



March 11, 2009

GH1200-00-814-2009

**To:** Mr. Jerry Bisson  
Director, OIEE/USAID  
USAID, Kabul, Afghanistan

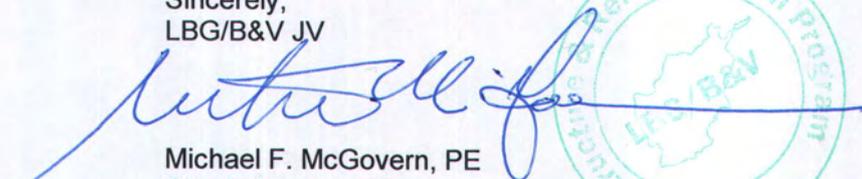
**Subject: Revision 1 of the AIRP Performance Management Plan**

Dear Mr. Bisson:

On behalf of the AIRP/USAID, we submit to you the revised AIRP Performance Management Plan (PMP) for your review and concurrence. The revisions are based on the feedback IRP received from you and Ms. Daway in the meeting held on March 10, 2009. Attached please find four hard copies and one electronic copy of the AIRP Performance Management Plan.

We look forward to moving forward with the implementation of this PMP. Please contact me if you have any questions or require additional information.

Sincerely,  
LBG/B&V JV

  
Michael F. McGovern, PE  
Chief of Party, IRP



cc: Craig Anderson, O/IEE  
Dan Bichanich, O/IEE  
Don Garrison, O/IEE  
Mike Rossman, O/IEE  
Jocelyn Daway, OIEE



# Performance Management Plan

March 2009  
(Revision 1)

Afghanistan Infrastructure and Rehabilitation Program (IRP)

Contract Number 306-I-00-06-00517-00



Photograph by: Project Engineer, 3 Apr 07.



Photograph by: Deputy Site Construction Manager, 2 Dec 08.

Left to right; Aerial view of Kajakai dam and powerhouse. Asphalt binding course being laid on the Keshim-Faizabad road.

## DISCLAIMER

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## Abbreviations and Acronyms

AEIC	Afghanistan Energy Information Center
Afs	Afghanis
AIMS	Afghanistan Information Management Services
CAR	Central Asian Republic
CDO	Community Development Organizer
DABM	Da Afghanistan Breshna Moassessa (Afghanistan Electricity Authority)
DABS	Da Afghanistan Breshna Sherkat (Afghanistan Electricity Enterprise)
FTE	Full-Time Equivalent
ICE	Inter-Ministerial Commission for Energy
IR	Intermediate Result
IRP	Infrastructure and Rehabilitation Program
K-F	Keshim–Faizabad
K-K-H	Kabul-Kandahar-Herat
KV	Kilovolt
KVA	Kilovolt-Ampere
LBG	Louis Berger Group
kW	Kilowatt
kWh	Kilowatt hour
M&E	Monitoring and Evaluation
MPW	Ministry of Public Works
MW	Megawatt
NEPS	North East Power System
O&M	Operations and Maintenance
PMP	Performance Management Plan
PPA	Purchase Power Agreement
REFS	Rehabilitation of Economic Facilities and Services
SEPS	South East Power System
SO	Strategic Objective
TO	Task Order
VOC	Vehicle Operator Cost
ZOI	Zone of Influence

## Synopsis of Performance Indicators

<b>Transport</b>			
Indicator	Type of Indicator	Data Source	Reporting Frequency
<b>IR 1.1: Rehabilitate the Rural Economy</b>			
Cost of food staples	Outcome	Business surveys	Pre- and Post-Project
Markets where goods sold	Outcome	Household surveys	Pre- and Post-Project
<b>IR 1.2: Increase Incomes through Economic Growth</b>			
FTE Afghan jobs created	Output	TO Managers	Semi-annually
Number of businesses	Outcome	Business surveys	Pre- and Post-Project
Shopkeeper monthly sales	Outcome	Business surveys	Pre- and Post-Project
Household income	Outcome	Household surveys	Pre- and Post-Project
<b>IR 1.3: Expand and Improve Access to Economic Infrastructure</b>			
Effective kilometers of transportation infrastructure constructed or rehabilitated	Output	TO Managers	Semi-annually
Kilometers of transportation infrastructure maintained	Output	TO Managers	Semi-annually
Number of people benefitting from transportation infrastructure projects	Output	TO Managers	Semi-annually
Number of people trained in transportation technical fields	Output	TO Managers	Semi-annually
Number of people trained in management	Output	TO Managers	Semi-annually
Travel times	Outcome	Driver/passenger surveys	Pre- and Post-Project
Vehicle operator costs	Outcome	Driver/passenger surveys	Pre- and Post-Project
Annual average daily traffic count	Outcome	Traffic counts	Semi-annually
Passenger fare costs	Outcome	Driver/passenger surveys	Pre- and Post-Project
Cost of freight transport	Outcome	Freight company surveys	Pre- and Post-Project
Volume of freight	Outcome	Freight company surveys	Pre- and Post-Project
Cost of informal payments for road use	Outcome	Driver/passenger surveys	Pre- and Post-Project
Number of security incidents	Outcome	TO Managers	Semi-annually
Staff capability with technical equipment	Outcome	TO Managers	Semi-annually
Staff capability in report writing	Outcome	TO Managers	Semi-annually
Kilometers of effectively maintained roads	Outcome	TO Managers	Annually
Roughness of road	Outcome	TO Managers	Annually
<b>IR 3.1: Increase Access of Women and Children to Basic Health Services</b>			
Travel time to health clinics	Outcome	Household surveys	Pre- and Post-Project
Frequency of visits to health clinics	Outcome	Household surveys	Pre- and Post-Project
<b>IR 3.2: Increase Access to Quality Teaching and Suitable Learning Environments</b>			
Rates of school attendance	Outcome	Household surveys	Pre- and Post-Project



<b>Energy</b>			
<b>Indicator</b>	<b>Type of Indicator</b>	<b>Data Source</b>	<b>Reporting Frequency</b>
<b>IR 1.2: Increase Incomes through Economic Growth</b>			
FTE Afghan jobs created	Output	TO Manager	Semi-annually
Household income	Outcome	AEIC	Annually
<b>IR 1.3: Expand and Improve Access to Economic Infrastructure</b>			
Number of people trained in technical energy fields	Output	TO Manager	Semi-annually
Number of people trained in management	Output	TO Manager	Semi-annually
Capacity constructed or rehabilitated (MW)	Output	AEIC	Semi-annually
Capacity maintained (MW)	Output	AEIC	Semi-annually
Number of people with increased access to modern energy services	Outcome	AEIC/DABS	Annually
Average hours of daily electricity service	Outcome	Household/Business Surveys	Post-Project
Weighted average cost of electric energy supplied to the grid	Outcome	AEIC/DABS	Semi-annually
Unique visits to AEIC website	Outcome	AEIC	Monthly



# 1. Introduction

## 1.1 Background

Afghanistan has made good progress in its political and economic development since the ousting of the Taliban. Yet with armed conflict persisting, particularly in the southern and eastern parts of the country, Afghanistan remains fragile, insecure, and poor. The USAID/Afghanistan 2005-2010 Strategic Plan<sup>1</sup> focuses on 3 Strategic Objectives (SO) aimed at addressing these problems:

SO1: A thriving economy led by the private sector

SO2: A democratic government with broad citizen participation

SO3: A better educated and healthier population

USAID is funding a variety of programs and projects to support these objectives. These range from capacity building in government ministries to the funding of the construction of power plants, schools, clinics, a new national electric power system, and an expanded road network.

***Afghanistan Infrastructure and Rehabilitation Program (IRP)*** commenced in September 2006. The five-year program focuses on rehabilitating and extending roads, power generation capacity, and power transmission networks across Afghanistan. The program may be extended to address water and sanitation infrastructure, as well as a broad range of public building improvements. To increase capacity and ensure sustainability, IRP also funds institutional reform and capacity building projects. IRP is one of the major programs working to implement USAID's Country Strategy.

IRP primarily supports achieving Strategic Objective 1, "A thriving economy led by the private sector." Improved transport and power infrastructure also contributes to achieving both SO2 and SO3 by strengthening the operational capability of national, regional, and municipal governments; by better connecting populations with municipal and regional governments; and by increasing physical access to educational facilities and health clinics. However, the indicators in this Performance Management Plan (PMP) only assess progress in achieving Strategic Objectives 1 and 3 because they can be quantified and monitored over relatively short periods.

IRP directly benefits targeted populations through generation of employment during the infrastructure construction phase (e.g., road construction) as well as the maintenance phase. The supply of improved transport and energy infrastructure will reduce costs for businesses and farmers transporting goods, bolster public transport, increase the mobility of populations, and provide reliable electricity to businesses and households. Together these benefits will increase productivity and make Afghanistan a more attractive investment environment, which will result in robust economic growth that will raise incomes and increase employment.

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<sup>1</sup> USAID/Afghanistan Strategic Plan, May 2005.



## 1.2 Purpose of the PMP

The purpose of a PMP is to establish the analytical framework for measuring project outputs and outcomes, with the goal of quantifying progress in meeting the stated objectives. It is critical to monitor IRP's progress given that over the next 5 years USAID anticipates spending \$1.4 billion in rehabilitating Afghanistan's energy and transport sectors. A well-designed PMP will allow USAID to accurately gauge the social and economic impact of its road and power projects on a regular basis throughout each project's life cycle. Depending on what these findings yield, IRP together with USAID may alter project implementation to maximize the program's impact.

## 1.3 Challenges to Implementing an Effective PMP

Afghanistan offers numerous challenges to developing and implementing an effective PMP. Economic and social data from secondary sources are essentially nonexistent. Data on energy consumption patterns are also quite limited but recent surveys have shed some light on this area, though the quality of these data is far from perfect.

The security situation in the areas where transport and power projects are planned will pose challenges in obtaining good baseline data for some projects. Continuity in the PMP may be adversely affected if surveying gets delayed or cancelled as a result of political instability. Security issues have been taken into account when identifying the projects for the PMP to focus on and in selecting performance indicators. The emphasis is on proper data collection and the efficiency of the performance indicators.

To ensure that outcomes are effectively measured, IRP will use a variety of research approaches, including both quantitative (household surveys, business surveys, etc.) and qualitative (focus group discussions, key informant interviews) methods. As a means of further corroboration, IRP will also compare its results with the data collected for Asia Foundation's annual nationwide social survey.<sup>2</sup> This survey has a small section that addresses access to infrastructure services as well as perceptions of the most pressing infrastructure priorities. Additionally, the data is disaggregated by province. While the questions are quite broad and are not focused on the projects' particular zones of influence, they should prove informative since the scale of several of the projects, particularly in the energy sector, are quite significant.<sup>3</sup>

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<sup>2</sup> The most recent one is Asia Foundation (2008). "Afghanistan 2008: A Survey of the Afghan People." Kabul.

<sup>3</sup> There has been a preliminary discussion with Asia Foundation about the possibility of including a few questions in their current survey that would help more fully elucidate the impacts of IRP's projects. While it is not certain that this will be possible, this would be particularly helpful for measuring energy sector impacts since the proposed PMP approach here is a bit more modest than the one proposed for the transport sector.



## 1.4 Main Elements of the PMP

The proposed PMP in this document is directed towards evaluating the outputs and outcomes of IRP's current task orders using indicators that are especially tailored to them. It moves beyond the reporting of the fulfillment of deliverables, benchmarks, and milestones, which are provided to USAID according to the schedule agreed upon in the contract and Work Plan.

The PMP is a living document and will necessarily have to be regularly revised in order to add or adapt indicators, adjust data gathering methods and schedules, include new evaluation tools, and respond to any new projects that are assigned to IRP. Such flexibility in the PMP will allow it to more effectively monitor project outputs and impacts and therefore serve as a better management tool.

All PMPs must contain two elements: *good indicators* and *an effective plan to collect the data* on the indicators. First, the PMP must provide a well-defined list of performance indicators that can be used to quantify the benefits directly attributable to a project's implementation. Performance indicators must be selected to provide effective measurements of a project's impacts throughout its life cycle. The performance indicators must be clearly defined and mapped to the objectives established during the project's development phase.

Since many of the broader impacts of projects will develop over time, performance indicators will be a mixture of output indicators and outcome indicators. Output indicators most directly capture the tangible results of projects (number of people trained, number of kilometers of roads constructed). If the development narrative is valid, these should over time lead to the achievement of the intermediate results and the strategic objectives. Outcome indicators seek to measure the extent to which the project does in fact achieve these results. Outcomes (or impacts)<sup>4</sup> by their nature are more challenging to measure (and thus more costly) and are more difficult to attribute completely to USAID funding (e.g., increased commerce may be the result of improved roads but also could be the result of better tax policy, new farm subsidies, or a better security environment, etc.).

USAID through its ADS 203.3.4.2 establishes seven criteria for characterizing a good performance indicator:<sup>5</sup>

- Direct
- Objective
- Adequate
- Quantitative where possible
- Disaggregated where appropriate

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<sup>4</sup> For the sake of clarity, in this PMP the term "outcomes" is used interchangeably with "impact."

<sup>5</sup> USAID (2004). "Functional Series 200 – ADS Programming Policy 203 – Assessing and Learning." Accessed on 17 December 2008 at <http://www.usaid.gov/policy/ads/200/203.pdf>.



- Practical
- Reliable

For example, if a transportation project's objective is to increase accessibility, then performance indicators must correlate to this goal. Traffic counts are a simple and direct measure of the volume of traffic and a good indication on how a new or rehabilitated road stimulates socioeconomic activity. This indicator meets USAID's criteria because it is a direct, objective, quantitative, disaggregated and practical measurement of accessibility and use. It is also an adequate and reliable measurement. Traffic counts, however, are not the only indicator of increased transport accessibility. Passenger and cargo transport costs are also useful indicators of a road's impact on the public's accessibility to transport.

The second required element of the PMP is the articulation of a comprehensive plan for data collection. It should explain and justify the sources of the data it is collecting as well as the methods used to gather the data. It must also delineate the roles and responsibilities for collecting data, specify the frequency and timing for collecting and analyzing those data, and establish a basic schedule for making the data and analysis available to interested stakeholders, first and foremost to USAID.

## **1.5 Organization of the PMP**

Performance indicators must be developed separately for the transport and energy sectors. For this reason separate PMPs are presented in this document for these sectors.

After this introduction, Section 2 presents the PMP for the transport sector. Sub-section 2.1 provides an overview of the transport sector projects. Sub-section 2.2 describes the methods that will be used to measure the outputs and the outcomes of these projects and explains why these methods were chosen. It also provides a brief overview of the various research instruments that will be used. Finally, this sub-section explains the zones of influence (ZOI) for the IRP roads that will be evaluated as well as the evaluation approach that will be applied to the O&M/Capacity Building program.

Sub-section 2.3 provides the results framework for the transport PMP, showing how the output and outcome indicators, which were selected relate to the Strategic Objectives and Intermediate Results articulated in the USAID/Afghanistan Strategic Plan 2005-2010. Sub-section 2.4 provides a brief discussion of the critical assumption that lie behind the development narrative which underpins the projected impacts. Sub-section 2.5 provides the Performance Indicator Reference Sheets, where each indicator is described more fully. Finally, sub-section 2.6 provides a basic work plan for the transport PMP.

Section 3 presents the PMP for the energy sector. Sub-section 3.1 provides an overview of the energy sector projects. Sub-section 3.2 describes the challenges posed in



measuring energy sector impacts and describes the methods that will be applied. It also provides a brief overview of how the data will be collected.

Sub-section 3.3 provides the results framework for the energy PMP, showing how the selected output and outcome indicators relate to the Strategic Objectives and Intermediate Results articulated in the USAID/Afghanistan Strategic Plan 2005-2010. Sub-section 3.4 provides a brief discussion of the critical assumptions that lie behind the development narrative, which underpins the projected impacts. Finally, sub-section 3.5 provides the Performance Indicator Reference Sheets, where each indicator is described more fully.



## **2. PMP for the Transport Sector**

### **2.1 Overview of IRP Transport Projects**

#### **2.1.1 IRP Road Rehabilitation Projects**

For the first phase of IRP, USAID has selected three regional roads for reconstruction. In addition, USAID also tasked IRP with completing the reconstruction of the Southern Strategy Road that UNOPS began. These road projects were selected based on various criteria including the project's role in meeting country's needs for increased access to markets, improved import and export of goods, enhanced access to educational and health facilities, security, and better connectivity between districts.

Basic project outputs for each of the task orders will be reported regularly to USAID according to an agreed upon schedule. To assess the IRP's impacts on Afghanistan's economic and social development, three regional road projects will be monitored and evaluated over the course of the program's life cycle:

- Keshim to Faizabad
- Ghazni to Gardez
- Gardez to Khost

A comprehensive M&E approach will not be used for the Southern Strategy Road since IRP inherited this road when it was already almost 75 percent complete. This precluded the conducting of any baseline study. For this road, in addition to project outputs, mid- and post-project travel times and quarterly traffic volume will be collected and reported. These will provide a rough measure of the reconstructed road's impact and partially indicate its potential social and economic impact.

#### **2.1.2 IRP Road O&M/Capacity Building Program**

In addition to road reconstruction, USAID tasked IRP with the Road Operations and Maintenance (O&M) and Capacity Building Program. The Road O&M/Capacity Building Program was charged with the implementation of routine and periodic maintenance, road rehabilitation, road improvements and as needed emergency works on 1500 km of roads constructed with REFS funding.

Concurrently, this program has been charged with the tasks of developing the skills of local maintenance managers (the goal being to eventually operate an ongoing road maintenance unit with an all-Afghan staff) and private Afghan contractors. Transport functions are currently managed by multiple ministries within the GIRoA and are considered very weak in all aspects. Technical skills of GIRoA staff are minimal and Soviet management techniques are pervasive. Since the Road Operations and Maintenance (O&M) and Capacity Building Program differs in its objectives from the road rehabilitation projects, it needs an M&E approach specifically designed to measure progress in achieving these.



## 2.2 PMP Method for IRP Transport Sector Projects

### 2.2.1 General Discussion of Method

For the newly constructed and rehabilitated roads, the method selected to monitor and evaluate the socio-economic impacts of the roads is to establish baseline values of selected key indicators prior to their rehabilitation. Then, after the road rehabilitation is complete, the same survey and qualitative evaluation tools are to be applied to collect data on the same indicators. The estimated values of the indicators before the road was rehabilitated are compared to the estimated values of the indicators after the road rehabilitation was completed. For several indicators, the differences in these estimated values, adjusted for regional inflation, can largely be attributed to the rehabilitation project. In particular, changes in certain indicators, such as reduced travel time, reduced VOCs, and increased traffic flows are directly attributable to the rehabilitation using this “before and after” method.

In addition, the rehabilitation should have an impact on a host of other variables, such as household incomes and frequency of visits to hospitals in the ZOI. However, there could be confounding factors that the study cannot control for, such as other infrastructure improvement or economic development programs initiated by the GIRoA or one of the donors during the rehabilitation process. These programs would increase household incomes in ways not necessarily related to the roads’ improvement (though the beneficial effects of complementary projects has been documented<sup>6</sup>). While the socio-economic study team can try to adjust for these factors, such adjustments are difficult to estimate and many such unrelated changes in the regional economy could take place during rehabilitation that would be unknown to the socio-economic study team and thus impacts would be incorrectly attributed to the rehabilitation project. Consequently, care will be taken in analyzing the baseline and follow-up estimates to determine the effects of the improvement project. The socio-economic study team will study the socio-economic evolution of the ZOI during the rehabilitation of the road. This will help with preventing any overstatement or understatement of the effect of the road project.

Given the increased use of the double-difference method for impact analysis, it is perhaps necessary to briefly discuss why this method will not be used in this study. In this approach, the first “difference” is estimated by comparing the “before project” to the “after project” impact on the socioeconomic conditions of the region through which the improved road passes (as is being done for the K-F Road). The second “difference” is to compare the “after project” impacts on the region (ZOI) through which the improved road passes to a comparable “control” region, where no comparable roads were improved.<sup>7</sup> While this approach has its advantages, it can be applied only in a limited number of cases, where such a control region is easily identified and surveyed. The ZOIs need to be as similar as possible. Even when the ZOIs are very comparable, the approach has flaws: no two regions are really identical or undergo changes due only to the condition of

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<sup>6</sup> B. Sen and R. Khan (2000). “Addressing Poverty in Bangladesh.” *Economic Policy Paper No. 1*. Bangladesh: Asian Development Bank.

<sup>7</sup> This approach was successfully applied in a project funded by the World Bank in Peru and is being used in LBG’s evaluation project in Tajikistan.



the roads. At a minimum, rainfall varies from region to region, as do donor and government interventions, which are in no way related to the conditions of the roads. In addition, the double difference method for transport projects has been tried in a great number of cases without success; to date only one such study was completed successfully, and the study's results are not widely accepted. Because neither approach is perfect, and because the double-difference approach costs nearly double the "before and after" approach, IRP has chosen the latter approach.

### **2.2.2 Survey Method**

A baseline survey will be conducted prior to commencement of construction work to assess the impacts (i.e., the achievement of USAID-specified outcomes) of the IRP roads on the Zones of Influence (ZOI). Depending on topography and human settlement patterns, the ZOI can range from less than half a kilometer from the road's centerline on either side of the road up to 25 kilometers. ZOIs are established prior to conducting the baseline surveys. In the case of Ghazni–Gardez and Gardez–Khost due to delays in the implementation of the PMP, the baseline surveys will be conducted during the initial phase of construction. While this is not ideal, a baseline survey covering both of these roads will be done at a sufficiently early enough stage so as to approximate baseline conditions. In addition, quarterly measurements of traffic volume will also be conducted in order to monitor how this changes through the project cycle as well as to measure how the rehabilitation of these roads affects seasonal travel patterns.

For each of these task orders, a post-project survey will be conducted in order to determine changes in social and economic indicators resulting from the project's implementation in order to determine the project's progress in supporting USAID's Strategic Objectives for Afghanistan. It is important to underline that project impacts will grow over time, so these post-project measurements will likely understate the long-term impacts of the roads. Many of the benefits of improved roads take time to work their way through the economy. For example, while improved roads will immediately reduce travel times and maintenance costs, passenger fare costs and freight costs may not be immediately adjusted. When and if they are adjusted, these lower transport costs will stimulate commerce. For example, they will increase the incentives for farmers to grow cash crops, but such an impact will also not be immediate since farmers will only change crop selection once they are reasonably certain that transport costs will remain low. Furthermore any results still require time since any new crops that are planted will take several months before they reach the market.

The baseline socioeconomic surveys will be conducted using the same method that was used for the Kabul–Kandahar and Kandahar–Herat Roads.<sup>8</sup> For the Kabul–Kandahar–Herat (K–K–H) baseline study, several sets of performance indicators were established to interpret the raw data. These indicators measured market impacts (e.g., number of shops), transport access impacts (e.g., passenger fare costs, freight costs), and social impacts (e.g., school attendance, health clinic access). Separate questionnaires were prepared for households, businesses, settlements, and transportation enterprises to

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<sup>8</sup> See, for example, The Louis Berger Group, Inc. (2004). "Socio-Economic Baseline Study: Kabul to Kandahar Highway." USAID.



capture the full range of impacts on affected populations and economic activities. The surveys to be employed are as follows:

- **Household Survey:** Households are the basic economic unit of Afghan society, and this survey questionnaire will help provide a useful description of their current economic and social circumstances. These questionnaires seek information on such topics as family size, income and assets, education and health care access, market access, and gender issues, among others. In addition, the questionnaires attempt to relate these characteristics to the roads and to their use by household members.
- **Settlement Demographic Survey:** A separate questionnaire is used at the village level to collect information about its distance from the road, its population, its schools and clinics, its agricultural land base and its available amenities, in addition to its current access to the road. These questionnaires will be conducted through interviews with village leaders. The data generated through the Settlement Demographic Survey address the economic conditions of the surveyed settlements, with particular regard to available resources and services in those communities.
- **Market Overview Survey:** For a representative group of villages in each road's ZOI, surveyors will count the number of shops categorized by the goods they sell in their bazaars (e.g., number of stalls selling produce, number of stalls selling hardware, etc.)
- **Shopkeeper Survey:** This survey is used to obtain information about shop ownership, volume of goods sold, product prices, and the importance of the road to the shop's commerce.
- **Vehicle Operator Survey:** These questionnaires seek information regarding such topics as vehicle operators' frequency of travel, travel patterns, ownership, costs (including informal payments required), income, and security along the road, among others.
- **Transport and Freight Company Survey:** While the previous three survey questionnaires are aimed at populations and businesses in villages and towns, the survey of freight transport companies focuses on urban areas. Structured interviews will be conducted with shipping company managers in order to get information on transportation routes, vehicle types used for transport, travel time, costs, prices, and the expected impact of road improvements.
- **Passenger Survey:** This survey provides basic data on origin/destination, travel times, fares, and income levels to determine the incidence of poverty among passengers. Passenger surveys will be undertaken primarily at bus depots and along the road to collect additional information on expected impacts of the rehabilitation of the road.



The surveys will be conducted by local staff and supervised by one or two expatriate economists or development specialists. IRP's Afghan community development officers, who are from the area and who are trusted by the community, will help with some of the data collection and will facilitate the work of local enumerators for the various survey instruments. The duration of each survey is roughly four weeks depending on the security situation and the topography of the road.

IRP's task order project staff will conduct quarterly traffic counts to determine the volume and composition of vehicle activity on the roads. The traffic counts entail directional counts of passenger vehicles (cars, buses and minibuses) and freight vehicles (two axle, three axle and articulated trucks). Traffic counts will be conducted at selected distances outside of the major cities and villages for a period of one week.

### **2.2.3 Zones of Influence for PMP Roads**

A ZOI will be identified for each road assessed. A ZOI is defined using expert judgment, and its size and scope can vary greatly depending on the topographic and demographic characteristics of the region. The K–K–H Road's ZOI encompassed a 30-kilometer corridor along the more than 1,000 kilometer length of highway. A total of 225 household surveys were conducted in 75 villages.

The IRP roads that will be evaluated under this PMP are much shorter (91 to 103 kilometers for the national and regional roads) and will involve sampling smaller populations. The following section briefly describes the geographic location and characteristics of each project and the ZOI for each road as well as the anticipated sampling populations.

#### **Keshim–Faizabad**

The Keshim to Faizabad Road (NH 43) predominantly lies along the left bank of the Kokcha River and the right bank of the Keshim River in the province of Badakhshan and links the communities of Keshim (a district center) and Faizabad (the provincial capital) and approximately 30 villages. The road has experienced frequent floods, mudslides, and localized rain and snow events, which have contributed greatly to the deterioration of the roadway. The length of the road is estimated at 103 km, passes through mountainous terrain, and is in fair to bad condition.

The area's population density based on the 2002 Afghanistan Information Management Service (AIMS) population map is between 50 and 200 people per square kilometer. The total population served by NH 43 will be about 80,000. On NH 43 there are approximately five elementary schools, three high schools, one hospital in Faizabad, and six clinics. Badakhshan Province is in the second-highest producing region for agricultural products in the country, which include wheat, grapes, walnuts, pistachios, almonds as well as poppies.

The baseline study was conducted in Keshim and Faizabad in June–September 2007 using a 50 km ZOI, which was based upon review of physical and settlement maps as well as on inspections of the road and the surrounding topography. The baseline study



included 297 household surveys in 20 representative settlements. The baseline survey required two economists, two community development officers, and 20 local enumerators.

### **Gardez–Khost**

The Gardez to Khost Road connects two provincial centers and passes through the districts of Gardez, Shwak, Jadran, Shamal, Nadir Shah Kot and Mando Zayi and approximately 60 villages. Khost is in close proximity to the eastern Pakistan border and provides the only railhead access in the area. This road will facilitate access to the Ring Road (via the Ghazni–Gardez road) as well as to Kabul through its connection to the road from Gardez to Kabul, which was earlier rehabilitated by USAID. The length of the road is estimated at 102 km and is in fair to poor condition. This road cuts across mountainous terrain and large forests. Currently the mountain pass it crosses is virtually impassable.

The population density of the area based on the 2002 AIMS population map is between 50 and 500 people per square kilometer. There is currently one clinic in Gardez and one hospital in Shamal. The city of Gardez is also a major fuel wood supplier for Kabul. Many of its natural forests are being cut down to provide fuel wood, especially during winter.

The baseline study will be conducted in Gardez, Khost, and in 15 to 20 of the villages that will be affected by the road. Roughly 250-350 household surveys will be conducted. Most surveying will be conducted 20-30 km from Gardez and about 60 km from Khost. This effort will require one economist, two community development officers, and 8 to 10 local enumerators.

### **Ghazni–Gardez**

Road NH 10 from Ghazni to Gardez connects the two provincial centers of Ghazni and Paktya to the Ring Road as well as approximately 40 villages in the southeast part of the country. The Ghazni–Gardez Road will provide a direct east-west link of approximately 91 kilometers between the two provincial capitals. The limits of this road are from the city of Ghazni at the Kabul–Kandahar Road to the Gardez city circle in Paktya province. Coupled with other completed works under REFS and planned IRP road construction, this segment will eventually link Khost (via Gardez) to the Ring Road and will further open the eastern border provinces to the benefits associated with modern road access across Afghanistan and on into the markets of the Central Asia.

The population density of the area based on the 2002 AIMS population map is between 50 and 250 people per square kilometer for a total of approximately 300,000. Ghazni currently has seven clinics, and Paktya has two clinics and two hospitals. The city of Gardez is a major fuel wood supplier for Kabul. Many of the natural forests in the area are being cut down to provide fuel wood, especially during the winter. The south's agriculture has traditionally been dominated by fruit and nut production including apricots, grapes, and almonds. Poor access to markets and other problems have led many farmers to switch to growing poppies. A large number of returnees have resettled in the area, placing a strain on the existing infrastructure.



The baseline study will be conducted in Ghazni, Gardez, and in 15 to 20 representative villages in the ZOI. Roughly 250-350 household surveys will be conducted. This effort will require one economist, two community development officers, and 8-10 local enumerators.

#### **2.2.4 Institutional Capacity Building Assessment**

The institutional capacity building assessment focuses on both evaluating how well the 1500 km of road is being maintained as well as the degree to which the monitoring and management capabilities of road maintenance unit staff, Ministry of Public Works (MPW) field personnel, and local contractors are increasing. Indicators will primarily involve regularly measuring performance of trained staff against objective standards related to the training they have received and the responsibilities with which they have been entrusted.

### **2.3 Results Framework**

In the “USAID/Afghanistan Strategic Plan (2005-2010),” three strategic objectives were identified:

- SO 1: A thriving economy led by the private sector
- SO 2: A democratic government with broad citizen participation
- SO 3: A better educated and healthier population

The transport projects under consideration relate most directly to SO 1 and constitute a necessary condition for the achievement of SO 3. Figure 1 below depicts how the road projects are mapped to Strategic Objectives 1 and 3 and the Intermediate Results associated with them.

#### **2.3.1 Linkage between SO 1 and Performance Indicators**

USAID recognizes that the key to stabilizing the political economy of Afghanistan is to build the foundation for a thriving private sector (SO 1). This is particularly important in rural areas which are most vulnerable to the insurgency and where the illicit opium economy dominates. Three major intermediate results have been identified as necessary to achieving Strategic Option 1:

- IR 1.1: Rehabilitate the rural economy
- IR 1.2: Increase incomes through economic growth
- IR 1.3: Expand and improve access to economic infrastructure

Under each of these IRs, there are several sub-IRs to which the impact indicators are linked. In many cases, the outcome indicators could be tied to more than one intermediate result but for the sake of greater simplicity have been assigned to only one IR or sub-IR.



### ***IR 1.1.1 Accelerate Market-Led Growth in Agriculture***

IR 1.1.1 will be supported by IRP through the construction, rehabilitation, and maintenance of roads used to transport agricultural goods and services. Lower transport costs will increase farmer accessibility to cheaper inputs and increase productivity. More efficient transport will also reduce spoilage and increase market areas. Overall the cost of production and transport of agricultural goods will drop as will the prices paid by consumers. Reduced household expenditures for food will allow for purchases of other goods and services and stimulate the economy. Additionally, farmers will have the ability to sell their goods at markets located farther away. Hence, the key indicators for this sub-IR are:

- Cost of food staples
- Market where goods sold

It is possible that the price of individual staple items could increase due to crop problems in any given year. Also, increased access to markets located farther away where prices may be higher will possibly place upward pressure on prices locally. Consequently, the data collected for this indicator needs to be interpreted with some awareness of the market dynamics.

### ***IR 1.2.3 Improve Private Sector Growth***

IR 1.2.3 will be supported by the enhancement of transportation infrastructure. On the most direct level, the construction and rehabilitation of the roads require both the direct employment of Afghans by IRP, as well as the participation of local contractors to carry out much of the work. In the short-term, this will supply employment for many people in the regions where the roads are being built. It will also increase local contractor capabilities and expand the skill sets of those working on the project. The employment generated directly by these projects, as well as the O&M Capacity Building Program, will be measured by the following output indicator:

- Full Time Equivalent Afghan jobs created

Once built, the roads will have a substantial impact on stimulating the private sector. Business enterprise development and sustainability in much of Afghanistan is severely constrained by the lack of accessibility to markets and the high cost of moving people, goods, and services (conditions that are measured under IR 1.3.2). Road rehabilitation will lower these barriers to entry and allow for expansion to areas that are currently isolated geographically. Outcome indicators that provide information on the road's effect on local economies are:

- Number of businesses
- Shopkeeper monthly sales
- Household income

Each of these performance indicators are direct and effective measures of a road's impact on the private sector. Although these impacts can result from a variety of factors



including the implementation of other projects in the ZOI, efficient transport is a necessary condition for increased business activities and resulting gains in job and income creation. Without a functional road network, the effectiveness of other projects would be greatly diminished. Collectively, these performance indicators will provide a greater understanding of the road's impact in catalyzing private sector growth.<sup>9</sup>

### ***IR 1.3.2 Expand and Improve Access to Transportation***

The IRP road construction/rehabilitation projects most directly support the achievement of this Sub-Intermediate Result. The following output indicators provide objective measures of the number of kilometers of transportation infrastructure being constructed/rehabilitated or maintained by IRP. Given the need for capacity building in the transport sector, the last two output indicators provide a measure of the extent of training being conducted.

- Equivalent kilometers of transportation infrastructure constructed or rehabilitated
- Kilometers of transportation infrastructure maintained
- Number of people benefitting from transportation infrastructure projects
- Number of people trained in transportation technical fields
- Number of people trained in management

While these do not indicate the program's actual social or economic impact, they reveal whether the program is producing the outputs that the development narrative posits as necessary for these outcomes to occur. Thus, in addition to providing a means for project accountability, in the early stages of the project they also serve as proxies for the intended social and economic outcomes, which will only take effect in the future as the project is completed.

The following outcome indicators will help measure the road improvement's effects:

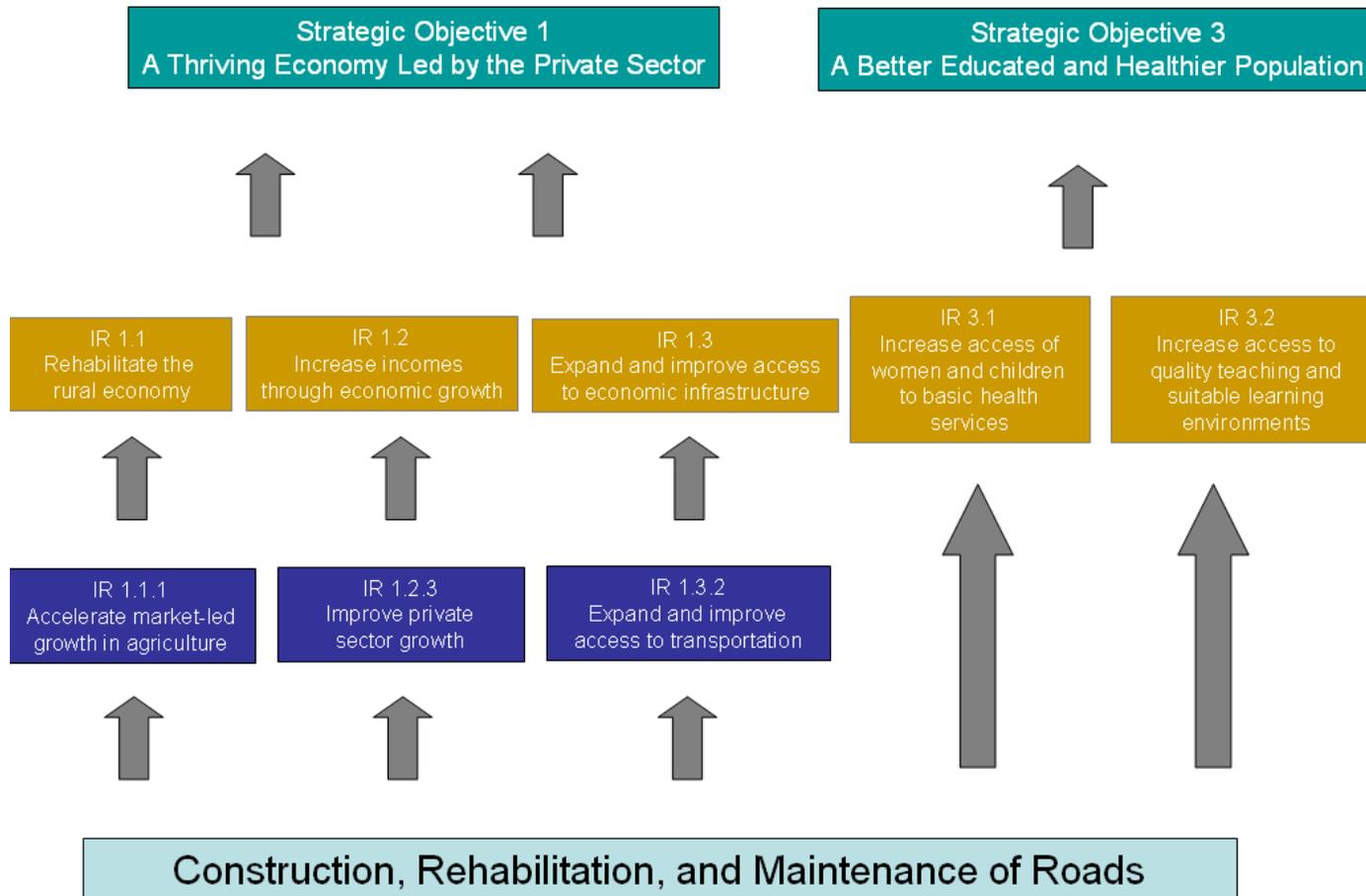
- Travel times
- Vehicle operator costs
- Annual average daily traffic count
- Passenger fare costs
- Cost of freight transport
- Volume of freight
- Cost of informal payments for road use
- Number of security incidents

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<sup>9</sup> The road projects will also contribute to IR 1.2.4 ("Enhance participation in global trade and investment") as they make access to global markets feasible, but since such an impact requires a longer time horizon and it heavily depends on so many other factors outside this project's scope (trade policy, creation of market linkages, etc.), no indicators have been included to measure it.



Figure 1: Graphical Representation of Results Framework for Road Rehabilitation Projects





The improvement of a road to excellent standards should increase the traffic volume as a result of reduced vehicle operator costs and shortened travel times. Reduced costs will allow for increased competition for the transport of people and goods. The reduction in passenger cost for all modes of public and private transport will permit greater mobility for populations occupying all income strata, increasing social integration and economic opportunities in this region. In particular, the rural poor will have better access to job opportunities, buying basic foodstuffs, selling home grown products, and participating in the governance of their province. Reduced freight costs should also lead to increased freight volume, a signal of increased economic activity due to the improved roads.

These benefits depend on the lower costs of transport brought about by the road improvements to be passed on to road users. It is possible that the road improvements will lead to increased informal payments to either government officials or self-appointed toll collectors. For this reason, it is important to have an indicator to measure possible informal payments in order to identify the way in which the benefits of road improvements are being captured illicitly, thus diminishing their potential impact.

In order to be realized, these benefits also depend on the roads being secure. For this reason, an indicator has been included to measure the number of security incidents. Road improvements themselves will affect the security situation, though not in an unequivocal way. On the one hand, better roads promise to improve the ability of Afghan and ISAF forces to penetrate insurgency-strong areas. On the other hand, better roads will also facilitate insurgent movements.

Task Order 14 (Road O&M/Capacity Building) is best seen as fulfilling IR 1.3.2 as well, since the IR includes building capacity for O&M in the transport sector as one of the goals.<sup>10</sup> TO 14 has dual objectives: a) O&M of 1500 km of REFS road; and b) institutional capacity building in the transport sector. Successful maintenance of the roads will sustain the gains achieved by the roads' construction, which reduce high transaction and operation costs, especially vehicle operating costs and travel times. Stability in these costs will allow farmers and businesses to make longer term investment decisions, thus stimulating private sector growth. This project's success will also lead to reforms and increased capacity in the public and private sectors.

On an output level, apart from the "FTE Afghan Jobs Created" that will be tracked for every project, it will also measure two basic capacity building outputs using the same indicators as the road building projects:

- Number of people trained in transportation technical fields
- Number of people trained in management

These merely track the number of people receiving training whereas the indicators below seek to measure the effectiveness of the training.

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<sup>10</sup> The capacity building component of this objective, of course, also contributes to Strategic Objective 2 ("A democratic government with broad citizen participation") as it strengthens both federal and local governance as well as private sector actors.



Since the character of this project differs in nature from that of the road construction and rehabilitation projects, it requires a special set of outcome indicators that are described below. If the roads are properly maintained, there should be no substantial differences between pre- and post-project in vehicle operator costs and travel times. To be fair, it is likely that *ceteris paribus* over time transit costs will continue to decline as competition grows and increased use allows for better economies of scale. However, it is unclear how rapidly and to what degree such changes will take place, which makes trying to measure them a problem. Furthermore, the difficult security situation that characterizes a significant portion of the roads being maintained under this project very likely weakens, if not reverses, these expected effects. For this reason, the following outcome indicators have been selected to serve as proxies for the economic and social impacts that this project is ultimately seeking to achieve:

- Staff capability with technical equipment
- Staff capability in report writing
- Kilometers of effectively maintained roads
- Roughness of road

The first two indicators seek to capture the effectiveness of the monitoring training through objectively measuring staff capabilities in work situations. The third indicator (“Kilometers of Effectively Maintained Roads”) is to be distinguished from the similar indicator for the road building projects since the monitoring capability of the O&M/Capacity Building Program will allow it to provide a much more comprehensive picture of the level of maintenance being applied to the roads. The “roughness” indicator provides an objective annual measure of the quality of the road. In addition to indicating the success or failure of the program’s implementation, it serves as a good proxy for the vehicle operator costs in the present difficult context by measuring the actual condition of the road versus cost variations due to the security situation or fluctuations in fuel prices. At this point, indicators for the management training are confined to output indicators as this part of this program is still in the beginning stages. As the program develops and objective measures of impact become more available, outcome indicators for this part of the program can be added.

### **2.3.2 Linkage between SO 3 and Performance Indicators**

The USAID program components that support Strategic Objective 3 (“A better educated and healthier population”) focus on capacity building in the health care and education sectors, including teacher and medical worker training. Transportation plays an indirect but important role in achieving this objective. Poor roads greatly increase the cost and travel time for sick patients to visit clinics and hospitals. Poor transportation also increases mortality rates for both children and adults. Similarly lack of transportation increases the isolation of rural children and reduces their likelihood of entering or staying in educational programs. Therefore, outcome indicators have been selected to ascertain how the improved roads affect the accessibility of affected populations to health and education.



### ***IR 3.1 Increase in access of women and children under five to quality basic health services especially in rural and underserved areas***

- Travel times to health clinics
- Frequency of visits to health clinics

### ***IR 3.2 Increase access to quality teaching and suitable learning environments***

- Rates of school attendance

## **2.4 Critical Assumptions**

While this PMP is seeking to measure outputs and outcomes that are within this program's manageable interests, they rest on certain critical assumptions.

First, security along the roads in question is necessary for their successful construction/rehabilitation and maintenance (project outputs) as well as for the social and economic benefits of the road to be felt (project impacts). In the case of impacts, if security conditions prevent the improvement of roads from either resulting in increased traffic volume or decreased travel costs (due to the need for greater security), the chief benefits of road improvement and maintenance will not result.

Second, the impacts of these transport projects require transparent and honest governance as well as competitive transport services. If transport costs are not lowered due to government- or cartel-determined pricing or to the need for informal payments, the impact of the improved roads' may be negligible.

Given these critical assumptions, several indicators have been included in order to try to identify the ways in which the benefits of the improved roads are captured. For example, in addition to vehicle operator costs (VOC), freight costs and passenger fare costs are measured in order to see if reduced VOCs lower these costs. An indicator measuring the incidence of informal payments for road use is also included to see if the economic value of the improved roads is co-opted through an increase in informal payments. Finally, an indicator measuring the number of security incidents will help elucidate whether traffic flows are affected by the security environment.

## **2.5 Transport Sector Performance Indicator Reference Sheets**

This section presents the Performance Indicator Reference Sheets that correspond to the indicators described above. They have been prepared at a level of detail such that they will be applicable to all three IRP roads that will be evaluated under this PMP. Since a baseline study has been done only for the Keshim–Faizabad road, baseline values are only given for this road. Even for this road, not all of the indicators have baseline data given since many of the indicators have changed since this study was conducted and, in a few cases, the data was deemed to be unreliable. Once the remaining socio-economic



baseline studies have been completed, IRP will work with USAID to identify the indicators which should include targets, and they will determine together what these targets should be.

**Data Quality Issues:** Given how much of the data for the transport sector PMP plan is based on surveys and how modest the sample sizes will be, data quality is worth addressing here. Survey teams will be selected through a thorough vetting process and will be provided appropriate training to ensure effective and accurate data collection and transcription takes place. Data collection methods will be based on written procedures that are consistently applied for each survey. Sampling techniques will be selected that will seek to maximally provide objective data, even with relatively small sample sizes due to the challenging research environment. IRP will also provide supervision during the survey process. Its CDOs will help facilitate the work of the survey teams. As much as possible, surveys will be carried out during the same time of year to control for seasonal variations.

All survey data will be assessed by IRP within two months of the survey's completion. Data will be analyzed for any internal or other inconsistencies that suggest flawed data. It will also be compared with data from similar studies to further corroborate its veracity. If significant problems in data for one or more indicators are found, targeted follow-up surveys may be required. The source of the problem will also be assessed. If it was due to inadequate enumerator training or shortcomings in the questionnaire, these will be addressed in future survey cycles.

To ensure consistent, timely, and accurate data, IRP will periodically conduct internal data quality assessments. In addition, it is anticipated that USAID will conduct a data quality assessment at least once during the life of the project.



PERFORMANCE INDICATOR REFERENCE SHEET				
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector				
<b>Intermediate Result 1.1:</b> Rehabilitate the rural economy				
<b>Performance Indicator:</b> <b>Cost of Food Staples</b>				
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> .				
DESCRIPTION				
<b>Precise Definition(s):</b> The average price for a common set of food staples for each ZOI. The set of food staples might vary from province to province depending on crops grown in areas and diet of residents.				
<b>Unit of Measure:</b> Afs/unit (kg, piece, etc.)				
<b>Disaggregated by:</b> Food type				
<b>Justification &amp; Management Utility:</b> Rehabilitation of IRP Road should lower costs of food staple due to the increased productivity of the agriculture sector and to reduced transport costs.				
PLAN FOR DATA ACQUISITION BY USAID				
<b>Data collection method:</b> Shopkeeper surveys conducted by Survey Teams				
<b>Data Source:</b> Raw data collected by the Survey Teams				
<b>Method of data acquisition by USAID:</b> Survey analysis report				
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project				
<b>Estimated Cost of Data Acquisition:</b> High (survey-based)				
<b>Individual responsible at USAID:</b>				
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager				
<b>Location of Data Storage:</b> IRP PMP Manager Office				
DATA QUALITY ISSUES				
See discussion in 2.5 above.				
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING				
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.				
PERFORMANCE INDICATOR VALUES				
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project. There will be no targets for these, since price direction will be very location-specific.				
Year	Keshim–Faizabad		Ghazni–Gardez	Gardez–Khost
	<i>Actual (in Afs)</i>		<i>Actual</i>	<i>Actual</i>
2007	Cooking oil	239		
	Flour	135		
	Potato	76		
	Rice	162		
	Sugar	42		
	Tea	85		
	Wheat	65		
2008				
2009				
2010				
2011				



PERFORMANCE INDICATOR REFERENCE SHEET						
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector						
<b>Intermediate Result 1.1:</b> Rehabilitate the rural economy						
<b>Performance Indicator:</b> <b>Market where Goods Sold</b>						
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>						
DESCRIPTION						
<b>Precise Definition(s):</b> The name and location of the market where goods are sold, including the distance needed to travel, the cost of travel, and whether the rehabilitated road is used.						
<b>Unit of Measure:</b> Distance in kms from the market where goods are sold						
<b>Disaggregated by:</b> Village						
<b>Justification &amp; Management Utility:</b> Increased accessibility and use of the road should increase opportunities to sell goods farther from the place of production. Studies have shown that access to more distant markets is associated with higher incomes.						
PLAN FOR DATA ACQUISITION BY USAID						
<b>Data collection method:</b> Household surveys conducted by Survey Teams						
<b>Data Source:</b> Raw data collected by the Survey Teams						
<b>Method of data acquisition by USAID:</b> Survey analysis report						
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project						
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)						
<b>Individual responsible at USAID:</b>						
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager						
<b>Location of Data Storage:</b> IRP PMP Manager Office						
DATA QUALITY ISSUES						
See discussion in 2.5 above.						
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING						
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.						
PERFORMANCE INDICATOR VALUES						
<b>Other Notes:</b> The targets and actual values will be identified after completion of the baseline studies.						
Year	Keshim–Faizabad		Ghazni–Gardez		Gardez–Khost	
	Target	Actual	Target	Actual	Target	Actual
2007						
2008						
2009						
2010						
2011						



PERFORMANCE INDICATOR REFERENCE SHEET					
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector					
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth					
<b>Performance Indicator:</b> <b>Full-Time Equivalent Afghan Jobs Created</b>					
<b>Is this an Annual Report indicator?</b> No ___ Yes ___√___, for reporting years 2009, 2010, and 2011.					
DESCRIPTION					
<b>Precise Definition(s):</b> The number of Full-Time Equivalent (FTE) Afghan jobs created by the implementation of the project both directly and through sub-contracts. FTE is defined as one person employed for 260 days in a year. IRP will calculate the number of FTE jobs by taking the number of days Afghans are employed by IRP and dividing it by 260. IRP will report the cumulative figure from the inception of the project. It will also report the total number of Afghans that have been employed during the course of the project.					
<b>Unit of Measure:</b> Number of jobs					
<b>Disaggregated by:</b> Gender					
<b>Justification &amp; Management Utility:</b> Unemployment is high in Afghanistan. Infrastructure works provide short-term employment opportunities. In addition to the income this provides participants, it also will expand skill sets for workers that can be applied elsewhere following the project.					
PLAN FOR DATA ACQUISITION BY USAID					
<b>Data collection method:</b> TO Managers keep track of the number of jobs created in their projects.					
<b>Data Source:</b> Project records					
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports					
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)					
<b>Estimated Cost of Data Acquisition:</b> Minimal					
<b>Individual responsible at USAID:</b>					
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager					
<b>Location of Data Storage:</b> IRP PMP Manager Office					
DATA QUALITY ISSUES					
Data collection is quite straightforward and should not entail any difficulties.					
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING					
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of jobs created for each project.					
PERFORMANCE INDICATOR VALUES					
<b>Notes on Baselines/Targets:</b> Baselines or target values will not be necessary for this indicator. Rather, actual values will be given for each project.					
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.	O&M/Capacity Bldg.
2007					
2008					
2009					
2010					
2011					



PERFORMANCE INDICATOR REFERENCE SHEET						
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector						
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth						
<b>Performance Indicator:</b> <b>Number of Businesses</b>						
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>						
DESCRIPTION						
<b>Precise Definition(s):</b> The number of shops in each village						
<b>Unit of Measure:</b> Number of shops						
<b>Disaggregated by:</b> Type of shop						
<b>Justification &amp; Management Utility:</b> The rehabilitation of IRP roads should generate additional economic activities throughout the ZOI. Number of businesses in the villages will give an indication of each road's impact on the local economy.						
PLAN FOR DATA ACQUISITION BY USAID						
<b>Data collection method:</b> Shopkeeper surveys conducted by Survey Teams						
<b>Data Source:</b> Raw data collected by the Survey Teams						
<b>Method of data acquisition by USAID:</b> Survey analysis report						
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project						
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)						
<b>Individual responsible at USAID:</b>						
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager						
<b>Location of Data Storage:</b> IRP PMP Manager Office						
DATA QUALITY ISSUES						
See discussion in 2.5 above.						
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING						
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.						
PERFORMANCE INDICATOR VALUES						
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project. Target values will be identified after the baseline studies for each of the road segments.						
Year	Keshim–Faizabad		Ghazni–Gardez		Gardez–Khost	
	<i>Target</i>	<i>Actual</i>	<i>Target</i>	<i>Actual</i>	<i>Target</i>	<i>Actual</i>
2007						
2008						
2009						
2010						
2011						



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth			
<b>Performance Indicator:</b> <b>Shopkeeper Monthly Sales</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
DESCRIPTION			
<b>Precise Definition(s):</b> The value of monthly sales by shopkeepers located in surveyed villages			
<b>Unit of Measure:</b> Afs/month			
<b>Disaggregated by:</b> Season			
<b>Justification &amp; Management Utility:</b> Rehabilitation of roads should generate additional economic activities throughout the ZOI. Value of sales by shopkeepers within villages will give an indication of road's impact on local economy.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Shopkeeper surveys conducted by Survey Teams			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
DATA QUALITY ISSUES			
See discussion in 2.5 above.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
	(Daily in \$)		
	Keshim 60		
	Faizabad 52		
2007	Villages 20		
2008			
2009			
2010			
2011			



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth			
<b>Performance Indicator:</b> <b>Household Income</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
<b>DESCRIPTION</b>			
<b>Precise Definition(s):</b> Total monthly income			
<b>Unit of Measure:</b> Afs/month			
<b>Disaggregated by:</b> Size of settlement (i.e., cities/towns will be disaggregated from villages)			
<b>Justification &amp; Management Utility:</b> Better transport opportunities should lead to increased economic opportunities as access to markets and jobs increases. This should positively affect household incomes.			
<b>PLAN FOR DATA ACQUISITION BY USAID</b>			
<b>Data collection method:</b> Household surveys conducted by Survey Teams			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (survey-based)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
<b>DATA QUALITY ISSUES</b>			
Monthly income can be difficult to accurately measure in developing country contexts. Surveys will also include questions about non-financial assets which are widely considered as a good proxy for income. See further discussion of data quality in 2.5 above.			
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
<b>PERFORMANCE INDICATOR VALUES</b>			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
	(in \$)		
	Keshim 117		
	Faizabad 112		
<b>2007</b>	Villages 59		
<b>2008</b>			
<b>2009</b>			
<b>2010</b>			
<b>2011</b>			



PERFORMANCE INDICATOR REFERENCE SHEET				
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector				
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure				
<b>Performance Indicator:</b> <b>Equivalent Kilometers of Transportation Infrastructure Constructed or Rehabilitated</b>				
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.				
DESCRIPTION				
<b>Precise Definition(s):</b> This indicator will measure the equivalent kilometers of road that have been rehabilitated or constructed. It will be calculated by multiplying the percent of the road that is physically complete by the total length of the road project.				
<b>Unit of Measure:</b> Kilometers of road				
<b>Disaggregated by:</b> Road project				
<b>Justification &amp; Management Utility:</b> This will measure the progress in building the roads.				
PLAN FOR DATA ACQUISITION BY USAID				
<b>Data collection method:</b> TO Managers monitor road progress.				
<b>Data Source:</b> Project records				
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports				
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)				
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already collected)				
<b>Individual responsible at USAID:</b>				
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager				
<b>Location of Data Storage:</b> IRP PMP Manager Office				
DATA QUALITY ISSUES				
Data will be drawn from internal systems that regularly measure and document road construction progress, so no data quality issues are anticipated.				
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING				
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of kilometer constructed/rehabilitated for each project.				
PERFORMANCE INDICATOR VALUES				
<b>Notes on Baselines/Targets:</b>				
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.
2007				
2008				
2009				
2010				
2011				



PERFORMANCE INDICATOR REFERENCE SHEET					
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector					
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure					
<b>Performance Indicator:</b> <b>Kilometers of Transportation Infrastructure Maintained</b>					
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.					
DESCRIPTION					
<b>Precise Definition(s):</b> This indicator will measure how many kilometers of road are being maintained by IRP.					
<b>Unit of Measure:</b> Kilometers of road					
<b>Disaggregated by:</b> Road project					
<b>Justification &amp; Management Utility:</b> IRP is responsible to maintain the roads it builds for one year after completion. It is also responsible for maintaining 1500 km of REFS road under the Road O&M/Capacity Building Program. This indicator will help measure these outputs.					
PLAN FOR DATA ACQUISITION BY USAID					
<b>Data collection method:</b> TO Managers monitor road maintenance work.					
<b>Data Source:</b> Project records					
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports					
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)					
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already collected)					
<b>Individual responsible at USAID:</b>					
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager					
<b>Location of Data Storage:</b> IRP PMP Manager Office					
DATA QUALITY ISSUES					
Data will be drawn from internal systems that regularly measure and document road maintenance, so no data quality issues are anticipated.					
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING					
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of kilometers maintained for each project.					
PERFORMANCE INDICATOR VALUES					
<b>Notes on Baselines/Targets:</b> As an output indicator, performance indicator values will be given, but targeting will not be necessary.					
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.	O&M/Capacity Bldg.
2007					
2008					
2009					
2010					
2011					



PERFORMANCE INDICATOR REFERENCE SHEET					
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector					
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth					
<b>Performance Indicator:</b> <b>Number of People Benefitting from Transportation Infrastructure Projects</b>					
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.					
DESCRIPTION					
<b>Precise Definition:</b> The number of people located in the ZOI for IRP's work in the transport sector.					
<b>Unit of Measure:</b> Number of people					
<b>Disaggregated by:</b> NA.					
<b>Justification &amp; Management Utility:</b> The purpose of expanding the transport infrastructure is to give people access to markets as well as to social services. This indicator measures the number of people in the ZOI who will most directly benefit from the IRP projects.					
PLAN FOR DATA ACQUISITION BY USAID					
<b>Data collection method:</b> Data will be measured using the ZOIs established by the IRP Team and calculating the population affected by tracking the progress of the roads and using AIMS data to identify the number of people within the affected parts of the corridor.					
<b>Data Source:</b> TO Manager for road progress and AIMS data for population figures					
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports					
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)					
<b>Estimated Cost of Data Acquisition:</b> Minimal					
<b>Individual responsible at USAID:</b>					
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager					
<b>Location of Data Storage:</b> IRP PMP Manager Office					
DATA QUALITY ISSUES					
<b>Date of Initial Data Quality Assessment:</b> NA					
<b>Known Data Limitations and Significance (if any):</b> Since there has been no census in Afghanistan since 1979, population data are quite unreliable.					
<b>Actions Taken or Planned to Address Data Limitations:</b> IRP will work with its CDOs and with the Survey Teams to try to verify AIMS where it appears significantly flawed.					
<b>Date of Future Data Quality Assessments:</b> To be decided in coordination with USAID					
<b>Procedures for Future Data Quality Assessments:</b> IRP will use its CDOs to verify data when needed.					
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING					
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID in its semi-annual monitoring reports the number of people benefitting from the IRP transport infrastructure projects. The SO team will determine when it will conduct data reviews.					
PERFORMANCE INDICATOR VALUES					
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.	O&M/Capacity Bldg.
2007					
2008					
2009					
2010					
2011					



PERFORMANCE INDICATOR REFERENCE SHEET					
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector					
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure					
<b>Performance Indicator:</b> <b>Number of People Trained in Transportation Technical Fields</b>					
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> <input type="checkbox"/> , for reporting years 2009, 2010, and 2011.					
DESCRIPTION					
<b>Precise Definition(s):</b> Number of people trained in transportation technical fields through informal and formal means. This is an output indicator that applies to both road building and O&M projects.					
<b>Unit of Measure:</b> Number of people					
<b>Disaggregated by:</b> Gender					
<b>Justification &amp; Management Utility:</b> A sustainable transport sector depends on a cadre of effective technical staff. IRP work will include various training opportunities, including providing field work for university engineering students.					
PLAN FOR DATA ACQUISITION BY USAID					
<b>Data collection method:</b> Data will be collected from TO Managers.					
<b>Data Source:</b> Project records					
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports					
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)					
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already in routine reports)					
<b>Individual responsible at USAID:</b>					
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager					
<b>Location of Data Storage:</b> IRP PMP Manager Office					
DATA QUALITY ISSUES					
Data will be drawn from internal systems that objectively measure and document the people who receive IRP training in technical fields.					
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING					
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of people trained in technical fields for each project.					
PERFORMANCE INDICATOR VALUES					
<b>Notes on Baselines/Targets:</b> As an output indicator, performance indicator values will be given, but targeting will not be necessary.					
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.	O&M/Capacity Bldg.
2007					
2008					
2009					
2010					
2011					



PERFORMANCE INDICATOR REFERENCE SHEET					
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector					
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure					
<b>Performance Indicator:</b> <b>Number of People Trained in Management</b>					
<b>Is this an Annual Report indicator?</b> No Yes <input checked="" type="checkbox"/> <input type="checkbox"/> , for reporting years 2009, 2010, and 2011.					
DESCRIPTION					
<b>Precise Definition(s):</b> Number of people trained in management through informal and formal means. This is an output indicator that applies to both road building and O&M projects.					
<b>Unit of Measure:</b> Number of people					
<b>Disaggregated by:</b> Gender					
<b>Justification &amp; Management Utility:</b> A sustainable transport sector depends on a cadre of people who can effectively manage. IRP work will include various training opportunities, including providing field work for university engineering students.					
PLAN FOR DATA ACQUISITION BY USAID					
<b>Data collection method:</b> Data will be collected from TO Managers.					
<b>Data Source:</b> Project records					
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports					
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)					
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already in routine reports)					
<b>Individual responsible at USAID:</b>					
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager					
<b>Location of Data Storage:</b> IRP PMP Manager Office					
DATA QUALITY ISSUES					
Data will be drawn from internal systems that objectively measure and document the people who receive IRP training in management.					
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING					
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of people trained in management for each project.					
PERFORMANCE INDICATOR VALUES					
<b>Notes on Baselines/Targets:</b> As an output indicator, performance indicator values will be given, but targeting will not be necessary.					
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.	O&M/Capacity Bldg.
2007					
2008					
2009					
2010					
2011					



PERFORMANCE INDICATOR REFERENCE SHEET				
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector				
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure				
<b>Performance Indicator:</b> <b>Travel Times</b>				
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> _____.				
DESCRIPTION				
<b>Precise Definition:</b> The average time required to travel between selected locations (e.g., Ghazni–Gardez).				
<b>Unit of Measure:</b> Hours and minutes				
<b>Disaggregated by:</b> Passenger (private car, minibus, bus) and Freight (2-axle, 3-axle, and articulate trucks)				
<b>Justification &amp; Management Utility:</b> The rehabilitation of the IRP roads should substantially decrease travels times between major towns and villages within their zones of influence. Reductions in travel time allow for human resources to be better allocated to productive uses such as work and education.				
PLAN FOR DATA ACQUISITION BY USAID				
<b>Data collection method:</b> Vehicle operator and passenger surveys				
<b>Data Source:</b> Raw data collected by the Survey Teams				
<b>Method of data acquisition by USAID:</b> Survey analysis report				
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project				
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)				
<b>Individual responsible at USAID:</b>				
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager				
<b>Location of Data Storage:</b> IRP PMP Manager Office				
DATA QUALITY ISSUES				
See discussion in 2.5 above.				
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING				
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.				
PERFORMANCE INDICATOR VALUES				
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project. Target values will be identified after the baseline studies for each of the road segments.				
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.
	(in hrs.)			
2007	Car 6 Bus 8			
2008				
2009				
2010				
2011				



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth			
<b>Performance Indicator:</b> <b>Vehicle Operator Costs</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
<b>DESCRIPTION</b>			
<b>Precise Definition(s):</b> The average monthly cost for maintaining a vehicle that operates on the IRP road.			
<b>Unit of Measure:</b> Afs/month			
<b>Disaggregated by:</b> Commercial and non-commercial vehicles.			
<b>Justification &amp; Management Utility:</b> High maintenance costs are not only barriers to entry but render vehicles inoperable for long periods and result in increased costs for the transport of people and goods.			
<b>PLAN FOR DATA ACQUISITION BY USAID</b>			
<b>Data collection method:</b> Vehicle operator surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
<b>DATA QUALITY ISSUES</b>			
See discussion in 2.5 above.			
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
<b>PERFORMANCE INDICATOR VALUES</b>			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or in a couple of cases toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
2007			
2008			
2009			
2010			
2011			



**PERFORMANCE INDICATOR REFERENCE SHEET**

**Strategic Objective 1:** A Thriving Economy Led by the Private Sector

**Intermediate Result 1.3:** Expand and improve access to economic infrastructure

**Performance Indicator:** **Annual Average Daily Traffic Count**

**Is this an Annual Report indicator?** No Yes , for reporting years 2009, 2010, and 2011.

**DESCRIPTION**

**Precise Definition(s):** The number of vehicles traveling past strategically selected points on the IRP road project during the course of 12 hours for 7 days. Quarterly traffic counts will allow USAID to assess the impact of the project on overall transportation accessibility.

**Unit of Measure:** Number of vehicles

**Disaggregated by:** Type of vehicle—a) Mini-bus, car, and jeep; b) 2-axle truck; c) 3-axle truck.

**Justification & Management Utility:** The rehabilitation of the IRP roads will lower VOC and travel times, making travel more accessible to a wider group of people. This indicator measures increased access to markets and social services, both of which contribute to the achievement of SOs 1 and 3.

**PLAN FOR DATA ACQUISITION BY USAID**

**Data collection method:** Traffic Counts will be executed by teams organized and supervised by IRP.

**Data Source:** Raw data collected by the Traffic Counters

**Method of data acquisition by USAID:** Semi-annual monitoring reports

**Frequency and timing of data acquisition by USAID:** Semi-annually (April 15 and Oct. 15)

**Estimated Cost of Data Acquisition:** Moderate

**Individual responsible at USAID:**

**Individual responsible for providing data to USAID:** IRP PMP Manager

**Location of Data Storage:** IRP PMP Manager Office

**DATA QUALITY ISSUES**

Accurate measures for this indicator require that traffic counts be performed at roughly the same time each year. Also, holidays such as Eid that are celebrated at different times each year need to be taken into account when planning traffic counts. For further comments on data quality, see discussion in 2.5 above.

**PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING**

The raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in IRP's semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.

**PERFORMANCE INDICATOR VALUES**

**Notes on Baselines/Targets:** Baseline studies will be done pre-project or toward the beginning of the project.

Year	Keshim–Faizabad			Ghazni–Gardez	Gardez–Khost	Southern Strategy Rd.
	Location	East	West			
2007	Keshim	337	336			
	Faizabad	290	302			
2008						
2009						
2010						
2011						



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure			
<b>Performance Indicator:</b> <b>Passenger Fare Costs</b>			
Is this an Annual Report indicator? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> .			
DESCRIPTION			
<b>Precise Definition(s):</b> Travel cost between two defined locations on the given road project			
<b>Unit of Measure:</b> Travel cost in Afs per trip			
<b>Disaggregated by:</b> Bus, mini-bus, and taxi.			
<b>Justification &amp; Management Utility:</b> The rehabilitation of the IRP roads should reduce time and costs for passenger travel. This performance indicator will show the extent to which the rehabilitated road lowers transport costs and increases overall accessibility.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Passenger surveys			
<b>Data Source:</b> Raw data collected by the survey teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
DATA QUALITY ISSUES			
See discussion in 2.5 above.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
2007	Bus: 486 Afs Car: 711 Afs		
2008			
2009			
2010			
2011			



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth			
<b>Performance Indicator:</b> <b>Cost of Freight Transport</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
DESCRIPTION			
<b>Precise Definition(s):</b> The cost per shipment of freight from designated origin and destination points on IRP Road			
<b>Unit of Measure:</b> Afs/ton			
<b>Disaggregated by:</b> 2-Axle, 3-Axle, and Articulated Trucks			
<b>Justification &amp; Management Utility:</b> As VOCs and travel times decrease, freight transport costs should also decrease. Reduced freight costs will stimulate intra-regional trade.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Transportation and freight company surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
DATA QUALITY ISSUES			
See discussion in 2.5 above.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or in a couple of cases toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
2007			
2008			
2009			
2010			
2011			



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure			
<b>Performance Indicator:</b> <b>Volume of Freight</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> .			
<b>DESCRIPTION</b>			
<b>Precise Definition(s):</b> Volume of freight shipped weekly			
<b>Unit of Measure:</b> Tons			
<b>Disaggregated by:</b> Company			
<b>Justification &amp; Management Utility:</b> Lower VOCs and reduced travel time should result in cheaper freight costs which should increase the amount of freight on the improved roads.			
<b>PLAN FOR DATA ACQUISITION BY USAID</b>			
<b>Data collection method:</b> Transport and freight company surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
<b>DATA QUALITY ISSUES</b>			
See discussion in 2.5 above.			
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
<b>PERFORMANCE INDICATOR VALUES</b>			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
2007			
2008			
2009			
2010			
2011			



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure			
<b>Performance Indicator:</b> <b>Cost of Informal Payments for Road Use</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
DESCRIPTION			
<b>Precise Definition(s):</b> The typical cost of informal payments that a driver has to pay for travel on a selected part of the road (e.g., Keshim to Faizabad)			
<b>Unit of Measure:</b> Amount in Afs			
<b>Disaggregated by:</b> Passenger and freight vehicles			
<b>Justification &amp; Management Utility:</b> The construction and rehabilitation of the IRP should substantially reduce travel costs, which will increase commerce and improve access to social services. These benefits, however, will not result if government officials and/or local “bandits” co-opt this benefit through collecting informal tolls. This performance indicator will provide USAID with an understanding of whether the benefits of the improved roads are being passed down to the road’s users.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Vehicle operator, passenger, and freight company surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
DATA QUALITY ISSUES			
See discussion in 2.5 above.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or in a couple of cases toward the beginning of the project. Targets really do not apply for this indicator. While it is desirable that there be no informal payments, these road improvement projects have no ability to control them. Rather, this indicator is best seen as helping to provide greater nuance to the other impact indicators by helping to identify all the costs associated with the use of these improved roads.			
<b>Year</b>	<b>Keshim–Faizabad</b>	<b>Ghazni–Gardez</b>	<b>Gardez–Khost</b>
2007			
2008			
2009			
2010			
2011			



PERFORMANCE INDICATOR REFERENCE SHEET				
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector				
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure				
<b>Performance Indicator:</b> <b>Number of Security Incidents</b>				
<b>Is this an Annual Report indicator?</b> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.				
DESCRIPTION				
<b>Precise Definition(s):</b> The number of security incidents reported on a given road's ZOI.				
<b>Unit of Measure:</b> Number of incidents				
<b>Disaggregated by:</b> NA				
<b>Justification &amp; Management Utility:</b> The construction and rehabilitation of the IRP should substantially increase traffic flow and travel costs, which will increase commerce and improve access to social services. These benefits, however, will not result if a weak security situation makes road travel hazardous. This performance indicator will provide USAID with an understanding both of how the improved roads affect the security environment and to what extent the benefits of the roads can be fully realized.				
PLAN FOR DATA ACQUISITION BY USAID				
<b>Data collection method:</b> Data will be collected by TO Managers from security coordinators for each road project.				
<b>Data Source:</b> Project records				
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports				
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)				
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already collected)				
<b>Individual responsible at USAID:</b>				
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager				
<b>Location of Data Storage:</b> IRP PMP Manager Office				
DATA QUALITY ISSUES				
Data will be drawn from IRP security coordinators who work closely with ISAF, thus the data will reflect the best knowledge available.				
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING				
The raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in IRP's semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.				
PERFORMANCE INDICATOR VALUES				
<b>Notes on Baselines/Targets:</b> IRP will collect baseline data from ISAF. Targets really do not apply for this indicator since the effect of the road could be both to increase the reach of security forces and to facilitate the movement of insurgents.				
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost	Southern Strategy Road
2007				
2008				
2009				
2010				
2011				



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>		
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector		
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure		
<b>Performance Indicator:</b> <b>Staff Capability with Technical Equipment</b>		
<b>Is this an Annual Report indicator?</b> No Yes <input checked="" type="checkbox"/> <input type="checkbox"/> , for reporting years 2009, 2010, and, if extended, 2011.		
<b>DESCRIPTION</b>		
<b>Precise Definition(s):</b> Percent of trained staff who use technical equipment effectively		
<b>Unit of Measure:</b> Percentage		
<b>Disaggregated by:</b> User type (IRP staff, local contractor, or MPW staff)		
<b>Justification &amp; Management Utility:</b> Successful O&M of the rehabilitated roads depends on a cadre of effective technical staff. One of the components of the Road O&M/Capacity Building Program is to train personnel in the use of various kinds of technical equipment (laptops, GPS devices, digital cameras, etc.). This performance indicator will measure the degree to which this training has been successful by showing the trained staff's ability to use this equipment in the field.		
<b>PLAN FOR DATA ACQUISITION BY USAID</b>		
<b>Data collection method:</b> Data will be collected from weekly reports.		
<b>Data Source:</b> Weekly reports		
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports		
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)		
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already in routine reports)		
<b>Individual responsible at USAID:</b>		
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager		
<b>Location of Data Storage:</b> IRP PMP Manager Office		
<b>DATA QUALITY ISSUES</b>		
Data will be drawn from internal systems that objectively measure and document the capabilities of those who receive IRP training with technical equipment.		
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>		
The raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in IRP's semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.		
<b>PERFORMANCE INDICATOR VALUES</b>		
<b>Notes on Baselines/Targets:</b>		
<b>Year</b>	<i>Target</i>	<i>Actual</i>
<b>2007</b>		
<b>2008</b>		
<b>2009</b>		
<b>2010</b>		
<b>2011</b>		



PERFORMANCE INDICATOR REFERENCE SHEET		
<b>Strategic Objective 1:</b> Thriving Economy Led by the Private Sector		
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure		
<b>Performance Indicator:</b> <b>Staff Capability in Report Writing</b>		
<b>Is this an Annual Report indicator?</b> No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and, if extended, 2011.		
DESCRIPTION		
<b>Precise Definition(s):</b> Percentage of reports by O&M staff, MPW field personnel, and local contractors (meeting minutes, weekly reports, monthly reports) that are acceptable when submitted		
<b>Unit of Measure:</b> Percentage of satisfactory reports		
<b>Disaggregated by:</b> Source (IRP staff, local contractor, or MPW staff)		
<b>Justification &amp; Management Utility:</b> Successful O&M of the rehabilitated roads depends on a cadre of effective staff who can draft timely and informative reports. One of the components of the Road O&M/Capacity Building Program is to train the personnel responsible for monitoring in report writing. This performance indicator will measure the degree to which this training has been successful by showing the trained staff's ability to satisfactorily write different kinds of reports.		
PLAN FOR DATA ACQUISITION BY USAID		
<b>Data collection method:</b> The Road O&M/Capacity Building Program managers will regularly report on success rates for report writing.		
<b>Data Source:</b> Road O&M/Capacity Building Program records		
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports		
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)		
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already recorded)		
<b>Individual responsible at USAID:</b>		
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager		
<b>Location of Data Storage:</b> IRP PMP Manager Office		
DATA QUALITY ISSUES		
Data will be drawn from internal systems that objectively measure and document the report writing capabilities of those who receive IRP.		
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING		
The raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in IRP's semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.		
PERFORMANCE INDICATOR VALUES		
<b>Notes on Baselines/Targets:</b>		
<b>Year</b>	<i>Target</i>	<i>Actual</i>
2007		
2008		
2009		
2010		
2011		



PERFORMANCE INDICATOR REFERENCE SHEET		
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector		
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure		
<b>Performance Indicator:</b> Kilometers of Effectively Maintained Roads		
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and, if extended, 2011.		
DESCRIPTION		
<b>Precise Definition(s):</b> This indicator will measure how many kilometers of road are actually being effectively maintained, applying the criteria set by the TO 14 management team.		
<b>Unit of Measure:</b> Kilometers of road		
<b>Disaggregated by:</b> NA		
<b>Justification &amp; Management Utility:</b> Successful capacity building in O&M should lead to the effective maintenance of roads. This indicator will measure to what extent effective road maintenance is taking place.		
PLAN FOR DATA ACQUISITION BY USAID		
<b>Data collection method:</b> The Road O&M/Capacity Building Program regularly monitors the roads under its supervision to see how well provincial MPW staff and local contractors are doing at maintaining the roads under their responsibility.		
<b>Data Source:</b> Road O&M/Capacity Building Program records		
<b>Method of data acquisition by USAID:</b> Monthly reports and semi-annual monitoring reports		
<b>Frequency and timing of data acquisition by USAID:</b> Monthly and semi-annually (April 15 and Oct. 15)		
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already collected)		
<b>Individual responsible at USAID:</b>		
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager		
<b>Location of Data Storage:</b> IRP PMP Manager Office		
DATA QUALITY ISSUES		
Data will be drawn from internal systems that regularly measure and document the extent to which regional MPW offices and local contractors are effectively maintaining the road.		
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING		
The raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in IRP's semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.		
PERFORMANCE INDICATOR VALUES		
<b>Notes on Baselines/Targets:</b>		
<b>Year</b>	<i>Target</i>	<i>Actual</i>
2007		
2008		
2009		
2010		
2011		



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>		
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector		
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure		
<b>Performance Indicator:</b> <b>Roughness of Road</b>		
<b>Is this an Annual Report indicator?</b> No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and, if extended, 2011.		
<b>DESCRIPTION</b>		
<b>Precise Definition(s):</b> Roughness of the road will be measured		
<b>Unit of Measure:</b> International Roughness Index		
<b>Disaggregated by:</b> NA		
<b>Justification &amp; Management Utility:</b> Successful O&M of the rehabilitated roads should mean that the roads maintain a level of quality over time. This indicator will provide an objective measure to test whether maintenance efforts are actually resulting in well-maintained roads.		
<b>PLAN FOR DATA ACQUISITION BY USAID</b>		
<b>Data collection method:</b> The Road O&M/Capacity Building Program will at least once a year measure the roughness of different segments of the roads.		
<b>Data Source:</b> Road O&M/Capacity Building Program records		
<b>Method of data acquisition by USAID:</b> Annual Reports		
<b>Frequency and timing of data acquisition by USAID:</b> Annually		
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already collected)		
<b>Individual responsible at USAID:</b>		
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager		
<b>Location of Data Storage:</b> IRP PMP Manager Office		
<b>DATA QUALITY ISSUES</b>		
Data will be based on annual roughness of road tests using the widely accepted International Roughness Index. This should ensure the objectivity of the data.		
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>		
The raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in IRP's Annual Reports. The SO team will determine when it will conduct data reviews.		
<b>PERFORMANCE INDICATOR VALUES</b>		
<b>Notes on Baselines/Targets:</b>		
<b>Year</b>	<i>Target</i>	<i>Actual</i>
<b>2007</b>		
<b>2008</b>		
<b>2009</b>		
<b>2010</b>		
<b>2011</b>		



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 3:</b> A Better Educated and Healthier Population			
<b>Intermediate Result 3.1:</b> Increase in access of women and children to basic health services			
<b>Performance Indicator:</b> <b>Travel Time to Health Clinic</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
DESCRIPTION			
<b>Precise Definition(s):</b> The time it takes a person to travel from his or her home to the nearest health clinic			
<b>Unit of Measure:</b> Hours and minutes			
<b>Disaggregated by:</b> Village			
<b>Justification &amp; Management Utility:</b> Improved road infrastructure should reduce the time needed to travel from a house to the nearest clinic in villages that do not have medical facilities. This indicator will quantify this reduction, showing how the improved roads have increased health clinic access.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Household surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
DATA QUALITY ISSUES			
See discussion in 2.5.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
2007	Car: 0.68 hrs Bus: 1.45 hrs		
2008			
2009			
2010			
2011			



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>			
<b>Strategic Objective 3:</b> A Better Educated and Healthier Population			
<b>Intermediate Result 3.1:</b> Increase in access of women and children to basic health services			
<b>Performance Indicator:</b> <b>Frequency of Visits to Health Clinic</b>			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> .			
<b>DESCRIPTION</b>			
<b>Precise Definition(s):</b> Frequency of trips to health centers or hospitals for all household members			
<b>Unit of Measure:</b> Trips per year			
<b>Disaggregated by:</b> Village			
<b>Justification &amp; Management Utility:</b> Improved road infrastructure should increase overall accessibility to health care through reducing time and costs needed to travel to nearest clinics or hospital.			
<b>PLAN FOR DATA ACQUISITION BY USAID</b>			
<b>Data collection method:</b> Household surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
<b>DATA QUALITY ISSUES</b>			
See discussion in 2.5.			
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
<b>PERFORMANCE INDICATOR VALUES</b>			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad	Ghazni–Gardez	Gardez–Khost
2007			
2008			
2009			
2010			
2011			



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 3:</b> A Better Educated and Healthier Population			
<b>Intermediate Result 3.2:</b> Increase access to quality teaching and suitable learning environments			
<b>Performance Indicator:</b> Rates of School Attendance			
Is this an Annual Report indicator? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>			
DESCRIPTION			
<b>Precise Definition(s):</b> School age children currently enrolled in school			
<b>Unit of Measure:</b> Individuals and percentage of total school-age population			
<b>Disaggregated by:</b> Gender			
<b>Justification &amp; Management Utility:</b> Improved road infrastructure should increase overall accessibility to education, especially for students currently traveling over existing road to get to school. Of course, this indicator is influenced by other factors, including cultural mores, household income, and distance to facility. Changes in this indicator over time must be viewed in the context of these factors in addition to efforts by USAID and others donors to increase educational opportunities for Afghan children.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Household surveys			
<b>Data Source:</b> Raw data collected by the Survey Teams			
<b>Method of data acquisition by USAID:</b> Survey analysis report			
<b>Frequency and timing of data acquisition by USAID:</b> Pre- and post-project			
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP PMP Manager			
<b>Location of Data Storage:</b> IRP PMP Manager Office			
DATA QUALITY ISSUES			
See discussion in 2.5.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
After each survey cycle, the raw data will be collected, compiled, and analyzed by IRP. It will be presented in tables and narratives in baseline and post-project reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline studies will be done pre-project or toward the beginning of the project.			
Year	Keshim–Faizabad		Ghazni–Gardez
2007	Male	58%	
	Female	55%	
2008			
2009			
2010			
2011			





### 3. PMP for the Energy Sector

#### 3.1 Overview of IRP Energy Projects

The IRP Energy Sector Program is focused on increasing power generation in Afghanistan as well as assisting in building the national power grid. IRP is accomplishing this through the construction and rehabilitation of electricity generation and transmission infrastructure. IRP also provides O&M and commodity support and is helping build capacity in O&M for thermal power plants in Kabul and diesel power plants in Kandahar and in other provincial towns in southern Afghanistan. The program will increase the accessibility and reliability of electric power to large segments of the Afghan population. This will spur both economic growth and human development.

IRP will also include long-term technical assistance to the Inter-Ministerial Commission for Energy (ICE) to ensure the most effective development and implementation of NEPS as well as support for SEPS and Kabul's electric power supply. Over its five-year life cycle, the IRP program will undertake a comprehensive approach to address the power supply constraints on the country's economic growth.

The major projects that have been approved by USAID for the initial phase of the program are summarized below:

##### ***North East Power System (NEPs)***

NEPS is the primary GIRoA and multi-donor program for the energy sector encompassing new and rehabilitated generation, transmission, and distribution capacity. NEPS is also funding training and other capacity building programs to ensure that the power transmission system components are properly operated and maintained. Other donors contributing to NEPS are the ADB, World Bank, Government of India, Islamic Development Bank, and KfW.

NEPS will provide infrastructure for transmitting power generated in the Central Asian Republics (CARs) of Turkmenistan, Tajikistan, and Uzbekistan to Kabul and towns and villages en route. Infrastructure enhancements will include new transmissions lines, upgrades of existing lines, construction of intermediate substations, and expansion of electrical distribution systems.

The IRP contribution to NEPS is to provide coordination through the ICE Secretariat. IRP is also supporting Afghanistan in (1) securing power purchasing agreements (PPAs) in order to facilitate the import of up to 300 MW each from Tajikistan, Uzbekistan, and Turkmenistan and (2) training DABS staff in PPA negotiations and developing a payments settlement system.

IRP is also conducting field investigations of seven Soviet-built gas wells near Sheberghan to see if there are sufficient reserves to fuel a 100 MW power plant for 20 years. Implementation of this project would provide significant added internal generating



capacity to the NEPS program and an alternative to being captive to imported power. Other IRP-specific projects that have been approved by USAID include:

- Technical assistance to ICE for the development and implementation of NEPS and to the Renewable Energy Subcommittee
- Preparing and issuing tender documents for 500/220 KV substation in Andkhoy with an initial capacity of 400 MW, which will be undertaken following demonstrable progress in negotiations with Turkmenistan
- Procurement, installation, and commissioning of Reactive Power Compensation equipment as well as building capacity of DABS staff for its O&M
- Managing, finalizing design, procuring, constructing, and installing a National Load Control Center to provide a central control for the dispatch and operation of the expanded and upgraded substations and power stations resulting from NEPS

### ***South East Power System (SEPS)***

SEPS seeks to rehabilitate the Kajakai Hydroelectric Power Plant (HPP) and to upgrade the transmission system to supply the cities of Kandahar and Lashkar Gah as well as other towns and villages along the route of the transmission line. When completed, the SEPS project will increase operating capacity of the Kajakai HPP from 16.5 MW to 51 MW. Currently approved IRP projects under SEPS are:

- Rehabilitation of the Kajakai Hydro Power Plant
- Technical assistance to ICE in support of SEPS program
- Construction of double circuit 220 KV transmission conductor and towers, substations;
- Rehabilitation of the 110 KV line to Durai junction;
- Training of DABS staff in substation and transmission line operations and maintenance.

### ***100 MW Kabul Power Plant***

This project involves the design, construction, and commission of a 100 MW diesel power plant in Kabul in early 2009. It also includes construction of a 110 KV transmission intertie line, a substation, and all associated power island equipment. Kabul is severely supply-constrained with frequent outages, particularly in winter when the peak annual demand for electricity occurs. The new plant will provide a significant boost to Kabul's power supply as it waits for the full additional power from NEPS which is unlikely to occur before 2009. A partial energization of the NEPS at 110 KV occurred during January 2009 that provided Kabul 40 MW of imported power from Uzbekistan. This has had a dramatic impact on Kabul electricity supply. IRP was instrumental in bringing about this successful importation to expand electric energy availability to Kabul.

### ***Diesel Thermal Power Plant O&M***

IRP is providing operations and maintenance support for power plants in Kabul and multiple provincial towns in the southern region of Afghanistan. As a key part of this



program, IRP is responsible for providing training to on-site staff in O&M. This program was also expanded to include the installation of 750 KVA generator set at Musa Qala as well as the installation of five 2200 KVA DABS generators, 2.5 MVA step-up transformers, synchronization panels, and associated cabling in Kandahar, effectively almost doubling the available diesel generation capacity in Kandahar from 10 to 20 MW.

### ***Afghanistan Energy Information Center (AEIC)***

IRP inherited the AEIC from the Afghanistan Energy Assistance Program (AEAP), which initially established the AEIC. The AEIC provides a centralized energy information facility to serve as an access and analysis point which is available to Afghanistan's government officials and citizens as well as to USAID and others in the donor community. This consolidation of quality-controlled energy sector information was conceived to maximize the efforts of all stakeholders in the energy in order to facilitate more efficient design of assistance projects and better coordination between various projects and donors in the energy sector. As the central repository of energy information in Afghanistan, including national statistics and project-specific information from the IRP and other implementers, the AEIC will serve as a key source for the data and analysis used in this PMP.

## **3.2 PMP Method for IRP Energy Sector Projects**

### **3.2.1 Method for Measuring Project Impacts**

The task of assessing the impact of IRP projects is more complicated for energy projects than for road projects. The energy sector component of IRP is a national program and each major component will affect populations spread over large areas depending on the geographical extent of the associated transmission and distribution systems. The scale of these projects poses a challenge for evaluation since measuring impact requires gathering enough data on beneficiaries who vary widely in their situations: location (rural or urban), pre-project level of access, etc. This problem is exacerbated by the deteriorating security conditions in the country, which make it extremely costly to conduct the kind of geographically extensive surveying which would be necessary in order to capture the impacts of the energy sector projects. Another challenge for measuring IRP's energy sector program is that several of its activities are part of a broader coordinated effort by donors (e.g., the NEPS program), which makes it difficult to precisely isolate the impact of USAID's particular part in these wider efforts.

In addition, there are several other reasons that M&E for energy projects is considered challenging. First, the causal chain leading from increased energy to benefits is longer and more complicated than for many other projects. Second, energy impacts often take longer to fully materialize, which means that any M&E done during the program or immediately after the program's completion will not fully capture the benefits that it brings. Finally, energy impacts often require complementary inputs. For example, energy can increase productivity, but this often requires the availability of appropriate technology to fully realize these potential gains. In turn, such technologies often require a certain level of technical skills. Similarly, increased energy at the household level has been associated with better educational achievement as children can do homework at



night. Such improvements, however, assume both the availability of good schools and the social support by families for their children to become educated.<sup>11</sup>

It is in light of these limiting factors and in response to USAID's direct feedback that the method proposed here has been conceived. The energy sector PMP provides a number of indicators that measure project outputs (e.g., increased MW generation). In addition to measuring the immediate effects of IRP's work, outputs indicators, such as increased generating capacity, serve as good proxies for broader social and economic impacts, as demonstrated in an extensive literature documenting the effect of improved energy infrastructure on poverty,<sup>12</sup> health,<sup>13</sup> economic growth,<sup>14</sup> and education.<sup>15</sup>

In order to provide a greater understanding of how these outputs translate into social and economic outcomes, four strategies will be pursued. First, the impact of increased MW on economic growth for Afghanistan will be extrapolated and will be translated into what this means for households by stating this in GDP per capita terms. It needs to be underlined that establishing such relationships with any precision is notoriously difficult, so the articulated impacts are intended merely to be suggestive of the kind of relationship between energy production and GDP that has been observed elsewhere.

Second, IRP will use several indicators to capture how IRP activities translate into several selected outcomes: a) how increased energy capacity leads to increased access;<sup>16</sup> b) how diversified sources of energy generation affects the cost of generation; and c) the extent to which the resources of AEIC are used.

Third, since Kabul is one of the primary beneficiaries of USAID's energy sector interventions and given its importance as the political and economic center of Afghanistan, IRP will conduct baseline and post-project household and manufacturer energy use surveys there. Given the delay in the implementation of the PMP, the baseline surveys will be conducted after some of the effects of IRP's work have begun to be felt (in particular, the importation of 40 MW of power from Uzbekistan that began in January 2009). While this is not ideal, the preponderance of increased generation

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<sup>11</sup> M&EED International Working Group (2006). "A Guide to Monitoring and Evaluation for Energy Projects."

<sup>12</sup> C. Willoughby (2004). "How important is infrastructure for achieving pro-poor growth?" Paris: OECD.

<sup>13</sup> M. Ezzati and D.M. Kammen (2002). "Household Energy, Indoor Air Pollution and Public Health: Research and Policy Needs in Developing Countries." *Annual Review of Energy and Environment* 27:1-38.

<sup>14</sup> M. Toman and B. Jemelkova (2003). "Energy and Economic Development: An Assessment of the State of Knowledge." Discussion Paper 03-13. Washington, DC: Resources for the Future.

<sup>15</sup> D. Leipziger, M. Wodon, and T. Yepes (2003). "Achieving the Millennium Development Goals: The Role of Infrastructure." The World Bank Policy Research Paper 3163.

<sup>16</sup> These indicators are not without their difficulties. First, IRP's focus is on generation, not distribution, although increased energy capacity should strengthen incentives to become connected to the grid. Of course, these indicators assume that DABS has the capacity to provide such connections if demanded. Second, they rely largely on DABS data, which is notoriously inadequate. These indicators nonetheless merit inclusion, since they provide another way to measure IRP's impacts.



capacity is still in the future, so these studies will serve as useful tools to measure the growth of the impacts as both capacity increases and the effects of these increases are seen in the improved economic and social welfare of those living and working in Kabul. Additionally, there are two earlier energy studies conducted in Kabul that can serve as reference points: the 2006 ESMAP-sponsored Kabul Household Energy and Water Survey and the 2005 USAID-sponsored “Census and Survey of the Manufacturing Industry in the Province of Kabul.”<sup>17</sup>

The precise nature of the household survey is still being developed. It will focus on trying to ground truth some of the outcome statistics provided by DABS (e.g., average hours of electricity service) as well as identify the impacts of IRP’s energy interventions on household energy consumption patterns (e.g., sources of fuel and energy). While this survey will be modest in scope, the information it will provide about changing consumption patterns should illuminate how this might yield impacts on things like education and health. IRP will work closely with USAID to develop an appropriate set of indicators.

IRP will also work with USAID to develop indicators for the manufacturer studies. While Kabul’s unique character means that it cannot be considered representative of the other areas where IRP’s interventions will take place, the kinds of impacts (if not the scale) should be similar. Since inadequate energy supply is cited as one of the bottlenecks to economic development in Afghanistan,<sup>18</sup> the results of this survey should also sharply demonstrate the substantive economic impact of IRP’s work.

Finally, as a fourth means to discern the impact of these energy sector projects, IRP will make use of the data sets available from the Asia Foundation’s USAID-sponsored annual social survey, which are disaggregated by province, to see if changes in electricity supply are reflected in people’s perceptions of the current situation. In the 2008 survey, power is listed as the number one development priority nationally. Fifty-three percent say they have no access to electricity and 74 percent identify electricity supply as either quite bad or very bad. Interestingly, this survey also shows that the majority of Afghans also see the government (as opposed to donors) as primarily responsible for power supply, so improvements in this area may help improve the legitimacy of the government. While the survey questions are fairly broad, they should show how the experience of the impacts of these projects develops over time. There has also been some preliminary discussion with the Asia Foundation of possibly adding a few questions to their survey in order to provide a fuller picture.

IRP’s technical assistance to ICE is by its nature difficult to quantify. For this reason, in the semi-annual monitoring reports, IRP will provide narrative accounts of this technical assistance, highlighting its major accomplishments in each period.

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<sup>17</sup> South Asia Regional Initiative for Energy Cooperation and Development (2005). “Census and Survey of the Manufacturing Industry in the Province Of Kabul.” USAID. The data quality of both surveys has been criticized, so this will have to be taken into account when in the IRP analysis stemming from the studies it plans to conduct.

<sup>18</sup> World Bank (2005). “The Investment Climate in Afghanistan: Exploiting Opportunities in an Uncertain Environment.” Washington, DC: World Bank.



### 3.2.2 Data collection

Most data for the indicators selected are readily available from the TO managers, AEIC, and DABS. Information on specific project deliverables will be provided by the appropriate task order managers. AEIC can easily report capacity constructed or rehabilitated (MW), the weighted average cost of electric energy supplied to the grid, and the number of unique visitors to its website. Using the models it has developed, IRP will extrapolate from this the impact of increased capacity on household income (via GDP per capita).

The quality of the data for other indicators will be weak in some cases since DABS maintains the data that will be used to calculate the weighted average cost of generation as well as the data on consumption (e.g., number of people with increased access) and it is not always clear how well they are measuring this. Poor billing and inadequate collection management practices yield poor information on the how the power generated and transmitted gets consumed. Based on experience, IRP may also encounter problems receiving the data it needs in the timeframe it desires.

As mentioned earlier, to ground truth the DABS data and to better understand the impacts of expanded energy capacity, IRP will conduct household and manufacturer energy use surveys. In addition, IRP will conduct key informant interviews and focus group discussions to deepen the understanding of IRP's energy sector project impacts.

## 3.3 Results Framework

The IRP Energy Sector program centers on increasing power generation, expanding the transmission infrastructure, and building institutional capacity. The direct result of the IRP projects will be an increase in the access, availability, and reliability of electric power to the household, industrial, commercial, and agricultural sectors at reasonable prices. Productivity in the commercial and industrial sectors will improve due to fewer disruptions. Increased electricity capacity and reliability will increase demand to be connected to the public grid, thus widening access (though as mentioned earlier distribution itself is not a part of IRP's scope of work). Lower cost electricity from imported sources and hydroelectric power will displace high cost electricity that is currently generated by fossil fuels, thus lowering government expenditures on subsidies. IRP's efforts will improve the quality of life for the Afghan population due to increased accessibility to electric heating, cooking, and lighting. Decreases in the use of biomass fuels for household activities such as cooking and lighting will improve the health of the population and lower the rates of deforestation due in large part to the use of biomass fuels.

Similar to the Transport Sector, performance indicators have been chosen to show how the IRP projects are achieving their stated goals and supporting USAID's 2005-2010 Country Strategy. Figure 2 below shows how the energy sector projects are mapped to USAID's Strategic Objective 1 and the Intermediate Results associated with it.



USAID recognizes that the key to stabilizing the political economy of Afghanistan is to build the foundation for a thriving private sector (SO1). The rehabilitation of the Afghanistan energy sector infrastructure and institutional capacity building projects that will be carried out under IRP will contribute to the same three major immediate results identified as necessary to achieving Strategic Objective 1 as will the IRP transportation projects:

- IR 1.1: Rehabilitate the rural economy
- IR 1.2: Increase incomes through economic growth
- IR 1.3: Expand and improve access to economic infrastructure

The energy sector infrastructure projects are explicitly referenced only in Intermediate Result 1.3, “Expand and improve access to economic infrastructure” in support of Strategic Objective 1. However, improved energy sector infrastructure will promote conditions necessary for future economic growth in both the farm and non-farm sectors and contribute to achieving IRs 1.1 and IR 1.2 as well. As already mentioned, these are a bit more difficult to measure and the security situation in Afghanistan poses special challenges. For this reason, IRP will focus its M&E efforts on 1.3 but will also include a few indicators for 1.2.

Under each of these two IRs, there are several sub-IRs to which the performance indicators can be linked. While some performance indicators could be credibly linked to more than one sub-IR, each indicator has been assigned to only one.

### ***IR 1.2.3 Improve Private Sector Growth***

Sub-Intermediate Result 1.2.3 will be in part supported by the work required to expand the energy infrastructure. This work will require both the direct employment of Afghans by IRP, as well as the participation of local contractors. In addition to providing short-term employment opportunities during the implementation of these projects, local contractor capacity will be strengthened so that contractors will be better positioned to take advantage of future opportunities. The employment generated by these projects will be measured by the following output indicator:

- Full Time Equivalent Afghan jobs created

Without question, one of the great inhibitors to private sector growth in Afghanistan is the absence of a reliable and sufficiently developed energy infrastructure. In fact in one study, 64 percent of survey businesses listed the lack of electricity as either a major or severe obstacle to doing business in Afghanistan. It was listed as the leading infrastructural challenge for businesses. Frequent power interruptions of electricity supplied by various Breshnas and other service providers disrupt industrial production and commercial services activities and retard investment.<sup>19</sup> Due to the deficiencies in the public grid, businesses are forced to resort to the more costly operation and maintenance of on-site generators.

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<sup>19</sup> World Bank (2005). “The Investment Climate in Afghanistan: Exploiting Opportunities in an Uncertain Environment.”



Increased generation capacity as well as a reduction in losses due to the rehabilitation and development of transmission and distribution will enhance the availability and reliability of power, which are essential to private sector growth. Increased reliability will result in fewer disruptions to businesses and decrease the reliance on costly onsite electrical generation. Reduced expenditures on energy purchases will allow for expansions in output and will increase incomes. Although changes in household income can result from a variety of factors including the implementation of other projects (e.g., enterprise development, microfinance, etc.), energy availability is a necessary condition for expanding business activities in most industrial and commercial sectors. Without a functional energy sector, the efficacy of other projects would be diminished. This performance indicator will provide an annual snapshot of IRP's impact in catalyzing private sector growth.

- Household Income

As discussed earlier, this will be given as GDP per capita and will be calculated using a model AEIC has developed based on a correlation found between MWh production and GDP.<sup>20</sup> While not ideal, the difficult research environment makes this approach preferable and will provide a rough picture of the economic impact of increased capacity.

In addition to extrapolating the effect of increased power generation and transmission on GDP, IRP will conduct surveys of Kabul manufacturers in order to identify the more specific effect of these changes on the Kabul manufacturing sector. In identifying the ways in which improved energy access affects industrial energy consumption patterns, this will provide greater clarity as to how USAID's energy investments concretely improve business conditions by providing reliable energy and through lowering energy costs, which together raise Afghanistan's productivity and make it a more attractive investment environment. Strategies such as tax avoidance can hinder quality data collections. For this reason, indicators will be developed at a later stage after some pre-survey research, which will help identify data that can be efficiently and accurately be gathered from manufacturers.

### ***IR 1.3.1 Stabilize, improve access and expand reliable, affordable energy services***

The IRP energy projects directly support the achievement of this Sub-Intermediate Result. An expanded energy infrastructure will allow legalized connections throughout the country to increase, as well as reduce the cost of conducting business, lower the price of electricity to household consumers and hence make power more affordable and accessible. Capacity building projects will also increase the efficiency of public and private utilities and provide the means for better operation and maintenance of the national power grid. The following performance indicators will provide a snapshot of how

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<sup>20</sup> One important qualification is that in some IRP projects that should lead directly to increased production, this is conditioned on other inputs. For example, the completion of the Kabul 100 MW plant will only lead to increased production if the Afghan government provides the necessary fuel for it.



the energy infrastructure projects are increasing accessibility and affordability of electricity:

- Number of people receiving USG-supported training in technical energy fields
- Number of people receiving USG-supported training in management
- Capacity constructed or rehabilitated as a result of USG assistance
- Capacity maintained as a result of USG assistance
- Number of people with increased access to modern energy services as a result of USG assistance
- Average hours of daily electricity service
- Weighted average cost of electric energy supplied to the grid
- Unique visits to AEIC web-site

The first two outputs help measure the degree to which capacity building is taking place. The ultimate success of this energy sector program will depend on there being a well-trained cadre of Afghans who can effectively manage and maintain the new and improved assets that are being developed. Only in this way will the advances achieved in the energy sector and the concomitant positive social and economic impacts be sustainable.

Measures of capacity constructed/rehabilitated and maintained due to IRP will identify how USAID's efforts translate into actual MWs. Since some of the projects (e.g., NEPS) involve multiple donors, USAID's work through IRP can not be singly credited for each MW attributed to it for each project. For this reason, the data given will distinguish between capacity that is a direct result of IRP's work and capacity that is the result of multi-donor efforts but where IRP's contribution was critical to the delivery of MWs.

Increased power supply should facilitate increased access. The next two performance indicators seek to measure to what extent this takes place. The number of people with better access to modern energy service should increase as increased supply makes expanding the customer base possible. As tariff structures are raised to reflect actual costs, an increased utility customer base will make energy supply more sustainable in the long run. This impact is not directly attributable to IRP since addressing distribution falls outside of its scope of work, but the expansion of the power supply through increased generation and transmission makes the expansion of access possible and will stimulate demand for connections. Equally important to the size of the customer base is to understand the reliability of the energy supply. Measuring the average daily hours of service will help demonstrate to what extent the increased power supply leads to stable service.

Measuring the weighted average cost of electric energy supplied to the grid will provide a better understanding of how USAID efforts at increasing the energy supply and diversifying energy sources translate into lower average costs. Lower average costs increase the prospects that user fees can pay for the maintenance of these energy systems, thus making them sustainable in the long term. The reduction in electricity cost and improved reliability will permit households to make greater use of electrical



appliances that will increase their quality of life and allow more time for productive activities including work and education. It will also allow businesses to forego generating their own energy and will allow them to make better grounded investment decisions.

Finally, the indicator measuring unique visits to the AEIC website is intended to show how this information clearinghouse is being used. The number of visits will demonstrate the extent to which the information stored there is being used by stakeholders as they plan projects.

### **3.4 Critical Assumptions**

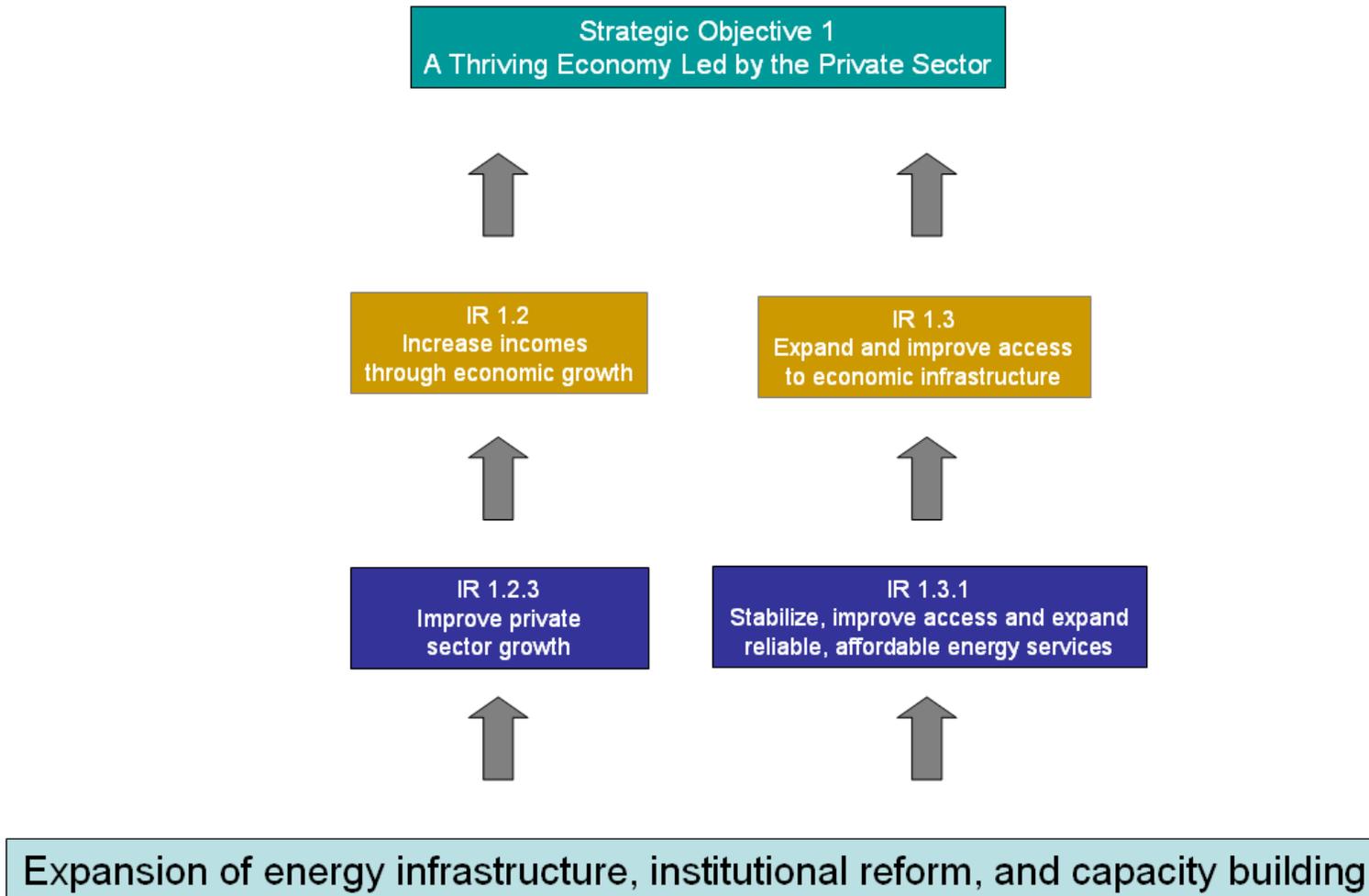
While this PMP is seeking to measure outputs and impacts that are within IRP's manageable interests, they rest on certain critical assumptions.

First, in order for the increased energy supply to be sustainable, the legal and regulatory environment has to be reformed. In particular, a more effective metering system needs to be implemented and energy use tariffs need to over time be raised to cover the cost of generation and transmission. In addition, the human capacity for management and operations in the energy sector need to be significantly strengthened. IRP's efforts need to be supported by similar efforts in the broader donor community. For this training to achieve its maximal impact, there needs to be institutional support within Afghan government agencies for new approaches to be introduced and implemented.

Second, for the increased MWs to be translated into expanded coverage, the electric utility has to have sufficient capacity to respond to the increased demand for connections in an efficient and transparent way. The donor community will also have to help expand the general distribution network so that the number of people benefiting from substantially increased capacity can be maximized.

Finally, for the increased capacity to improve economic output, several other factors are necessary, including a) a hospitable legal and regulatory environment; b) expanded access to credit; c) increased technological capacity to benefit from energy supply; d) political stability. These will provide a more fruitful operational context as well as help create a more attractive investment environment.

**Figure 2: Results Framework for Energy Sector Projects**





### 3.5 Energy Sector Performance Indicator Reference Sheets

This section presents the Performance Indicator References Sheets (PIRSs) that correspond to the indicators described above. They have been prepared at a level of detail such that they will be applicable to all of the IRP energy sector projects that will be evaluated under the IRP PMP. IRP will work with USAID to identify the indicators which should include targets, and they will determine together what these targets should be. As appropriate supplemental research instruments are chosen, the new indicators which will be measured through these will be included in a future revision of the PMP along with a PIRS for each.

**Data Quality Issues:** Securing sound data for the energy sector indicators faces two principal challenges. First, data for several of the selected indicators are drawn from DABM/S, which does not have a proven track record for providing accurate up-to-date data. While IRP is limited in what it can do to counteract this, it will use the two proposed surveys as well as other research mechanisms (e.g., focus groups, key informant interviews) in part to ground truth the data it is using for the other indicators.

The second challenge is the problem of conducting good surveys in the difficult security environment that Afghanistan poses, which limits the kind of monitoring and data verification processes that can be implemented. IRP will select survey teams through a thorough vetting process. It will provide appropriate training to ensure effective and accurate data collection and transcription takes place. Data collection methods will be based on written procedures that are consistently applied for each survey. Sampling techniques will be selected to maximally provide objective data, even with relatively small sample sizes. IRP will also provide supervision during the survey process, incorporating checks in the process that will help ensure accurate data recording and transmission.

All survey data will be assessed by IRP within two months of the survey's completion. Data will be analyzed for any internal or other inconsistencies that suggest flawed data. It will also be compared with data from similar studies to further corroborate its veracity. If significant problems in data for one or more indicators are found, targeted follow-up surveys may be required. The source of the problem will also be assessed. If it was due to inadequate enumerator training or shortcomings in the questionnaire, these will be addressed in future survey cycles.

To ensure consistent, timely, and accurate data, IRP will periodically conduct internal data quality assessments. In addition, it is anticipated that USAID will conduct a data quality assessment at least once during the life of the project.



**PERFORMANCE INDICATOR REFERENCE SHEET**

**Strategic Objective 1:** A Thriving Economy Led by the Private Sector

**Intermediate Result 1.2:** Increase incomes through economic growth

**Performance Indicator:** **Full-Time Equivalent Afghan Jobs Created**

**Is this an Annual Report indicator?** No  Yes , for reporting years 2009, 2010, and 2011.

**DESCRIPTION**

**Precise Definition(s):** The number of Full-Time Equivalent (FTE) Afghan jobs created by the implementation of the project both directly and through sub-contracts. FTE is defined as one person employed for 260 days in a year. IRP will calculate the number of FTE jobs by taking the number of days Afghans are employed by IRP and dividing it by 260. IRP will report the cumulative figure from the inception of the project. It will also report the total number of Afghans that have been employed during the course of the project.

**Unit of Measure:** Number of jobs

**Disaggregated by:** Gender

**Justification & Management Utility:** Unemployment is high in Afghanistan. Infrastructure works provide short-term employment opportunities. In addition to the income this provides participants, it also will expand skill sets for workers that can be applied elsewhere following the project.

**PLAN FOR DATA ACQUISITION BY USAID**

**Data collection method:** TO Managers keep track of the number of jobs created in their projects.

**Data Source:** Project records

**Method of data acquisition by USAID:** Semi-annual monitoring reports

**Frequency and timing of data acquisition by USAID:** Semi-annually (April 15 and Oct. 15)

**Estimated Cost of Data Acquisition:** Minimal

**Individual responsible at USAID:**

**Individual responsible for providing data to USAID:** IRP Energy PMP Manager

**Location of Data Storage:** AEIC

**DATA QUALITY ISSUES**

Data collection is quite straightforward and should not entail any difficulties.

**PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING**

Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of jobs created for each project.

**PERFORMANCE INDICATOR VALUES**

**Notes on Baselines/Targets:** Baselines or target values will not be necessary for this indicator. Rather, actual values will be given for each project.

	TO 2	TO 5 (O&M)	TO 5 (AEIC)	TO 9	TO 11	TO 13	TO 15	TO 17	TO 19
2007									
2008									
2009									
2010									
2011									



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector
<b>Intermediate Result 1.2:</b> Increase incomes through economic growth
<b>Performance Indicator:</b> <b>Household Income (GDP per capita)</b>
<b>Is this an Annual Report indicator?</b> No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.
<b>DESCRIPTION</b>
<b>Precise Definition:</b> The GDP per capita impact of increased energy access
<b>Unit of Measure:</b> Dollars/year
<b>Disaggregated by:</b> MWs “constructed or rehabilitated” and MWs “maintained”
<b>Justification &amp; Management Utility:</b> The increase in power generation and transmission in conjunction with distribution system upgrades will increase accessibility and reliability of electricity to all economic sectors. This will translate into higher household incomes.
<b>PLAN FOR DATA ACQUISITION BY USAID</b>
<b>Data collection method:</b> The data will be derived from calculating the impact of each MWh produced by capacity constructed or maintained through IRP involvement, using the ratio of \$3043 GDP per MWh. This was derived from a cross-country comparison which showed this correlation. The increase in GDP per capita is not envisioned as being instantaneous, but rather as being realized over the course of six years as the impact of increased energy availability gradually works itself out in the economy.
<b>Data Source:</b> AEIC
<b>Method of data acquisition by USAID:</b> Annual Report
<b>Frequency and timing of data acquisition by USAID:</b> Annually
<b>Estimated Cost of Data Acquisition:</b> Minimal
<b>Individual responsible at USAID:</b>
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager
<b>Location of Data Storage:</b> AEIC
<b>DATA QUALITY ISSUES</b>
The household income figure is a very rough estimate of the economic impact of increased MW capacity. It is based on a cross-country study that established the correlation being used. In terms of method, this is problematic since correlation does not equal causation and in the case of the relationship of energy to GDP, the causal relationship is clearly bi-directional. While the literature does affirm the positive impact of increased energy capacity on economic output, the level of impact depends on the local economic context, level of existing energy supply, availability of technology to take advantage of capacity, property rights, etc. Given Afghanistan’s extremely low starting point, it is very likely that the economic impact will be high, so while the GDP per capita figure is only suggestive of the kind of economic impact that capacity augmentation is having, it may even understate the economic impact. Given the difficult research environment, this is a pragmatic way to estimate this impact.
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>
This indicator itself is the result of data analysis in its attempt to measure the economic impact of “increased” and “maintained” MW capacity. The IRP Energy PMP Manager will work with AEIC periodically to ensure that this remains the best possible measure.



**PERFORMANCE INDICATOR VALUES**

**Notes on Baselines/Targets:** Baselines or target values will not be necessary for this indicator.

	Income Effect from "Increased" MW	Income Effect from "Maintained" MW
2007		
2008		
2009		
2010		
2011		



**PERFORMANCE INDICATOR REFERENCE SHEET**

**Strategic Objective 1:** A Thriving Economy Led by the Private Sector

**Intermediate Result 1.3:** Expand and improve access to economic infrastructure

**Performance Indicator:** **Number of People Receiving Training in Technical Energy Fields**

**Is this an Annual Report indicator?** No Yes , for reporting years 2009, 2010, and 2011.

**DESCRIPTION**

**Precise Definition:** The number of people that receive formal or on-the-job training from IRP in technical energy fields. The IRP PMP Manager will develop criteria for TO managers to use in determining what activities constitute training.

**Unit of Measure:** Number of people trained

**Disaggregated by:** Gender

**Justification & Management Utility:** The sustainability of the energy supply expansion depends on a cadre of technically capable Afghans for the effective operation and maintenance of the power grid. While measuring the training falls short of identifying how many technically competent people are actually working in the energy sector, measuring the number of training serves as a good proxy.

**PLAN FOR DATA ACQUISITION BY USAID**

**Data collection method:** Data will be collected from TO managers

**Data Source:** Project records

**Method of data acquisition by USAID:** Semi-annual monitoring reports

**Frequency and timing of data acquisition by USAID:** Semi-annually (April 15 and Oct. 15)

**Estimated Cost of Data Acquisition:** Minimal (data routinely collected)

**Individual responsible at USAID:**

**Individual responsible for providing data to USAID:** IRP Energy PMP Manager

**Location of Data Storage:** AEIC

**DATA QUALITY ISSUES**

Data collection is quite straightforward and should not entail any difficulties.

**PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING**

Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of people trained under each task order.

**PERFORMANCE INDICATOR VALUES**

**Notes on Baselines/Targets:** The baseline value for each TO is zero.

	TO 2	TO 5 (O&M)	TO 5 (AEIC)	TO 9	TO 11	TO 13	TO 15	TO 17	TO 19
2007									
2008									
2009									
2010									
2011									



PERFORMANCE INDICATOR REFERENCE SHEET									
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector									
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure									
<b>Performance Indicator:</b> <b>Number of People Receiving Training in Management</b>									
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.									
DESCRIPTION									
<b>Precise Definition:</b> The number of people that receive formal and informal training from IRP in management. The IRP PMP Manager will develop criteria for TO managers to use in determining what activities constitute training.									
<b>Unit of Measure:</b> Number of people trained									
<b>Disaggregated by:</b> Gender									
<b>Justification &amp; Management Utility:</b> The sustainability of the energy supply expansion and the potential for future expansion depend on a cadre of technically capable Afghans for the energy sector's effective management. While measuring the number of people falls short of identifying how many effective managers are actually working in the energy sector, this indicator is a good and cost-effective proxy.									
PLAN FOR DATA ACQUISITION BY USAID									
<b>Data collection method:</b> Data will be collected from TO managers									
<b>Data Source:</b> Project records									
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports									
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)									
<b>Estimated Cost of Data Acquisition:</b> Minimal (data routinely collected)									
<b>Individual responsible at USAID:</b>									
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager									
<b>Location of Data Storage:</b> AEIC									
DATA QUALITY ISSUES									
Data collection is quite straightforward and should not entail any difficulties.									
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING									
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID on a semi-annual basis the number of people trained under each task order.									
PERFORMANCE INDICATOR VALUES									
<b>Notes on Baselines/Targets:</b> The baseline value for each TO is zero.									
	TO 2	TO 5 (O&M)	TO 5 (AEIC)	TO 9	TO 11	TO 13	TO 15	TO 17	TO 19
2007									
2008									
2009									
2010									
2011									



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure			
<b>Performance Indicator:</b> <b>Capacity Constructed or Rehabilitated (MW)</b>			
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> <input type="checkbox"/> , for reporting years 2009, 2010, and 2011.			
DESCRIPTION			
<b>Precise Definition:</b> The increase in megawatt capacity which results from construction or rehabilitation due to IRP inputs.			
<b>Unit of Measure:</b> MWs			
<b>Disaggregated by:</b> MWs constructed or rehabilitated a) as a direct result of IRP's work or b) in a multi-donor setting where IRP's contribution was critical to the delivery of the MWs that resulted from the project.			
<b>Justification &amp; Management Utility:</b> IRP's work is almost entirely focused on raising the level of power supply either directly (e.g., Kajakai Dam rehabilitation) or indirectly (e.g., TA to ICE). Numerous studies show a correlation between energy supply and economic growth with several demonstrating a strong causal link, thus in addition to measuring the project's output, it is also an indirect measure of impact.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> AEIC will track the progress of IRP projects and their developing impact on available MWs of power.			
<b>Data Source:</b> AEIC			
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports			
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)			
<b>Estimated Cost of Data Acquisition:</b> Minimal (data already collected)			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager			
<b>Location of Data Storage:</b> AEIC			
DATA QUALITY ISSUES			
Data collection is quite straightforward and should not entail any difficulties.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Since this is an output indicator, no significant data analysis is planned. IRP will report the values to USAID on a semi-annual basis.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Since this is a measure of energy capacity increased due to IRP, the baseline value is zero.			
Year	Target	Actual	Notes
2007			
2008			
2009			
2010			
2011			



**PERFORMANCE INDICATOR REFERENCE SHEET**

**Strategic Objective 1:** A Thriving Economy Led by the Private Sector

**Intermediate Result 1.3:** Expand and improve access to economic infrastructure

**Performance Indicator:** **Capacity Maintained as a Result of USG Assistance (MW)**

**Is this an Annual Report indicator?** No Yes , for reporting years 2009, 2010, and 2011.

**DESCRIPTION**

**Precise Definition:** The amount of megawatt capacity which is maintained as a direct result of IRP's work. (This is distinguished from IRP's work in construction and rehabilitation, which is measured by another indicator. In many cases, after construction IRP will be responsible for the O&M for a period of time, in which case these power stations will then begin to be measured under this indicator.)

**Unit of Measure:** MWs

**Disaggregated by:** NA

**Justification & Management Utility:** IRP does a significant amount of O&M work for power generating stations. This metric will provide a concrete way to measure this output. Numerous studies show a correlation between energy supply and economic growth with several demonstrating a strong causal link, thus in addition to measuring the project's output, it is also an indirect measure of impact.

**PLAN FOR DATA ACQUISITION BY USAID**

**Data collection method:** AEIC will track the number of MWs maintained due to IRP's involvement.

**Data Source:** AEIC

**Method of data acquisition by USAID:** Semi-annual monitoring reports

**Frequency and timing of data acquisition by USAID:** Semi-annually (April 15 and Oct. 15)

**Estimated Cost of Data Acquisition:** Minimal (data already collected)

**Individual responsible at USAID:**

**Individual responsible for providing data to USAID:** IRP Energy PMP Manager

**Location of Data Storage:** AEIC

**DATA QUALITY ISSUES**

Data collection is quite straightforward and should not entail any difficulties.

**PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING**

Since this is an output indicator, no significant data analysis is planned. IRP will report the values to USAID on a semi-annual basis.

**PERFORMANCE INDICATOR VALUES**

**Notes on Baselines/Targets:** Since this indicator measures the energy capacity maintained due to IRP, the baseline is zero.

Year	Target	Actual	Notes
2007			
2008			
2009			
2010			
2011			



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>	
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector	
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure	
<b>Performance Indicator:</b> <b>Number of People with Increased Access to Modern Energy Services</b>	
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.	
<b>DESCRIPTION</b>	
<b>Precise Definition:</b> The number of people who due to IRP's work in the energy sector receive increased access to energy services.	
<b>Unit of Measure:</b> Number of people	
<b>Disaggregated by:</b> Location	
<b>Justification &amp; Management Utility:</b> The purpose of increasing the power supply ultimately is so that Afghans will enjoy the benefits of increased access to energy services. This indicator identifies how increases in available MWs translate into increased consumer access.	
<b>PLAN FOR DATA ACQUISITION BY USAID</b>	
<b>Data collection method:</b> Data on increased access will be obtained through AEIC and DABS.	
<b>Data Source:</b> DABS records	
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports	
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)	
<b>Estimated Cost of Data Acquisition:</b> Minimal	
<b>Individual responsible at USAID:</b>	
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager	
<b>Location of Data Storage:</b> AEIC	
<b>DATA QUALITY ISSUES</b>	
See discussion section 3.5 above.	
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>	
Since this is an output indicator, no significant data analysis is planned. IRP will report to USAID in its semi-annual monitoring reports the number of people benefitting from the IRP energy infrastructure projects. The SO team will determine when it will conduct data reviews. The household energy surveys will help to ground truth the data that DABS provides.	
<b>PERFORMANCE INDICATOR VALUES</b>	
<b>Notes on Baselines/Targets:</b> The baseline is zero. Given DABS data limitations and that distribution is not a part of the IRP project, targets will not be set for this indicator.	
<b>2007</b>	
<b>2008</b>	
<b>2009</b>	
<b>2010</b>	
<b>2011</b>	



<b>PERFORMANCE INDICATOR REFERENCE SHEET</b>	
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector	
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure	
<b>Performance Indicator:</b> <b>Average Hours of Electricity Service</b>	
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.	
<b>DESCRIPTION</b>	
<b>Precise Definition:</b> Average hours per day receiving power from the public grid.	
<b>Unit of Measure:</b> Hours/day	
<b>Disaggregated by:</b> By sector (household and commercial)	
<b>Justification &amp; Management Utility:</b> Hours of service is a direct indicator of how the IRP is stabilizing and improving access to energy services. Since IRP is not working on distribution lines, increased power supply will primarily be experienced through more reliable energy access. This is important for both households as they seek to organize their lives and maximize the benefits of energy access as well as to businesses, which in the absence of stable energy from the public grid have to invest in private generation capacity.	
<b>PLAN FOR DATA ACQUISITION BY USAID</b>	
<b>Data collection method:</b> Household and manufacturer surveys	
<b>Data Source:</b> Raw data collected by the Survey Teams	
<b>Method of data acquisition by USAID:</b> Survey analysis report	
<b>Frequency and timing of data acquisition by USAID:</b> Post-project	
<b>Estimated Cost of Data Acquisition:</b> High (drawn from surveys)	
<b>Individual responsible at USAID:</b>	
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager	
<b>Location of Data Storage:</b> AEIC	
<b>DATA QUALITY ISSUES</b>	
See discussion in 3.5 above.	
<b>PLAN FOR DATA ANALYSIS, REVIEW, &amp; REPORTING</b>	
IRP will collect and analyze this data to see how increased capacity translates into more reliable service. The findings will be presented in tables and a narrative in the semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.	
<b>PERFORMANCE INDICATOR VALUES</b>	
<b>Notes on Baselines/Targets:</b>	
<b>2007</b>	
<b>2008</b>	
<b>2009</b>	
<b>2010</b>	
<b>2011</b>	



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure			
<b>Performance Indicator:</b> <b>Weighted Average Cost of Generation</b>			
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> , for reporting years 2009, 2010, and 2011.			
DESCRIPTION			
<b>Precise Definition:</b> The cost of generation for each energy source will be averaged, weighting each constituent part according to the proportion of energy it supplies to the public grid			
<b>Unit of Measure:</b> Dollars			
<b>Disaggregated by:</b> NA			
<b>Justification &amp; Management Utility:</b> Both through economies of scale and diversifying sources for power generation (e.g., hydropower from Kajakai and through transmission lines from CARs), the average cost of generation should go down, resulting in a cheaper power supply for Afghanistan. This will reduce government expenditures on subsidies for energy.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Data on increased generation costs will be obtained through AEIC and DABS.			
<b>Data Source:</b> DABS records			
<b>Method of data acquisition by USAID:</b> Semi-annual monitoring reports			
<b>Frequency and timing of data acquisition by USAID:</b> Semi-annually (April 15 and Oct. 15)			
<b>Estimated Cost of Data Acquisition:</b> Minimal			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager			
<b>Location of Data Storage:</b> AEIC			
DATA QUALITY ISSUES			
See discussion in 3.5 above.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
IRP will collect and analyze this data to see how increased and diversified capacity translates into the average cost of generation. The findings will be presented in tables and a narrative in the semi-annual monitoring reports. The SO team will determine when it will conduct data reviews.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baselines will be the pre-project weighted average cost of generation, starting 12 months prior to IRP's initial impact on capacity.			
Year	Target	Actual	Notes
2007			
2008			
2009			
2010			
2011			



PERFORMANCE INDICATOR REFERENCE SHEET			
<b>Strategic Objective 1:</b> A Thriving Economy Led by the Private Sector			
<b>Intermediate Result 1.3:</b> Expand and improve access to economic infrastructure			
<b>Performance Indicator:</b> Unique Visits to AEIC Website			
Is this an Annual Report indicator? No Yes <input checked="" type="checkbox"/> __, for reporting years 2009, 2010, and 2011.			
DESCRIPTION			
<b>Precise Definition:</b> The number of unique visits that the AEIC website receives			
<b>Unit of Measure:</b> Unique website visits			
<b>Disaggregated by:</b> Unique visits and unique people			
<b>Justification &amp; Management Utility:</b> The AEIC website is an important clearinghouse for energy sector information that will help the Afghan government, donors, and citizens to keep informed about the state of the energy sector and plans for the future, thus facilitating increased coordination and more effective planning. Monitoring the number of unique hits to the AEIC website will provide some indication as to the usefulness of such an information center.			
PLAN FOR DATA ACQUISITION BY USAID			
<b>Data collection method:</b> Hits will be measured by software on the website server.			
<b>Data Source:</b> AEIC			
<b>Method of data acquisition by USAID:</b> Monthly reports and Annual Report			
<b>Frequency and timing of data acquisition by USAID:</b> Monthly			
<b>Estimated Cost of Data Acquisition:</b> Minimal			
<b>Individual responsible at USAID:</b>			
<b>Individual responsible for providing data to USAID:</b> IRP Energy PMP Manager			
<b>Location of Data Storage:</b> AEIC			
DATA QUALITY ISSUES			
Data collection is quite straightforward and should not entail any difficulties.			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
In addition, to reporting the values in the monthly and semi-annual reports, the data will be periodically analyzed by IRP to identify trends. It will be reviewed, compiled, and presented in tables and narratives in the semi-annual report.			
PERFORMANCE INDICATOR VALUES			
<b>Notes on Baselines/Targets:</b> Baseline data will be the number of unique visits during the first year of the AEIC website.			
Year	Target	Actual	Notes
2007			
2008			
2009			
2010			
2011			

## Annex: Performance Indicators – Task Order Matrices

### Transport Sector Performance Indicators Matrix

Indicator	TO 4: Keshim--Faizabad Road	TO7: Ghazni--Gardez Road	TO 8: Gardez--Khost Road	TO 14: Roads O&M/Capacity Building	TO 18: Southern Strategy Road
Cost of food staples					
Markets where goods sold					
FTE Afghan jobs created					
Number of businesses					
Shopkeeper monthly sales					
Household income					
Equivalent kms of transport infrastructure constructed/rehabilitated					
Kms of transportation infrastructure maintained					
Number of people trained in transportation technical fields					
Number of people trained in management					
Travel times					
Vehicle operator costs					
Annual average daily traffic count					
Passenger fare costs					
Cost of freight transport					
Volume of freight					
Cost of informal payments for road use					
Number of security incidents					
Staff capability with technical equipment					
Staff capability in report writing					
Kms of effectively maintained roads					
Roughness of road					
Travel time to health clinics					
Frequency of visits to health clinics					
Rates of school attendance					



### Energy Sector Performance Indicators Matrix

Indicator	TO 2: Kajakai Dam	TO 5: O&M	TO 5: AEIC	TO 9: 100 MW Plant	TO 11: Imported Power	TO 13: ICE	TO 15: Sheberghan	TO 17: Reactive Power	TO 19: Load Control Center
FTE Afghan jobs created									
Household income									
Number of people trained in technical energy fields									
Number of people trained in management									
Capacity constructed or rehabilitated (MW)									
Capacity maintained (MW)									
Number of people with increased access to modern energy services									
Average hours of daily electricity service									
Weighted average cost of electric energy supplied to the grid									
Unique visits to AEIC website									



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