusion in the Program in this way. A simplified comparison of the project roads and some of the MRP roads is shown in Table 4-1.

This was somewhat different from the normal procedure, which consists of conducting an overall transport sector study followed by economic feasibility studies of individual proposed road link rehabilitation and improvement projects. These studies indicate the economic feasibility of the proposed road improvements and the appropriate road standards and capacities to be applied. In the case of the SPR-SEA Program, the departure from the more common procedure seems appropriate under the circumstances, considering the objectives of national stability, security and cohesion and the perceived need for positive action in a relatively short time. The economic aspects of the investments were not the ruling criterion in such a case. While the resulting selections differed significantly from what the priorities in the MRT would have suggested, it is unlikely that significant errors resulted from this procedure, other than some possible misplaced priorities in the cases of individual roads. It is highly likely that the roads selected in this way will serve their purposes, whether economic, social, political or military. Detailed economic and financial feasibility studies for each proposed road would not have been a practical procedure under the circumstances, especially considering the large number of road links involved and the perceived need for rapid improvements. However, a more simplified application of transport economics would have been appropriate.

4.2 Road Design Standards

The MRP project, in consultation with the Ministry of Public Works, established standards for different road categories and expected future traffic volumes. Many of the Provincial roads are expected to have relatively low traffic volumes. The Highway Development and Management program (HDM-4) was used in the MRP to establish design standards for use with different road functional classifications and traffic volumes. The model considers the road characteristics, capital and maintenance costs, vehicle characteristics and operating costs, the progression of road roughness with different traffic volumes and axle loads and similar factors to approximate the most economical configuration of the roads for each set of circumstances.

On the basis of this analysis, the MRP recommended that the design standards already established by the Ministry of Public Works (MPW) generally be retained. For “low volume roads” with annual average daily traffic (AADT) below 5,000 vehicles per day the MPW standard specifies a gravel surface with a carriageway width of 6 meters plus shoulders of 1.5 meters, for a total width of 9 meters. However, the MRP further recommended an additional category for roads having traffic below 400 AADT, recognizing that most Provincial roads are likely to carry volumes less than 400 ADT, which cannot justify a 6.0m two-lane carriageway. The standard in this case would be for a gravel road with a total width of 6 meters, which would allow for design speeds of up to about 60 kilometers per hour.

Table 4-1 SPR - SEA PROJECT ROADS AND MRP LINKS

(Working Paper Format Only)

SPR-SEA Number	SPR-SEA Roads		Province	Distance (Km.)	AADT (per MRP)		AADT (per IRD)		Percent Complete(4)	Road Ident. per MRP		IRD Remarks
	From	To			2006	2015	2008	2009		From	To	
									(%)			
1	Asmar	Nishagam	Kunar	18					(1)			
2	Chawki	Khas Kunar Bridge	Kunar	5	900	1300			48	Khaskunar	Chawki	No traffic count. New Bridge
3	Khes Kunar	Nowa Pass	Kunar	11					(1)			
4	Mendrawol Jnct.	Qarghayi	Laghman	3			491		93			
5	Shinwar	Dur Baba Rd.	Nangarhar	23			190		66			
6	Azra	Shirzad	Nangarhar	63			1088		46			
7	Wazir	Khadakhel	Nangarhar	8			245		99			
8	Chamkani	Jani Khel Rd.	Paktya	22	300	400	1913		68	Jani Khel	Chaparai Cham.	
9	Ghazni	Gardez	Ghazni/Paktya	93					11			LBG design.
10	Qasem Khel Rd.	Ali Khel - Berkaray	Paktya/Logar	53				113	49			
11	Hassan Khel Rd.	Ster Village	Paktya	12				204	43			
12	Musa Khel	Khost Mela Rd.	Khost	12	200	300			22	Qalandar	Musa Khel	No traffic data available.
13	Yagobi	Zambar	Khost	18					(1)			
14	Tani	Shekhamir Rd.	Khost	10	500	600		776	100	Amir Kalay)	Tani	
15	Ring Rd.	Dado Zana Khan	Ghazni	16	600	1200		122	63	Rawza	Zana Khan	
16	Jaghuri	Malistan	Ghazni	64	300	500	890		39	Sangi masha	Malistan	
17	Nawa	Dila	Ghazni/Paktika	59				158	21			
18	Mest	Yah. Khel-Ghundekay	Paktika	21				134	61			
19	Ghundekay	Omna	Paktika	7			407		34			
20	Yahya Kh.-Baki Kh.	Khayr Khot	Paktika	30				427	26			
21	Waza Khawa	Mamay	Paktika	69	400	700			(3)	Wor Mamay	Waza Khwa	
22	Waza Khawa	Terwah	Paktika	59				254	23			
23	Shahjoy	Day Chopan	Zabul	110	500	1100			(3)	Shahjoy	Day chopan	
24	Shamulzayi	Pakistan Border	Zabul	48				368	26			
25	Nawa	Shinkay	Ghazni/Zabul	83				25	17			
26	Shinkay	Shamulzayi		22					(1)			
27	Shah Wali Kot	Nesh	Kandahar	103	300	600		399	32	Shah Wali Kot	Kakrez node	
28	Nesh Rd.	Ghorak	Kandahar	45	200	400			12	Kakrez node	Ghorak	On hold pending funding
29	Nesh Rd.	Khakrez	Kandahar	17					(3)			
30A	Bakah	Maruf (Sec. A)	Kandahar	40	600	700			18	Arghistan	Maruf	No data available.
30B	Bakah	Maruf (Sec. B)	Kandahar	40	700	1000			0	Arghistan	Maruf	Subcontract terminated
31									(1)			
32	Spin Boldak	Bikoh	Helmand						(2)			
33	Nad Ali	Lashkar Gah	Helmand	16					(1)			
34	Gamser	Lashkar Gah	Helmand	71				137	35			
35	Tirin Kot Jct.	Chora	Uruzghan	35					(1)			
36	Tirin Kot Jct.	Khas Uruzgan	Uruzghan	106	400	700		471	15	Tirinkot	Khasuruzgan	
37	Chora	Gizab	Uruzghan	91				316	19			
38	Khas Uruzgan	Malistan	Uruzghan	80			771		31			
39A	Day Kundi	Gizab (Sec. A)	Day Kundi	70			368		33			
39B	Day Kundi	Gizab (Sec. B)	Day Kundi	55					0			
40A	Kajran	DayKundi-Gizab Rd.	Day Kundi	59				1136	31			
40B	Kajran	DayKundi-Gizab Rd.	Day Kundi	101					0			
			Total km.	1764								

(1) Cancelled by USAID. (2) Excluded for other reasons. (3) On hold pending additional funds. (4) As of 30 Aug. 2009.

Sources: USAID International Relief and Development (IRD) Quarterly Report - April 2009 for the Strategic Provincial Roads Project, Southern and Eastern Afghanistan.

MRP data from the Master Plan for Road Improvement Project, Afghanistan Ministry of Public Works, ADB/Sheladia Associates Inc., April 2006.

The standard design used in the SPR-SEA Program on relatively flat terrain is for a gravel surface with a carriageway of 7 meters and shoulders of 1.5 meters, for a total width of 10 meters. This is wider than the MPW standard.³ Also, as noted in the MRP, most Provincial roads will carry less than 400 vehicles per day and the standard width of 10 meters is considerably wider than the MRP recommendation in these cases. In addition, there is a considerable gap between the 5,000 AADT for the MPW “low volume roads” and the 400 vehicles in the additional low-volume category recommended by the MRP. The MRP traffic forecasts for Provincial roads for the year 2015 show volumes as high as 5,500 vehicles per day and as low as 200. An AADT of (say) 4000 vehicles might be considered a high volume for a gravel-surfaced road, although this depends on the mix of traffic in the totals. In summary, the standard gravel surface and the standard widths could result in considerably less than optimum solutions from the economic viewpoint.⁴ It is suggested that additional levels of improvement, to double bituminous surface treatment (DBST) or asphalt surface standards, and with more flexible widths, depending on the levels of traffic, be considered in the future. This could be especially important considering that current traffic volumes are low for a number of reasons, including hostilities, security, poor road conditions, lack of all-weather serviceability and a depressed economy. As these factors are overcome there could be rapid growth in traffic and a pattern of under-design of some of the roads.

As noted above, from the viewpoint of transportation economics, the use of a ‘one size fits all’ approach, whereby all of the selected roads were improved to a common gravel standard with a common total width of 10 meters, regardless of traffic volumes, is not a good procedure. Very low-volume roads would tend to be over-designed while high-volume roads might be under-designed. Since traffic counts and forecasts were available for the project roads, it would have been a relatively simple matter to make a number of runs of HDM-4 or of a simpler, more transparent spreadsheet procedure to estimate the traffic levels at which each succeeding level of road improvement would be economically justified. The “thresholds” determined in this way could then be used to identify more accurately the appropriate width, surface type and bearing strength for each road. This would not be as accurate a procedure as full feasibility studies but would be a considerable improvement over the ‘one size fits all’ approach and would not be difficult to apply. Other simplified approaches could also be considered as alternatives to full economic feasibility studies. Considering that the road component of the project entailed a large investment with funding of more than 300 million US dollars and considering the relative ease of the suggested procedure, it is reasonable to ask why this or a similar procedure was not specified in the development of this Program.

The Cooperative Agreement between USAID and IRD does not specify the width of the rehabilitated roads. Again, the common total width of 10 meters (except in some terrain types) will likely be adequate for the forecast traffic in all cases, but will almost certainly be wider than required, and therefore more costly than necessary, for the low-volume roads.

In summary, there is no element of economic analysis in the Cooperative Agreement, the selection of the roads and the determination of the design standards. This should be remedied. Subsequent road programs will include the improvement of additional Provincial roads and the

³ It is understood that the MPW standard is now gravel surface for up to 1000 vehicles per day and DBST or asphalt beyond that level of traffic.

⁴The application of the standard gravel surface used for all SPR-SEA roads is not to be considered a criticism of the executing agency, IRD. The Cooperative Agreement for the Program specified that the roads were to be rehabilitated to an all-weather gravel standard (Cooperative Agreement No. 306-A-00-08-00509-00, November 30, 2007, p. 10).

additional upgrading of the roads already improved to gravel standards. It is suggested that the traffic monitoring program be implemented both on the roads already included in the SPR-SEA Program and those additional roads which might be included in any future program, regardless of the funding source. Additional runs of the HDM-4 program or similar routines could be made, using current road construction and maintenance costs and vehicle operating costs, to determine more specifically the traffic volume thresholds at which different road design standards would become appropriate. In order to encourage a sustained and comprehensive planning organization, it is recommended that this work be located in the Ministry of Public Works rather than being carried out separately from the Ministry.

5. EXPECTED AND ACTUAL BENEFITS

The primary economic benefit of the road improvements is expected to be significant reductions in the costs of the operators of vehicles on the roads. This in turn is expected to lead to other benefits, such as increased efficiency in transport, improved access to various facilities, development of agriculture and other economic activities, and improvement in regional integration, security and stability.

The improvements to the roads will clearly and obviously lead to reductions in vehicle operating costs as long as the roads are maintained to reasonable standards. The costs of vehicle utilization, fuel, tires, maintenance and crew will be reduced significantly, with the amounts of the reductions depending on the conditions of the roads before the improvements. However, the secondary effects of these cost reductions will depend on the degree to which the savings are actually realized by the commercial vehicle operators and are passed on to the users of the transport services. If much of the benefit is absorbed by unofficial toll collections, the secondary effects will be reduced. If much of the benefit is absorbed by the transport operators and not passed on to the users of the services, the secondary effects will be reduced. Some of the anecdotal evidence suggests that there is a problem in these respects. The existence of the unofficial tolls is common knowledge and was mentioned frequently in discussions with representatives of truck operators and with roadside residents.

The passing on of the savings by the transport operators could be an important issue. Discussion with representatives of truck operators suggest that the savings for the most part are not passed on to the users of the services. The trucking industry is said to be largely a one-man one-truck operation. This normally leads to strong competition and tariffs reasonably related to costs. However, the industry in Afghanistan is said to be organized into formal or informal cooperative structures. Truckers get loads by waiting their turn in line rather than competing to attract the loads. The charges are set by common consensus among the operators. There is very little competition in the economic sense.

Discussions with transportation users along the roadside confirm that tariffs do not tend to be reduced when the roads are improved. In fact, the most common perception among the users of the services was that the costs of transport had increased. This was often attributed to increases in fuel prices and changes in currency exchange rates, but on balance it appears that much of the benefit of the improvements may be retained by the operators. Possible solutions for future consideration might include government regulation of tariffs, establishment of some publicly-owned transporters to introduce a further element of competition, establishment and initial funding of village truck and bus cooperatives or financial assistance to agricultural producers, for example, so that they could own their own vehicles and thus realize the cost savings.

Benefits other than vehicle operating cost savings will clearly be realized by the users of the transport services. Times en route will be reduced. The incidence of loss and damage to agricultural produce will be significantly reduced, both because of reduced travel times and less agitation of the produce on the previous rough roads. Comfort and convenience of access to markets, clinics, schools and other facilities will be increased.

It is important to consider the differences between intentions, performance and perceptions. The objectives and intentions of the Program are commendable. The performance has not been without problems but a great deal has been accomplished under difficult circumstances. However, these positive aspects are not generally reflected in the perceptions of the roadside communities. The most common and repeated comments were related to the inconvenience experienced during construction, lack of information and communication, appropriation of land and structures without adequate discussion, agreement and in some cases compensation, and in general a sense of dissatisfaction with the experience. A frequent complaint related to the amount of dust generated during construction and concern regarding the dust the traffic will raise following completion of the gravel roads when there will be more traffic and higher speeds than before.

These negative perceptions will for the most part be short-lived and may be forgotten after the improved roads are in service and the benefits become apparent. Consideration could be given to the possibility of a low-key public relations program during the construction period, and to the possibility of dust amelioration measures during and after construction on stretches where the roads pass through villages. The ubiquitous dust problem also suggests that somewhat lower cross-over thresholds between the use of gravel on the one hand and DBST or asphalt on the other should be considered.

In summary, the SPR-SEA Program will clearly improve the roads. It will do most or all that the improvement of the roads can do in terms of reducing the transport barrier to further social and economic development. But it is a permissive factor; a necessary condition but not an adequate condition by itself. The other elements of development must also be present, including the passing on of the benefits, agricultural and other productive potential and initiative, clinics and schools, security and similar requisites. Perhaps a “package” project including all of these elements could be organized as a trial or demonstration case, either through a single donor or as an integrated, cooperative project among the donors and with the participation of the Government and the local authorities.

6. OTHER OBSERVATIONS

In the course of reviewing the transportation economics aspects of the SPR-SEA Program, a number of observations were made, not necessarily related directly to transportation economics but which may make a contribution to the evaluation of the Program. It is probable that the persons who have been involved in the road sector in Afghanistan will already be aware of these observations and are taking appropriate action.

6.1 There seems to be a pattern of what might be considered to be unrealistic expectations.

- An important and commendable aspect of the SPR-SEA Program is the intensive use of local contractors for road design and construction. Considering the many ongoing and planned road construction projects along with the many construction projects in other sectors of the economy, there is presumably an unusually heavy demand for

construction capability. This could have an important impact on the Program. Is it realistic to expect to maintain a high level of local participation in the early stages of the Program while still maintaining the desired progress in the design and construction of the roads?

- The environmental requirements to be applied to the project are apparently based on USA environmental legislation. The author of the economics part of the report is not qualified to judge the applicability of the legislation specifically to the circumstances in Afghanistan. Is it realistic to expect the legislation to be fully observed considering the stage of development of the country, the security aspects of the situation and the importance of environmental factors relative to more compelling considerations?
- Similarly, the desire to have construction and other Afghan workers covered by workplace protective measures, such as use of hard hats, safety boots, dust masks and other safety gear similar to that mandated in more developed countries is commendable. It was frequently commented that little such gear was observed on the field trips carried out as part of this evaluation. Is it realistic to expect the common use of such gear on these road improvement projects in Afghanistan?

6.2 In meetings with Government officials the evaluation consultants were informed that, in the past, some road construction had been carried out by the Ministry of Public Works, using in part army personnel as construction workers. This is no longer the case. Such “force account” road construction and maintenance was common in the past in many countries, both developed and less developed, but some has been discontinued as part of the drive toward privatization. This is in part attributable to the currently-popular privatization policies of the World Bank, Asian Development Bank and some governments, based at least partly on the political or economic ideology of the time. However, it should be recognized that full privatization has not always been successful and is not always appropriate to the circumstances of a particular country or situation. There are many success stories but also many accounts of failed privatization initiatives. The existence of a publicly-owned contractor could have beneficial effects in terms of the setting of standards, stimulating competition and the training of construction workers, as well as adding to the capacity of the construction industry. Considering the current pressure on the Afghan construction industry, donors might consider discussions with the appropriate Government departments with a view to reviewing this situation.

6.3 There appears to be less coordination than would be desired in the planning of road projects in Afghanistan.

- Coordination among donors. Discussions with donor representatives suggest that the donors each set up their own Project Implementation Units and that each tends to plan independently of the others. There has been relatively little coordination among the donors in planning their activities in the road sector up to now. However, a Steering Committee has been established to help overcome this problem.
- Coordination between donors and Government. There appears to be a tendency to plan and carry out the road improvements with less than full institutional interchange and coordination with the Afghanistan Ministry of Public Works, the Government entity responsible for Provincial roads. It is intended to strengthen the Planning Department of the Ministry into a fully-functional road planning organization. The SPR-SEA project

and any successors should include specific provision for the support of the Ministry's responsibilities to the maximum extent practicable under the circumstances. Without necessarily referring to the specific situation in Afghanistan, it has been observed in many countries that the tendency for donors to carry out their projects through separate agencies such as dedicated Project Management Units, outside of the normal functioning of the government departments normally responsible, tends to undermine the government structure rather than support and strengthen it.

7. CONCLUSIONS

It is clear that the Program will meet the objective of improving the roads. It is also clear that the road improvements will meet other objectives, such as facilitating the efficient movement of goods and people. They will also increase access to government and social services, providing that the services are available. They should facilitate the development of agriculture, providing that the other necessary inputs are there. They will remove some of the transportation barriers to integration, security and stability, but again, other necessary conditions must be present for improvements in these areas. By training contractors and providing experience for them, the road improvements will increase the local capacity for road works. They are clearly providing employment opportunities during construction and will continue to do so in the maintenance of the roads, providing that steps are taken to ensure sustained maintenance of the roads.

In summary, the road improvements should meet the objectives to the extent that other necessary conditions are present or are provided. Again, the possibility of an integrated demonstration project should be considered.

The evaluation is also to include an assessment of the design, objectives, implementation and performance of the program. From the transportation economics viewpoint, the design of the Program seems well thought out and logical except for the lack of even a preliminary economic analysis of the relative costs and benefits. Such an analysis might have resulted in somewhat different pavement types and road widths. The objectives are commendable and set good targets. The actual impact on livelihood to date is reflected in negative perceptions during the construction period. The positive aspects will be apparent as the roads go into service. The potential impact could be profound if the roads are viewed as part of a comprehensive social and economic development package and the necessary non-transportation inputs materialize. The Program will clearly make a significant contribution to the rehabilitation of the infrastructure.

The most important technical conclusion is that the introduction of an element of economic analysis might lead to changes in the recommended surface types and widths of the roads.

8. RECOMMENDATIONS

This evaluation of the transportation economics aspects of the SPR-SEA Program is far from exhaustive. It is difficult in five weeks in Afghanistan to make recommendations not already considered by people with significant experience in the country. One purpose may be to stimulate further discussion of the points made here.

- 8.1 The most important recommendation from the viewpoint of transportation economics is that an element of economics should be introduced into the Program. This should be based on a simplified threshold or similar approach rather than full feasibility studies of

each road improvement project. The analysis should be applied first to those projects which can still be modified to reflect any changes the analysis might suggest.

- 8.2 Efforts to improve the coordination between donors and the Government, and among the donors, should be continued and intensified.
- 8.3 Steps should be taken to improve communications with the affected roadside residents in an attempt to improve the perceptions of the intended beneficiaries of the improvements.
- 8.4 A review of the capacity of the construction industry should be carried out if not already done.
- 8.5 A demonstration project, combining road improvements with assistance as necessary in agricultural and other economic development, water supply, schools, clinics, enhanced security and similar measures might be considered.
- 8.6 The possibility of restoring some degree of force account construction by the Ministry of Public Works might be considered.

William Griffiths
21 September 2009

APPENDIX 6
Environment Report



**ENVIRONMENTAL EVALUATION, STRATEGIC
PROVINCIAL ROADS – SOUTHERN AND
EASTERN AFGHANISTAN ROADS PROGRAM,
MID-TERM EVALUATION, Technical Report TR-1
SEPTEMBER 2009**

BARNEY P. POPKIN

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ENVIRONMENTAL EVALUATION,
STRATEGIC PROVINCIAL ROADS -SOUTHERN
AND EASTERN AFGANISTAN ROADS PROGRAM,
MID-TERM EVALUATION,
TECHNICAL REPORT TR-1
SEPTEMBER 2009

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A. EXECUTIVE SUMMARY

Section 216, Chapter 22 of the U.S. Code of Federal Regulations (CFR) is the federally mandated Environmental Procedures for Foreign Assistance. It is implemented through the Automated Directives System (ADS) 204 and U.S. Agency for International Development (USAID) policies and procedures, which reflect federal law, Congressional initiatives, and Agency and Bureaus of Asia and the Middle East policies. The Environmental Evaluation for the Strategic Provincial Road – Southern and Eastern Afghanistan Roads (SPR-SEA) Program was conducted in Afghanistan from August 12 through September 24, 2009.

The SPR-SEA Program’s environmental compliance documents prepared by or on behalf of the USAID/Afghanistan Mission are weak in demonstrating that 22CFR 216 (Reg. 216) submittals were formally approved by the BEO, that villagers and community members participated in scoping statements and environmental assessments, and reporting the environmental monitoring, evaluation, and corrective actions are being implemented. To date, the Mid-Term Evaluation Team (MTE) observed only four roads (#4, #5, #8, #10) or road sections for the environmental compliance evaluation; only two (#4, #5) were on-the-ground site visits. The site visits indicated dusty conditions and, where there were site workers present, they were not wearing general construction safety equipment, including face masks for dust protection. On-site toilets, worker emergency medical equipment, fire-fighting equipment, and drinking water were not observed. Although the observations were made during the heat-of-the-day during summer and Ramadan, worker heat exhaustion, dehydration, and even stroke may be avoidable worker health and safety risks. Environmental concerns were expressed as to: 1) categorization of potentially low, moderate, and significant levels of adverse environmental impacts from site preparation, road construction, and operation; 2) dust and drainage control during site preparation, road construction, and operation; 3) potential impacts from material borrow areas; 4) potential adverse hydrologic impacts and their mitigation (flooding, erosion, and downstream deposition and siltation); 5) worker and public health and safety; 6) potential impacts from sub-

grant community outreach and development activities; and 7) monitoring, evaluation, corrective action, and documentation of both road and sub-grant activities.

Attachment A gives Abbreviations and Acronyms. Attachment B lists Documents Requested and Consulted. Appendix C lists Individuals Contacted. Attachment D presents Environmental Checklist and Environmental Interview Form. Attachment E contains photographs of selected environmental issues.

B. COMPLIANCE WITH USAID/GOVERNMENT OF THE ISLAMIC REPUBLIC OF AFGHANISTAN ENVIRONMENTAL REGULATIONS

As noted in the Checchi Statement of Work for the SPR-SEA MTE Program (July 21, 2009):

Environmental sustainability is integral to USAID's overall goal. To meet this goal, environmental considerations were incorporated into results planning, achieving and monitoring as per ADS 204.2. Title 22 of the US Code of Federal Regulations [CRF], Part 216, codifies USAID's environmental procedures. Compliance is a legal requirement as well as Agency policy. The activities under the proposed program are covered under the Environmental Threshold Decision for Afghanistan/ANE approved by the Bureau Environmental Officer on 19 September 2005. The rehabilitation work is taking place on existing gravel roads and in most cases does not require any re-alignment of the road. The main construction activities include raising the existing ground level, roadbed preparation to improve the sub-grade, filling and compaction, and construction of new drainage systems or the rehabilitation of existing drainage systems to improve drainage. The aforementioned threshold decision states that public works and infrastructure including road maintenance and repair and land leveling qualify for Positive Determination per 22 CFR 216 [see http://www.usaid.gov/our_work/environment/compliance/ane/regulations.htm].

The evaluation of the Program's compliance with USAID environmental regulations, policies, and initiatives is based on: 1) compilation and review of readily available, relevant documents provided by USAID and IRD, including BEO-approved documents; 2) observations of secured, selected roads during security-limited, very short visits; 3) interviews and discussions with key personnel to the extent feasible in USAID, IRD, Afghanistan Ministries, Provincial and District governments, *suras* (Arabic; community councils), municipalities, villages, settlements, community groups, NGOs, and others; and 4) analysis of the foregoing. To expedite this process, the environmental specialist made formal information requests to both USAID and IRD; participated in 2-hour helicopter flyover of Roads #8 and #10 to become familiar with general geographic conditions; prepared and vetted environmental compliance checklists and interview forms; visited Jalalabad-area roads and held unannounced interviews and meetings; contacted selected individuals for potential information, interviews, and discussions; and conducted interviews and discussions in person, as well as by email and telephone to make good use of limited time under security constraints. Attachments A and B show the checklists and interview forms, respectively.

Several activities, not directly related to road work but rather to meeting the identified needs assessment (SDLR, January 2009), may also have potential adverse environmental impacts because of facility siting, land modification, construction; materials used or provided; and waste generated. These activities include:

- Installing drinking water wells, directly as replacement wells for destroyed wells from road construction and widening, or specifically under a sub-grant
- Training and promoting embroidery, tailoring, and carpet weaving (livelihoods)
- Irrigation *karez* (from Persian; aka *qanat* in Arabic, *kahan* from Persian, or water-management system) rehabilitation

- Retaining/ protection wall construction
- Irrigation canal rehabilitation
- Small water dam construction
- Establishing mobile health clinics
- Other: Construction of a Business Development Center, Community Development Centre, shops/ markets, electricity dynamo, fish farm, market construction/ rehabilitation, micro-hydro power plants, mosque, pipe scheme, solar electricity, suspension bridge, tailoring training center, vehicle shops, welding shops

Certain sub-grant activities under the SPR-SEA program may be expected to local, adverse environmental impacts, such as noted below in Table 1. Table 2 lists potential human health and environmental impacts of selected poor practices or exposures.

Table 1. List of Activity and Potential Environmental Concern

Activity	Potential Environmental Concern
Agricultural activities such as chicken and fish farming, livestock management, crop processing, butchering	Pesticides, animal medicines, pharmaceuticals, medical wastes, solid wastes
Bakeries	Dusts, solid wastes
Carpet making and embroidery	Metal dyes, dusts, volatile organic solvents, solid wastes
Garages and metals shops	Volatile organic solvents, metallic and organic paints, heavy metals, petroleum products and wastes (Benzene, Toluene, Ethyl benzene, Xylenes), solid wastes
Medical clinic	Medicines, medical waste, biological wastes, solid wastes
Small-scale structure construction	Destruction of utilities and wells, drainage problems, increased dust and, erosion, debris and solid waste disposal
Soap making	Caustic chemicals
Water well construction	Wastewater, heavy metals, leached toxins

Table 2. Potential human health and environmental impacts of selected poor practices or exposures

Poor practice or exposure	Potential adverse human health or environmental impact
Biological Wastes: Burning or disposal of animal, pharmaceutical, biological, medical wastes, sharps	Inhalation of airborne metals, petroleum products and plastics, including furans and dioxins; eye, skin, lung irritation; infection; reduced immune system; cancer; lost work time; increased stress and reduced quality of human and animal life
Chemical Wastes: Strong acids, bases (caustics), volatile organic paints, finishings, coolants, solvents, metallic dyes, petroleum products	Inhalation of contaminants; eye, skin, lung irritation; infection; reduced immune system; cancer; lost work time; increased stress and reduced quality of human and animal life
Drainage: Uncontrolled	Flooding, erosion, sedimentation, siltation, soil loss, structure or road undermining, enhanced breeding grounds for undesirable pests; destruction of farmland and habitats
Drinking water from wells which may be contaminated by human, animal agricultural, industrial, commercial wastes; natural contaminants	Bacteriological and viral infection; diarrhea; stunting of children; death in infants; reduced immune system; cancer (from toxic metals, pesticides, and volatile organic compounds); lost work time; increased stress and reduced quality of human and animal life
Dust: Production of road, fiber, materials, baking, carpentry dust	Inhalation of dust, silica, mold and micro-organism; eye, skin, lung irritation; infection; reduced immune system; lost work time; increased stress and reduced quality of human and animal life
Oils: Burning or disposing used motor and other oils, oil application on standing water to kill mosquitoes	Inhalation of benzene, toluene, ethyl benzene, xylenes, petroleum, heavy metals; soil, surface-water and groundwater; death of desirable insects; nervousness; eye, skin, lung irritation; infection; reduced immune system; cancer; lost work time; increased stress and reduced quality of human and animal life; destruction of habitats
Pesticides: Biocide application, use, storage, and disposal	Ingestion, inhalation, and skin contact with pesticides; soil, surface-water and groundwater contamination; death of desirable insects; nervousness; eye, skin, lung irritation; lesions; infection; reduced immune system; cancer; lost work time; increased stress and reduced quality of human and animal life; destruction of habitats

Soil erosion	Downstream sedimentation, siltation, and flooding; degradation of downstream surface-water bodies, fisheries, habitats, and farmland; lost soil for agricultural production requiring soil amendments and soil rehabilitation
Solid Wastes: Burning solid wastes, construction and carpentry debris, treated timber, wood products, solvents, paints, biocides	Bacteriological and viral infection; reduced immune system; cancer (from toxic metals, pesticides, and volatile organic compounds); eye, skin, lung irritation; infection; lost work time; increased stress and reduced quality of human and animal life

C. EVALUATION OF DOCUMENTS

To date, approximately 60 documents were reviewed for the environmental compliance evaluation. Attachment B lists the documents requested and consulted. In general, the documents are strong in reporting engineering progress, while weak in demonstrating that Reg. 216 submittals were formally approved by the BEO, that villagers and community members participated in scoping statements and environmental assessments, and reporting environmental monitoring, evaluation, and corrective actions are being implemented.

D. EVALUATION OF ROAD OBSERVATIONS

To date, four roads (#4, #5, #8, #10) or road sections were observed for the environmental compliance evaluation, but only two (#4, #5) were on-the-ground site visits. Table 3 below lists the roads or road sections observed. Figure 1 below shows the location of the gravel roads or alignments.

Table 3. List of SPR-SEA Roads or Road Sections Observed

SPR-SEA Roads or Road Sections Observed
Road #4. Completed drive-over on 31 August 2009, planned 4-km road, Mendrawol Junction- Quarghayi, Laghman Province, Eastern Region, will have precast concrete bridge, in progress, reportedly 79% completed. Connects villages and markets; needs to restore irrigation and road drainage system.
Road #5. Completed drive-over on 1 September 2009, 5+ kilometers past the washed-out bridge. The road is planned to be 63-km long, from Shinwar to Dur Baba, Kunar Province, Eastern Region, and will have precast concrete bridge, in progress, reportedly 33% completed. Appears to be mostly uninhabited or sparsely inhabited flat desert area.
Road #8. Completed flyover on 23 August 2009 with #10, planned 22-km long, Chamkani- Jani Khel Road, Paktya Province, Eastern Region, in progress, reportedly 59% completed. Connects farming villages and markets.
Road #10. Completed flyover on 23 August 2009 with #8, planned 53-km long, Qasem Khel Road- Ali Khel/Berkaray, Paktya/Logar Provinces, Eastern Region, in progress, reportedly 27% completed. Connects farming villages and markets.

To date, approximately 65 individuals were contacted for interviews and discussions for the environmental evaluation. Table 4 summarizes comments from interviews and discussions. Appendix C lists the persons and their affiliations contacted.

Table 4. Summary of Comments from Interviews and Discussions

Organization or Affiliation	Comments
IRD-Kabul Chief of Party and Deputy Chief of Party	Good program memory and longevity
IRD-Kabul engineering and environmental managers	Good technical insights; few if any field inspections of roads and sub-grants; poor communication with field conditions and environmental challenges like dust-control, drainage, destroyed wells, and sub-grants
IRD-Kabul Community Outreach Capacity Building managers	Good internal outreach documentation and guidelines; weak communication, monitoring, evaluation, and corrective action capacity
IRD-Jalalabad Area engineering managers	Poor communication with Kabul per field conditions and environmental challenges like dust-control, drainage, destroyed wells, and sub-grants
IRD-Jalalabad Area Community Outreach Capacity Building managers	Poor communication with Kabul per field conditions and environmental challenges like dust-control, drainage, destroyed wells, and sub-grants
Road #4 IRD Community Development Council trainers	Reports what they want us to hear as opposed to actual environmental hazards, like exposure to lye (a corrosive alkaline substance, commonly sodium hydroxide or historically potassium hydroxide) in soap making, and dust-inhalation from bakery and carpet making
Road #4 Road Subcontractors (Mendrawol to Quarghayi)	Multiple road contractors, little coordination
Road #4 Villagers	Destroyed private well, destroyed irrigation canals, left poor drainage for years, unpaid worker from prior subcontractor
Road #4 Shopkeepers	Road-dust adversely impacts shopkeepers' food, fruits and vegetable
Road #5 (Shinwar to Dur	Good technical insights

Baba) and #6 (Azra to Sherzad) Road Subcontractors	
Road #7 (Wazir to Khadarkhel) IRD Community Development Group trainers	Taliban security challenges
USAID- and other donor-funded road engineering managers	Good technical insights; high level of confidence that the expanding road system is significantly improving economic, social, and cultural activity
USAID-Jalalabad Provincial Reconstruction Team management and staff	Good knowledge of PRT roads and security
USAID-Kabul Contract Officer's Technical Officer, Mission Environmental Officer, previous MEOs	Few if any field inspections of roads and sub-grants; high-staff turn-over; poor environmental compliance documentation

Environmental concerns were expressed as to: 1) categorization of potentially low, moderate, and significant levels of adverse environmental impacts from site preparation, road construction, and operation; 2) dust and drainage control during site preparation, road construction, and operation; 3) potential impacts from material borrow areas; 4) potential adverse hydrologic impacts and their mitigation (flooding, erosion, and downstream deposition and siltation); 5) worker and public health and safety; 6) potential impacts from sub-grant activities; and 7) monitoring, evaluation, corrective action, and documentation of both road and sub-grant activities.

The Program does not appear to have the capacity or security to routinely inspect its sub-contractors and sub-grantees in environmental compliance, but Program Managers may assume that they comply. It has been reported that road contractors routinely use pesticides for mosquito management in malaria-prone areas, without oversight or compliance with Reg. 216 PERSUAP requirements, and that several road and sub-grant activities use hazardous materials and generate hazardous

waste without environmental inspections, for example medical wastes from clinics, metals and petroleum wastes from machine shops and garages, biological wastes from farms and clinics, as well as generating dust and soil erosion, debris, and solid wastes.

F. CONCLUSIONS

Based on the limited document reviews, site visits, interviews and discussions, and analyses performed during this mid-term evaluation to date, the Program is somewhat meeting the of requirements 22CFR216 on paper, but it cannot demonstrate that it has USAID BEO-approved IEE, ETD, and RODs for Scoping Statements and Environmental Assessments, and does not appear to be implementing appropriate mitigation measures in its road rehabilitation and sub-grant activities through a systematic, verifiable process.

Concerning the Program's road sub-contracts and community outreach and capacity building sub-grants, it is currently unclear who has responsibility for and is in fact carrying out the environmental requirements for these activities under the determination of a Negative Determination with Conditions.

The USAID/Kabul Mission has had a high turn-over of COTRs and MEOs. In reverse order from current (August 2009) to past (October 2005), these MEOs include James Gilmore, Mumtaz Ahmadi, Robert Hanchett, Abdul Rahim Yahya, Michael Kaiser, Dan Miller, and Peter Downs. In addition, the USAID/ Asia-Middle East Bureau prepared a Corrective Environmental Action Plan (CEAP) in fall 2008 for the Mission to implement to correct deficiencies; this apparently is not being implemented.

The Program was slow to develop its Community Outreach and Capacity Building components and has yet to develop and implement an effective communication, monitoring, evaluation, and corrective action protocol for environmental compliance.

Security issues, warfare, high staff turn-over, poor roads and challenging weather conditions increase the difficulties in managing this very large, multi-faceted program.

G. RECOMMENDATIONS

1. Beyond road rehabilitation, the all-weather gravel roads will require ongoing monitoring, evaluation, and corrective actions; and operation and maintenance. These post-construction activities should be consistent with good road management practices, including control of dust, erosion, flooding, and drainage. [See http://www.usaid.gov/our_work/environment/compliance/ane/guidelines.htm, especially <http://zietlow.com/manual/gk1/web.doc> for Keller and Sherar, 2003; or equivalents]
2. Because of the high turn-over and replacement of MEOs and COTRs and functioning deputies in the USAID/Kabul Mission, the Mission Director should implement a continuous education and training program in 22CFR216 with a dedicated staff, cross-training, overlapping of entering/ exiting staff, and should implement and update the USAID/Asia-Middle East CEAP for the Afghanistan Mission, including ongoing training of USAID, implementing partner, sub-contractors, and sub-grantee staff.
3. The Program implementing environmental group should be expanded and its scope should including early and throughout the subcontracting process and its activities function process to raise the level of environmental

mitigation and compliance, including liaising with COCB and contractors through inspections, training, and implementing mitigation measures.

4. An independent, on-site environmental auditing and inspection team should be empowered to perform ongoing environmental compliance monitoring, evaluation, reporting, and corrective actions, of both road and COCB activities.
5. The USAID Mission should have a full-time, trained and committed environmental engineer to provide guidance to contractors and others on the road project and its sub-contracts and grants, especially concerning environmental mitigation, and hazmat management
6. The Mission should conduct a biodiversity conservation, habitat and natural resources assessment consistent with the Automated Directives System (ADS) 119, and incorporate such in its strategic plan per ADS 201, as many of the mapped resources no longer exist and are threatened, ex. Obiestada Lake is now salt pit and several mapped forests in Road are now deforested.

Attachment A. Abbreviations and Acronyms

**Abbreviations and Acronyms
Checchi - Technical Services under TO No. 306-M-00-07-00502-00, Afghanistan SUPPORT**

AADP: USAID: Agriculture, Alternative Development Program
AASHTO: American Association of State Highway and Transportation Officials
ACI: American Concrete Institute
ADB: Asian Development Bank
ADM: Architectural Design Manual
ADS: USAID: Automated Directives System
ADT: Average Daily Traffic
AED: Afghanistan Engineer District
AIA: Afghan Interim Authority
AISC: American Institute of Steel Construction
AMAC: Area Mine Action Center
ANA: Afghanistan National Army
ANE: USAID Asia-Near East Bureau
ANP: Afghanistan National Police
ASP: Afghanistan SUPPORT Project
AWF: Afghanistan World Foundation
B&V: Black and Veatch
BEO: ANE Bureau Environmental Officer
BLI: BirdLife International
BMP: Best management practices
CA: Cooperative Agreement
CEAP: Corrective Environmental Action Plan
CAP: Corrective Action Plan
CBSG: Community Based Small Grants
CTTC: Construction Trade and Training Center
CDC: Community Development Councils

CDG: Community Development Group
CERP: USDoD: Commander's Emergency Response Program
CFR: Code of Federal Regulation
CIA: Central Intelligence Agency
CM: IRD: Community Mobilization
CSP: IRD: Community Support Program
CO: Contract Officer
COCB: IRD: Community Outreach Capacity Building
COIN: Counterinsurgency Manual
COP: Chief of Party
COTR: Contract Officer's Technical Representative
CTO: Cognizant Technical Officer
CTTC: Champion Technical Training Center
CY: Calendar Year
DbA: Decibels
DDA: District Development Assemblies
DEC: USAID: Development Experience Clearinghouse
DoT: Department of Transportation
EA: Environmental Assessment
EMP: Environmental Mitigation Plan
EPA: US Environmental Protection Agency
ESA: MCC: Environmental and Social Assessment
ETD: USAID: Environmental Threshold Decision
FHWA: Federal Highway Administration
FONSI: Finding of No Significant Impact
FSN: Foreign Service National
GAO: Government Accountability Office
GIRoA: Government of the Islamic Republic of Afghanistan
GTZ: German Development Assistance Implementation Agency
HEC: Hydrologic Engineering Center
H&H: Hydrology and Hydraulics
HMS: Hydrologic Modeling System
HTRW: Hazardous, Toxic, and Radioactive Waste

IEE: USAID Initial Environmental Examination
IUCN: International Union for Conservation of Nature and Natural Resources
IMAS: International Mine Action Standards
IRD: International Relief and Development
IRoA: Islamic Republic of Afghanistan
IRP: Infrastructure and Rehabilitation Program
IUCN: International Union for Conservation of Nature and Natural Resources
LBG/B&V: The Louis Berger Group/Black & Veatch Joint Venture
LBGI: Louis Berger Group, Inc.
LWR: Lutheran World Relief
KIA: Killed in action
Km: Kilometer
L: Liter
M: Meters
MCC: Millennium Challenge Corporation
M&E: Monitoring and evaluation
MMP: Mitigation Monitoring Report
MOIC: Afghanistan Ministry of Information and Culture
MPW: Ministry of Public Works
MSL: mean sea level
m³/sec: cubic meter per second
NAAQS: National Ambient Air Quality Standards
NEPA: Afghanistan: National Environmental Policy Act; U.S.: National Environmental Protection Agency
NGO: Non-governmental agency
NRCS: Natural Resource Conservation Service
NRVA: National Risk and Vulnerability Assessment
NSP: National Solidarity Program
O&M: Operation and maintenance
CERP: Commander's Emergency Response Program
OIEE: USAID: Office of Infrastructure, Engineering, and Energy
OIG: Office of the Inspector General
PAP: Project-Affected Persons
PERSUAP: Pesticide Evaluation Report and Safe Use Action Plan

PMP: Project Management Plan
POC: Percent of Completion
PRT: Provincial Reconstruction Team
QA/QC: Quality Assurance/Quality Control
QIPP: USAID Quick Impact Project Program
RAP: Recycled asphalt pavement
REFS: Rehabilitation of Economic Facilities and Services Program
ROD: Record of Decision
SBU: Sensitive But Unclassified
SDIR: Social Development and Legal Rights, Afghanistan
SE: Supervising Engineer
SO: USAID: Strategic Objective
SOW: Scope of Work
SPM: Suspended particulate matter
SS: EA Scoping Statement
STR: Sexually transmitted disease
TO: Task Order
ToT: Training of Trainers
PIEE: Programmatic Initial Environmental Examination
PRT: Provincial Reconstruction Team
RAS: Rivers Analysis System and Rapid Assessment Survey
RHS: Right Hand Side
ROW: Right of way
SPR-SEA: Strategic Provincial Roads-South and East Afghanistan
T & E: Threatened or endangered species
UN: United Nations
UNMACA: United Nations Mine Action Center Afghanistan
UNEP: United Nations Environment Program
UNOPS: United Nations Office for Project Services
US: United States
USACE: United States Army Corps of Engineers
USAID: United States Agency for International Development
USAID BEO: USAID Bureau Environmental Officer

USDoD: United States Department of Defense

VPD: Vehicles per day

UXO: Unexploded ordnance

ZOI: Zone of influence, 2-5-km radius of the road to be rehabilitated or reconstructed

Attachment B. Documents Requested and Consulted

Information Requests for IRD Checchi - Technical Services under TO No. 306-M-00-07-00502-00, Afghanistan Support August 18, 2009

1. IRD Second Quarterly Report
2. IRD Needs Assessment Reports (NAP) and work products
3. IRD Roads Feasibility Studies (RFS) and work products
4. IRD List of Grants Awarded, probably as Medium to Large Size Grants, and Community Based Small Grants (CBSG), and other COCB reports

5. IRD Best Management Practices (BMP) for Road Construction
6. IRD Construction Procedural Manual (CPM)
7. IRD Construction Risk Management Plan (CRMP)
8. IRD Construction Trade and Training Center (CTTC) training programs
9. IRD Community Development Councils (CDC) programs
10. IRD Community Development Group (CDG) programs
11. IRD De-Mining Security Plan (DMSP)
12. IRD Environmental Assessment (EA)
13. IRD Environmental Mitigation Plans (EMP)
14. IRD Environmental Mitigation Monitoring Reports (EMMP)
15. IRD Planning Management Units (PMU) and contact personnel
16. IRD Quality Control Plan (QCP) and Quality Assurance Plan (QAP)
17. IRD Pesticide Evaluation Report and Safe Use Action Plans (PERSUAPs)
18. IRD Press Releases (PR) and Social Marketing Plans (SMP) aka Marking Plans (MP) and work products

19. IRD Project Management Plans (PMP)
20. IRD Security Plan (SeP)
21. IRD Safety Plan (SaP)
22. IRD Training Programs (TP)
23. IRD Work Plans (WP)

Request of documents from USAID for environmental evaluation
SPR-SEA Mid-Term Evaluation
Barney Popkin
24 August 2009

The following information is required from USAID to perform the documentation review for the environmental evaluation:

All environmental compliance documents approved and signed by the Asia-Middle East Bureau Environmental Officer, relevant to the SPR-SEA activities, including:

- Initial Environmental Examinations,
- Environmental Threshold Decisions
- Records of Decision
- Scoping Statements
- Environmental Assessments,
- Pesticide Evaluation Reports and Safe Use Action Plans
- Corrective Action Plans, Audits, Training Programs

All audit reports and responses, performed by the Office of the Inspector General, the General Accountability Office, any other federal agency or entity, Bureau of Asia and Middle East, and the Mission.

Documents Consulted
Checchi - Technical Services under TO No. 306-M-00-07-00502-00, Afghanistan Support
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Attachment C. Individuals Contacted

**SPR-SEA Mid-Term Evaluation, Environmental Contacts List
Checchi - Technical Services under TO No. 306-M-00-07-00502-00, Afghanistan SUPPORT
7 September 2009**

Name	Title	Affiliation	Address	Contact Information
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Yunas Khan	Roads #5 & #6 road construction contractor		Jalalabad	

ADP: USAID: Afghanistan Agricultural Alternative Development Program
 AIRSP: USAID Afghanistan Infrastructure and Rehabilitation Services Program
 ARMY: United States Department of the Army
 COCB: IRD: Community Outreach and Capacity Building
 COP: Chief of Party
 COTR: USAID: Contractor Officer's Technical Representative
 CDM: Camp Dresser McKee
 CM: IRD: Community Mobilization
 CSP: IRD: Community Support Program
 ECFA: Environment Conservation Center for Afghanistan
 E&E: USAID: Europe and Eurasia Bureau
 EGAT: USAID Bureau of Economic, Growth, Agriculture and Trade
 EIS: USAID: Engineering and Infrastructure Services
 IRD: International Relief and Development
 LBG: Louis Berger Group, Inc.
 MEO: Mission Environmental Officer
 OIEE: USAID: Office of Infrastructure, Engineering and Energy
 QIP: USAID: Quick Impact Projects
 PDO: Project Development Officer
 SPR-SEA: USAID: Strategic Provincial Roads-Southern & Eastern Afghanistan
 PRT: Provincial Reconstruction Team
 TDY: Temporary Duty Station
 USAID: United States Agency for International Development
 USPSC: United States Personal Service Contractor

Attachment D. Environmental Check List and Environmental Interview Form

ATTACHMENT X
Checchi Environmental Review Checklist for IRD SPR-SEA Mid-Term Evaluation

Road#:

Road/Project/Location:

Construction Type: Rehab New (EA)	Road	Culvert	Bridge	Other	Comment – compliance, enhancement
DOCUMENTATION					IEE/ETD/SS/EA
OBSERVATION					
Air Quality & Noise					
Runoff/ Drainage/ Water Quality					
Dust/ Erosion/Sedimentation Control					
Environmentally Sensitive Areas (Social, Cultural, Wetlands, Protected Species, Habitats)					
Worker/ Public Health & Safety					
Unanticipated Discoveries					
Off Areas/ Source Materials					
Hazmats					
Natural disasters (floods, earthquakes, slides)					
Transportation					
Cleanup & Restoration					
INTERVIEWS					
Training Needed (yes/no)					
Mitigation &/ or Monitoring Needed (yes/no)					

NS = not significant; PS = potentially significant (Supplemental Report or Environmental Assessment (EA) for more information); S = significant (Action Needed)
 Recommendation: No Further Environmental Review ___; Supplemental Report Required ___; Environmental Assessment Required ___

Prepared By:
 Reviewed By:

Signed:
 Signed:

Date:
 Date:

ATTACHMENT Y

Checchi Environmental Compliance Questions for Stakeholders, Participants, and Other Interviewees, IRD SPR-SEA Mid-Term Evaluation

Road#:

Road/Project/Location:

Construction Type: Rehab New (EA)	Road	Culvert	Bridge	Other	Comments
Do you have concerns, comments, or recommendations on any environmental, health and safety, social or cultural issue related to SPR-SEA?					
Do you have concerns, comments, or recommendations on any of these specific issues?					
Air Quality & Noise					
Runoff/ Drainage/ Water Quality					
Dust/ Erosion/ Sedimentation Control					
Environmentally Sensitive Areas (Social, Cultural, Wetlands, Protected Species, Habitats)					
Worker/ Public Health & Safety					
Unanticipated Discoveries					
Off Areas/ Source Materials					
Hazmats					
Natural disasters (floods, earthquakes, slides)					
Transportation					
Cleanup & Restoration					
Other Concerns/ Issues					
Training Needed (yes/no)					
Mitigation &/ or Monitoring Needed (yes/no)					

NS = not significant; PS = potentially significant (Supplemental Report or Environmental Assessment (EA) for more information); S = significant (Action Needed)
 Recommendation: No Further Environmental Review ____; Supplemental Report Required ____; Environmental Assessment Required ____

Prepared By:
 Reviewed By:

Signed:
 Signed:

Date:
 Date:

Attachment E. Photographs of Selective Environmental Issues



Road #4: Destroyed drainage, leaving poor roadside drainage and unhealthy conditions, left; poorly designed and sited, replacement drinking water well in standing water, replaced well destroyed by road two weeks later, right



Road #5: Left culvert and right gabion retaining wall for drainage control – will work well in desert flash floods?



Road #4: Nicely sited drinking water well above grade



Road #5: Watering truck spraying for road-dust control



Road #8: Helicopter view at 1,000 feet above grade



Road #10: Dry watershed

APPENDIX 7
Gender Report

ASSESSMENT OF COMPLIANCE
WITH USAID GENDER POLICY PAPER
STRATEGIC PROVINCIAL ROADS - SOUTHERN AND EASTERN
AFGANISTAN ROADS PROGRAM

MID-TERM EVALUATION,
TECHNICAL REPORT TR-1

SEPTEMBER 13, 2009

MARZIA MEENA, GENDER SPACILIST

**Contracted under USAID Technical Services under TO No. 306-M-00-07-00502-00 Afghanistan
SUPPORT**

Contractor:

Checchi and Company Consulting, Inc.
1899 L Street, NW, Suite 800
Washington, DC 20036-3804

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- A. Overview
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- G. Conclusions
- H. Recommendations

Annexes

- 1. Documents Requested and Consulted
- 2. Individuals Contacted
- 3. Gender analysis Matrix of Project Impact (PRESENT/ ANTICIPATED/ ACTUAL)
- 4. SPR-SEA Roads Observations Pictures

A. Overview: Long-excluded from education, health care, employment, and participation in public life Afghan women continue to suffer from illiteracy, poor health, and extreme poverty. The country's maternal mortality and female illiteracy rates are among the highest in the world. While women's life expectancy, at just 44 years, is among the lowest. Not only do Afghan women face urgent humanitarian needs, but their untapped energy and productivity are essential for sustainable peace, security, and development in Afghanistan.

The objective of this report is to assess the compliance of the SPR-SEA to USAID's gender policies, specifically to address significant gender issues in its design, implementation, and monitoring and evaluation. These issues should reflect consideration of the different ways in which men and women are involved in or affected by the activity or the work to be undertaken, including a description of how gender considerations are mainstreamed into project implementation. And examples of such issues include ways in which women are brought into the capacity building/skills development component of the activity; possible employment opportunities for women; women's need for transport to clinics, girls' schools, markets, and for employment or income generation and the selection of roads for rehabilitation; maximizing the potential for new roads to enhance women's mobility and access to development opportunities; minimizing the potential for new roads to further restrict women's mobility by enabling strangers' access to villages; women's roles in the road selection process; and women's need for road safety and security. If it is determined that there were no significant gender issues with respect to any part of this program, a brief rationale to that effect must be provided.

B. Key Afghanistan's interest in gender equality and advancement of women

1. Afghanistan's entry into the 21st century has been characterized by its rapid change from an repressive theocratic regime to a newly formed democracy committed to recognizing that its citizens are of equal worth and dignity. The state has acknowledged that marginalized categories of people exist and that specific effort is needed to facilitate their integration. Among these the largest category in numerical terms is women and girls.
2. The UNDP's Human Development Report rates Afghanistan among the poorest nations of the world, ranking 173 of 178 nations. Its gender development index (GDI) which rates women's share compared with men's on the Human Development Indicators (HDI) measures, is even poorer being ranked 143 of 145 nations. Increased participation of Afghan women in all aspects of social life is not only a matter of fulfilling their rights, improving rate of survival, or enhancing human potential. It is also vital to overall national development.
3. Since its inception at Bonn the new state of Afghanistan has pledged to uphold international human rights including those of women. Government has made effort to promote the participation of both men and women in its decision-making structures as well as in its planned activities. Recognizing the disadvantaged position of women in society, a first ever Ministry of Women's Affairs (MoWA) was introduced with provincial departments commissioned and subsequently established in all but one province of the country. Its mandate is to coordinate inter-ministerial development of national policies and strategies that advance equality between men and women. The first National Development Framework of 2002 specifically required that efforts towards achieving equality 'should not be treated as a ghetto, but integrated as a cross-cutting issue into all government policies, strategies, plans and programs.

5. In March 2003 Afghanistan acceded without reservations to the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW). A first report has not yet been submitted, but the treaty committee has visited Afghanistan to assess support needed for its preparation. In March 2004 the GoA made commitment to the Millennium Development Goals (MDGs) and within a year published a report of its plans to fulfill by 2020 its chosen targets which are integral to its national development strategy. For Goal 3 on gender equality Afghanistan has undertaken to

- eliminate gender disparity in all levels of education by 2020,
- reduce gender disparity in economic areas by 2020,
- increase female participation in elected and appointed bodies at all levels of governance to 30 per cent by 2020, and added a new specific target to,
- reduce gender disparity in access to justice by 50 per cent by 2015 and completely by 2020.

6. The nation's new Constitution of 2004 makes a clear commitment to upholding the United National Charter and observing the international treaties it has joined (Article 7). In this spirit it addresses a number of key concerns relating to women's poor status in society. These include legal rights, socio-economic opportunity and political participation. Though not comprehensively, the Constitution touches on some core legal issues for women. Most importantly, Article 22 prohibits discrimination and explicitly guarantees for both women and men equal rights and duties before the law. Implicit in this are women's rights to property and mobility which are vital to their potential for economic development. No-one can be forbidden from acquiring or making use of property, and its confiscation must be within the provision of law and order of an authorized court (Article 40). All Afghans may travel and settle anywhere in the country, and travel abroad (Article 39). And three lessons can be learned from this historic experience.

- First, the diversity of women sharing common concerns speaks loudly to the reality that women's marginalization is not confined to the uneducated or rural communities alone. Throughout all strata and structures of Afghan society there are women who experience inadequate situations and some who endure serious challenges to basic human dignity.
- Second, given the chance to come together, women are well able to share their experiences, identify priority concerns and underlying causes, and articulate what they want. However, it is important to acknowledge that women's consultations cannot be treated as a meeting of high-level decision makers who convene often to achieve public blessing to a pre-determined consensus achieved through established networks. Bringing women into decision-making is yet a resource-heavy process. It calls for time to build trust and ultimately alliances, patience to deal with different levels of understanding, and competent women to support communication, mobilization, and analysis. It also requires male allies committed to the simple fact that women matter too: their role is to reinforce women's claims with the still-reluctant and resistant men.
- The third lesson learned is that this diverse group of women had a shared vision of a new Afghanistan. They sought a state in which they all have a right to public voice, a public role, and access to capacities and opportunities that will enable their daughters, if not yet themselves, to participate freely in whatever aspect of social life they might choose. They were equally clear that they do not seek 'western' modes of life, since

they too argued in favor of the constitutional requirement that Afghanistan be bound by the tenets of Islam.

C. Compliance with USAID and Afghan Government Commitment for Gender Equality Policy Commitment

(1) AID will take into account the actual and potential roles of LDC women in carrying out its development assistance program. This will be done in all AID's country strategies and projects in order to ensure achievement of development goals, through:

- a. overall country programs and individual project designs which reflect the distinct roles and functions of LDC women as they relate to project implementation;
- b. strategies for explicitly benefiting women and girls in all sectors within countries, and in all projects within sectors which are developed and implemented as an integral part of AID's work;
- c. sex-disaggregated data collection, gender-specific social-soundness analysis and economic analysis, monitoring and evaluation.

(2) AID will also, under appropriate conditions, support LDC women's institutions and programs where special efforts are required to reach women because of cultural conditions, where separate programs and facilities are deemed necessary, or where women's groups provide a particularly advantageous vehicle for addressing women's needs.

(3) AID recognizes that the productivity of women is important to personal, family and national well-being. Women's increased productivity depends on their improved access to resources, e.g. land, improved farming techniques, information, employment; therefore,

- a. where lack of education and training constrain women's effective access to more productive work, AID will seek to increase relevant knowledge and skills among women and girls;
- b. where inefficient technologies reduce women's overall productivity, AID will support the development of labor-saving and time-saving technologies which are acceptable and accessible to women;
- c. where systematic bias exists against females in the labor force, or in certain segments of the labor force, AID will support efforts to alleviate the bias, through policy reform and/or experimental programs which demonstrate ways in which women can enter non-traditional types of work.

(4) AID acknowledges that largely because of their traditional responsibilities for child care and family welfare, women in developing countries have special needs for adequate human resource development programs in the areas of health care, family planning, potable water, nutrition and education. AID will support investments in human resource development which have particular implications for females in society. Effective strategies to secure women's inclusion in such programs will ultimately result in the critical national benefit of a healthy, well-trained, productive workforce.

(5) AID will support the development of institutions and transfer of technology which ensure: (a) the appropriateness and access of improved technology to women (as well as men); and (b) the existence of institutions which include women and effectively reach women (as well as men) and which permit the dissemination of benefits and information to both sexes.

(6) AID acknowledges that there is still much to know about the implications for development of gender differences among target populations. Such knowledge gaps severely reduce the effectiveness of development program planning. Therefore AID will support research in areas where adequate knowledge of gender-roles in relation to development planning is lacking. Such research will include (but not be limited) to:

- a. studies of intra-household dynamics regarding division of labor, distribution of resources and decision-making;
- b. income needs and income sources for males and females;
- c. women's contribution to agriculture;
- d. fuel and water needs and sources;
- e. incidence of households which are actually or de-facto female-headed.

(7) AID recognizes that most LDC's have endorsed the goal of further integrating women and girls into the development process through support of international efforts such as those undertaken by the various UN entities (e.g., UN Decade for Women, FAO's WCAARD Plan of Action), and that most countries have established their own programs and plans to address the concern of women in development. Therefore, AID will support reforms, which are consistent with these national positions.

(8) AID seeks to increase the knowledge and skills of its staff in planning projects, which effectively engage women in the development process and its benefits. The Office of Women in Development and the women in development officers will continue to support the Agency's personnel in their efforts to implement the women-in-development policy. However, the overall responsibility for implementation of this policy rests with all of AID's offices and bureaus, in all AID programs and projects. Compliance to these policy commitments were used in assessing the gender.

D. Document Review

The fundamental purpose of this activity was to ascertain how and if gender mainstreaming is being integrated into SPRA-SEA road projects as specified in the USAID gender equality commitment. The core problems were concluded to be fairly generic within the sector and country context. Because capacities are yet nascent among all project partners and contractors, it was concluded that elaboration of problems and solutions may provide practical learning opportunities for all.

To date, over 20 documents were reviewed for the gender mainstreaming in SPR-SEA road projects. Annex 1 list the documents requested and consulted. In addition, several Internet searches were made. In general, the documents are strong in reporting gender dimensions of community consultations, empowerment of community based organizations (CBOs), particularly

Community Development Councils (CDCs) and Community Development Groups (CDGs) for the construction and maintenance of roads. What is encouraging that greatest effort is being made to include women in infrastructure interventions which in Afghanistan society are generally perceived to be least probably entry points. The Community Outreach and Capacity Building (COCB) projects reports directly targets women's role in activities, decision-making and benefits while weak in implementation demonstration and the priorities of Need Assessment Survey. Gender dimensions of implementation and GAD Strategy – gender outcomes are anticipated, but no strategy provided to support these. No strategy to ensure women's active participation/consultation. Explicit statement that social constraints inhibit women's participation in project work is a contradiction of the bidding clause requiring it. Poor gender disaggregated "by sex" estimates are provided on the reports benefits or beneficiaries, although reference is made to the project contribution to income generation at the household level. Often it is assumed that women will automatically benefit from new infrastructure (roads projects), without acknowledging that it has a significant social impact. Both men and women tend to be considered mainly as beneficiaries of infrastructure (road projects), rather than as active participants or as specific groups whose daily and seasonal task can be substantially affected. For Example, a transport project will usually impact on women as transports of products for household use and as small traders. Improved transport facilities may also impact on women and men by promoting or encouraging change to agricultural production, such as a shift to cash crop production. If an infrastructure is not designed in view of the range of needs of its different users, the impact on women and their workload can be immense.

E. Road Observations

To date, two roads (#4, #5,) or road sections were observed for the project impact – ANTICIPATED/ACTUAL evaluation, Table 1 below lists the roads or road sections observed.

Table 1: List of SPR-SEA Roads Sections Observed

SPR-SEA Roads Observed
Road #4. Completed drive-over on 31 August 2009, planned 4-km road, Mendrawol Junction- Quarghayi, Laghman Province, Eastern Region, will have a concrete bridge, in progress, reportedly 79% completed. Connects villages and markets; needs to restore irrigation and road drainage system
Road #5. Completed drive-over on 1 September 2009, 5+ kilometers past the washed-out bridge. The road is planned to be 63-km long, from Shinwar to Dur Baba, Nangarhar Province, Eastern Region, and will have precast concrete bridge, in progress, reportedly 33% completed. Appears to be mostly uninhabited or sparsely inhabited flat desert area

The on-the ground site visits indicated generally dusty, pollution and hard conditions. The Mendrawol to Qarghayi increasing transport for poor and vulnerable road users, street vendors, adults, children and livestock. As is hard condition so that security and safety of adults, children and livelihood will be an increasing concern.

September 1, 2009 to Road #5 occurred the morning after a short, high intensity rain storm. The site visits indicated generally dusty conditions and, where there local shopkeepers were present. We noted that none of these men were appropriately equipped with safety jackets, shoes (most wore chaplaks) or protected along the roadside by safety 'beacons'.

On-site toilets, worker emergency medical equipment, fire-fighting equipment, and drinking water were not observed. This contrasted with observations of the equipments provided to workers on the Shinwar to Durbaba road.

Additional recommendations

Project contractors needs to reconsider its human and material resources and processes to ensure maximum opportunity for these poor communities to gain direct project benefits – and mainstream in opportunities for women. Baghis Province good practices from the WB and UNOPs as examples.

- Social/Community Officers need to be appointed – of local ethnicity/ language skills to ensure that community are kept up to date with progress, delays etc. This should include women as well as men. Resources could be identified via DoWomen's Affairs, or women's groups in the region, community health workers, women teachers.
- Roads could possibly be extended to health centers – with community contribution of labour.
- Linkages need to be made with MoHealth, MoEducation to ensure plans consider enhanced access via newly rehabilitated stretches of road.

F. Interviews and Discussions

To date, approximately 65 individuals were contacted for interviews and discussions. This includes one to four -and group meetings with government sectoral ministries, international organizations, street venders, community elders and approximately 25 IRD engineering, design, environmental, and COCB staff in Kabul, and three partial day field meetings in and around Jalalabad and in and around Roads #4 and #5 with approximately 21 Program regional and field staff, road contractors, trainers, community members. Below bullets points summarizes comments from interviews and discussions, and is constructed to assure confidentially. Annex 2 lists the persons and their affiliations contacted.

- All those consulted indicated willingness and interest in receiving more information on gender mainstreaming.
- All are prepared to collaborate with the Assessment team to undertake project analysis in their sector. T
- Financial incentives as a motivator are strongly entrenched, and would benefit from high level clarification by USAID-IRD Grant Unit.

G. Interim Conclusions:

Integrating gender into SPR-SEA projects

- 1 The apparent limited input by IRD (Kabul) senior staff to mainstream gender into project development as required even at survey stage is a concern.

- 2 It may be realistic to suggest that 'gender' is treated as an 'add on' rather than an integrated component of social analysis. The use of the Gender Action Plan (IPSA) may in fact encourage this 'marginalisation'.
- 3 Baseline Study – of which only a few detailed reports have so far been provided – is inadequate in terms of highlighting gender concerns, and defining gender indicators.
- 4 The approaches adopted emphasise gender as a women's issue, rather than a male and female social analysis. In most cases proposed support to women focuses on practical needs, rather than strategic interests.
- 5 Lack of gender mainstreaming monitoring mechanism during project implementation

Possible contributing factors

- 1 In general, at the early stage/ phase there appears to be an absence of sound document research, focused discussions with national staff, consultations with sector-related individuals, community-level consultations with women, and no link up with the Kabul Office Gender unit. All of these would enhance preliminary understanding and support finer focus of the subsequent gender Analysis.
- 2 No-one spoken to has been familiar with USAID Gender Language and Women Year Mark requirements in terms of project development. (Have related national and international staff attended Training, and does this include the integration of gender?)
- 3 There is virtually no understanding of the gender concept, or why it matters both within IRD management staff and its partners.
- 4 Anecdotal feedback suggests that few IRD incoming mission teams include female members who are essential to interactions with Afghan women. (It is recognised that being female does not guarantee gender sensitivity!). However, this precludes input by Afghan women, and additionally fails to provide positive role model of development good practice.

Information sources used by incoming male mission members is probably very narrow and focused on popular press reports of the prevailing segregation of women. They possibly are inhibited, and over-cautious in pushing the boundaries of women's participation. This is an excuse we often hear but it is not true. There are many smart, strong women in every village who would like a chance to help their communities. All over Afghanistan those who try hard enough have found women who are willing to come forward and take their place in the development process. Here are some places where they looked.

- If there are families who have always taken an active leadership role, then women from those families may feel comfortable taking a public community role.
- There may simply be women who have a respected place in the community because of their age, knowledge, skills or some other qualities.
- There are many returnees from Iran, Pakistan and elsewhere who are willing to support female relatives to work.

- 5 There is a sense of a gulf between international and national stakeholders: Several nationals consulted (both government and IRD) have stated that they feel they are treated as messengers, and are ignored as actual or emerging decision makers having to kow-tow to internationals. In all cases these observations have been very politely stated. However the perception should be cause for concern since it undermines efforts at building confidence and trust. On the other hand there has been some high praise for IRD in terms of its efficiency and support (particularly the COTRs and Programme Manager) even in working through differences of views

The one detailed Social Analysis provided notes difficulty in accessing women. This suggests there is need for guidelines and linkages on how this can be achieved – it should be an extremely rare constraint, although special efforts are required

Recommendations

The aim throughout SPR-SEA -funded regional roads reconstruction is to strengthen and activate gender-responsiveness and participation of women, including proposals in project documents that have not been realized to date. The key to this will be commitment by road project senior staff and dedicated follow-up by personnel of USAID, IRD, and construction, companies and partner NGOs. There is urgent need to integrate into not-yet-started and pipeline road construction projects the government priorities for poverty reduction and gender equity.

- In particular effort needs to be made to generate income-earning opportunities on road projects for poor women among whom many are the *'single-parent families'*, A labour-intensive approach is consistent with the policy framework outlined in *'Afghanistan's Transport Sector'* review of 2003. The Policy Statement that resulted from the above review (January 2004) also requires *'resource utilization to the transport sector must be radically improved'* including *'adequately addressing public issues such as (iii) the promotion of gender equality, attention to women's needs in transport and participation of women in the sector'*. For example, ***gabion weaving, stone breaking, growing tree seedlings for strengthening embankments, maintaining embankments. (low level load-bearing gabions can be woven within home village compounds and transported to project sites, generating trade and employment opportunities for Afghans rather than importing).***
- Such work generates around \$16 per day for an experienced worker, which takes around two weeks to achieve – probably the highest income earning opportunity for non-professional women in the country. Contractors could be required to employ local men and women to manage their accommodation and catering needs.
- Rates of pay and protective safety measures need to be identical for national and international labourers undertaking the same work. Inculcating ideas of employer responsibility for safety at work and what this entails are important learning points for national private contractors, as is non-discrimination on the basis of race. It is the responsibility of international contractors to reinforce these principles, rather than tacitly endorse practices in local workforces that they themselves would find unacceptable.

1. The social impact of rehabilitated regional roads needs to be more tangible and measurable. The current indicator of reduced time is measured, but clearly provides primary benefit to the richer businessmen and transporters who move goods along the road. The benefit of reduced travel time for the poor is not so clear, and remains theoretical unless change is actually measured. Indicators might include increased access to and use of public and private transport; positive changes in buying and selling prices, new patterns of marketing (for example individual rather than cooperative; taking goods direct to market instead of dependency upon middle-men and traders coming to villages).

2. In particular there is need to provide realistic impact indicators for women that recognise the socio-cultural restrictions on their lives. For example, women have no decision-making authority for public travel along roads even if the constraints on transport, mobility and cash are overcome. Access to health services needs to be realistically assessed not in terms of time to reach (often non-existing) services), but in terms of growing numbers of health services because of constructive linkages with MoPH development plans, of growing presence of female health practitioners because access is easier for them and their families to fulfill daily needs and access services, increased use by women from more distant locations as recorded in clinic client registers, access to affordable and women-friendly transportation which could be mobilised by contractor/IRD social specialists via male and female CDCs.

3. Further improvements to gender mainstreaming could be achieved by:

- Consultations during early project development that make effort to discuss with women and children as well as men what use they make of roads on a daily basis. This may require some 'probing' techniques to identify actual daily practices, rather than idealised (but unmeasured) benefits that might accrue at the end of the project. These uses need to be factored in to roads projects. Possible examples might include:
- Project modifications to accommodate women's gender needs. These might include the provision of small-scale add-on project components to provide easy access to road community services such as clinics and schools. These could be achieved by extending the road metalling signs within the terms of the project, or by collaboration with agencies rehabilitating secondary roads in the same regions. Such benefits need measurable indicators of change recorded before and after roads rehabilitation such as numbers of women who seek health-care, numbers of clinics in roadside communities with female health practitioners, or changing numbers of girls' and boys' schools, male and female teaching staff, and student attendance at primary and secondary schools.
- Social specialists, who must include women in order to interact with women, could play a meaningful role in integrating women into road projects without additional costs by
 - discussing, negotiating and agreeing alternative locations for women's daily activities that will no longer be practicable by crossing the road. These might include locations for animal grazing, alternative routes to services or to natal villages.
 - gaining consensus on the perceived impact of the roads on different categories of women (for example by age, social status) and make linkages with local agencies to provide support to the achievement of anticipated benefits. This could in particular apply to enhancing women's income generation capacities and opportunities, which an early roads social analysis claimed as a major impact benefit but for which no support plans or measurable indicators of impact exist.

4. Conducting surveys in accessible markets to identify newly emerging and sustainable economic opportunities for women and men. Road safety measures for men, women and children need to be implemented during roads construction to provide realistic support to human security. It is vital to recognise that for some time to come men, women and children will continue to use roads for access to their daily activities.

- Roads construction must realise – early in project implementation - plans for providing alternative road for livestock and humans. Livestock (including sheep, goats, donkeys and camels – for which vertical space needs to be adequate) are the source of economic survival throughout most of the regions of SPR-SEA projects. As post-drought herds grow in size and vehicular traffic increases in volume and type, there are greater risks to animals and humans (men and boys) passing roads. This enhances risk to women’s socio-economic security since hides, wool spinning and carpet weaving are currently their key if not their sole means of livelihood, and men’s roles are essential to both accessing necessary resources and to market sales.
 - Road safety awareness education needs to be given among contractors and implemented during construction
 - More appropriate outreach strategies for children include via education in schools for which training could be provided to class-based teacher trainers. For women (and men) such education could be delivered via community councils who could be reached by the community mobilisers among implementing agencies of the National Solidarity Programme. Media coverage could be added, targeting the meaning of and response to road traffic signs so that both drivers and pedestrians are reached.
 - Road signs and markings as well as actual construction need to comply with international norms to facilitate an understanding of standards, and enhance safety. This pertains particularly to markings for secondary road junctions, and signs indicating location of schools and medical centers as well as location (and existence) of associated crossing points. Training in the meaning of road signs could usefully target community women who are the traditional teachers of children in the home. This would also serve to give women an important role associated with this male-dominated intervention, and equip them for independent travel to clinics as rural- urban bus services are established.
5. Increases traffic brings greater opportunities to exploit women and children in terms of trafficking of humans and drugs, and of sexual exploitation. IRD has identified a need to raise awareness on these issues, including on HIV/AIDs.
- The present proposal of using local health NGOs to convey messages is not recommended: such education has no core target group, it carries risk to the implementing staff, and it lacks practical support to those who subsequently may have concerns. Linkages need to be made to the discreet ongoing work in this field under MoPH auspices and with World Bank funding. This project is already established in the north, and combines appropriately targeted education with secure linkages for practical advice for both women and men.
6. Intensive capacity building for gender mainstreaming through quality information that is appropriate, comprehensive, and relevant to IRD work, is a pre-requisite to any forward movement. National understanding and resources for gender analysis and mainstreaming are extremely limited. This implies a priority need for IRD itself to invest in developing gender mainstreaming capacity, rather than depend upon uncertain external resources.
7. Gender capacity building should target all IRD staff engaged in both project and operational activities. Working towards the achievement of a ‘gender-responsive’ organization.
8. Develop/refine user-friendly sector checklists and guidelines on entry points and potential allies for COBC/ POs and IRD Library. These must reflect Afghanistan realities.

9. Broaden the scope of the Gender Unit/Gender Consultants (GCs). The GCs needs to become an integral member of IRD's programme, with a revised work plan that includes a mix of old and new components.

- Routine participation for key projects in sector mission/teams to give verbal input on strategies and linkages to strengthen gender mainstreaming and women's participation.
- Strengthening program staff commitment to gender equality by gender training (as a. above) and by routine visits to regions/partners colleagues to give technical support, and encourage networking between Kabul and regional staff to share/discuss information on gender equality and advancement of women.
- Supporting implementation of gender mainstreaming through field assistance and monitoring visits – with female and male project staff and project officers. Key tasks are to identify local gender mainstreaming partnerships, and to check gender equity of participation, interventions, and share of benefits.
- Maintaining information sharing with key stakeholders on gender mainstreaming in IRD sectors of interest, and providing quarterly summaries to project managers/team leaders.
- Participating with IRD project staff in relevant Consultative Group meetings to take a lead in advocating for and sharing information on progress in gender mainstreaming.
- Leading gender assessment of IRd project documents (see below).
- Actively researching local, USAID and web-site sources for resources related to IRD sectors of work, sharing these with key stakeholders, and documenting for IRD Library.

10. IRD could establish a Gender Task Force, supported by periodic participation of, and report to, IRD line Managers or CoP.

- Composition should minimally include the GCs (who carries responsibility for meetings and reports), plus 1 national PO, 1 operational staff member, and 1 international staff member. Given the need for project modification, the international staff member should ideally be project-focussed. All members should be interested in the task. Others may be included according to interest.
- Tasks should augment those of the GCs and might include:
 - Quarterly reviews of project progress and planning action for any issues of concern
 - defining IRD response to key external events (agenda, input, reporting by GCs)
 - Attendance in GCs absence at Mission debriefings (which should routinely include GC)
 - Undertaking annually 2 joint mission to a selected project

Bi-annual report prepared for IRD CoP/PM, sector POs, and HQ gender team

11. Monitoring gender responsiveness should be undertaken jointly by the GCs and the concerned PO in order to develop capacity and team responsibility for gender mainstreaming.

- Monitor compliance with IRD gender policy and guidelines at all project phases. Particular attention should be given to consultations with women, a dedicated gender analysis, the development of a specific gender action plan together with indicators or progress in the project documents and compliance clause in contracts/partners to ensure its implementation, adequate gender expertise, employment of female staff, and funding to cover all socio-cultural requirements to ensure women staff's access to community women.
- Propose additional modifications to projects if considered appropriate, providing recommendations on linkages for support.
- Check that adequate budget is allocated to fulfill gender mainstreaming needs, and that the 'gender-specific' share of budget is clearly identifiable.

Annexes

Annex I. References

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Road #5 Rapid Assessment Survey: Shinwar to Dur Baba (Shinwar & Dur Baba).

Road#6 rapid Assessment Survey: Azra to Sherzad Road: (Azra,Hisarak & Sherzad).

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COCB/IRD staff gender mainstreaming training workshop

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Association				
Street vendors	Laghman, jalalabad, Panjshir			
Communities elders	Laghman, jalalabad, Panjshir			
Properties/land Owners	Laghman, jalalabad, Panjshir			

Annex III. References
Checchi - Technical Services under TO No. 306-M-00-07-00502-00, Afghanistan Support
August 20, 2009

GENDER ANALYSIS MATRIX OF PROJECT IMPACT
PRESENT/ ANTICIPATED/ ACTUAL

ROAD CONSTRUCTION

ROAD:

Project No.

	LABOUR	TIME	RESOURCES	CULTURE
ELDER WOMEN				
ADULT WOMEN				
GIRLS				
ELDER MEN				
ADULT MEN				
BOYS				
HOUSEHOLDS				
COMMUNITY				

Annex IV. References
Checchi - Technical Services under TO No. 306-M-00-07-00502-00, Afghanistan Support
August 20, 2009
Roads Observation Pictures



Interviewing Local Shopkeeper Jalalabad Road



Community elders explaining their concerns on the hard condition of Road #4(Mendrawol to Qarghayi)



Road #4, Local Shopkeeper's said that "Pollution and dust destroyed our fruit and foot items".



Road #4 Women & children said that "we don't have clean drinking water"