

## PPIAF Assistance in Mongolia

Mongolia has recently been experiencing economic growth and is working towards a more stable, market-oriented economy. Geography, however, is a challenge—the country is the 19<sup>th</sup> largest in terms of area and, with a population of 2.75 million, the most sparsely populated country in the world. It is also the second-largest landlocked country (after Kazakhstan), with very little arable land, and much of its area is covered by steppes, with mountains to the north and west and the Gobi Desert to the south. Furthermore, approximately 30% of the population is nomadic or semi-nomadic.

With the recent discovery of substantial mineral reserves in the South Gobi region—such as copper and gold in Oyu Tolgoi, and coal in Tavan Tolgoi, Nariin Sukhait, and elsewhere—Mongolia's economy is increasingly dependent on its mining industry. The government is working towards developing a competitive and stable regime for the mining sector. Attracting first-class global investors to develop key mineral reserves while ensuring Mongolia obtains a fair share of mining revenues is expected to contribute to improving Mongolia's overall economic development.

### Technical Assistance to Develop Mongolia's Overall Enabling Environment

In 2006 PPIAF provided funding for a comprehensive infrastructure strategy, which presented Mongolian policy makers with a pragmatic public policy framework to guide future infrastructure development. The report was co-funded by the World Bank and presented in Ulaanbaatar, Mongolia on May 12–17, 2007. It was subsequently translated and published in Mongolian for wider dissemination, and continues to contribute to the policy dialogue with the government on infrastructure-related reforms. The strategy laid out three key elements for improved infrastructure development: 1) pricing that meets the costs of service provision with targeted subsidies to help the poor; 2) enterprise and regulatory reforms to improve performance incentives and encourage competition; and 3) a system of prioritization for infrastructure projects to ensure a sustainable level of public investment targeted where it is needed the most. A consultation workshop was undertaken in June 2006, and a dissemination workshop was held in January 2007.

Some aspects of the infrastructure strategy focused on the broad issues in urban, mining, and grid infrastructure—highlighting critical issues that were taken up in detail by a follow-up PPIAF-funded study in 2008. The Southern Mongolia Infrastructure Strategy helped the government of Mongolia identify infrastructure development options including the financial, environmental, and social implications of the development of mines in the South Gobi region and the towns likely to be affected by these mines. A series of workshops in May, September, and October of 2008, and a final workshop in April 2009, were undertaken to build consensus around the recommendations and findings. The strategy indicated that the cost to build the required transport, power, water, and township infrastructure in Southern Mongolia would be substantial: by 2015, at least \$5 billion in basic infrastructure would be required to support mining activities in this region.

To undertake these investments, the government decided to seek private sector involvement through public-private partnerships (PPPs) whenever possible. At the request of the government, PPIAF approved another grant in 2010 to help develop a strategy to prioritize and sequence the most critical PPP projects and prepare conceptual frameworks to guide pilot PPP transactions. The government of Mongolia welcomed the report, which helped it understand a process for identifying and prioritizing the numerous PPPs that are proposed throughout the country. The PPIAF-funded work also directly supported the memorandum of understanding that the International Finance Corporation (IFC) signed with Mongolia's State Property Committee in Ulaanbaatar. The State Property Committee (SPC) is responsible for preparing PPP transactions, and—based on the outcome of the PPIAF-funded strategy—the IFC and the SPC were able to agree on a project—a school lunch program PPP—for which the IFC will develop a transaction framework. The strategy also helped identify one of the two specific projects (a greenfield 300 MW power plant) for Temasek Foundation funding. The Temasek Foundation will develop transaction frameworks similar to what IFC is currently undertaking, but for different projects.

## Results of PPIAF's Activities to Support Mongolia's Overall Enabling Environment

Category	Outputs
<b>Enabling environment reform</b>	
<i>Plans/strategies prepared</i>	<ul style="list-style-type: none"> <li>• <a href="#">Mongolia Infrastructure Strategy</a>, June 2007</li> <li>• <a href="#">Southern Mongolia Infrastructure Strategy</a>, July 2009</li> <li>• <a href="#">Mongolia Strategy for Public-Private Partnerships</a>, May 2011</li> </ul>
<b>Capacity and awareness building</b>	
<i>Workshops/seminars</i>	<ul style="list-style-type: none"> <li>• Workshops to build consensus and disseminate the reports undertaken to help Mongolia identify its infrastructure needs and map-out its priorities:               <ul style="list-style-type: none"> <li>○ Mongolia Infrastructure Strategy workshops in Ulaanbaatar, June 2006 and January 2007</li> <li>○ Southern Mongolia workshops in Ulaanbaatar, May, September, and October 2008 and April 2009</li> </ul> </li> </ul>
<i>Knowledge products disseminated</i>	<ul style="list-style-type: none"> <li>• Mongolia Infrastructure Strategy translated in Mongolian to further disseminate findings and recommendations, June 2007</li> </ul>

Category	Outcomes
<b>Enabling environment reform</b>	
<i>Plans/strategies adopted</i>	<ul style="list-style-type: none"> <li>• Identification of critical infrastructure issues in the Mongolia Infrastructure Strategy in 2007 by the government, leading to the development of an infrastructure strategy for South Gobi, 2008</li> <li>• Given the huge amount of infrastructure investment required for South Gobi, the government of Mongolia decided to seek private sector involvement, 2009</li> <li>• The government of Mongolia and development partners such as the IFC and Temasek Foundation were able to agree on which projects to support based on a pipeline of PPP projects identified under a PPIAF activity, 2011</li> </ul>
<b>Capacity and awareness building</b>	
<i>Consensus achieved</i>	<ul style="list-style-type: none"> <li>• Consensus built around the infrastructure and PPP strategy for Mongolia and the Southern Mongolia mines, 2007 and 2009</li> </ul>

### **Technical Assistance for Mongolia's Telecommunications Sector**

In 1998 Mongolia adopted a long-term telecommunication network development program including developing guidelines for fair competition, privatization, and promotion of foreign and private sector investment in the telecommunications sector. At the request of the government, PPIAF provided assistance to Mongolia's Communications Regulatory Commission in 2001 to develop a regulatory framework to promote competition in the sector and attract private investment to expand the provision of telecommunications services. The activity identified key areas of improvement in the regulatory regime (particularly the interconnection aspects) that were not addressed in Mongolia's Telecommunications Law. This helped strengthen the environment for PPPs in the telecom sector, which made it possible for the government to continue to implement reforms. The activity also supported a hands-on training workshop on tariff modeling for officials of the Communications Regulatory Commission in May 2002. This enhanced the technical capacity of the Communications Regulatory Commission in developing its own pricing model.

Services in the majority of Mongolia’s rural areas, however, continued to be inadequate and unreliable. In 2004 the government of Mongolia requested a second PPIAF grant to support a program to improve telecom access to rural areas. The PPIAF-funded work involved the development of a framework for universal access, specifically the set up a universal access fund (funded from 2% levy on operators’ taxable income) and the design of two pilot projects. A field study was also undertaken to determine the usage, demand, and affordability of public telephony among herders. The study showed high demand and willingness to pay for telecom services among herders, as they have to travel to the next *soum* (district) center just to take make a call. It also investigated Internet demand and readiness among rural schools as well as options for public access, revealing that there is a keen interest among schools for Internet access and a certain level of readiness through trained teachers and personal computer ownership.

A World Bank-led activity later tapped a \$259,400 Global Program for Output-Based Aid grant to implement the subsidy framework developed under the PPIAF activity before operators started to contribute to the universal access fund. The two pilots that were developed under the PPIAF activity—a herder network (national) and wireless-based telephony and Internet service (in Tariat *soum*)—were competitively tendered and awarded in 2006 based on technical and operating capacity and lowest subsidy requirement. This resulted in an increase in telecom access to 22,315 people in remote rural areas. The private sector invested around \$143,000 to implement these pilots.<sup>1</sup>

The experience of the pilots also illustrated the savings that the government could realize by encouraging private sector participation and undertaking a transparent, competitive tendering process. Winning bidders were able to bid well below the allowed maximum subsidy. The resulting savings were reallocated to an additional transaction for similar services in Chuluut *soum*, in the same province as Tariat’s.

The universal service obligation fund was subsequently established in August 2006 under the Communications Regulatory Commission, and private operators were required to contribute to the fund. As of 2008, the fund had collected and spent \$3.1 million to undertake a number of projects under its program on mobile phone access in rural *soum* centers.

### **Results of PPIAF’s Activities in Mongolia’s Telecommunications Sector**

Category	Outputs
<b>Enabling environment reform</b>	
<i>Analyses/assessments prepared</i>	<ul style="list-style-type: none"> <li>• Reports detailing review of the interconnection, licensing, and tariff regime, 2002</li> <li>• Field study to determine usage, demand, and affordability of public telephony among herders and Internet access and demand in rural areas, October 2004</li> </ul>
<i>Plans/strategies prepared</i>	<ul style="list-style-type: none"> <li>• Framework for universal access, June 2004</li> <li>• Universal Service Obligation Fund Manual of Operating Procedures, December 2004</li> </ul>
<b>Project cycle-related assistance</b>	
<i>Transaction support</i>	<ul style="list-style-type: none"> <li>• Design of two pilot projects—a herder network and a wireless-based telephony and Internet service, October 2004</li> </ul>

<sup>1</sup> The estimated total capital expenditure to implement the pilots was well above \$400,000. The actual cost is not known as the private sector was not required to report their actual expenditures. The subsidy awarded to the private sector telecom providers covered \$257,335 of the capital expenditure amount and the rest was invested by private sector telecom providers.

<b>Capacity and awareness building</b>	
<i>Workshops/seminars</i>	<ul style="list-style-type: none"> <li>• Workshop on tariff modeling for officials of the Communications Regulatory Commission, May 2002</li> <li>• Workshop to raise awareness on best practices in addressing universal access issues held in Ulaanbaatar, March 2004</li> </ul>

<b>Category</b>	<b>Outcomes</b>
<b>Enabling environment reform</b>	
<i>Plans/strategies adopted</i>	<ul style="list-style-type: none"> <li>• Telecommunication universal access strategy adopted including the establishment of the Universal Service Obligation Fund, 2006</li> </ul>
<b>Project cycle-related assistance</b>	
<i>Transactions facilitated</i>	<ul style="list-style-type: none"> <li>• Two pilot telecom services provision with elements of output-based aid were competitively tendered and awarded based on technical and operating capacity and lowest subsidy requirement, September-November 2006</li> </ul>
<b>Capacity and awareness building</b>	
<i>Technical capacity enhanced</i>	<ul style="list-style-type: none"> <li>• Communications Regulatory Commission's technical capacity in tariff modeling enhanced, May 2002</li> <li>• Government's understanding on addressing universal access issues enhanced, March 2004</li> </ul>

<b>Category</b>	<b>Impacts</b>
<i>Additional private investment in the sector</i>	<ul style="list-style-type: none"> <li>• The private sector invested around \$143,000 to implement the pilot projects, 2006</li> </ul>
<i>Increased number of people with infrastructure services</i>	<ul style="list-style-type: none"> <li>• Output-based aid pilots provided access to modern ICT services to over 22,315 people in remote rural areas, 2007</li> </ul>
<i>Improved level of services</i>	<ul style="list-style-type: none"> <li>• The pilots reduced the communication costs and strengthened family ties of beneficiaries. They also helped improving security and coordination associated with migration and response to harsh weather, 2007</li> </ul>
<i>Fiscal impact on government</i>	<ul style="list-style-type: none"> <li>• The Universal Service Obligation Fund has collected and spent \$3.1 million to undertake a number of projects under its program on mobile phone access in rural <i>soum</i> centers, 2008</li> </ul>

### **Technical Assistance for Mongolia's Water Sector**

Around 50% of the population of Ulaanbaatar, the capital of Mongolia, lives in peri-urban Ger areas—informal settlements with little services or access—and faces long periods of bitter winter conditions. Rapid urbanization has seen these areas expanding rapidly in recent times, placing further strain on already stretched services. Housing is fast becoming a serious development challenge, and water supply is important for sustaining broad-based growth.

In 2007 PPIAF provided support to the Ulaanbaatar Water and Sewerage Company (USUG) to study various options for improving access to water and sanitation services in Ger areas and improving the

efficiency and effectiveness of water kiosk, water tanker, and bathhouse operations. The work looked at options for using performance-based subsidy approaches to increase access to services for the peri-urban poor, explored options for mobilizing the private sector for the construction and operation of communal water services in the peri-urban areas, and proposed a regulatory framework to govern these services. The study provided recommendations on performance-based subsidies (output-based aid approach) and private sector participation as a way to improve kiosk, tanker, and bathhouse services in Ger areas, and presented the scope for a Global Partnership on Output-Based Aid pilot project for affordable water services in Ger areas based on the recommendations. The report specifically recommended: 1) connecting existing tanker served kiosks to piped system; 2) increased outsourcing of kiosk operation which, based on the positive experience from USUGs own pilot, would lead to significant operational savings, increased customer responsiveness, and employment creation through synergies with other services; and 3) creating an independent regulatory authority for the water sector and an improved contractual framework.

A workshop to consult on the preliminary findings and recommendations was undertaken with key stakeholders in May 2008. A consensus building workshop on the findings and recommendations was conducted in March 2009.

The USUG, however, has yet to implement the recommendations of the PPIAF-funded support such as scaling up contractual arrangements, utilizing the output-based aid approach, and creating an independent regulatory authority. The majority of water kiosks are still under USUG's operation. The PPIAF-funded report has been shared with the Asian Development Bank, which is currently preparing a project that will potentially explore the possibility of PPPs in the water sector.

### **Results of PPIAF's Activities in Mongolia's Water Sector**

Category	Outputs
<b>Enabling environment reform</b>	
<i>Analyses/assessments prepared</i>	<ul style="list-style-type: none"> <li>• <a href="#">Report on exploring options for management contracting-out of water supply and sanitation services for Ger areas in Ulaanbaatar</a>, March 2009</li> </ul>
<b>Capacity and awareness building</b>	
<i>Workshops/seminars</i>	<ul style="list-style-type: none"> <li>• Consensus building workshops on the findings and recommendations of the report, May 2008 and March 2009</li> </ul>
Category	Outcomes
<b>Capacity and awareness building</b>	
<i>Consensus achieved</i>	<ul style="list-style-type: none"> <li>• Consensus achieved around the potential role of the private sector in improving water and sanitation services, March 2009</li> </ul>

### **Technical Assistance for Mongolia's Energy Sector**

Mongolia faces a challenge in the energy sector as mining activities and increasing urbanization drive a growing demand for electricity and heat. Given the investment needs in the energy sector, any future capacity will likely have to be developed in partnership with private investors. To attract the private sector, key reforms are needed such as 1) stabilizing the finances of Mongolia's main energy utilities, particularly the electricity distribution market in Ulaanbaatar; 2) gradually reforming the district heating sector; 3) putting in place a more stable, transparent, and predictable operating power exchange as well as tariff systems that would give right market signals to private operators; and 4) setting up a sustainable framework for the provision of electricity in the Aimag (provincial) centers, including a tariff regime relevant to the socio-economic situation in these provinces.

Upon the request of the government, PPIAF provided assistance in 2004 to develop: 1) a white paper summarizing the developments in the energy sector since the approval of the Energy Law in 2001, the issues raised during last three years, and proposals for needed adjustments; 2) a report on energy pricing; and 3) an assessment of different options and financial restructuring schemes to settle Mongolian energy utilities' intercompany arrears within a time-bound action plan.

The study identified a market structure for the power sector of Mongolia and a simple but efficient pricing system that would link generation, transmission, distribution, and supply activities between the utilities and end-users. The PPIAF-funded study also recommended a decentralized and competitive market structure designed on the basis of several generating companies operating under bilateral supply contracts with distributors and large end-users. The activity provided direct support to the government's efforts to create new incentives for private sector participation in the energy sector while taking account of the impact on low-income and vulnerable groups.

A workshop was undertaken in November 2004 in Ulaanbaatar to build consensus around the outputs, and a meeting with high-level officials from Mongolia took place in March 2005 in Washington, DC to determine the progress of the reforms.

The government adopted the plan in 2005 and is in the process of cleaning up the financial intercompany arrears. This PPIAF activity, along with initiatives by a number of donors who are supporting the sector such as the United States Agency for International Development and European Bank for Reconstruction and Development, have helped the government in slowly setting up a realistic tariff regime.

#### **Results of PPIAF's Activities in Mongolia's Energy Sector**

Category	Outputs
<b>Enabling environment reform</b>	
<i>Analyses/assessments prepared</i>	<ul style="list-style-type: none"> <li>• <a href="#">White paper on power market structure, basic rules, and pricing system</a>, December 2004</li> <li>• Design of electricity prices for generation, transmission, and distribution for Mongolia, December 2004</li> </ul>
<i>Plans/strategies prepared</i>	<ul style="list-style-type: none"> <li>• Action plan on financial restructuring of Mongolian energy utilities' intercompany arrears, January 2005</li> </ul>
<b>Capacity and awareness building</b>	
<i>Workshops/seminars</i>	<ul style="list-style-type: none"> <li>• Workshops to disseminate findings of the study, receive feedback, and build consensus around the proposed structure of the power sector, November 2004</li> <li>• Meeting with high-level officials on the progress of the reforms, March 2005</li> </ul>

Category	Outcomes
<b>Enabling environment reform</b>	
<i>Plans/strategies adopted</i>	<ul style="list-style-type: none"> <li>• Government adopted the plan in cleaning up financial intercompany arrears, 2005</li> </ul>
<i>Institutions created or strengthened</i>	<ul style="list-style-type: none"> <li>• Government in the process of slowly setting up a realistic tariff regime, 2005</li> </ul>

Capacity and awareness building	
<i>Consensus achieved</i>	<ul style="list-style-type: none"> <li>• Consensus achieved among government stakeholders on the need for tariff adjustments and improvement of financial standing of its energy utilities, 2004 and 2005</li> </ul>

### Looking Ahead: PPIAF Support to Mongolia

With a fast growing mining industry and huge demand for minerals—specifically from neighboring China—Mongolia’s economy is envisaged to grow faster than any other in the next decade or so. Its deserts are still vastly unexplored, and it has the potential to yield minerals such as copper, coal, gold, silver, uranium, molybdenum and others, in abundance. These prospects are already changing the country’s landscape. Its capital city, Ulaanbaatar, is booming mostly due to an influx of investors and mining workers (both local and foreign). With freezing temperatures (the average is -10 to -30 centigrade), providing heat and the accompanying pollution (Ulaanbaatar burns coal) will be major concerns. In terms of building and sustaining large mines in the middle of the desert, logistical support—roads, water, and electricity—continues to be a challenge. PPIAF support can help Mongolia implement key recommendations from the various studies to ensure that the proper enabling environment for infrastructure PPPs are in place not only to support the mining sector but also the development and sustainability of surrounding communities.