



## PPIAF Supports Affordable Telecommunications Access in Bhutan

PPIAF's support to the Royal Government of Bhutan led to improved capacity within the state telecommunications regulator, Bhutan InfoComm and Media Authority (BICMA), on various policy and regulatory issues, reduced rates for lease line tariffs and international connectivity, and increased mobile penetration to about 70% of the population.

These developments have far-reaching economic and social impacts for Bhutan. Improved telecommunications access will reduce the cost of doing business in Bhutan, result in more affordable telecommunications access across an expanded geographical area, and increase the use of information and communications technology in the country.

Bhutan is a relatively small market with a population of approximately 700,000 and a difficult geographical terrain that makes the deployment of low cost networks challenging. Given the size of its telecommunications market, it was unlikely that additional entry of new operators in the short term would strengthen sector performance. Thus improving the regulatory environment and updating the business model were necessary to make reliable and affordable backbone infrastructure available for increased broadband connectivity and value added services.

### PPIAF SUPPORT

In 2007 the Public-Private Infrastructure Advisory Facility (PPIAF) provided a \$70,000 grant to the Ministry of Information and Communications to assess policy, regulatory, and business options aimed at improving the performance of the telecommunications sector in Bhutan through the provision of backbone infrastructure, broadband, and value-added services. This 2007 grant built upon an earlier PPIAF activity in 2001, which assisted Bhutan's government with the review of the policy, institutional, and regulatory framework in the telecommunications sector. The 2001 activity resulted in the issuance of licenses for private internet service providers in 2002, a new private telecommunications operator in 2006 (through an auction), and the provision of mobile telecommunications services by Bhutan Telecom. Subsequently teledensity increased to 22.8% in 2007 from 2.5% in 2001.

PPIAF support was focused on:

- Analyzing the policy, regulatory, and institutional framework and the performance of operators in the sector in terms of infrastructure rollout, services, and competitive pricing
- Developing options for the cost-effective provision of broadband and value-added telecommunication services in Bhutan, particularly those involving private sector participation
- Recommending a short- and medium-term roadmap for improving backbone infrastructure, broadband, and value-added services
- Advising on the conclusion of agreements with international long-distance service providers in neighboring countries such as India

## OUTCOMES

PPIAF's work led to the issuance of a tariff order for domestic and international bandwidth by BICMA in June 2009. In addition, the PPIAF work facilitated the negotiation of affordable rates for international connectivity with international long distance operators by the Ministry of Information and Communications and BICMA. This increased the number of competing operators from one to three. In addition, due to a reduction in bandwidth price, there was also a reduction in the broadband tariff.

## DONOR COORDINATION

To ensure coordination with other actors in Bhutan's telecommunications sector, PPIAF consulted with the Asian Development Bank, which was already involved in establishing telecenters in rural areas of the country, and with the World Bank, which was preparing an investment project in the sector.

## IMPACTS

The introduction of competition, by increasing the number of operators, resulted in competitive rates for international connectivity with international long distance operators. The lease line tariff was reduced by 30-40%, and mobile coverage was expanded to about 70% of the population—490,000 people. These developments helped generate positive economic and social impacts for Bhutan by making telecommunications access more affordable and extending it across an expanded geographical area. This has allowed an increase in the use of information and communications technology in the country and resulted in reduced costs of doing business.

Since 1999 PPIAF, a multidonor technical assistance facility, has helped developing countries use public-private partnerships to improve their infrastructure. A key focus has been upstream technical assistance to support the development of an enabling environment for such partnerships.

This series highlights how PPIAF's support has made an impact on the ground.



### RELATED PPIAF ACTIVITIES IN BHUTAN

- 2001: Strengthening of Policy, Regulatory, and Institutional Environment to Promote Private Investment in Telecommunications Sector, **\$293,000**
- 2007: Policy and Regulatory Framework for Telecommunications Backbone Infrastructure Development, **\$70,000**

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