

ITU - GSR 2011 DISCUSSION PAPER:

SETTING NATIONAL BROADBAND POLICIES, STRATEGIES AND PLANS

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Mini-Case Studies

The reference materials used to prepare this chapter are complemented by a number of mini-Case Studies dealing with Fiji, Papua New Guinea, Argentina, Brazil, and Hong Kong China. Each of these Case Studies is fascinating in its own right. The experiences of these countries with broadband implementation and regulation offers valuable insight into the task of broadband rollout and should be of interest to many other countries in similar circumstances.

2.5.4 Case Study 4: Brazil – *The stirrings of a giant*

Brazil is the largest country in South America, both by geographical area and by its population of over 190 million. The country has extensive natural resources, and the Brazilian economy is the world's eighth largest. The implementation of a broadband plan thus has major significance in global terms.

Broadband is at the core of service and network convergence, and Brazil sees competition as a main driver to increase broadband service offerings over a wider area and population. Competition will allow reduced prices and increased quality of service for the majority of the country and other actions are seen to be needed to make sure that the whole population has access to these services.

Industry has been increasing in Brazil in response to market growth and increased competition. The latest radiofrequency auctions have required significant investment from operators, and this is reflected in the industry's development as well. Optical network infrastructure has been one of the most significant areas of growth. As a government-owned incumbent, Telebrás is being revitalized by an injection of funding to effectively create an additional player in the wholesale market. Consequently, an increase in the industry's growth is expected for the next couple of years. The new responsibilities of Telebrás are dealt with in a separate section below.

Policy and government intervention assist the evolution of broadband. Government supports the implementation of the National Broadband Plan by setting out the goals and responsibilities for actions to be taken. Pursuant to Telebrás' responsibility under the Plan, the government is currently financing the implementation of the network. Regulatory actions are undertaken by Anatel, as explained in a section below.

2.5.4.1 Establishment of a National Broadband Plan

In May 2010, the President issued a Decree establishing the National Broadband Plan.ⁱ The Plan has the objective of fostering and disseminating the use and provision of information and communication technology goods and services in order to:

- enhance access to broadband Internet connection services;
- speed social and economic development;
- promote digital inclusion;
- reduce social and regional inequalities;
- promote the generation of jobs and income;
- expand Electronic Government services and facilitate the use of State services by citizens;
- promote capacity building for the population on the use of information technologies; and
- expand Brazilian technological autonomy and competitiveness.

The Plan is being implemented, managed and monitored through a Digital Inclusion Program Steering Committee that has the following tasks:

- define the actions, goals and priorities of the Plan;
- promote and foster partnerships between public and private entities in order to reach the objectives of the Plan;
- establish the technical definition for broadband access for the Plan;
- monitor and evaluate the actions for the implementation of the Plan; and
- publish annual reports on the actions, goals and results of the PNBL.

The Steering Committee has the following Thematic Groups (and others may be created):

- Telecommunication Infrastructure and Services, coordinated by the Communications Ministry;
- Applications, coordinated by the Planning, Budgeting and Management Ministry; and
- Content, coordinated jointly by the Culture and Education Ministries.

Consultation about the broadband plan has been widespread and has taken place through forums open to the public and meetings of the Steering Committee. Consultation focuses on building a general consensus about the country's broadband needs and the appropriate specific targets and goals.

In terms of a cost-benefit analysis of broadband implementation, there has been an analysis to evaluate the sustainability of specific broadband offers in the country (coverage versus retail price, etc.). One of the major objectives of the Plan is to promote competition in the wholesale market in order to reduce prices for end users as a result of economic market forces.

In setting tangible targets for the program, an Action Plan has specific goals. Some are in an initial formulation phase, others are in a discussion phase and others are already under implementation. All these actions are listed on the Plan's website.ⁱⁱ In general, infrastructure and service regulation, financial and taxation incentives, national production policies, content and applications are the main areas for the actions.

2.5.4.2 Responsibilities of Telebrás

To achieve the objectives of the Decree, it is Telebrás' responsibilities to:

- (a) implement the private communication network of the federal public administration;

- (b) provide aid and support to implementing public policies on Internet broadband connections to universities, research centres, schools, hospitals, service stations, community telecentres and other locations of public interest;
- (c) provide supporting network infrastructure to telecommunication services provided by private companies, States, Federal District, Municipalities and nonprofit entities; and
- (d) provide broadband Internet connection services to end users, only on those localities that do not have adequate service offering.

Telebrás will fulfill its activities according to current legislation and regulation, subject to applicable obligations, duties and conditions.

The information and communication technology systems provided in items (a) and (b) above are considered strategic for the purposes of hiring of goods and services related to implementation, maintenance and improvement.

The implementation of the private communication network of the federal public administration provided in (a) above consists of the provision of services, infrastructure and communication supporting networks and data transmission.

The Steering Committee will define the localities that do not have adequate broadband Internet connection service offering as provided in item (d) above.

In the fulfillment of the objectives of the Plan, Telebrás is authorized to use, operate and maintain the infrastructure and telecommunication services supporting networks under the ownership of the federal public administration.

When dealing with indirect federal public administration entities, including public companies or mixed economy societies, the use of the infrastructure provided above depends on a leasing contract between Telebrás and the providing entity.

2.5.4.3 Responsibilities of ANATEL

The national telecommunication regulatory agency, ANATEL, is responsible for organizing all telecommunication services in Brazil, as well as regulating technical aspects of networks and spectrum usage.

Anatel is to implement and execute the regulation of telecommunication services and network infrastructure for supporting broadband Internet connection, guided by the following directives:

- foster competition and free initiative;
- stimulate innovative business models that advance in the use of convergent services;
- adopt fast procedures for conflict resolution;
- impose obligations for the sharing of infrastructure;
- ensure management of public goods and infrastructure, including radiofrequencies, in order to reduce the costs for the broadband Internet connection service; and
- increase broadband Internet connection service offering in the installation of telecommunications\ infrastructure.

Anatel must observe the policies established by the Communications Ministry.

Anatel has no influence on the choice of technology to implement broadband. In Brazil, regulation is neutral with respect to the technology to be employed in any network. In the context of the National Broadband Plan, where Telebrás has a significant role to play, it is up to that company to decide the technology to be implemented for its own network.

Telebrás is in the process of contracting with vendors and suppliers to build its network. Its timeline is to initiate service in 2011. It is understood that the first stages consist of a hybrid optical network with microwave links to provide wholesale backhaul and backbone. As at mid-2011, this is still a work-in-progress.

There are various regulatory obligations and incentives related to broadband rollout. Examples include: obligations tied to spectrum licences to offer services in a wider range of municipalities; a proposed regulation to promote competition in several relevant markets (where broadband is considered as wholesale), taking into account Significant Market Power; and other proposed regulations to reshape network termination rates and to address service provision and. These latter proposed regulations may contain incentives.

Summary

In summary, Brazil has a well-developed Plan and implementation framework. A key element is the government-owned incumbent, Telebrás, and its revitalization through an injection of funding to effectively create an additional player in the wholesale market. The role of the regulator ANATEL is also well specified.

To download whole *Discussion Paper: Setting national broadband policies, strategies and plans* please visit:

<http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR11/documents/03-Broadband%20Policies-E.pdf>

ⁱ Decree No 7.175, 12 May 2010. Presidencia da Republica, Casa Civil – Establishing the National Broadband Plan.

ⁱⁱ www4.planalto.gov.br/brasilconectado/pnbl/acoes