



# Build on Broadband: A Winning Formula for the Millennium Development Goals



## ITU Side Event at the Fourth UN Conference on the Least Developed Countries

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### *Deploying broadband for sustainable development* *Key discussion points*

I am here to share with this August gathering the story of the humble efforts made by the Royal Government of Bhutan (RGoB) in developing the broadband infrastructure for the country.

Bhutan is a small landlocked country in the Himalayas with a size of about 37,000 sq. km and a population of about 600,000 people. The harsh and difficult mountainous terrain meant that different parts of the country remained isolated from each other, which are borne out by the fact that a small country of this size has four main languages and more than 19 dialects. The terrain together with the scattered population, have been major challenges to the country's development.

Broadband is therefore being seized as an answer to surmount these age-old challenges to connect our people, and also as an integral strategy to achieve Gross National Happiness (GNH), the development goal of Bhutan. Equitable and sustainable socio-economic development, which is one of the main pillars of GNH, and MDGs are pursued within this overall development goal.

National broadband master plan project is being implemented in the current Five Year Plan, which is the 10th. The project is string Fiber Optic Cables to all 20 Dzongkhags or Districts and 205 gewogs or sub districts, the smallest administrative units in the country. Even as we speak, fibers have reached 15 of the 20 Districts and survey works for stringing fibers in the sub-districts has commenced. All the districts will be connected by July of this year and the sub-districts by end of 2012. Currently, the country is served by a mix of fiber and radio connections for core and 3G, ADSL and leased line, for last mile.

The fibers are strung on the high voltage transmission towers and distribution networks of Bhutan Power Corporation, the sole government owned Electricity Company in the country.

The RGoB is financing the whole project, and accorded the same recognition as that of any basic service such as transport and water. Since broadband sits at the head of a long value chain, which is now a prerequisite for realizing the other benefits, it is even more critical than these basic services. The RGoB hopes to create a level playing field for better competition and lower the cost of connectivity.

When completed dark fibers will be leased to operators. The government will try to recoup of the cost of operation and maintenance from the lease of fibers. The RGoB has assured the replacement of fibers at the end of the economic life and there will be no rate of return on investment taken from the fibers. The RGoB will take the returns in terms of the benefits accrued to the country from the sector itself and other sectors which will have benefitted from it.

### **Challenges**

- Small population
- Economy of scale not possible
- Small market, less players ... limited competition
- Therefore expensive to take connectivity
- Dispersed population
- Very expensive to take connectivity
- USF required and being used
- Lack of Capacity