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INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION DEVELOPMENT BUREAU

GLOBAL SYMPOSIUM FOR REGULATORS

Geneva, Switzerland, 3-5 December 2001
Salle B, ITU Tower

CHAIRPERSON'S REPORT

Executive Summary

At the invitation of the ITU Development Bureau (BDT) Director, Hamadoun I. Touré, the second annual Global Symposium for Regulators (GSR) was held in Geneva from 3-5 December 2001 to foster a global dialogue among national communications regulators. Mr. Anthony S.K. Wong, Director-General of Telecommunications and the Telecommunications Authority of Hong Kong, China (OFTA), chaired the meeting. Pierre Gagné, Chief BDT Policies, Strategies and Financing Department, served as the Executive Secretary of the GSR. The GSR was organized by the BDT Sector Reform Unit (SRU) within the scope of the Valletta Action Plan programme on Reform, Regulation and Legislation.

Three hundred and sixty-nine delegates from 102 ITU Member States, including representatives from 72 regulatory authorities, five communications ministers, a host of policy makers, 21 sector member companies and participants from regional regulatory organizations, academic institutions and international organizations participated actively in the meeting. The first day of the meeting was open to regulators, policy makers and ITU-D sector members. The remaining two days of the Symposium were open to regulators, policy makers and selected experts in order to facilitate a fair and frank global exchange among the participants.

The GSR fills a need that had gone unmet for years. Many participants congratulated BDT for providing the only global venue designed to foster a dialogue among regulators. In a testament to the importance regulators placed on the meeting, some 55 heads of regulatory authorities devoted time from their busy schedules to attend the meeting.

The GSR was held during a time of growing challenges for the telecommunication sector, generated by the current market downturn. Participants recognized that effective regulation would be linked to country's efforts to attract future investment.

As Mr. Touré noted in his opening address, the telecommunication sector is evolving into a broader information and communication technology (ICT) sector that includes elements of telecommunication, broadcasting and computing. The ICT sector is seen not only as an economic engine, but also an enabler of social, educational and medical progress. The importance of access to ICT systems has grown accordingly. It is for this reason that national and international policy makers are harnessing their energy to transform the digital divide into a digital opportunity. Of course, the ITU has a long-term commitment to improving universal service to telecommunications services. Initiatives aimed at providing universal service and bridging the digital divide form the

core of the BDT mandate. The majority of ITU Member States now recognize that sector reform is the bedrock on which digital divide initiatives rests. Perhaps the most fundamental task of ICT sector reform is to establish an effective and transparent regulatory authority.

Indeed, 112 ITU Member States have now created a national communications regulatory body, up from a mere 13 in 1990. ITU expects this number to jump to 140 by 2005. “Regulators are enablers and facilitators”, Mr. Wong noted during the GSR. “It is not enough merely to create a regulatory body; they must be given the tools needed to develop as effective regulators,” the GSR Chairman added.

The Symposium developed a four-point action plan for BDT to assist regulators in developing the tools they need for effective regulation:

1. Focus on Skills Training;
2. Develop Benchmarks and Models;
3. Bolster Regional and Sub-regional initiatives; and
4. Broaden input beyond the community of regulators.

Under the Action Plan, BDT was requested to focus on skill-building for regulators, not only providing training, but collecting information on other training programmes and training centers. BDT was further requested to conduct studies to identify best practices and models on pressing issues such as universal service, licensing and interconnection. BDT was also requested to bolster regional and sub-regional regulatory services including fostering the development of regional associations for regulators and providing training and promoting information sharing on a regional basis. Finally, BDT was requested to solicit input from a broader array of market players while maintaining a forum for the free and frank exchange among regulators. This would include conducting case studies to solicit feedback to regulators from operators/suppliers, the investment community and users associations. Further details regarding the GSR Action Plan are provided below.

The GSR brought together regulators from all five regions of the world. It included participation from industrialized countries and developing countries, big and small countries, countries with more than a billion inhabitants and sparsely populated, small island nations. It included participation from Michael Powell, Chairman of the United States Federal Communications Commission (FCC), one of the world’s oldest independent regulatory agencies, and Mohamed Jamil Mulla, Governor, Saudi Communications Commission, one of the world’s newest regulatory bodies. Phillip Aeava, Director General of the Papua New Guinea Telecommunications Authority, a small Pacific Island nation that has established a regulatory body, and Maya Shanker Verma, Chairman of the Telecommunications Regulatory Authority of India (TRAI), one of the world’s most densely populated countries, both participated actively in the event. The youngest regulatory authority in attendance was Latvia whose law was just passed on 1 December. Countries preparing to establish regulatory bodies, such as Samoa, also attended the meeting.

The heads of the five regulatory authorities studied as part of a series of ITU case studies on the theme of effective regulation also participated in the GSR. They included Renato Navarro Guerreiro, President, Agência Nacional de Telecomunicações (ANATEL), Brazil; Jorge Kunigami, President, Organismo Supervisor de Inversión Privada en Telecomunicaciones (OSIPTel), Peru; Keng Thai Leong, Director General (Telecom) Info-Communications Development Authority (IDA), Singapore; Mostafa Terrab, Director General, Agence Nationale de Réglementation des Télécommunications (ANRT), Morocco and Cuthbert Lekaukau, Executive Chairman, Botswana Telecommunications Authority (BTA), Botswana. Other participants included Jean-Michel Hubert, President, Autorité de Régulation des Télécommunications (ART), France; Jorgen Abild Andersen,

Director General, National Telecom Agency (NTA), Denmark; Marc Furrer, Director, Office Fédéral de la Communication (OFCOM), Switzerland; Patrick Masambu, Executive Director, Uganda Communications Commission (UCC), Uganda; Mamoun Balqar, Director General, Telecommunications Regulatory Commission (TRC), Jordan; and Willy Jensen, Director General, Norwegian Posts and Telecommunication Authority, Norway.

MONDAY 3 DECEMBER 2001

Opening Ceremony

ITU Secretary-General Yoshio Utsumi and BDT Director Hamadoun I. Touré made welcoming addresses. Mohamed Jamil Mulla, Governor, Saudi Communications Commission and Basile Gnon, Director General, Agence des Télécommunications de Côte d'Ivoire, delivered keynote addresses. Mr. Wong also delivered an address upon the acceptance of his nomination as chairperson of the Symposium. Each of their presentations is available on the TREG website: <http://www.itu.int/ITU-D/treg/>.

- Mr. Utsumi remarked that ITU can play an important role in helping to strengthen regulators through four main vehicles: providing a forum for regulators to discuss the most current issues, providing a knowledge center or repository of global expertise, providing a forum where a specific policy and regulatory matter can be discussed in order to solve problems of a global and cross-sectoral nature and by serving as a conduit for the transfer of regulatory expertise between ITU Member States.
- Mr. Touré stressed that regulation is a development issue. Eighty percent of the world's 112 regulators are from developing or least developed countries. The majority of ITU Member States recognize that sector reform is the bedrock on which digital divide initiatives rest. While the majority of ITU Member States have opened at least one ICT service to competition as part of their universal service plans, competition is just one important element of a nation's comprehensive strategy for economic and social development. Effective regulation is key to ensuring competition and universal service goals are achieved. It is for this reason that BDT selected "effective regulation" as the theme of this year's Global Symposium for Regulators. Effective regulation is also the theme for the series of five BDT regulatory case studies this year. It has also been identified as the theme of the annual report *Trends in Telecommunication Reform 2002* which will be released upon the occasion of the World Telecommunication Development Conference next March. BDT's interest in helping to strengthen regulators forms an integral part of its efforts to bridge the digital divide.
- Mr. Mulla shared the experiences of Saudi Arabia, noting that his nation had decided that an orderly evolution of competition is necessary to meet the challenges to survive and prosper in the information revolution that is sweeping the world. Saudi Arabia, he explained, created the Saudi Communications Commission in June 2001 to implement the objective of the government to create a favorable environment for the provision of advanced, adequate, reliable and affordable telecommunication services throughout the Kingdom by promoting and encouraging fair competition. Mr. Mulla noted that he appreciated the opportunity to attend the GSR and benefit from the experiences and practices of other telecommunication regulatory authorities.
- Mr. Gnon said that regulation is a matter of importance for all countries and continents, but its importance is heightened even further in developing countries. The function of regulatory bodies, Mr. Gnon said, include fostering investment in the telecommunication sector, encouraging the rapid modernization of networks and services, job creation, making telecommunications more accessible both through increased service availability and cost reduction, and boosting sector development. He proposed a variety of initiatives for BDT including providing training for legal specialists and economic experts working in regulatory bodies to inform them about technology and industry issues. He called for

regional regulatory meetings and structures to assist regulatory bodies, using regional expertise and hiring expert consultants.

- Mr. Wong said that regulators face many challenges. They have to look at issues like the economic, technical and accounting aspects of interconnection. They also have to work out rules of fair competition and ensure that limited resources such as radio spectrum and numbering plans are allocated in the most efficient manner among many operators. The work of regulators had not been made any easier by the ups and downs in the economic climate, Mr. Wong added. The GSR, however, is helping to build a meaningful bridge among the world's regulators to help tackle the growing regulatory challenges. The exchange provided in the Symposium is of benefit both to newly created regulatory agencies, which can learn from others' earlier mistakes and successes, and for all regulators to examine issues of common concern and identify common solutions.

Major Regulatory Challenges Session

This session was dedicated to the identification of major regulatory challenges by regulators, policy makers and the private sector. Mr. Verma of TRAI made a keynote presentation. Three other national regulators, Mr. Mulla, Mr. Hubert and Mr. Gnon; two Ministers, Clement Stambuli, Minister, Ministry of Information, Malawi, and Dan Nica, Minister, Ministry of Communications and Information Technology, Romania; and Walda Roseman, CEO, CompassRose International, Inc. participated as panelists to identify the major regulatory challenges they face. Minister Stambuli and Mr. Hubert also provided the Symposium with written contributions. These contributions, along with Mr. Verma's keynote presentation are available on the TREG website: <http://www.itu.int/ITU-D/treg/>.

- Mr. Verma identified growing challenges for regulators since the 2000 Development Symposium for Regulators. New regulatory bodies have to contend with complex situations and simultaneously deal with "legacy" in their effort to change the policy environment. They must develop institutions and methodologies in the absence of which even routine and simple regulatory functions turn into big challenges. Regulators are required to take crucial policy initiatives with inadequate information and deal with several emerging policy concerns and uncertainties in the environment as technology and services converge. There are two aspects of independence: potential and effective. Potential independence is defined by the legal basis of independence, and defines the "possibility frontier" which provides the regulator its mandate and allows it to staff and fund the organization. Regulators can transcend the possibility frontier and earn even greater independence if they function effectively. Regulators can demonstrate independence by due process: instituting open consultation, web discussion and open-houses prior to taking decisions and publicize their opinions. Mr. Verma called for ITU/BDT to provide more tools to regulators. The scope of the ITU Global Regulators' Exchange (G-REX) should be enhanced. (A full evaluation of G-REX is discussed in more detail below.) ITU/BDT should also conduct long-term and short-term studies. Focusing on a short-term study/studies to be completed before the next GSR, he called for six-month studies on specific topics identified by regulators as key areas in which most of them need assistance and which constrain operational flexibility or increase uncertainty or complexity in their decision-making. The studies should focus on practical approaches or benchmarks by which anticipated regulatory problems can be tackled based on how similar problems have been tackled in the past.

- The issues could be:
 - Migrating tariff regimes (especially in the climate of convergence);
 - Transitioning access charge regimes;
 - Managing the dominance of the incumbent; and
 - Prioritizing and sequencing regulatory mechanisms such as tariffs, interconnection charges and universal service obligations for overall consistency and efficiency.
- The solutions could range from:
 - Simplifying the contents of the license;
 - A model interconnect agreement;
 - Self-regulation by the operators in the early stages of market development; and
 - Special mechanisms for bearing the cost of technology upgrades so that customers do not have a major burden in the short term.

Mr. Verma also noted that as convergence closes in, it would be a step forward if we seek approaches that a) would be relevant for all countries, irrespective of the extent of development of their telecom sector and b) are linked to certain developments in the telecom sector. In addition, there is a need to look for mechanisms to increase complementarities between the regulator and various stakeholders such as the government, service providers (in particular the incumbent) end users and the media. Finally, relevant information on regulatory practices and benchmarks may be collected for identified regions under the aegis of ITU/BDT and discussions and interactions organized at that level.

- Minister Stambuli said that regulators are often ill equipped to face the challenges required by their mandate because of a lack of human resources, especially the lack of expertise in legal and technical issues. ITU needs to do more to promote capacity building for newly created regulatory bodies. Personnel that have been hired from operators must often change their perspective. Regulators struggle with financing issues. Incumbents who previously enjoyed regulatory functions balk at the notion of paying licensing fees to regulators. High license fees are passed on to the public whom the regulator is supposed to protect. There are also key interconnection issues to be decided and regulators are called upon to forecast public demands for e-readiness. Regulators need institutions to equip people with a combination of different disciplines. Malawi is the first member of the Southern Africa Development Community (SADC) to authorize very small aperture terminals (VSATs) as an international gateway. Minister Stambuli also noted that equipment vendors often sell at better prices in western markets than in Africa. It was unfair to cite Africa as a high-risk market when equipment pricing by vendors is not balanced. He indicated that Africa offers one of the best investment opportunities because it offers huge, untapped markets.
- Mr. Hubert identified entering the Information Society as one of the major challenges facing regulators, noting that the Internet fosters an open and competitive economy to promote growth and innovation around the world. The focus of development initiatives should be on promoting digital development, rather than the digital divide, identifying initiatives including universal service programs, providing Internet access in schools and promoting broad deployment of equipment and networks. While the regulator's role is to promote competition, their focus should remain on consumers' needs. Regulators require a solid legal basis to implement their mandate; they should be independent of any government arm that holds ownership rights in the incumbent operator and should be free of political interference. He promoted an asymmetric regulatory framework that places more stringent

demands on the incumbent operator, as well as one that is technologically neutral. He promoted a continual dialogue between regulators and the private sector, noting that regulators suffer asymmetric access to information. Sharing information through public consultation and ongoing cooperation fosters shared positions. ITU provides an ideal intergovernmental framework for developed and developing countries to work together. ART has many bilateral arrangements with developing countries. For example, it recently signed a cooperation agreement with ANRT in Morocco. ART is working to promote a group of regulators from Francophone countries and hosted a working group of francophone countries during the GSR.

- Ms. Roseman said the major regulatory challenges from the private sector perspective are the lack of technical information and future direction. Regulators need to take a non-discriminatory approach to attract investment. The private sector may be the regulator's biggest ally in establishing an independent regulator. The private sector should not be regarded as a monolithic entity. It includes incumbents (who may be unwilling to provide regulators with information), competitive new market entrants (that may be incumbents in their home markets) and small and medium enterprises such as those that bubble up as Internet Service Providers (ISPs). The latter require nurturing and frequently do not have access to regulators. All members of the private sector share the common goal of a climate that will enable them to succeed. Now that investment euphoria has dissipated, potential investors are using a higher standard for determining the markets in which they will invest. The private sector makes a calculated determination as to whether the market will sustain their business. Private investors rate regulatory risk as the highest risk. Regulators must ask themselves whether they have created an investment climate that fosters earning, profits and new commercial opportunities. The key questions for regulators are: Do they provide an investment climate that fosters earnings, profits or new commercial opportunities and are investors given incentives? Regulatory clarity and transparency and the ability to consult are the greatest protection regulators can institute to protect against undue political control. In addition to truthful exchanges between regulators and the private sectors, Ms. Roseman called for establishing a working trust between regulators and the private sector. Regulators must be aware that new market entrants may be hesitant to share too much information with the regulator if they fear the regulator provides a direct pipeline of information to the incumbent.
- Mr. Mulla said that capacity building is the immediate challenge facing new regulators. Nascent organizations require expertise and procedural rules so they can begin functioning properly. Independence is defined by distance from the government, but also distance from service providers and manufacturers. Lobbying mechanisms make it difficult for regulators to operate independently. Each country has different circumstances that will determine the degree of market liberalization.
- Mr. Gnon noted that the basic problem of the regulatory agency in Côte d'Ivoire, created in 1995, is its structure and legal nature. In Africa, truly independent regulators that set about implementing their mandate often find that governments take their jobs from them following a change in the status-quo.
- Minister Nica identified universal service and the digital divide as the biggest issues for Romania. Eighty percent of the population has no telecommunications service. Romania plans to create a universal service fund with the goal of reaching penetration rates equal to Western European levels. Romania is also introducing computer labs in each public school, first in high schools, then in primary schools. 500,000 personal computers will be

connected to the Internet, and educational software and training will enable 5,000,000 children to engage in e-learning.

Case Studies on Effective Regulation (Session 1 - Brazil, Peru, Singapore)

The afternoon of the first day of the Symposium was dedicated to the presentation of the five BDT case studies on regulatory effectiveness and independence conducted in Brazil, Botswana, Morocco, Peru and Singapore. These case studies show how the selected country established the regulatory body, and evaluate their overall effectiveness by examining organizational structure, financing, functions, powers and level of transparency. Mindel De La Torre, President, Telecommunications Management Group, Inc., moderated the first session. Mr. Guerreiro presented the ITU Effective Regulation Case Study: Brazil 2001. Mr. Jorge Kunigami, presented the ITU Effective Regulation Case Study: Peru 2001, and Mr. Leong presented the ITU Effective Regulation Case Study: Singapore 2001. The BDT Effective Regulation case studies are available to be downloaded free of charge on the TREG website: <http://www.itu.int/ITU-D/treg/>. Each of the case study presentations is also available on TREG.

Brazil's Sector Reform Experience

Mr. Guerreiro spoke on the Privilege and Responsibility of being an example. "To see and feel the National Telecommunications Agency, Brazilian Anatel, nominated as a regulating agency example because of its seriousness, efficacy, coverage and due to the transparency of its work, is a feeling that touches and elevates the healthy nationalism that resides within each of us." Mr. Guerreiro summarized the reform process starting with the passage of the Constitutional Amendment of 1995 which ended the state monopoly; the 1996 Minimum Law which opened up mobile, satellite and value added services; and the 1997 General Telecommunication Law which created Anatel. The Agency is not subordinated to political powers. It is autonomous both administratively and financially. Only the judiciary has the power to alter Anatel's decisions. Anatel participated actively in establishing the framework for the privatization process. He explained that the Brazilian telecommunications model is based on the principles of universalization, quality, and competition in order to fully attend, in the telecommunications field, to the needs and rights of the Brazilian citizen of all social strata. Since privatization in July 1998 installed fixed access has grown from 20.2 million to 45.7 million. He described Anatel's efforts to reach out to society through channels such as 24-hour call centers and citizen rooms.

From January 2002, the market will be completely deregulated. "The freedom, without technical or geographical borders, that the companies will conquer, next year, to perform in the area of their competitors in rendering diverse services will certainly shake the sector up once again. New and wide-ranging benefits will result from this shake-up, and they will strengthen both the economic democracy and the society as a whole."

Peru's Sector Reform Experience

Mr. Kunigami spoke of the situation in Peru prior to the creation of OSIPTEL. In 1993, for example, teledensity was 2.7 per 100 inhabitants and tariffs did not reflect costs. Now, eight years later, in a competitive market, indicators have vastly improved. Teledensity has risen to 6.6.

Unlike most of its neighbors in the region, Peru established its regulator OSIPTEL prior to the privatization of its incumbent operators. OSIPTEL was created in 1993, and privatization ensued in 1994. One of OSIPTEL's main mandates when it was created was to guarantee the quality and efficiency of the service offered to users and to regulate the tariffs of public telecommunication services. Full competition began in 1998, when the exclusivity period of the incumbent operator ended. With that, OSIPTEL's mandate began to change to that of a supervisor of the development of the services market and of the behaviour of companies, while still guaranteeing the quality and efficiency of the services offered to users.

He described the main features of OSIPTEL as transparency, independence, impartiality, suitable regulatory framework, and skilled human resources working in the regulator, and the challenges of maintaining these features. He explained the use of public processes to implement, for example, a new tariff regime. Inputs were generated through the website, newspapers, meetings with operators, consumers, and academics. He emphasized that OSIPTEL's most important investment is in its staff and their continued training. He described an annual course that is offered for University students with the objective of attracting young professional to work in the regulatory domain.

Singapore's Sector Reform Experience

Mr. Keng Thai Leong presented the case of Singapore. IDA was established in 1999 by merging the Telecommunication Authority of Singapore (TAS) with the National Computer Board (NCB). This was a result of Singapore's recognition of the convergence of telecommunications and information technologies, and the need for an integrated perspective to developing, promoting, and regulating the sector. He characterized the relationship between the Ministry and IDA as "symbiotic". The Ministry provides overall guidance and determines policy. The services markets was liberalized in April 2000 by removing all direct and indirect foreign ownership restrictions, and by lifting limits on the number of players, except where there are physical constraints (e.g., land, spectrum). Fixed line penetration is nearly 50 percent, while mobile penetration is over 75 percent.

The challenge for IDA has been to establish a regulatory framework that: allows market forces to prevail; fosters timely, effective, and sustainable competition; and introduces a clear, coherent, and robust competition framework for a multi-player environment. He emphasized that the degree of regulation depends on whether the operator is facilities-based or services-based, and that the aim is network diversity and spurring competition to thereby enhance customer choice.

He described the 2000 Telecommunication Competition Code and how it was used to make the transition into full competition. The regulatory principles of the code are: reliance on voluntary industry negotiations and market forces where competition exists; clear and effective regulation where full competition does not yet exist; "light touch" regulation that is not more burdensome than necessary; proportionate (asymmetric) regulation; open decision-making; and technological neutrality. Looking ahead, he spoke of managing a multi-operator converged market and the capabilities required to do that.

Discussion

The questions and answer period focused on broadband services and the role of regulators in broadcasting. In Singapore, telephony and cable operators are providing broadband. Brazil is looking at convergence projects under the Universal Service Fund, and in Peru the Ministry will soon license local multipoint distribution service (LMDS). In Singapore, the broadcasting function is under the Ministry, as it is in Brazil and Peru. Both Brazil and Peru are studying the impacts of convergence on their regulatory regimes.

Case Studies on Effective Regulation (Session 2 – Morocco and Botswana)

John Alden, Vice President, Freedom Technologies, Inc., moderated the second case study session. Mr. Terrab presented the ITU Effective Regulation Case Study: Morocco 2001 and discussed the creation of the African Telecommunication Regulators' Network (ATRN). Mr. Tsietsi Motsoela, Managing Director, Infotech Consultants (PTY) Limited, Consultants, presented the ITU Effective Regulation Case Study: Botswana 2001. Mr. Lekaukau presented the Telecommunication Regulators' Association of Southern Africa (TRASA). Michel Huet, International Director of External Relations, France Telecom; David Hartshorn, Secretary General, Global VSAT Forum; and Bob Rowe, Former President the National Association of Regulatory Utility Commissioners (NARUC) and current Montana Public Service Commissioner, participated as panelists. Messrs. Hartshorn and Rowe provided information documents that are published on the TREG website: <http://www.itu.int/ITU-D/treg/>.

Morocco's Sector Reform Experience

Sector reform was initiated in Morocco with the adoption of the 1997 Telecommunication Act, which provides for:

- The corporatization of the incumbent Maroc Télécom;
- The separation of policy making and regulatory functions establishing an independent regulatory body, the National Telecommunication Regulatory Agency (ANRT);
- The introduction of competition and establishment of a licensing regime for new operators;
- The obligation for the operator with significant market power to publish a reference interconnection offer; and
- The regulation of universal service tariffs.

ANRT was created as a public entity with financial autonomy under direct supervision of the Prime Minister. It is responsible not only for controlling licensees, managing frequency spectrum and numbering, and arbitrating interconnection disputes, but also for proposing new legislation and decrees through the Prime Minister's Office. ANRT is financed by frequency fees. A percentage of the proceeds from license fees and operators' contributions are dedicated to research, training and normalization.

The regulator's first task was to introduce competition in mobile services. The awarding of the second GSM license represented a huge success. The license was granted for 1 billion USD. Mr. Terrab attributed this success to the clear and transparent licensing procedures established by ANRT. Its credibility was reinforced because it publicized the criteria that bidders were required to meet and the commitments the future licensee would have to fulfill. Licensing a second GSM operator had a positive impact on consumers. Even before competition began, the incumbent extended coverage of its mobile services and reduced its tariffs. Since licensing a second GSM operator, ANRT licensed VSAT, GMPCS and other value-added operators. ANRT is preparing to license two fixed line operators next year.

Botswana's Sector Reform Experience

Botswana's success can be attributed to the sequence of reform measures the government undertook and the wide consultation of its population. The telecommunication sector reform in Botswana was initiated in response to the public's dissatisfaction with the quality of service provided by the incumbent. Botswana first established a clear policy based on wide public consultation followed by the adoption of the Telecommunication Act directly derived from that policy.

The Telecommunications Act provides for the introduction of competition and the creation of a regulatory authority, the Botswana Telecommunication Authority (BTA). As part of its

statutory mandate, BTA has full authority to award service and radio licenses without approval by the sector Ministry. The only exception is if BTA seeks to award an exclusive license (to a monopoly operator). BTA finances all of its operations from license fees.

BTA's first mandate was to issue a tender for two GSM licenses. BTA won plaudits for its mobile services licensing mechanism and demonstrated its autonomy, credibility and legitimacy. BTA places premium importance to high level training and sees it as a necessary prerequisite to provide efficient and effective regulation.

TRASA and ATRN

Mr. Terrab provided a brief overview of the African Telecommunication Regulators' Network (ATRN), which is available in GSR Document No. 44. Mr. Lekaukau provided a brief overview of TRASA, which is available in GSR Document No. 29 of the GSR. These documents are available on the TREG website: <http://www.itu.int/ITU-D/treg/>.

Discussion

Mr. Huet said that the regulators should provide ex-ante regulation for traditional services and ex-post regulation for new services in order to speed the introduction of new services. Ex-ante industry specific regulation tends to be more proactive. Ex-post regulation can create bottlenecks, e.g., in frequency and numbering.

Mr. Hartshorn highlighted the trend in "light touch" regulation of VSAT operators in every region of the world. He also noted the participation in and cooperation of the private sector with regional initiatives. The Global VSAT Forum, he pointed out, has been involved in regional licensing initiatives.

Mr. Lekaukau expressed serious concerns about introducing multi-sector regulatory bodies. He cited the erosion of efficiency due to multiple stakeholders. Mr. Lekaukau believes that converged regulators (with responsibility for telecommunications and broadcasting) are more efficient than multi-sector regulatory bodies. He highlighted the vertical structure in which ATRN and TRASA take place, noting that ATRN acts on the regional level, TRASA acts on the sub-regional level, and the membership of both is national regulatory bodies. He also indicated that TRASA maintains a good working structure with the private sector by consulting with Southern African Telecommunications Administrations (SATA), a regional association of operators. In addition, TRASA has worked with other regional regulatory organizations. TRASA has been invited to workshops organized by the West African Telecommunication Regulators' Association (WATRA) and the Common Market for Eastern and Southern Africa (COMESA).

Mr. Rowe indicated that while a few years ago, experts talked about exit strategies for regulators, it would now seem that there is likely to be a much longer future life for regulators. He noted that while there can be efficiencies in multi-sector regulatory bodies, what is important is the nexus between the various industries to be regulated. The important question is whether the different industries are moving in a consistent policy direction and to identify the degree of possible future convergence. A viable alternative to multi-sector or converged regulatory bodies is cooperation among sector-specific agencies. In the case where countries have created well functioning telecommunications regulatory authorities, governments should be sensitive to any potential disruptive effect on these bodies. He also pointed out that NARUC includes a research institute and provides training, advocacy and promotes resource sharing.

TUESDAY 4 DECEMBER 2001

Effective Regulation (Session 1): Trends in Telecommunication Reform 2001/2002 (TTR): Overview of telecommunications market reform and why the need for regulators

The four sessions on Tuesday, 4 December, were organized around the subjects addressed in the upcoming 4th edition of the ITU publication Trends in Telecommunication Reform: Effective Regulation that will be released upon the occasion of the World Telecommunication Development Conference in March 2002. A draft version of the Trends report was made available to regulators and policy makers participating in the GSR. The first Trends session was moderated by Bill Wigglesworth, Telecommunications Regulatory Adviser, Reedheath Limited, and focused on the changes in the telecom sector, as well as the need for regulators. The session began with a keynote address by the U.S. Federal Communication Commission (FCC) Chairman, Michael Powell. This was followed by presentations from two of the authors of the Trends in Telecom report, Susan Schorr, Regulatory Officer, BDT/SRU, and Rohan Samarajiva, Director of External Programs, Lirne.Net, and a roundtable discussion among the distinguished panelists. Panelists included Jorgen Abild Andersen, Director General, NTA (Denmark); Jean-Louis Beh Mengue, Director General, Agence de Régulation des Télécommunications (ART), Cameroon; Philip Aeava, Director General, PNG Telecommunications Authority, Papua New Guinea; Juan Roberto Alfaro Toribio, Director of Telecommunications, Autoridad Reguladora de los Servicios Públicos (ARESEP), Costa Rica.

Presentations

- In his keynote address, Mr. Powell said that regulators and policy-makers in the U.S. are struggling to cope with the technological challenge posed by the evolution of broadband services. Mr. Powell noted three related challenges: (1) the need to continue to develop broadband infrastructure, (2) the need to create conditions allowing competing infrastructure platforms, and (3) the need to respond to the challenges of technological change and development. The need to foster development of new infrastructure requires the efforts of the U.S. government to create an environment enabling the growth of applications and content. The FCC foresees broadband infrastructure consisting of multiple technology platforms, including telephone, cable TV, satellite, mobile wireless, and fixed wireless networks. In terms of whether or how to regulate broadband networks, however, the FCC is being careful not to assume that existing regulatory frameworks apply. Broadband holds great promise to deliver innovative applications, but only if there is a nurturing environment for its development.
- In her presentation, Ms. Schorr gave an overview of trends in market reform. The sector in 2001 continued its transformation from telecommunications to a combined information and communications technology (ICT) sector, even as it battled an apparent global economic downturn. Bright spots of continuing growth could be found, however, in developing markets, particularly for mobile cellular and Internet services. Indeed, wireless growth appeared healthy around the world, with China representing a huge potential for mobile services following its World Trade Organization (WTO) accession. One hundred and four ITU members have at least partially privatized their incumbent operators. The majority of governments allow competition for at least some services, primarily mobile and Internet access offerings. Some 112 regulatory agencies have been created. Regulators continue to pursue sector reform, as they play a fast-and-furious game to respond to market complexity.
- Mr. Samarajiva discussed the rationales for continuing to fashion and apply regulation in a changing market environment, which is marked by increasing competition and technological innovation. He noted that regulation can set the stage for investment by

providing certainty to market players. Regulation is needed to prevent abusive market behavior, promote key socio-economic policy goals, and manage the sector reform process. Regulatory independence is often a matter of common sense: a regulator should not be controlled by a company it regulates, and it should be sheltered from interference in its day-to-day affairs. In order to regulate effectively, an agency must possess legitimacy in the eyes of major stakeholders and the public. Legitimacy cannot be granted in legislation. It is subjective and must be earned through effective, credible and fair regulatory practice. Ultimately, effective regulation is about good governance.

Discussion

- Regulators representing a cross-section of various countries, in various regions and various stages of sector reform, discussed their roles and regulators—and how those roles have evolved. They focused on the ability of regulators to perform their tasks in a variety of different market structures, ranging from monopoly to full competition. The issue of consumer protection was identified as a key task for regulators, with several advocating increased transparency to allow customers to make informed choices among competitors.
- Mr. Andersen said that through annual regulatory forums held in Denmark, he has been able to witness and note the change in roles of regulators in that country. In the first phase of liberalization, they were focused on providing the best and cheapest voice services to Danes. That role evolved as regulators then attempted to foster competition and alternate access technologies. Now, in the current phase, they are attempting to foster the fastest, cheapest and most reliable broadband Internet access.
- Mr. Toribio discussed the ongoing role of regulators in Costa Rica, where telephone service continues to be provided by a government-owned monopoly. His role does not include regulating tariffs, which by law cannot be set at a level to achieve profits beyond what the operator needs to provide low-cost services in all geographic markets of the country. Moreover, the government approves all network investments, in order to eliminate risk and inefficiency, and it can force the operator to provide uneconomic services in remote or unprofitable areas. In response to a question from the floor, Mr. Toribio said Costa Rica has no current plans to introduce competition for basic voice services; a bill in Parliament last year to do so had to be withdrawn due to public opposition.
- Mr. Aeava posed the question of whether regulators need to set rules in advance of competition. He responded that they do, but should not take the role of prosecutor when rules are violated. Rather, they must be more of a moderator in disputes and should keep in mind the overall best interests of the public that must be served. On the issue of regulatory independence, he noted comments by the Australian delegate that complete independence from the rest of government may amount to isolation and ineffectiveness. He further noted a trend by governments to create “super-regulator” agencies to govern multiple sectors.
- Mr. Beh Mengue noted that many regulatory practices, such as frequency allocation or managing disputes between operators, cannot easily be accomplished by either the state or an operator. Despite outside pressures, deficiencies in equipment, and other challenges, however, the regulatory agency in Cameroon has found a “niche” protecting consumers while at the same time providing a conducive environment for investment in telecom infrastructure.

- In comments from the floor, the delegate from Australia noted that among the reasons to apply regulation, a key rationale is consumer protection. Mr. Andersen noted the importance of giving consumers the ability to gain sufficient information to make intelligent and self-interest decisions to choose from among the offerings of competing service providers. To that end, Denmark has established an Internet website, he said, that allows customers to compare the offerings of all operators. Users can input their usage patterns and discover which offering would best serve them, he said.
- In response to a question from Bahrain on what constitutes the optimal regulatory approach for developing country regulators, Mr. Samarajiva noted that the answer must depend on what policy goals each government is trying to achieve—whether those goals be consumer protection or protection against anticompetitive market behavior by an operator. In general, it may be best to use competition as a tool to achieve those policy goals. There should be some structure of regulation where necessary to allow competition to flourish, but beyond that, a regulator should take a step back and forbear from regulating, he said.

Effective Regulation (Session 2): Trends in Telecommunication Reform 2002 (TTR): Institutional frameworks and transparency

The second session was moderated by Eli Noam, Professor and Director of the Colombia Business School, and focused on the process of creating a regulator and the importance of establishing and maintaining transparency. The session began with presentations by the TTR authors, Mr. Greg van Koughnett, Barrister and Solicitor, and Ms. Tracy Cohen, Graduate Research Fellow, Centre for Innovation Law and Policy. These presentations were followed by a roundtable discussion among the panelists. Panelists included Carlos Eduardo Balen y Valenzuela, Executive Director, Comisión de Regulación de Telecomunicaciones (CRT), Colombia; Marc Furrer, Director, OFCOM, Switzerland; Patrick Masambu, Executive Director, Uganda Communications Commission, Uganda; Willy Jensen, Director General, Norwegian Post and Telecommunication Authority, Norway; and Mamoun Balqar, Director General, Telecommunications Regulatory Commission, Jordan.

Presentations

- Mr. Van Koughnett spoke on the institutional framework of regulation. He summarized the options governments have in structuring their regulatory regimes and determining how regulatory agencies function within government as a whole. The creation of a regulator is seen to be a necessary condition for the triggering of both domestic and foreign private capital inflows. He emphasized the importance of establishing a regulator before the introduction of competition and other sector reforms. He also discussed the importance of the Agency's mandate being spelled out in detail and in authorizing legislation. On the topic of independence, he noted that, in terms of compliance with the WTO Reference Paper, a government may choose to set up an independent, autonomous regulatory agency or it may decide to retain the regulatory function as a unit of a ministry, department, or other government office. He emphasized the need to establish the agency's role and status relative to the communications ministry and the incumbent. He argued that the legitimacy and independency of an agency is partly determined by very practical procedural arrangements concerning the agency's relationship with its oversight agency, the courts, and other government institutions. There is a trend now advocating the reorganization of regulatory agencies to reflect convergence due to technological convergence of the broadcasting, telecommunications, and information technology sectors. One way of addressing this would be the formation of a "converged" regulatory agency, which would oversee some or all of the ICT industries.

In the end, there are three goals leading governments to establish a regulator: to create the optimal regulatory framework for the industry to grow and flourish; to ensure the maximum legitimacy for the regulatory institutions that have been created; and to allow regulators to make tough decisions with confidence, and protect the consumer interest. In establishing regulators, he underlined that: There is no single best model.

- Ms. Cohen presented the subjects of transparency and fairness. Transparency refers to the openness of the process of exercising regulatory power. Fairness refers to the outcome of that process. She emphasized that, together with such issues like efficiency, objectivity, accountability and adherence to mandate, transparency is one of the most important hallmarks of effective regulation. Regulators that obtain information from the regulated industry and other interested parties can base their decisions on all relevant facts and diverse views. Operators and service suppliers depend on transparency to ensure that their concerns are heard and that they play a role in shaping important decisions. However, systems and processes must be in place to allow regulators to gain valuable information,

consult stakeholders, render their decisions, and justify them based on the public interest and the facts provided to them, if transparency is to have full effect. There is also need for public consultations for the following reasons: efficiency and effectiveness, certainty and reliability, accountability and independence and continuity. In applying transparency principles to regulatory practices, there is a need for all aspects of regulation to be open and accessible. Transparency should prevail, except in the face of legitimate claims regarding confidentiality, national security or public safety. The 3 key factors in transparency are: conduct (e.g., enforce a code of ethical conduct enshrining a range of behavioral and institutional values which generally binds all employees from the date they are hired), operations (establish operational practices to ensure regulatory transparency through public participation by stakeholders in the sector); and procedures (public participation procedures, notice and comment procedures, consultations and public hearings.)

Transparency has costs both in terms of time and money. However, there is no single “transparency” template for regulators to use in every scenario. There is need to simplify and streamline procedures and systems must be tailored to circumstances, keeping in mind the ultimate goals of greater openness and participation. Overall, even where limits exist, the benefits of implementing transparency and fairness in both substance and outcome will far exceed the costs.

Discussion

- On the subject of how to measure the effectiveness and efficiency of a regulator, no exact answer could be given. However, the view was that it was not easy to measure these two factors. Perhaps one way would be to compare a regulator’s performance with other regulators’ performance and to cut costs. The bottom line should be to satisfy the consumer and to achieve benchmarks. In Norway, for example, the focus has been to achieve a high penetration and to provide a cheap but quality service. Some felt that it was necessary to run the Agency like a private firm and avoid focusing on efficiency only but on effectiveness as well. For this to be possible, political commitment is critical.
- Panelists were asked what it was like to have been an operator and now be a regulator. The view was that, this had its advantages and disadvantages. The main advantage was that one would be fully equipped with information arising from past experience resulting in enhanced decision-making. The main disadvantage was that of proving that one was impartial and to gain the confidence of the market.
- The question was posed on the potential delays transparency can bring to the decision making process. The view was that, delays should be as short as possible. Some felt based on past experiences that the incumbent preferred a lengthy decision-making process, while new entrants would want the reverse.
- When asked what was the one thing that would be critical in the creation of a regulator, Norway highlighted the need for a complaints systems, while Jordan emphasized the need to have full time commissioners running the Agency. Such arrangement guarantees more commitment and a higher level of independence by the Agency from the rest of the government.
- On the question of whether there was any danger of being isolated if an Agency were independent, it was agreed that a regulator must interact and interface well with all stakeholders, including other government agencies.

- The issue of whether it was proper for a regulator to promote and lobby on behalf of industry was raised. It was felt that this could be complicated and could compromise the regulator's integrity and impartiality.
- The experience of how the panelists handled disputes varied. In Colombia, for example, a person can appeal to the regulator or directly to the courts.
- On the issue of how detailed an act governing the operations of a regulator should be, some panelists expressed the view that an act has to be very detailed. Leaving details out to be contained in by-laws was risky as these could be frequently tampered with. It is best to have a detailed and comprehensive act.

Effective Regulation (Session 3): Trends in Telecommunication Reform 2002 (TTR): **Regulatory powers and functions**

The third session was moderated by Paul Verhoef, Head of Unit, International Affairs, European Commission, and focused on the powers and functions of regulatory agencies. The session began with a joint presentation by the TTR authors, Mr. Hank Intven and Ms. Theresa Miedema both of McCarthy Tétrault. These presentations were followed by a roundtable discussion among the distinguished group of panelists. Panelists included Alvin Lezama, General Manager, Comisión Nacional de Telecomunicaciones (CONATEL), Venezuela; Ravi Kant, Member, TRAI, India; Peter Fischer, Deputy Director, OFCOM, Switzerland; Jose Leite Pereira, Counsellor, ANATEL, Brazil; and Ernest C.A. Ndukwe, Chief Executive, Nigerian Communications Commission (NCC), Nigeria.

Presentations

- Mr. Intven and Ms. Miedema made a joint presentation of their TTR chapters. The presentation highlighted general regulatory powers and specific regulatory functions. They explained the broad categories of regulatory powers that regulatory agencies perform. These categories include rulemaking, regulatory enforcement and dispute resolution functions. They described rulemaking as the power to add flesh to the skeleton of laws, regulations, and policies. There are different types of rulemaking depending on the prevailing legal and institutional traditions in each country. In Singapore, for example, the regulator, IDA, can issue “codes of practice”, provide directions to specific licenses, and release advisory guidelines. Enforcement of laws and decisions, they explained, was critical to the effectiveness of regulation. There are two phases of enforcement: monitoring and sanctions. On the monitoring side, regulatory staff may conduct investigations, service providers may be required to provide mandatory reports, or the public or any competitor may make complaints to the regulator. On the sanction side, the regulator may give warnings (e.g., written citations), mandatory orders (cease and desist), fines, imprisonment, or suspension (or revocation) of the license. Many regulators, for public interest reasons, have a role in dispute resolution. Disputes may arise between operators, between operators and consumers, or even internationally. Types of dispute resolution range from mediation/conciliation, which is non-binding, to arbitration which is binding.

In the area of specific regulatory functions, the presenters focused on licensing, spectrum regulation, competition policy, interconnection, numbering, type approval, price regulation, universal service, quality of service and consumer protection. Some regulators are responsible for all of these functions, while others have more limited mandates. Functions related to spectrum management and the allocation of other scarce resources, such as telephone numbers, are becoming more important, not less. Interconnection, in particular, will continue to occupy a prime spot on the top of the regulatory agenda as efforts continue to promote efficient and non-discriminatory interconnection arrangements. The presenters emphasized that good regulation is transitional – it reduces as markets become competitive. The key is to exercise regulatory functions to develop competitive markets.

Discussion

Universal Service

- Mr. Kant explained that the concept of universal service is a vital interest to regulators in India, where three different levels of approaches have been explored to satisfy universal service based on ‘sharing universal service costs’. As the first step, basic telephone line will be linked in each village with 600,000 as part of Telecommunication Policy. Then, the village will be upgraded to ‘telecentre’ with Internet (data) access. At the third level,

the center will be equipped with a ‘high-speed’ network. The costs will be reimbursed in the long term through revenue generation from the telecentres. Because of the difficulty in getting a line to each home, India introduced the ‘shared access’ at community levels, which can, in turn, reach to each house.

- Mr. Leite Perreira explained that in Brazil, licensing conditions are different for private telecommunication operators, in particular in the area of universal service obligations. In Brazil, all the communities have rights to have individual telephone lines (i.e., access to basic telephone is to be ensured). Universal service funds enable not only the provision of basic telephony services, but also Internet, computers at schools, health services, etc. The Ministry of Communications has the responsibility, in coordination with other Ministries, of defining the priorities for use of the universal service funds. The regulator is then responsible for establishing the more detailed rules for implementation.
- Participants raised the issue of whether the incumbent operator should be solely responsible for covering the costs of interconnection. In Brazil, for example, the four long distance companies share the costs. As competition flourishes, new funding mechanisms should be explored. Other participants stressed that due to their importance universal service requirements and universal service funds should be included in telecommunications legislation.

Enforcement Power & Dispute Resolution

- Mr. Ndukwe explained that the Telecommunication law should be comprehensive. Developing countries should be able to amend the law(s), when appropriate, to meet such requirement of enforcement and clarify the roles of regulators. They also should be cautious about liberalizing the market too quickly if there is a lack of sufficient manpower on the side of the regulator. He emphasized the importance of a dispute resolution mechanism. Others agreed that one of the big problems regulators face in developing countries is the lack of manpower, particularly in such legal areas as enforcement, appeal, sanction etc.
- Participants asked about cases where the operator does not comply with a decision of the supervisory body. Mr. Fischer commented on the use of measures such as arbitration or fines – though arbitration can be very slow.
- Mr. Lezama explained that interconnection issues are left to the private parties to resolve. An independent arbitrator steps in only in cases of conflicts.
- Mr. Ndukwe suggested that operation costs of regulators should be born by mechanisms like license fees rather than ones from the government. He stressed the importance of training for manpower. He also suggested regulators consider regional resolution mechanisms (e.g., regional code of practice established in Southern African Regulatory Authorities) based on common difficulties and circumstances.

Rule-making

- Questions were raised on the difference between proactive rule-making and policy-making. It was stressed that regulators should have an input or be involved in the policy-making process. Rule-making at the regional level should also be considered.

Effective Regulation (Session 4): Trends in Telecommunication Reform 2002 (TTR): Staffing and Financing

The fourth session was moderated by Jorge Trefogli Fajardo, ITU expert for the Americas Centers of Excellence, and focused on critical staffing issues, as well as sources for financing regulatory agencies. The TTR authors, Ms. Doreen Bogdan-Martin, Regulatory Officer, ITU/BDT/SRU, and Mr. John Alden, Vice-President, Freedom Technologies, presented their respective chapters. This was followed by a presentation by Kathleen Heceta, Deputy-Commissioner of the National Telecommunication Commission (NTC) of the Philippines, on gender perspectives.

These presentations were followed by a roundtable discussion among the distinguished group of panelists. Panelists included Fatih Yurdal, Chairman, Turkey Telecommunications Authority, Turkey; Bob Horton, Deputy Chairman, Australian Communications Authority; and Gabor Frischmann, President, Hungarian Communications Authority, Hungary.

Presentations

- Ms. Bogdan-Martin presented the chapter on staffing. She referred to Mr. Touré's analogy of regulators being like a lighthouse shining a path of light into a safe and prosperous harbor. A regulator without the required staff resources would be like a lighthouse without a light. She emphasized that the effectiveness of any regulatory institution clearly depends on the quality and adequacy of human and monetary resources. None of the regulatory functions discussed can be performed without sufficient human resources. Obtaining, training, and utilizing a qualified staff, is perhaps the most critical part of the process of setting up an effective regulatory authority. It may also be the most difficult to achieve. In terms of organization, she noted that some regulators are structured by function (i.e., licensing, enforcement, etc.), others by service (i.e., fixed-line, wireless, etc.). She also noted that some regulators are headed by an individual while others are headed by collegial bodies (boards or commissions). One gauge of a regulator's independence from political influence is how that regulator is appointed or selected for leadership, and the conditions in which that regulator can be replaced. The process of selecting, appointing (including re-appointing), and removing regulators has to strike a delicate balance between ensuring the accountability of regulatory agencies and giving them sufficient independence to act in the public interest.

She highlighted the fact that 75 per cent of the world's regulators lack sufficient staff resources, according to the annual ITU regulatory survey. The reasons for this vary from lack of expertise in the local market, to inability to offer attractive pay and benefit packages, to cumbersome hiring practices. She emphasized the importance of regulators having sufficient managerial and financial flexibility to retain and recruit the necessary highly-skilled professional personnel in competitive labour markets. As best practices, she suggested that governments can: pass laws that will allow agencies to speed up hiring procedures and provide greater compensation; give the regulatory authority and its senior management the power to manage without interference; and grant the regulatory authority financial flexibility to attract skilled staff. Regulators can: attract and motivate staff by offering training and development opportunities; retain their staff by providing excellent working conditions and high-quality work tools, improve organizational effectiveness by setting and sharing well-defined priorities; and, when possible, offer performance-based financial incentives and bonus programmes.

- Mr. Alden presented the highlights of the chapter on financing. He explained that the creation of separate regulatory agencies in the communications sector has increasingly raised the question of how those agencies are to be funded. Clearly, any agency or institution must have sufficient funds to operate effectively and achieve its mandated goals. But whichever governmental organ controls an agency's purse strings may have some say in how that agency operates and even what decisions it may make. Traditionally, regulatory agencies—especially those included as functional entities within communications ministries—have been funded, often on an annual basis, through standard government allocations, approved by finance ministries or national legislatures. In an era in which regulatory agencies are designed to be independent, however, many governments have sought to give such agencies their own powers to raise and manage money and assets. Many governments have given regulators the ability to directly raise operating funds through licensing fees, spectrum fees, numbering resource fees, industry taxes, development funds, or other mechanisms. The key determinants of control are which governmental organ sets the budget, raises the funds, and has the ability to expend resources.

In most cases, the ministry or legislative authority sets a regulatory body's budget; in very few cases, the regulator has complete budgetary autonomy. The sources of financing vary: license fees, spectrum fees, numbering fees, equipment approval fees, and fines. The majority of regulators are funded by the first three sources.

- Mrs. Heceta gave a brief presentation on gender empowerment at the NTC in the Philippines. Only 25 percent of the world's regulators have women in senior leadership positions. Unlike most regulators around the world, the current structure of NTC shows a majority of women in key positions. This is promoted by: a gender and development programme (GAD); an equality policy ensuring that men and women have the same professional opportunities; and laws that state equality for men and women (the basic gender law, the institutionalization of GAD, and the call for gender responsive projects).

Discussion

- Mr. Horton from Australia emphasized that skills development is the most pressing challenge (acquisition and retention) for regulators; and it is the most crucial aspect of a regulatory bodies management. Staff turnover is not necessarily bad. Staff lost to industry will be skilled in the regulatory area, and will be the most likely to deal with the regulator – it can be seen as a good investment. Finding the necessary resources at all levels is a difficult task. Sharing experiences with fellow-regulators worldwide makes it easier, avoiding making the same mistakes. The sharing of experiences is one of the best training resources. ITU's Centers of Excellence is a valid tool for information exchange. Distance learning reduces costs. He also emphasized the importance of partnering with industry that has insight into new technological developments. In response to a question about university systems and their telecom capabilities, Mr. Horton stressed the importance of working together with universities, not only for research but also the skill development level.
- Mr. Frischmann explained that the Hungarian Communications Authority is fully financed by the collection of regulatory fees. He noted some of the difficulties faced when the regulator was created in 1989. The ministry and operator were able to attract the most skilled staff, and the regulator was left with a limited selection. After a reorganization of academic institutions, new talent flowed into the regulator. The regulator has managed to establish a solid training programme, based on "open

workshops” with invitees from academia, industry, etc. to discuss current topics. The regulator has also supported staff in pursuing university and post-graduate programmes.

- Mr. Yurdal stressed that financing is the key for regulatory independence. Independence should be granted via financial and administrative autonomy. Governments should not fund the regulator, and the regulator should not contribute to the government’s general budget. Administrative independence is directly related to staffing. The regulator should be able to recruit by itself. Hiring the best-qualified staff and providing training will ensure an effective and independent regulator.
- Mrs. Heceta explained that in order to encourage academic advancement, the NTC organizes evening courses taught at NTC by university professors that lead to formal degree programmes.
- Summary:
 - Staffing is key;
 - Training is vital;
 - Financial autonomy is desirable; and
 - Equality policies to ensure gender balance should be pursued.

WEDNESDAY 5 DECEMBER 2001

Global Regulators' Exchange (G-REX) Evaluation Session

Mr. Touré led the discussion of the G-REX evaluation session. BDT launched the Global Regulators' Exchange (G-REX) on 8 May of this year. G-REX was one of the actions requested by the first regulators symposium in November 2000. G-REX is an online discussion forum and hotline for regulators and policy makers. It is currently organized into nine conferences, one for each of the most pressing issues facing regulators as identified during the first BDT global gathering of regulators. Each of the nine conferences is moderated by a top-level regulatory official. The nine moderators served as panelists in this session, along with the G-REX Hotline Administrator. They include:

- *INTERCONNECTION*: Peter Fischer, Deputy Director, OFCOM, Switzerland
- *EFFECTIVE REGULATION*: Anthony S. K. Wong, Director General of Telecommunications, OFTA, Hong Kong, China
- *REGULATORY INDEPENDENCE*: Michael K. Powell, Chairman, FCC, USA. (Roxanne McElvane of the FCC replaced Mr. Powell during the G-REX evaluation session.)
- *MOBILE SERVICES*: Mostafa Terrab, Director General, ANRT, Morocco
- *CONVERGENCE/NEW TECHNOLOGIES*: Keng Thai Leong, Director General, IDA, Singapore
- *UNIVERSAL SERVICE*: Alvin Lezama, General Manager, Universal Service, CONATEL, Venezuela
- *CONSUMER-ORIENTED REGULATION*: Cuthbert Lekaukau, Executive Chairman, BTA, Botswana
- *COMPETITION*: Jorge Kunigami, President, OSIPTEL, Peru
- *FREQUENCY PLANNING*: Fatih Yurdal, Chairman, Turkey Telecommunications Authority, Turkey
- *REGULATORS' HOTLINE*: Susan Schorr, Regulatory Officer, BDT/PSF/SRU

Mr. Touré noted that this session was the first opportunity for BDT to seek in-person feedback from the moderators and G-REX users. This regulatory tool is still in its infancy and needs time to mature. Still, it is a vital means for interaction between regulators and policy makers worldwide to share their experiences and expertise in a free and frank manner.

Conferences Evaluation

The current nine conferences did not attract a large number of contributions for several reasons: the contributions were too general, there was no timeframe set for receiving comments or ending the discussion, and the conferences were utilized to express opinions rather than engage in problem-solving or adopt a results-oriented approach. Nevertheless, G-REX holds great potential to be a "one stop shopping service" for regulators and policy makers seeking coordinated responses to their regulatory questions. It has the potential to become a great and valuable regulatory tool, and a complement to other tools, such as training seminars and publications. Among the strengths of G-REX are that it reduces costs in communications among regulators, it facilitates a discussion among a targeted audience and improves international visibility for regulators.

Recommendations for Conferences

There was widespread support for the proposal to replace the nine concurrent conferences with one or two themes that would rotate, say, quarterly, so that each theme would have a clear starting and ending time. Moderators would become more proactive, and would be responsible to contact other regulators he or she knows to encourage them to provide

contributions. Each regulatory body would identify one person within its organization to provide a response. Each discussion would take a results-oriented approach. Studies on specific issues, like interconnection and universal service, could be used as input into the conferences. A summary report based on all contributions should be submitted at the end of the conference. In addition, G-REX should be used to complement real-time activities such as in-person workshops and training seminars.

Hotline Evaluation

The hotline was evaluated as a success. Users like the solution-driven nature of the hotline and the fact that the requests were of a practical nature dealing with issues regulators face in their day-to-day work. Users may request assistance on any issue. Responses to hotline requests are also provided on a speedy basis, increasing its utility. In contrast to the conferences, which mainly had attracted participation from heads of regulatory authorities, the hotline included contributions from a broader range of regulatory officials. Participants agreed that the hotline should remain open only to regulators and policy makers at least until the next GSR when G-REX can be evaluated again.

Hotline Recommendations

As more requests are posted, BDT should better organize the hotline structure. Users should post more documents and website links.

General Recommendations To Further Develop G-REX

- Create a small steering group to select conference themes, decide issues such as who should be given access to G-REX, what the conference deliverables will be and provide recommendations for future G-REX development. Volunteers for the steering group were requested to send an email to Ms. Schorr at susan.schorr@itu.int indicating their interest. In selecting themes, consideration should be given to the topics raised in the hotline.
- Several participants encouraged G-REX users to make greater use of the G-REX software to post hyperlinks to their website and documents so that G-REX can be developed as a database of regulatory rulings, decisions and instruments (such as license agreements and interconnection agreements.). In this way, G-REX could better complement real-time activities, such as in-person workshops and regional training sessions. BDT used the GSR session to demonstrate how to post documents on G-REX.
- BDT is requested to translate all contributions.
- BDT could pose questions arising from conferences and the hotline to selected academics, training institutions and consultants and provide their feedback to G-REX users.
- Although initially BDT had invited each regulatory body and policy maker to register one focal point, BDT used the GSR session to invite regulatory bodies and policy makers to register as many users within their organizations as they wish. Each organization should, however, maintain one focal point responsible for ensuring that hotline requests are answered. Registration forms were provided during the GSR. In addition, potential users can contact Ms. Schorr at susan.schorr@itu.int to register for G-REX.

Future Work Session: Where Do We Go From Here?

Mr. Wong moderated the future work session. Mr. Wong explained that the purpose of the session was to identify and develop proposals for BDT's future work in the area of regulation, noting that some regulatory issues need to be addressed immediately, while others can be tackled over the medium or long term. He highlighted some of the proposals made during the GSR including:

- Mr. Verma's proposal that BDT commission special studies identifying benchmarks and focusing on the practical approaches by which *anticipated* regulatory problems can be tackled and that relevant information on regulatory practices and benchmarks be collected for identified regions under the aegis of ITU/BDT and discussions and interactions organized at that level.
- Mr. Gnon's proposal that ITU undertake more specialized training for legal and economic experts working in regulatory bodies to acquaint them with technology and industry issues and terms.

Mr. Wong then invited comments from Messrs. Touré, Verma and Yurdal and Mrs. Heceta before opening the discussion to the floor. Mr. Yurdal's comments, which related to G-REX, are reflected in the section of this report under the G-REX Evaluation.

- Mr. Touré explained that the WTDC, to be held in Istanbul, Turkey from 18-27 March 2002 under the chairmanship of Mr. Yurdal, would define the future roadmap of the BDT. Two major issues will be discussed at the WTDC, the digital divide and the future BDT Action Plan. He noted that BDT has been able to undertake its regulatory initiatives because sector reform was one of the programmes in the previous action plan. It will have to be identified again if it is to be included in the future action plan. Mr. Touré invited participants to submit proposals to be injected into the future BDT Action Plan and stressed the importance of adopting a flexible programme to be able to adapt to the changing environment over the next four years.
- Mr. Verma indicated that there are three kinds of issues:
 1. the need for better information – data and documentation, such as models (e.g., interconnection agreements, access charge agreements, codes of conduct);
 2. support for skill-building particularly in countries that are geographically close to each other and where experiences are comparable;
 3. coordination and cooperation at the regional level, including regional meetings.

He suggested two methods of fulfilling these needs:

1. through G-REX and the hotline and
2. studies to develop model legislation, and other regulatory instruments.

He further proposed creating a small group of regulators to look at the development of models and document sharing, noting that there are already many useful documents out there. Such a steering group of regulators should also be used to develop proposals to the WTDC. Training and universal service are two subjects that can be taken up for immediate study through G-REX or special groups.

He identified questions that can be used to define the approach to the WTDC from the regulator's perspective:

1. what is the direction in which we will move? He noted that we need a picture of telecommunications and ICT and a view of where it will be moving four years down the line
 2. how to move in that direction, i.e. identify the sequence of steps that must be taken, the different milestones of movement
 3. how to get enabling resources to dovetail today's efforts into tomorrow's actions
- Ms. Heceta noted that gender perspective is an immediate, pressing and doable issue. She proposed that countries include women on their WTDC delegations. If both a man and a woman are qualified to serve on the delegation, countries should decide to send the woman. Each delegation should at least have one woman.

GSR 2001 Action Plan: Developing Tools For Effective Regulation

The theme of the 2001 Global Symposium for Regulation was “Effective Regulation.” The Symposium developed a four-point action plan for BDT to supplement its current range of products and services designed to assist regulators in developing the tools they need for effective regulation.

1. Focus on Skills Training
2. Develop Benchmarks and Models
3. Bolster Regional and Sub-regional initiatives
4. Broaden input beyond the community of regulators.

Training

BDT was requested to focus on skill-building for regulators, not only providing training, but collecting information on other training programmes and training centers. Training should be provided on a regional or sub-regional basis, bringing together countries that are geographically close and which have similar circumstances.

Benchmarks and Models

BDT was requested to conduct studies to identify best practices and models on pressing issues such as universal service, licensing and interconnection. A steering group of regulators would identify the issues to be studied. This work could be done in conjunction with G-REX.

Regional and Sub-regional Initiatives

BDT was requested to bolster regional and sub-regional regulatory services including:

- fostering the development of regional associations for regulators;
- convening regional gatherings for regulators;
 - providing training and promoting information sharing on a regional basis;
 - ensuring that regional regulatory organizations are involved in future GSRs, and
 - establishing additional ITU Centres of Excellence

Broader Input

BDT was requested to solicit input from a broader array of market players while maintaining a forum for the free and frank exchange among regulators. Three concrete proposals were put forth:

- Conduct case studies before the next GSR to solicit feedback (both positive and negative) to regulators from:
 - Operators/suppliers
 - The investment community and
 - Users associations
- Remember end users and consumers, especially small and medium enterprises. ITU should consider organizing a users association and help regional regulatory groups and national regulatory authorities to organize users’ groups and consumer organizations. In addition, ITU should endeavor to provide fellowships for these organizations to attend the next GSR.
- Solicit input into G-REX from the academics and consultants.

Closing Ceremony

In closing the second Annual GSR, Mr. Wong noted that regulators are enablers and facilitators and should be given the tools to be effective. The meeting succeeded in identifying a series of concrete actions that BDT can take to provide tools for the development of effective regulation. The next Global Symposium for Regulators will take place in Autumn 2002.