
ACHIEVING THE GOAL OF UNIVERSAL ACCESS TO TELECOMMUNICATIONS SERVICES GLOBALLY

Jennifer A. Manner*

I. INTRODUCTION

One of the most pressing issues that telecommunications regulators are addressing today is how to achieve universal access to telecommunications services for their citizens. The importance of universal access to telecommunications services cannot be understated. As the International Telecommunications Union's ("ITU") 2003 World Summit on the Information Society ("WSIS") recognized, there is a global need "to build a people-centered inclusive and development oriented Information Society, where everyone can create, access, utilize and share information and knowledge" and that "[c]onnectivity is a central enabling agent in building the Information Society."¹ WSIS further recognized that "[u]niversal, ubiquitous, equitable and

* Jennifer A. Manner serves as Senior Counsel to FCC Commissioner Kathleen Q. Abernathy, where she advises the Commissioner on international, wireless and technology issues. Prior to joining the Commissioner, she was Director of International Alliances at WorldCom Inc., now MCI Corporation. Before joining WorldCom, Ms. Manner was an associate at Akin, Gump, Strauss, Hauer & Feld, LLP and before that was an Attorney-Advisor at the Federal Communications Commission. Ms. Manner received her B.A. from the State University of New York at Albany, her J.D. cum laude from New York Law School, and her LLM with distinction from Georgetown University Law Center. Ms. Manner is the author of several articles and books, including GLOBAL TELECOMMUNICATIONS MARKET ACCESS, Artech House 2002, and SPECTRUM WARS, Artech House 2003. The author would like to extend a special thank you to Marjorie Manne and Stefanie Zalewski who kindly assisted with the research for this article. The views reflected in this article are those of the author and do not necessarily reflect those of FCC Commissioner Abernathy or the Federal Communications Commission.

¹ INT'L TELECOMM. UNION, WORLD SUMMIT ON THE INFORMATION SOCIETY, DECLARATION OF PRINCIPLES, BUILDING THE INFORMATION SOCIETY: A GLOBAL CHALLENGE IN THE NEW MILLENNIUM, at http://www.itu.int/dms_pub/itu-s/md/03/wsis/doc/S03-WSIS-

affordable access to ICT infrastructure and services, constitutes one of the challenges of the Information Society and should be an objective of all stakeholders involved in building it."²

Countries that fail to enable access by their citizens to telecommunications services will create a world where citizens are deprived of accessibility to the many benefits of basic and advanced communications, including improved healthcare, education and economic opportunities, and the increased ability to participate in the political process. However, as this article recognizes, achieving the goal of universal access can be quite challenging.

Many developed countries, such as the United States, have adopted and implemented universal service type regimes in an effort to achieve the goal of increased access to telecommunications services. However, such regimes, which are typically characterized by subsidizing, at least in part, telephone access to each home, are not necessarily suitable models for the majority of countries to utilize because of the high cost to construct and operate the required extensive infrastructure, and the lack of a corresponding realistic funding mechanism.³ Similarly, the issues of sustainability of funding and how to connect each home, especially in highly populated or rural areas, are daunting and quite often unachievable. Accordingly, while many developed countries are still pursuing universal service regimes, many developing countries, as well as some developed countries, are implementing a less resource intensive model of increasing access to telecommunications service: universal access. The goal of universal access is to provide each citizen access to telecommunications services, as opposed to a telephone in each home. By adopting a policy of universal access, these countries are able to ensure that people can obtain communications services by utilizing a competitive model without having to subsidize substantial infrastructure builds that are required to achieve universal service goals.

To be effective, universal access policy should be based on a competitive framework that is structured according to the individual social, economic, and geographic considerations of each country. The success of market-based universal access is being proven in countries such as Senegal and Ghana.⁴ In these and other countries, benefits of universal access have included increased

DOC-0004!!MSW-E.doc (Dec. 12, 2003).

² *Id.*

³ See Johan Ernberg, *Universal Access for Rural Development from Action to Strategies*, at http://www.itu.int/ITU-D/univ_access/telecentres/papers/NTCA_johan.html (Nov. 30, 1998).

⁴ See *id.* (describing universal access in Senegal); see Morten Falch & Amos Ayimadu, *Models of Telebased Information Centres With Regard to their Community Impact – the Case of Ghana*, at http://www.its2000.org.ar/conference/falch_ayimadu.pdf (last visited July 29, 2004) (discussing universal access in Ghana).

availability to health care, education and economic opportunities, more communications with family, friends and colleagues, and increased social cohesion, among others. Over time, it is likely that other anticipated and unanticipated benefits will emerge.

Establishing a successful universal access policy through market-based regulatory reforms that encourage entrepreneurship is only achievable if there is political support.⁵ Political support is a necessary component for several reasons.⁶ First, to the extent that the existing laws do not allow the creation of a universal access regime, political support is necessary to obtain the relevant changes.⁷ Second, in order to encourage participation in a universal access program, especially by the commercial sector, it is important to demonstrate that this is a program that the national government supports.⁸ For example, the national government must be willing to enforce whatever rules it puts in place to encourage universal access implementation.⁹

Political support must be coupled with the development of a regulatory regime that enables universal access to develop and blossom to citizens in all geographic regions at affordable prices. In order to accomplish this goal, governments must embrace five core regulatory principles while developing their regulatory regime:

- 1) Competition;
- 2) Creation of an independent regulator;
- 3) Technology neutrality;
- 4) Consumer education; and
- 5) Enforcement.

By relying on these core principles, governments will be able to create incentives for investment by private entities to provide affordable telecommunications services that are accessible, on reasonable terms and conditions, to all citizens in their respective countries.

⁵ INT'L TELECOMM. UNION, GLOBAL SYMPOSIUM FOR REGULATORS, UNIVERSAL ACCESS REGULATORY BEST PRACTICES GUIDELINE [hereinafter GSR BEST PRACTICES], at http://www.itu.int/ITU-D/treg/Events/Seminars/2003/GSR/Documents/BestPractices_E_31-.pdf (Dec. 8-9, 2003).

⁶ *Id.*

⁷ *Id.*

⁸ *See id.*

⁹ *Id.*

II. DISCUSSION

A. Defining Universal Access

The goal of universal access is achieved in a country when telecommunications services are made available to all citizens, without regard to geography, on an affordable basis.¹⁰ Accordingly, to successfully achieve universal access, a country must enable a telecommunications regime that meets the components of affordability, availability, and accessibility.¹¹ These components can be more specifically defined as follows:

Affordability: Communications services should be affordable to all citizens without any cost variations based on location, terrain, climate and/or rural/urban distinctions.¹²

Availability: The level of communications services provided should be the same regardless where one lives.¹³

Accessibility: Mental and physical ability should not affect access to communications services.¹⁴

In crafting a successful universal access policy, it is essential that countries take each of these components into account. If even a single component is omitted, the universal access policy will ultimately exclude significant segments of the population. Gambia provides an example where a successful universal access policy has been created while relying on these components.¹⁵ Gambia has an extremely low teledensity of approximately 2.3% with a wait time of more than six years on average for a telephone to the home.¹⁶ In order to supplement its telecommunications network, Gambia, relying on a telecenter model, has placed in operation over 500 telecenters throughout the country, including rural areas.¹⁷ Through the development and implementation of telecenters, many Gambians are now able to obtain access to telecommunications services without the costs or wait time associated with

¹⁰ GSR BEST PRACTICES, *supra* note 5.

¹¹ *Id.*

¹² Jennifer Manner, *Address at the ITU/USAID Workshop on Rural Access to Telecommunications*, at <http://www.ruralaccessconference.kz/pdf/11.pdf> (Sept. 14, 2004).

¹³ *Id.*

¹⁴ *Id.*

¹⁵ ECONOMIC COMM'N FOR AFRICA, UNITED NATIONS, NICI INFRASTRUCTURE: THE GAMBIA, at http://www.uneca.org/aisi/nici/country_profiles/Gambia/gaminfra.htm (last visited Aug. 30, 2004).

¹⁶ *Id.*

¹⁷ HON. EDWARD SINGHATEY, SECRETARY OF STATE FOR WORKS COMMUNICATIONS AND INFORMATION, REPUBLIC OF THE GAMBIA, STATEMENT AT THE WORLD TELECOMM. DEV. CONFERENCE, at <http://www.itu.int/newsarchive/wtdc2002/gambia.html> (Mar. 20, 2002).

bringing a telephone to each home.¹⁸ This model is being examined by many countries with extremely low teledensities as a possible first step in bringing access to telecommunications services to their citizens.¹⁹

B. Background

In the 1980s and early 1990s, many developed countries such as the United Kingdom, Japan, Chile, and Germany, began to liberalize their telecommunications markets in order to bring the benefits of competition to their citizens.²⁰ These national governments recognized that the creation of these markets would result in the increased availability of service, improved service quality, lowered prices, and technical innovation, among other benefits.²¹

Initially, these liberalization efforts focused on traditional, basic telephony and enhanced services, such as facsimile and e-mail. However, as liberalization took hold, leading to the proliferation of innovative technologies in the market, these countries also embraced a competitive model for the provision of non-basic telecommunications services.²² Accordingly, either shortly after or simultaneously with liberalization, many developed countries created a competitive telecommunications regulatory regime for other services, such as mobile telephony and satellite services.²³ Argentina, for example, had limited competition in its basic telecommunications services in the 1990's; however, during the transition phase to competition, it created a regulatory regime allowing competition in mobile telephony.²⁴ This market opening took place at a time when there was still low teledensity in the country, even in major cities. By allowing the introduction of a competitive platform to basic telephony, Argentineans were able to choose which technology would best meet their telecommunications needs.²⁵ In many cases, Argentineans have forsaken having wireline phones for the convenience and attributes of a mobile telephone.²⁶

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ Mark A. Jamison, *A Competitive Framework for Pricing Interconnection in a Global Telecomm. Market*, 23 DENV. J. INT'L L. & POL'Y 513, 515-16 (1995).

²¹ JENNIFER A. MANNER, *GLOBAL TELECOMMUNICATIONS MARKET ACCESS*, 10-11 (Artech House, 2002).

²² *Id.* at 10.

²³ *Id.* at 11.

²⁴ See Eduardo J. Benitez, *Practicing Law in the Americas: The New Hemispheric Reality; Telecommunication Reforms in the Americas: New Legislation and the Regulatory Framework*, 13 AM. U. INT'L L. REV. 971, 990-92 (1998).

²⁵ *See id.*

²⁶ INT'L TELECOMM. UNION, *STATISTICS AT A GLANCE*, at <http://www.itu.int/ITU->

Traditionally, developed countries have been more aggressive in their implementation of liberalization.²⁷ However, over the past few years, trends have changed as the developing world has recognized the substantial benefits that competition brings, allowing for increased access to telecommunications services for citizens.²⁸

Therefore, in the past decade, a substantial number of developing countries have moved towards increasing liberalization of their telecommunications markets.²⁹ For instance, Jamaica is a developing country that has jumped-started its efforts in liberalizing its market and has begun to enjoy the accompanying benefits.³⁰ Under Jamaica's commitments to the World Trade Organization's Basic Agreement on Telecommunications ("BTA"), it did not commit to opening its market to competition with its incumbent monopoly basic service provider until 2003.³¹ However, largely because of technological and international pressure, Jamaica accelerated this date substantially.³² Specifically, Jamaica introduced competition in the early 2000s with a three phase approach aimed at full liberalization of the telecommunications market.³³ This liberalization has resulted in, among other things, cheaper rates for cell phone usage, increases in phone features, and reductions in the cost of phones.³⁴

As an important component of liberalization, governments like Jamaica's have sought to increase their citizens' access to basic and advanced communications services.³⁵ In the case of many early market openers, especially in the developed world, governments adopted universal service regimes that were generally based on large subsidies aimed at extending basic

D/ict/statistics/at_glance/basic03.pdf; *see also* Cellular Statistics at a Glance, at http://www.itu.int/ITU-D/ict/statistics/at_glance/cellular03.pdf (last visited Nov. 2, 2004).

²⁷ Susan Schorr, *Address at ITU/USAID Workshop on Rural Access to Telecommunications*, at <http://www.ruralaccessconference.kz/pdf/9.pdf> (last visited Nov. 14, 2004).

²⁸ GSR BEST PRACTICES, *supra* note 5.

²⁹ *See* MANNER, *supra* note 21, at 10.

³⁰ *See generally* TELECOMMUNICATIONS & JAMAICA, at <http://www.fogadaley.com/telecommunications.html> (June 2004) (detailing Jamaica's liberalization process and the resulting increase in telecomm services).

³¹ JAMAICA: TELECOMMUNICATION, at <http://www.american.edu/initeb/js1513a/regs.htm> (last visited Nov. 2, 2004).

³² Stirton and Lodge, *Embedding Regulatory Autonomy: The Reform of Jamaican Telecommunications Regulation 1988-2001*, *Carr Discussion Paper*, 6-7, at <http://www.lse.ac.uk/collections/CARR/pdf/Disspaper5.pdf> (2002).

³³ *Id.*

³⁴ *See generally* FOGA DAILY & CO., TELECOMM. & JAMAICA, at <http://www.fogadaley.com/telecommunications.html> (June 2004); *see also* FOGA DAILY & CO., TELECOMM. IN JAMAICA: RECENT DEVELOPMENTS, at http://www.fogadaily.com/telecommunications_recent_developments.html (last visited Nov. 4, 2004).

³⁵ GSR BEST PRACTICES, *supra* note 5.

telecommunications services into every home.³⁶ In some of these cases, the results of such policies have been mixed, largely because of the expense of the endeavor. For example, India attempted to introduce a universal service type-model that was funded through a fee imposed on each subscriber's phone bill.³⁷ However, because of the low teledensity that exists in India, there is insufficient funding available to even begin realizing the Indian universal service policy objective of telephone service to each subscriber's home. The inadequacy of this funding mechanism will likely force India to examine other means of achieving its universal service goals, such as creating a universal access regime as at least an interim approach.

In order to avoid the costs and issues that accompany massive infrastructure expansion, and are typically associated with universal service regimes, more and more countries are beginning to pursue the goal of universal access. For example, as Jamaica continues to move down its path of liberalization, the Jamaica Telecommunications Advisory Council ("Council") has recommended moving away from a universal service type regime, and instead focusing on instituting universal access, which would allow Jamaican citizens "contact with the network in a meaningful way."³⁸ To address concerns associated with the traditional funding of universal service regimes, the Council also recommended exploring the possibility of incorporating universal access obligations into the licensing process.³⁹ By creating effective universal access policies, governments will be able to capture the benefits that flow from increased access to telecommunications services by all segments of the population.

The importance of ensuring universal access to communications services to all citizens of the world was recognized as early as 2000 when the Heads of State and Government in the United Nations Millennium Declaration expressed "their belief that the central challenge faced today is to ensure that globalization becomes a positive force for the all the world's people, and resolved to ensure that the benefits of new technologies, especially information and communications technologies . . . are available to all."⁴⁰ This principle has

³⁶ See Federal-State Joint Board on Universal Service, *Report and Order*, 12 FCC Red 8776 (1997).

³⁷ See generally TELECOM REG. AUTHORITY OF INDIA, NEW TELECOM POLICY 1999, at <http://www.trai.gov.in/npt1999.htm> (last visited Nov. 4, 2004); see also DEPT. OF TELECOMM., INDIA, at <http://www.dotindia.com> (last visited Nov. 4, 2004).

³⁸ Caribbean Cmty. Secretariat, *Telecomms. Policy Reform in Jamaica, Recommendations from the Jamaica Telecomms. Advisory Council to the Minister of Indus., Commerce and Tech.*, 7-8, at <http://www.caricom.org/archives/regional%20ict/telecommsreform-ja.pdf> (July 2002).

³⁹ *Id.*

⁴⁰ G.A. Res. 55/2, U.N. GAOR, 55th Sess., at 2, U.N. Doc. A/RES/55/2 (2000).

been affirmed in many international forums, as recently as the Global Regulators Symposium and WSIS both held at the end of 2003.⁴¹

If properly harnessed, universal access can help accelerate many benefits for developing countries. For example, increased access to communications services can help bring the five key components of economic growth to a country. These components are enterprise, innovation, competition, investment and skills. Countries with successful universal access policies have seen increased investment, job creation, and the development of a stronger entrepreneurial base. For instance, through the creation of a universal access program in Bhutan, many women have been enabled to establish entrepreneurial businesses to provide telephone service in villages through their ability to purchase telecommunications services at resale rates and resell these services at a higher price to their neighbors. By enabling this entrepreneurial model to develop, there is substantially increased access to telephone service by underserved portions of the Bhutan population.⁴²

Further, universal access to communications services by all segments of a country's population can lead to the promotion of political and social cohesion through the integration of a society and elimination of social and economic disparities in access to information. As an example, students on a rural Himalayan mountaintop can have access to the same types, quality, and quantity of information as do students who live in urban New York City – whether that be to books, museums, or even teaching specialists.

In addition, universal access means improved delivery of critical services, such a medical care. In the United States, doctors in urban Anchorage, Alaska hospitals, using satellite-based technology, have been able to advise doctors in rural Alaska on performing complex surgeries and other medical procedures where transportation of the patient is impossible due to weather conditions or the absence of time. The world has further seen the benefits of telemedicine in Antarctica where just a few short years ago a doctor, who became ill, worked via satellite, to diagnose and treat her ailment until aircrafts were able to pick her up and bring her to a hospital for treatment.⁴³ By creating points of access to advanced telecommunications services, such as telemedicine, countries are

⁴¹ INT'L TELECOMM. UNION, WORLD SUMMIT ON THE INFO. SOC'Y, DECLARATION OF PRINCIPLES, BUILDING THE INFO. SOC'Y: A GLOBAL CHALLENGE IN THE NEW MILLENNIUM, at <http://www.itu.int/wsis/docs/geneva/official/dop.html> (Dec. 12, 2003) [hereinafter WORLD SUMMIT ON THE INFO. SOC'Y]; see Press Release, Competitive Markets Required to Bridge Digital Divide Regulators Map "Universal Access" Route to Info. and Communication Tech., Geneva, at www.itu.int/newsarchive/press_releases/2003/33.html (Dec. 9, 2003).

⁴² WORLD SUMMIT ON THE INFO. SOC'Y, *supra* note 41.

⁴³ NATIONWIDE SPEAKERS BUREAU INC., DR. JERRI NIELSEN: INCREDIBLE STORY OF SURVIVAL AT THE SOUTH POLE, at http://www.nationwidespeakers.com/speakers/jerri_nielsen.htm (2003).

able to provide their citizens with many benefits including improved and timelier health care.

There are also many other potential benefits associated with the successful implementation of a universal access policy, such as job creation and retention, reduced traffic congestion, successful industrial growth recruitment and retention. Also, an effective universal access policy can bring about increased access to and creation of entertainment and information services; improved education systems; more productive research and development; more start-up and entrepreneurial endeavors; increased urban core revitalization; and improved government effectiveness and services. In order to recognize these and other significant benefits, governments must work to structure a workable and realistic universal access policy relying on best practices that have worked in other countries, while accounting for the individual attributes of each country.

C. Key Components of a Universal Access Policy

In order to recognize the many benefits associated with universal access, it is imperative that governments carefully structure their regulatory and financial regimes, which will enable the implementation of their universal access policy to ensure that market-based, as opposed to market-skewing, policies are adopted. There are three key components to the development of a successful domestic universal access policy. First and foremost, is the political support of the government.⁴⁴ Second, each country must develop a stable regulatory regime that encourages long term sustainable competition and investment in the market. Finally, the third component is a realistic financing plan for universal access policy.

1. The need for political support

For regulators and governments looking to establish a universal access policy, there must be political will to implement the policy of universal access and accomplish its goals. As Hamadoun I. Toure, the Director of the ITU's Telecommunication Development Bureau recognized at the Global Regulator's Symposium: "Bridging the digital divide can be achieved. Developing countries have all the tools at their disposal now to make the universal access dream a reality. The measures identified by the world's regulators are entirely feasible. But they need the full support of governments at the highest level

⁴⁴ GSR BEST PRACTICES, *supra* note 5.

...⁴⁵

Failure to obtain political support early in the process of developing a universal access policy will likely mean failure. This is because without political support, it may be impossible to obtain the necessary legislation or establish the types of market reforms that are needed. In these situations, even the best intentioned regulator will not be able to implement a workable universal access policy.

A good example of the importance of political support in order to achieve telecommunications reform is illustrated by Costa Rica's failed attempts to liberalize its telecommunications market.⁴⁶ Over more than a decade there have been several attempts to liberalize the telecommunications market in Costa Rica through privatization of the incumbent service provider and/or the liberalization of the telecommunications market. Such efforts have been seen as the key to improving the economic and social aspects of the lives of Costa Rican citizens.⁴⁷ Each effort, however, has failed.⁴⁸ This has been attributed largely to the political strength of the labor unions in Costa Rica, many of whose members are employed by the government-owned telecommunications monopoly, who have either held a strike or threatened to strike when market reforms have been proposed.⁴⁹ To date, the government has not had the political will to move past the strenuous objections of the unions to create a legal and regulatory structure that would allow market liberalization and the increased availability of communications services to Costa Ricans.⁵⁰ Thus, Costa Rica has been unable to fully capitalize on its many positive attributes, including its political stability, educated work force, and strategic Central American location to attract more investment in the country, which would lead to job creation, improved access to innovative telecommunications services, lower rates, and other such benefits.⁵¹

Other countries, in comparison, have excelled in adopting market reforms, such as establishing universal access policies when such policies are backed by the political support of the government. A good case in point was the

⁴⁵ Press Release, *Int'l Telecomm. Union, Global Symposium for Regulators*, at <http://www.itu.int/ITU-D/Events/2003/GSR/index.html> (Dec. 9, 2003) [hereinafter ITU Press Release].

⁴⁶ See Neftali Garro, *Insurance Privatization in Costa Rica: Lessons from Latin America with Special Reference to Uruguay*, 7 CONN. INS. L.J. 359, 428-30 n.348 (2000-2001).

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ See Andres Rodriguez-Clare, *Costa Rica's Development Strategy Based on Human Capital and Technology: How it Got There, the Impact of Intel, and Lessons for Other Countries*, at http://hdr.undp.org/docs/publications/background_papers/Rodriguez-Clare.pdf (Feb. 2001).

⁵⁰ *Id.*

⁵¹ *Id.*

establishment of rural concessions in Venezuela.⁵² Prior to the Venezuelan government opening up the basic telecommunications market to competition, the government recognized the importance of extending access to telecommunications services to all regions of the country.⁵³ This principle was embedded in the 2000 Venezuelan telecommunications law that began the dramatic liberalization of its telecommunications market.⁵⁴

To achieve this goal, as part of the liberalization process, the Venezuelan government awarded through a competitive process rural concessions to provide basic telecommunications services in rural areas of the country in advance of the opening of the Venezuelan basic telecommunications market to competition.⁵⁵ An important incentive for companies to bid upon these concessions was the ability of the company to begin operating the Venezuelan market and build out a network in advance of market opening.⁵⁶ The idea was to have a network in place so that on the day competition was allowed; the concessionaire would be in a better position to compete against CANTV, the incumbent.⁵⁷ In addition, these rural concessions were allowed to expand into mobile services, hence providing another potential stream of revenue. In exchange, the government was able to increase its teledensity and access to telecommunications services for citizens in rural locations without the need for additional government funding to extend telecommunications services into these rural areas.

Political support for adopting universal access policies has been growing as governments who have generally been hesitant to allow full access to information to their people now recognize that failure to do so will mean that their country will miss the many benefits of increased access to telecommunications services. For example, Senegal still has a monopoly for basic telecommunications services and an extremely low teledensity of 2.5%.⁵⁸

⁵² See generally MANNER, *supra* note 21, at 74-75.

⁵³ See INT'L TELECOMM. UNION, ITU NEWS, COUNTRY FOCUS: VENEZUELA'S NEW TELECOMMS. ACT, at <http://www.itu.int/itunews/issue/2000/08/infodev.html> (Aug. 2000).

⁵⁴ See LEY ORGANICA DE TELECOMUNICACIONES, at http://www.tsj.gov.ve/legislacion/LT_ley.htm (March 28, 2000).

⁵⁵ Andrew Dymond, *Public and Private Interests in Achieving Viable Rural Service: the Role of a Favourable Policy Environment*, in *The First Mile of Connectivity*, at <http://www.fao.org/docrep/X0295E/x0295e22.htm> (Don Richardson & Lynnita Paisley eds., 1998).

⁵⁶ See generally MANNER, *supra* note 21, at 74-75.

⁵⁷ See Warren G. Lavey, *Making and Keeping Regulatory Promises*, 55 FED. COMM. L.J. 1, 25 (2002).

⁵⁸ AFRICA CONNECTION: CENTRE FOR STRATEGIC PLANNING, SENEGAL, RURAL ITC: MARKET OPPORTUNITY REPORT, INTELECOM, at <http://www.infodev.org/projects/telecommunications/351africa/SENEGAL%20Rural%20Market%20Assessment%20-%20FINAL.pdf> (Oct. 4, 2002).

However, recognizing the importance of expanding access to telecommunications services to its citizens, the government has encouraged the establishment of telecenters by entrepreneurs.⁵⁹ To date, there are more than 9000 telecenters in Senegal.⁶⁰ These telecenters range from small public phone offices to more sophisticated cyber cafes.⁶¹ The deployment of these telecenters, for example, has provided a new tool for small Senegalese businesses, who cannot afford their own phones and other telecommunications services, to be able to communicate directly with their customers and suppliers in distant locations.

International efforts at organizations such as the World Trade Organization, the Global Regulators Forum, and WSIS, have also provided momentum in encouraging adoption of this policy. For example, the Global Regulators Forum agreed upon a series of best practice guidelines for universal access.⁶² Specifically, the Best Practices Guidelines recognize the need for “political support at the highest level” for a successful universal access policy to be implemented.⁶³ This type of encouragement from international bodies for individual countries to adopt a rational policy of universal access is important for two reasons. First, by garnering international support for the implementation of universal access and accompanying best practices, there is a good road map for countries seeking to implement universal access to use as guidance in implementing their own regime. Second, by establishing an international norm for universal access, other countries may be more inclined to adopt such policies.

2. *An Effective Regulatory Framework*

Once a government provides political support for the creation and implementation of a universal access policy, the next step is to create an effective regulatory framework enabling the implementation of this policy. The need for an effective regulatory framework was expressly recognized by the Global Regulator’s Symposium.⁶⁴ How universal access is achieved as a

⁵⁹ *Id.*

⁶⁰ Uwe Afemann, *Internet in Senegal*, at www.home.uni-osnabrueck.de/uafemann/Internet_Und_Dritte_Welt/Senegal.pdf (last visited Aug. 3, 2004); see also *Report on Telecentres in Africa*, at <http://www.communitysa.org.za/africa-ict/asenegal.htm> (last visited Aug. 3, 2004).

⁶¹ See Afemann, *supra* note 60; see also Royal D. Colle & Raul Roman, *Communication Centers and Developing Nations, A State-of-the-Art Report*, at <http://www.devmedia.org/documents/Banga.htm> (Apr. 20, 1999).

⁶² GSR BEST PRACTICES, *supra* note 5.

⁶³ *See id.*

⁶⁴ ITU Press Release, *supra* note 45.

policy goal in an individual country will largely depend on the goals of each country. Nonetheless, there are certain key principles that need to be adopted for any government to enable implementation of a successful universal access policy. The Global Regulator's Symposium output document specifically set forth "best practice guidelines to achieving universal access to information and communication technology services."⁶⁵ Other expert groups, such as WSIS, have also focused on establishing similar guidelines.⁶⁶ In general, there are five accepted broad principles that need to be addressed to create a regulatory regime that allows for the adoption and implementation of an effective universal access policy. These are competition; creation of an independent regulator; technology neutrality; consumer education; and enforcement.

The importance of each of these principles in structuring a regulatory regime that enables the successful and market-based development and implementation of universal access is discussed below. While some countries have been able to implement successful universal access programs without abiding by these principles, such as the creation of telecenters, it is likely that much more substantial gains would be achieved if these principles were incorporated into the country's universal access policy.

a. Competition

Universal access policies are most likely to be successful where a competitive telecommunications market is established.⁶⁷ Creating a competitive market with multiple providers of telecommunications services has proven to encourage expanded service offerings, lower prices, increased geographic coverage and innovation. For example, a survey of liberalized versus non-liberalized markets reveals a tremendous difference in the amount and growth of teledensity.⁶⁸ The Brazilian telecommunications market demonstrates this growth. Teledensity in the Brazilian telecommunications market rose 12%-15% in the first two years after the initiation of the liberalization and privatization process of the basic telephony market.⁶⁹ Therefore, ensuring competition exists in a market is equally important when developing and implementing universal access policies.

The experience of the United States and other countries' wireless sectors

⁶⁵ GSR BEST PRACTICES, *supra* note 5.

⁶⁶ *See generally* WORLD SUMMIT ON THE INFO. SOC'Y, *supra* note 41.

⁶⁷ GSR BEST PRACTICES, *supra* note 5.

⁶⁸ *See* Silvio Contessi, *FDI in the Telecommunication Sectors of Transition and Developing Countries*, at http://www.econ.jhu.edu/people/Contessi/researchsc_files/Contessi_FS-I_TLC_august.pdf (Aug. 2003).

⁶⁹ Joseph Wilson, *Brazil's Experience with WTO Commitments*, at <http://www.law.mcgill.ca/institutes/csri/iimajoseph.ppt>.

demonstrates that competition and market forces increase access to telecommunications services at affordable rates. In many developed and developing countries, because of concerns about liberalizing the basic voice telephony markets, mobile telephony services often were liberalized first. By allowing this form of limited competition, there have been tremendous jumps in teledensity. This has especially been the case in densely populated urban areas, where wiring a city may prove more costly, as opposed to the creation of a less resource intensive cellular telephony system.

While universal access programs, such as telecenters, have been successful even in monopoly markets, it is likely that these and other programs would be more successful in a competitive marketplace. For example, with regard to telecenters, although many countries require the monopoly to resell their services to the telecenters at reduced rates, if there were additional competitors for basic telephony in the market, it would likely lead to a reduction of prices in the market and also improved service quality by the providers of these services. For example, if competition exists, it is likely that providers may choose to differentiate themselves through the services that they provide. By having a choice of services, consumers would be able to select the service that best fits their needs, as opposed to using the only services available to them.

b. Independent Regulator

Another key component of a regulatory regime that enables the development of universal access is the creation of an independent regulator. As Muna Nijem, the Head of the Telecommunications Regulatory Commission of Jordan and Chair of the 2003 Global Symposium for Regulators recognizes, “we cannot stress enough the need for the proper enabling environment, which includes the establishment of an independent regulator and the recognition of the key role that the regulator plays in the implementation of Universal Service/Access policies.”⁷⁰

Nijem correctly recognizes that an independent regulator is crucial for the development of universal access because of its ability to develop policies that enable it. First, the creation of an independent regulator is imperative in order to create a competitive regulatory framework for universal access. For instance, an independent regulator can condition licenses on the provision of universal access in a manner that is fair. Further, independent regulators can adopt policies that enable universal access, such as creating resale opportunities. In addition, to the extent that funding is allocated to achieve universal access policy goals, an independent regulator is an appropriate

⁷⁰ ITU Press Release, *supra* note 45.

mechanism to manage these funds.

Traditionally, an independent regulator has been defined as a regulator that is separate from a telecommunications operator.⁷¹ This distinction is made because historically, many telecommunications operators were also self-regulating.⁷² As an example, the European ONP Framework Directive defines an independent regulator as a body legally distinct and functionally independent of telecommunications organizations.⁷³

Yet, this characteristic is only the start of determining the independence of a regulator. To be truly independent, the regulator must be physically and operationally separate from the entities it regulates, and have the authority to carry out policy by making objective, well-reasoned decisions made through a transparent process and based on a public record.⁷⁴ In addition, regulators should be free from undue political influence during the process to ensure that sound policy and technical decisions are not undermined for political reasons. To accomplish this objective, the regulator should be able to obtain adequate funding to carry out its responsibilities and its authority should be clearly mandated by law.

For many countries, such as Chile and the United Kingdom in the 1980s and continuing until today with, for example, Indonesia in 2003, the establishment of an independent regulator is a critical step in opening a telecommunications market to competition. Many companies will not seek to enter a telecommunications market without an independent regulator in place. This is because they want to be certain that they will be able to compete on a level playing field with incumbent service providers and recognize the need for an independent third party to regulate the sector.

Further, as the telecommunications market matures, and as governments seek to institute effective policies, such as universal access, an independent regulator becomes of even greater importance. This is because of the need for the regulator to often make difficult decisions that may not always reflect the political climate. However, the independence of the regulator will, at least in part, insulate the regulator from the political winds so that they can focus on making sound policy and technical decisions.

⁷¹ See generally World Trade Organization website, at <http://www.wto.org> (last visited Nov. 19, 2004).

⁷² MANNER, *supra* note 21, at 25.

⁷³ Petros Andreadis-Vallindas, *Telecommunications Regulations: Institutional Structures, Responsibilities and the European Experience*, 5, at <http://www.ieid.org/congreso/ponencias/Andreadis-Vallindas%2C%20Petros%20.pdf> (last visited Aug. 3, 2004); see also THE TELECOMMUNICATIONS (LICENSING) REGULATIONS, at <http://www.hmsso.gov.uk/si/si1997/97293001.htm> (1997).

⁷⁴ MANNER, *supra* note 21, at 47-49.

c. Technology Neutrality

Another essential regulatory principle for the development and implementation of a successful universal access policy is technology neutrality.⁷⁵ It is important that the regulatory regime that is developed does not discriminate among technologies. Regulators do not have a good track record when it comes to mandating technologies that are responsive to the market.⁷⁶ For example, when the FCC was considering its initial cellular rules, if the FCC had mandated a specific technology, it would likely have chosen a technology that would not have enabled the growth that we have seen today. By providing for technological flexibility in implementing universal access policies, the government can best allow the market to dictate which technology will best serve the public. In order to adopt a regulatory regime that allows for technology neutrality, the government must refrain from mandating communications standards for equipment. To this end, service providers must be given the flexibility to independently choose technologies based on commercial and competitive considerations. This approach will ensure that companies are able to adapt to market conditions – therefore, best serving the marketplace with the most cost-effective technology. For example, in the United States there has been a recent proliferation of wireless broadband internet service in rural areas through wireless internet service providers (“WISPs”).⁷⁷ These companies, without any government incentives, have taken advantage of the FCC’s technology neutral rules for unlicensed telecommunications services that permits the deployment of such services.⁷⁸ By permitting this flexibility, entrepreneurs have been able to fill a niche market on a cost-effective basis, expanding broadband access to large portions of the rural United States.⁷⁹ Therefore, to the extent possible, it is best to create a universal access policy that allows service providers the flexibility to utilize the technology that will best meet market demands.

d. Consumer Education

As competition brings new choices to the market, consumers can be overwhelmed and under informed. Today, over half the world’s population

⁷⁵ GSR BEST PRACTICES, *supra* note 5.

⁷⁶ Commissioner Kathleen Q. Abernathy, *Address at the AEI-Brookings Joint Center for Regulatory Studies*, at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-247211A1.doc (May 13, 2004).

⁷⁷ See FCC RURAL WIRELESS ISP SHOWCASE AND WORKSHOP PRESENTATIONS, at <http://www.fcc.gov/osp/rural-wisp/> (last visited Aug. 3, 2004).

⁷⁸ 47 C.F.R. §15 (2003).

⁷⁹ *Id.*

still has never used a telephone.⁸⁰ If customers are to understand what choices are available and what practices are legitimate, the regulator — and to some extent the industry — must ensure that consumers have access to the information they need.

Hungary, for example, has launched a successful program of consumer education with regard to its Telecottage program, which is part of its solution to the provision of universal access.⁸¹ Telecottages have been established throughout Hungary as a way to give its citizens access to information and support training via communications, and other services.⁸² In 1995, the Hungarian Telecottage Association was established as a civic organization with one of its primary purposes being the dissemination of information about telecottages and the services that they offer to the citizens of Hungary.⁸³

In the United States, the FCC has also engaged in an aggressive effort to educate consumers on the availability of telecommunications services.⁸⁴ This has been achieved through the establishment of a Consumer and Governmental Affairs Bureau (“Bureau”) whose mandate includes informing consumers about their telecommunications choices. For example, the Bureau maintains a consumer-friendly website, which provides information on a wide-range of telecommunications issues, from how to read a telecommunications service provider bill to how to switch a wireless telephone number to another wireless service provider.⁸⁵ In addition, the Bureau holds forums and programs for consumers to obtain additional information about telecommunications services.⁸⁶

However, regulators do not work alone. It is important that regulators work with service providers and other organizations, such as consumer groups, to ensure that information is available so citizens understand the services that are available to them pursuant to the universal access policy. Without that information, many citizens may not be sufficiently informed to take advantage

⁸⁰ INT’L TELECOMM. UNION, STATISTICS AT A GLANCE, at http://www.itu.int/ITU-D/ict/statistics/at_glance/basic03.pdf (last visited Nov. 2, 2004); see also INT’L TELECOMM. UNION, STATISTICS AT A GLANCE, CELLULAR SUBSCRIBERS, at http://www.itu.int/ITU-D/ict/statistics/at_glance/cellular03.pdf (last visited Nov. 2, 2004).

⁸¹ CENTER FOR TELE-INFORMATION, TECH. UNIVERSITY OF DENMARK, TELECOTTAGES IN HUNGARY, at http://www.itu.int/ITU-D/univ_access/seminar/buda/hun-mct.pdf (last visited Aug. 30, 2004).

⁸² *Id.* at 3-4. Telecottages often support multiple types of community services including reference information, public email service, newspaper, calendar information, radio broadcasting, etc. *Id.*

⁸³ *Id.* at 1.

⁸⁴ CONSUMER & GOVERNMENTAL AFFAIRS BUREAU, FCC, at <http://www.fcc.gov/cgb/> (last visited October 26, 2004).

⁸⁵ *Id.*

⁸⁶ *Id.*

of the available services that are provided.

e. Enforcement

Of equal importance to the other regulatory components necessary to achieve universal access is the will of the regulator to enforce the rules it adopts. A country can establish the most perfect regulatory regime on paper; however, if the regulator does not enforce its rules, it will not work. To exemplify, in Mexico, the government adopted many rules in an effort to create a competitive market for local telecommunications services, but, in many instances, such as interconnection, the government was unwilling to enforce its rules against the incumbent service provider, Telmex.⁸⁷ Thus, Mexican consumers were denied the benefit of competition.⁸⁸

With regard to universal access policies, it is of equal importance that the government is willing to enforce the rules and regulations or they will likely fail. In cases where telecenters are created, if incumbent service providers are required by regulation to provide service at a wholesale rate and fail to do so, and the government does not act to require compliance, consumers will be denied the benefits of the universal access policy. Accordingly, governments must ensure that any rules they adopt they are willing to actively enforce or the rules and policies will be meaningless.

3. How to Finance and Make Affordable a Universal Access Policy

The Global Symposium for Regulators recognized that universal access will best be achieved if there is an “environment [that] will allow the private sector to exploit new profitable opportunities to offer services that expand Universal Service/Access in ways that eliminate the need for government subsidies.”⁸⁹ As a matter of principle, public sector involvement in funding universal access policy goals should be kept to a minimum and be phased out over time. Excessive intervention must be avoided in order to stimulate competition. Instead, the role of government should be to create the conditions for competition rather than serve as a direct competitor to suppliers/operators or a financier.

⁸⁷ Press Release, Office Of The United States Trade Representative, *United States Requests WTO Panel to Rule on Mexican Telecomms. Restrictions*, at http://www.ustr.gov/Document_Library/PressReleases/2002/February/U.S._Requests_WTO_panel_to_rule_on_Mexican_Telecom_Restrictions (Feb. 13, 2002).

⁸⁸ D. Daniel Sokol, *Barriers to Entry in Mexican Telecommunications: Problems and Solutions*, 27 BROOK. J. INT'L L. 1 (2001).

⁸⁹ Press Release, Int'l Telecomm. Union, *Competitive Markets Required to Bridge Digital Divide*, at http://www.itu.int/newsarchive/press_releases/2003/33.html (Dec. 9, 2003).

In general, universal access policies should be implemented by utilizing incentive based, competitive opportunities. Many of these methodologies, such as the utilizing privately owned telecenters, creating regional operators, or imposing license obligations are very successful at increasing universal access in developing countries.⁹⁰ For example, Senegal, Ghana and Gambia have all utilized a telecenter model to achieve their universal access goals, although the former two rely on a resale model, while Gambia has created a public-private partnership.⁹¹ In the case of Senegal and Ghana, the telecenters are run by private individuals – not the telephone company, which still has a monopoly in both countries. The operator of the telecenter works on a prepaid basis with the phone company and then resells the service.⁹² The rate the telecenter charges is neither regulated nor is regulation necessary, because of the competition that exists between telecenters.⁹³

More specifically, in Senegal, the development of telecenters has been extremely important because the incumbent monopoly service provider does not provide public phones. In the past, there was very limited access to telephones outside the home. The development of the over 7000 telecenters run by local entrepreneurs who are licensed by Sonatel has provided significant gains in access to Senegalese to telecommunications services. These telecenters equate to about 5% of all telephone lines.⁹⁴ Sonatel gives a 40% discount on tariffs and assists telecenters with new services through advice.⁹⁵ Between 1992 and 1998, it is estimated that the Senegal Telecenters created 10,000 jobs and contributed 0.4% to Senegal's gross domestic product in 1997.⁹⁶ To ensure that telecenters are not only able to congregate in a small radius, Sonatel requires minimum distances among shops to be established.

⁹⁰ Schorr, *supra* note 27; *see also* GSR CHAIRPERSON, GLOBAL SYMPOSIUM FOR REGULATORS, UNIVERSAL ACCESS REGULATORY BEST PRACTICE GUIDELINES, at http://www.iyu.int/ITU-D/treg/Events/Seminars/2003/GSR/Documents/BestPractices_E_3-1.pdf (Dec. 8, 2003).

⁹¹ *See* Lenis Saweda Liverpool & Cliff Missen, *ICT and Education in The Gambia*, at www.widernet.org/projects/gambia/executive%20summaryGambia.htm (last visited Aug. 3, 2004) (describing Gambia's telecommunications infrastructure); *see* Wilfred Owen, Jr. & Osei Darkwa, *Role of Multipurpose Community Telecenters in Accelerating National Development in Ghana*, at http://www.firstmonday.org/issues/issue5_1/owen/index.html (noting that IT users in Ghana are overwhelmingly in the for-profit sector) (last visited Aug. 30, 2004); *see* Afemann, *supra* note 60 (describing telecommunications in Senegal).

⁹² *Id.*

⁹³ *See generally* Afemann, *supra* note 60.

⁹⁴ UNESCO BANGKOK, ASIA PACIFIC REGIONAL BUREAU FOR EDUC., at <http://www.unescobkk.org/education/ict/v2/info.asp?id=11028> (June 30, 2003).

⁹⁵ Mike Jensen, *Models for Sustainable Internet Development in Nigeria*, at <http://www.isocnig.org/ng/ConferencePapers/Paper9.htm> (last visited Nov. 4, 2004).

⁹⁶ Guy Girardet, *Public Access to Internet Services*, at <http://www.itu.int/ITU-D/ict/papers/banjul2000/girardet.pdf> (last visited Nov. 4, 2004).

Because of Senegal's poverty, many times these cyber cafés are the only way people can afford access to the Internet due to the high price of computer equipment. Another interesting part of the Senegal telecenter is that it will use messengers to let people know when they have received a call. This service is of particular importance to small businesses that cannot afford communications services.

Ghana is another example of where telecenters have been successful, although this time through a public-private partnership. The Postal Service in Ghana entered into a joint venture with a commercial Internet service provider, Africa On-Line, to provide e-mail whereby revenues were split. Over 30,000 Ghanaians signed up in the first three months to send e-mail from any Post Office equipped with a PC.⁹⁷

Other novel ideas include the use of micro-credit programs or the creation of tax incentives. For example, a Bangladesh micro-credit program has successfully increased universal access to telecommunications services.⁹⁸ Bangladesh has an extremely low teledensity of about 0.4%, increasing that teledensity number is seen as important to facilitating the country's economic development.⁹⁹ Specifically, there is a joint venture between Grameen Telecom, a private non-profit company, and Grameen Bank, a micro-credit bank with the goal of alleviating poverty in Bangladesh, which provides an opportunity for women, who have good credit, to run a village phone project.¹⁰⁰ Specifically, these women lease phones that provide access. Grameen Telecommunications forecasts that there are 40,000 village phone operators generating a net income of \$24 million per year in United States currency.¹⁰¹ Village phones generate three times more revenue than rural phones.¹⁰² This program works because women feel comfortable coming to other women's homes.

Grameen Bank also has created Grameen CyberNet, the largest Internet company in Bangladesh. The organization provides cyber kiosks to rural areas.¹⁰³ Once again, through this micro-credit program, universal access to

⁹⁷ Jensen, *supra* note 95.

⁹⁸ See GRAMEEN COMMUNICATIONS, at <http://www.grameen-info.org/gc/index.phtml?p=objective> (last visited Nov. 2, 2004). (describing its efforts as a not for profit telecommunications entity).

⁹⁹ David Burnett, *Grameen Telecom Spearheads Rural Technopreneurship, An Interview with M. Masud Isa, CEO and Managing Director of Grameen Telecom*, at http://www.technopreneurial.com/articles/rural_rescue.asp (Apr. 2001).

¹⁰⁰ Girardet, *supra* note 96.

¹⁰¹ See generally GRAMMEN COMMUNICATIONS, at <http://www.grammen-info.org/grameen/gtelecom> (last visited Nov. 19, 2004).

¹⁰² See GRAMEENTELECOM, at <http://www.grameen-info.org/grameen/index.html> (last visited Nov. 19, 2004).

¹⁰³ Muhammed Yunis, *Bridging the Digital Divide*, at

telecommunications services is increased without relying on government subsidies.¹⁰⁴

Another potential solution is build transfer and operate arrangements (“BTO”). For example, Thailand has used BTO concessions – where private sector concessionaires build and transfer assets to the state – with an exclusive right to operate assets on a revenue sharing basis with the state.¹⁰⁵

There is also a role for government intervention in funding universal access policies. Universal access funding from private sources can be supplemented, where appropriate, with government funding through a broad range of market players, managed by neutral bodies to be used to provide initial financing to help provide projects that meet the needs of citizens. However, the government should only adopt such policies to initiate such programs. Over time, it is vital to the success of universal access policies that funding of these communications services be accomplished through market-based mechanisms. Any programs being implemented should be structured in a manner that ensures long term financial sustainability. In the long run, by creating a competitive model, the question of sustainability of funding will not be an issue and governments will be able to achieve their universal access policy goals.

III. CONCLUSION: WHERE DO WE GO FROM HERE?

In order to achieve universal access, governments must embrace the principle of competition taking into account the individual characteristics of their country as they structure their regimes. Only through competition and the implementation of market-based policies, can governments be successful in ensuring that their citizens gain meaningful access to the telecommunications services of the 21st century and the accompanying benefits.

summit.org/press/grameen.htm (last visited Nov. 19, 2004).

¹⁰⁴ *Id.*

¹⁰⁵ DOING BUSINESS IN THAILAND, at http://www.ebusinessforum.com/index.asp?layout=newdebi&country_id=TH&country=Thailand&channelid=6&title=Doing+e-business+in+Thailand (last visited Nov. 19, 2004); see also ITU News, *Thailand: Country Case Study*, at <http://www.itu.int/itu/news/issue/2000/09/iptelephony.html> (Sept. 2000).