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# ITU NEWS

[www.itu.int/itu-news](http://www.itu.int/itu-news)

## World Telecommunication Development Conference



India at  
the helm  
of Council  
2010







Communication has always been a human need.



We believe it is also a human right.

As the United Nations specialized agency for telecommunications, the International Telecommunication Union (ITU) is working to bring information and communication technologies to developing nations. ITU advises countries on regulatory strategies, infrastructure applications, investment opportunities and on human capacity building. Drawing on the knowledge of establishing ICT networks in developing countries, we are able to bring the benefits of communications to all people.

## Building a broadband future together

Dr Hamadoun I. Touré  
ITU Secretary-General



■ The World Telecommunication Development Conference 2010 (WTDC-10) is an event of exceptional importance for ITU. It is my great pleasure to welcome participants to Hyderabad. I am delighted that this conference is taking place in India, a country of great innovation and inspiration.

WTDC-10 is an essential step in assessing the progress achieved in implementing the ambitious action plan we launched in 2006 in Doha, Qatar. The foundations of a global information society have been laid. The conference in Hyderabad will adopt a declaration and an action plan that will pave the way for building on those foundations to ensure that the information society is truly global and accessible to all.

The ITU Council, which met from 13 to 22 April 2010, set the stage not only for WTDC-10, but also for another major ITU event — the Plenipotentiary Conference, which will be held in Guadalajara, Mexico, from 4 to 22 October 2010. We were very honoured to have as Chairman of this year's session of the Council the distinguished Deputy Director General of India's Department of Telecommunications, Mr R. N. Jha. As was stressed by the Council, the outcomes of WTDC-10 will be crucial for the Guadalajara Conference and for ITU's own strategic plan for the coming years.

With close to 5 billion mobile cellular subscriptions expected worldwide at the end of 2010, and almost 2 billion people now having access to the

Internet, we can say that we have made tremendous progress. But a lot remains to be done. In particular, we must bring affordable broadband access within reach of people everywhere.

I strongly believe that the public and private sectors will work together — as they did for the creation of mobile cellular networks — to roll out the necessary infrastructure and services to bring broadband to all the people of the world. Broadband networks can quickly pay for themselves, by making savings through the more efficient provision of essential services such as health care, education, power, water, transport and e-government. This is why ITU, with the United Nations Educational, Scientific and Cultural Organization (UNESCO), established the Broadband Commission for Digital Development, which was launched during the WSIS Forum on 10 May 2010.

The Broadband Commission is chaired by President Paul Kagame of Rwanda and Carlos Slim Helú, Honorary Lifetime Chairman of *Grupo Carso*. Irina Bokova, Director-General of UNESCO, and I, as Secretary-General of ITU, will act as the Commission's vice-chairmen. The Commission has the full support of the United Nations Secretary-General, Ban Ki-moon.

As we promote broadband, we must also make sure that people are well-equipped, through human capacity building, to take full advantage of what this technology offers. Together, we can and must build the future on broadband. ■





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# World Telecommunication Development Conference



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# World Telecommunication Development Conference







## From Doha to Hyderabad

### Setting the global development agenda for the four years ahead

Sami Al Basheer Al Morshid, Director of ITU's Telecommunication Development Bureau (BDT)

- Top-ranking officials from government and the private sector, as well as international and regional organizations, are meeting at the fifth World Telecommunication Development Conference (WTDC-10) in Hyderabad (India) from 24 May to 4 June 2010 to help shape the future development of information and communication technologies (ICT) worldwide.

A high-level segment is scheduled in the first two days of the conference to give high-ranking officials, for the most part ministers responsible for telecommunications/ICT and chief executives from industry, the opportunity to share their vision with delegates and thus contribute to the conference debates and outcomes.

A number of side events have been organized to promote some of BDT's work in key areas of development, including a seminar and ministerial round table on *Connect a School, Connect a Community* flagship initiative, a briefing session on statistics,

and information sessions on policy and regulatory issues, e-health, the transition to digital broadcasting, and the launch of the ITU Academy portal (see pages 10–11).

#### A time of great opportunity

WTDC-10 is taking place at a time of great opportunity. The financial crisis that shook all sectors and all regions provoked a major assessment on how we do business and where our priorities lie. The resurgence of the financial markets and the full recovery of the ICT industry will provide many opportunities in terms of project financing, innovation and the emergence of new technologies. We must be ready to make the most of those opportunities by adopting a robust action plan in Hyderabad.

This will enable us to continue the remarkable progress in connecting people everywhere. We are witnessing tremendous growth, especially via mobile technologies. Mobile cellular network coverage



already stands at 86 per cent of the population, and there is every chance that it will rise to close to 100 per cent by 2015, the deadline for achieving the connectivity targets of the World Summit on the Information Society (WSIS).

Basic radio and television services are widely available, and could reach the majority of the world population by 2015, provided the lack of electricity and broadcast content are addressed. Global Internet user penetration doubled between 2003 and 2009. By the end of 2009, around one-quarter of the world population was online — up from around 12 per cent in 2003.

In developing countries, good progress has also been made with respect to bringing Internet access to central governments, research and scientific institutions, and to some extent to schools, hospitals, museums, libraries and archives, at least in the major cities.

These are some of the highlights from the ITU *World Telecommunication/ICT Development Report 2010: Monitoring the WSIS targets — A mid-term review*. The report was published to coincide with WTDC-10 and reflects the first effort to carry out a global, quantitative assessment to date of the WSIS targets. The report makes suggestions on the types of policy measures required to meet these targets. It is the first time that measurable indicators are being proposed for each one of the ten targets. The report's findings will certainly enrich our debate in Hyderabad.

### Great expectations

Like every WTDC, the event in Hyderabad is expected to adopt a comprehensive action plan that can help achieve the ICT development goals of ITU Member States over the next four years. But first, the conference will have to review a series of reports







from the ITU Telecommunication Development Sector (ITU-D) to assess implementation of the Doha Action Plan, which resulted from WTDC-06.

Essentially, it will consider BDT's report on programmes, activities and initiatives; as well as activity reports from our Telecommunication Development Advisory Group (TDAG) and from our two study groups. On general policy and strategy, the conference will examine BDT's role in implementing WSIS outcomes; the Connect series of Summits; the outcome of the World Telecommunication Policy Forum, held in Lisbon, Portugal in April 2009; outcomes of the Regional Preparatory Meetings; and ITU-D contribution to the overall Strategic Plan of the Union. Contribution by the private sector and the role of the ITU Regional presence are also important items on the agenda.

### Regional preparations

To focus WTDC-10 effectively on the issues that matter most, preparatory meetings were organized in each region across the world during 2009, with the last one held in January this year (see box). All six Regional Preparatory Meetings (RPM) reviewed implementation of the Doha Action Plan. TDAG has played a key role in guiding us in these preparations,

setting the scene for a productive and forward-looking WTDC-10. TDAG's document entitled "A fresh

#### Regional Preparatory Meetings

##### 5–7 May 2009

Regional preparatory meeting for the Asia-Pacific region, Kuala Lumpur, Malaysia

##### 13–15 July 2009

Regional preparatory meeting for the Africa region, Kampala, Uganda

##### 9–11 September 2009

Regional preparatory meeting for the Americas region, Santa Marta, Colombia

##### 23–25 November 2009

Regional preparatory meeting for the Commonwealth of Independent States, Minsk, Belarus

##### 1–3 December 2009

Regional preparatory meeting for Europe, Andorra-la-Vella, Andorra

##### 17–19 January 2010

Regional preparatory meeting for the Arab States region, Damascus, Syrian Arab Republic



look at ITU-D activities" was generally endorsed by the regional preparatory meetings. In particular, the document called for the streamlining of BDT activities into fewer programmes to enable us to use our resources with greater impact. On the basis of their needs, the regional meetings set priorities to boost ICT development over the next four years. The outcomes of all six meetings were reported in several issues of *ITU News*.

In February 2010, a Coordination Meeting was held in Geneva and brought together the chairmen and vice-chairmen of the Regional Preparatory Meetings to consolidate into a single document the outcomes of these meetings. The consolidated report was endorsed by TDAG at its 15th meeting on 24–26 February 2010 and represents a worldwide consensus as far as programme clustering, regional initiatives and Questions for study in the next four-year period are concerned. It contains four programmes and a special programme as follows:

- ▶ Programme 1: Information and communication infrastructure
- ▶ Programme 2: Cybersecurity and ICT applications
- ▶ Programme 3: Enabling environment
- ▶ Programme 4: Capacity building and other initiatives
- ▶ Special Programme for least developed countries, small island developing countries and countries in special need

Regional initiatives, which were a new element in the Doha Action Plan, have proved to be useful in planning the work of the regions. A number of initiatives being proposed for adoption by WTDC-10 are similar across all regions. One example is digital broadcasting. Across all regions, the stated objective for this initiative is to assist ITU Member States to make a smooth transition from analogue to digital

broadcasting, including taking advantage of the digital dividend. Human capacity building and broadband access and uptake in urban and rural areas are two other initiatives being proposed by all regions (see box).

Broadband roll-out has been at the heart of ITU-D activities. One of our flagship initiatives, the ITU Wireless Broadband Partnership, is designed to mobilize key stakeholders to finance and build wireless broadband infrastructure within beneficiary countries, with particular attention to underserved populations in rural and remote areas. We are preparing the deployment of wireless broadband infrastructure projects in 11 African countries together with industry and other partners.

With such a wealth of information and solid preparations, including new proposals from Member States to WTDC-10, the ground is laid for the adoption of a robust Hyderabad Declaration, and Hyderabad Action Plan that will pave the way for more actions to build the global information society.





Regional Initiatives	
Under each Regional Initiative, projects would be developed and implemented to meet countries' needs.	
Asia-Pacific	
	Unique ICT needs of least developed countries, small islands developing States and landlocked countries
	Emergency telecommunications
	Digital broadcasting
	Broadband access and uptake in urban and rural areas
	Telecommunication/ICT policy and regulation in Asia Pacific region
Africa	
	Human and institutional capacity building
	Strengthening and harmonizing policy and regulatory frameworks for integration of African telecommunication/ICT markets
	Development of a broadband infrastructure and achievement of regional interconnectivity and universal access
	Introduction of new digital broadcasting technologies
	Implementation of the recommendations of the Connect Africa Summit
Americas	
	Emergency telecommunications
	Digital broadcasting
	Broadband access and uptake in urban and rural areas
	Reduction of Internet access costs
	Human capacity building on ICT, with emphasis on persons with disabilities or people living in rural and deprived urban areas
Commonwealth of Independent States (CIS)	
	Electronic meetings
	Terrestrial digital broadcasting (TV and sound)
	Virtual laboratory (to assist ITU Member States in the region in training specialists in testing and implementing broadband access technologies)
	Provision of a stable electric power supply for telecommunication facilities in rural and remote areas
	Human capacity building in the info-communication field
	Broadband access, including mobile
Europe	
	E-accessibility in Central and Eastern Europe — Internet and digital television — for blind people and people with visual impairment problems
	Digital broadcasting
	ICT applications, including e-health
Arab States	
	Broadband connectivity
	Digital broadcasting
	Open source software (to develop free and open source software and ensure its availability for SMEs in the Arab region, as a means to facilitate WSIS outcomes).
	Arab digital content (to contribute to a better presence of Arabic digital content).
Cybersecurity (to enhance coordination in building confidence in the use of information and communication technologies within the Arab region).	

A photograph showing several children in a classroom or computer lab. In the foreground, a young girl with blonde pigtails, wearing a pink and white striped shirt, is looking at a computer monitor. Behind her, other children are also seated at desks with computers. The room is filled with computer equipment, including monitors, keyboards, and mice. A semi-transparent purple box with the text 'WTDC-10 side events' is overlaid on the bottom left of the image.

## WTDC-10 side events

- *In conjunction with the World Telecommunication Development Conference (WTDC-10), ITU's Telecommunication Development Bureau has organized a series of side events for Member States and Sector Members to address various ICT development themes, from the Connect a School, Connect a Community initiative, to ways of measuring the information society, the ITU Academy, trends in policy and regulatory reform, spectrum management and digital broadcasting, and e-health.*

### Connect a School, Connect a Community

#### Seminar and ministerial round table

When *Connect a School, Connect a Community* was launched at ITU TELECOM 2009 at a session of the Youth Forum, United Nations Secretary-General Ban Ki-moon urged world leaders to support the effort of connecting all schools by 2015. ITU has identified and compiled in an online Toolkit best practice on policies, regulation, low-cost computing devices and practical experiences in connecting schools, including establishing school-based community ICT centres (see [www.connectaschool.org](http://www.connectaschool.org)). Various innovative measures can be taken to connect schools and communities.

### Thematic information sessions

#### Measuring the information society

Telecommunication/ICT policy-makers and regulators need to be well informed about ICT uptake in their countries. They also need to be able to compare their own countries with other countries to assess progress and see where they could be doing better.

ITU statistics, in particular the latest ICT Development Index and ICT Price Basket (released in February 2010) are two benchmarking tools to monitor information society developments worldwide. The Index ranks 159 economies. A complementary perspective is given by the *World Telecommunication/ICT Development Report 2010*, which reviews progress towards the achievement of the WSIS targets (see



article on pages 12–16). ITU's work on ICT measurement faces challenges related to data collection and dissemination, but members can help to improve the availability and quality of data in various ways. For more information, contact: [Indicators@itu.int](mailto:Indicators@itu.int).

### ITU Academy

The ITU Academy aims to strengthen the human, institutional and organizational capacity of developing countries by offering high-quality opportunities for ICT learning and development. Ultimately, the ITU Academy will provide a web-based platform constituting a single access point to all ITU training interventions, whether delivered face-to-face or through instructor-led or self-paced distance learning, in areas such as business and management, policy and regulation, and technologies and services.

The ITU Academy has a rapidly growing global network of partner institutions that provide training and education. The network includes more than 60 Internet Training Centres, which offer Internet and IP-related training programmes designed to develop “new economy” professionals. It also includes more than 50 centres of excellence, which share their expertise, resources and capacity-building know-how. For more information, visit the new ITU Academy portal at: <http://academy.itu.int>.

### Trends in policy and regulatory reform

ITU's unique regulatory online tools allow users to keep up with the latest regulatory trends and innovative approaches in a converging ICT sector. Information on the regulatory issues discussed at the Global Symposium for Regulators, the focus of *Trends in Telecommunication Reform*, and new regulatory and economic studies is available through ITU, in particular the ITU's ICT EYE portal, the ITU-infoDev

ICT Regulation Toolkit, the ICT Regulatory Decisions Clearinghouse, as well as G-REX — ITU's online discussion forum for regulators and policy-makers.

### Spectrum management and digital broadcasting

ITU provides assistance in the technical and regulatory procedures for managing the spectrum allocated to the land mobile, fixed and broadcasting services through its SMS4DC (spectrum management system for developing countries) computer program. The program is fully compliant with the relevant ITU recommendations.

ITU also provides guidance for countries on switching from analogue to digital broadcasting (see article on pages 17–21). The guidelines show how to make a national plan for a smooth transition, including technical, policy, legal, regulatory, social, economic and customer-related aspects. The guidelines also cover consultation to develop road maps and training on digital broadcasting technologies and policies, including spectrum aspects.

### e-Health

Future e-health activities led by ITU aim at enhancing countries' capacity to develop or update national e-health strategic plans to help shape an effective regulatory, governance and policy context for e-health development and investment. ITU also offers guidance in planning appropriate ICT infrastructure for e-health to reach desirable outcomes or to introduce cost-effective and large scale e-health services with minimal resources. ■



## ITU calls for broadband Internet access for half the world's population by 2015

New ITU report focuses on monitoring the WSIS targets and reviews progress towards a global information society

■ The 9th edition of the ITU World Telecommunication/ICT Development Report (WTDR 2010), launched at the World Telecommunication Development Conference 2010 (WTDC-10), in Hyderabad, India, provides a mid-term review of the progress made in creating a global information society by 2015. The report reviews each one of the ten targets agreed upon by governments at the World Summit on the Information Society (WSIS). These range from connecting villages, schools, health centres and hospitals, scientific and research centres, libraries and government agencies to information and communication technologies, as well as developing online content (see page 16).

### Mobile technology leads to connectivity revolution

The report points to the tremendous growth and evolution in mobile cellular technology, which has led to connecting many previously unconnected people in rural areas. Today, almost 75 per cent of the world's rural population is covered by a mobile cellular signal. In Africa,





the region with the lowest level of mobile population coverage, over half of the population living in rural areas has access to a mobile network (Figure 1).

In India and China — the world's two most populous countries in the world — mobile technology has provided basic telephone services to over 90 per cent of villages. In many developing countries, fixed telephone lines are largely limited to urban areas. But today, more than half the rural households have a mobile telephone.

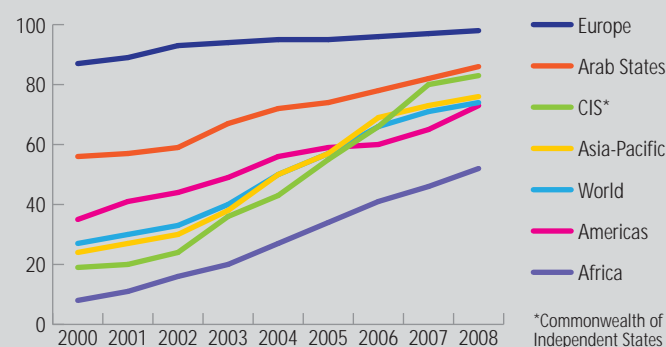
### More effort needed to increase Internet access

The number of Internet users has more than doubled since 2003, when the first phase of WSIS took place. Today, more than 25 per cent of the world's population is using the Internet. The importance of bringing people online is widely recognized, but more efforts are needed to increase the number of Internet users. While 75 per cent of all households have a television, only 25 per cent have Internet access. In the developing countries, home Internet penetration is as low as 12 per cent, and much lower in most rural households (Figure 2).

Where home access to the Internet is low, it is particularly important for countries to invest in public Internet access. Many governments across the world are actively promoting public access and some are turning libraries, museums and post offices into Internet cafés. In Bhutan, for example, 40 per cent of all localities have a Public Internet

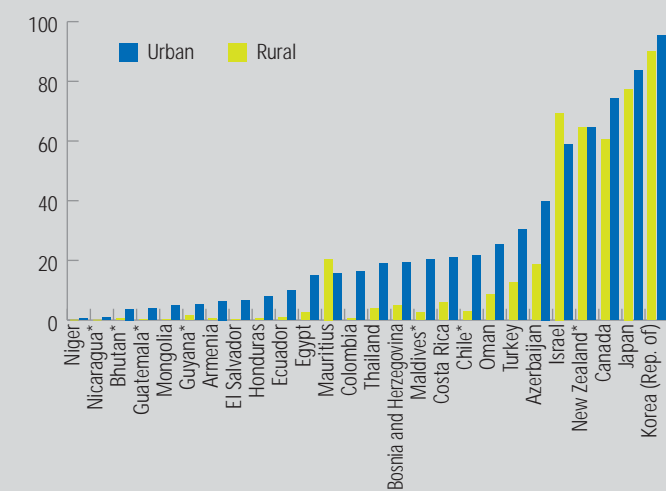
Access Centre. Since 2003, the Royal Government of Bhutan, in cooperation with ITU and other partners, has been revamping post offices in remote and rural locations into ICT centres, allowing rural inhabitants to join the information society (see article on pages 22–25). In Mexico, almost 40 per cent of the

Figure 1 — Rural population covered by a mobile signal, by region



Source: ITU World Telecommunication/ICT Indicators database.

Figure 2 — Proportion of rural and urban households with Internet access, 2007/2008



\* Data refer to 2006.

Source: ITU World Telecommunication/ICT Indicators database.

7000 public libraries offer visitors Internet access. All archives have a broadband Internet connection, and efforts are being made to digitize them.

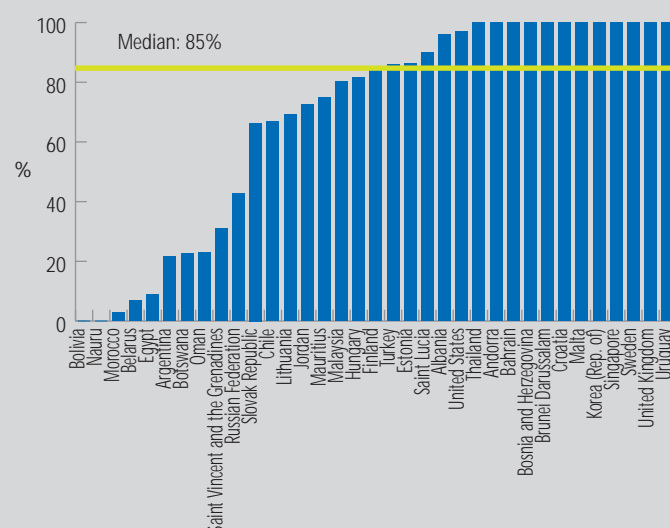
### Many schools in developing countries deprived of high-speed Internet access

Another central WSIS target is to bring schools online and to ensure that school curricula teach students how to use ICT. The report finds mixed results on this target. While many schools in developing countries remain deprived of any form of Internet access, a number of others have connected all their schools, often with broadband access (Figure 3). Jordan, for example, has connected 80 per cent of its schools, with 73 per cent of them having a broadband connection. Its teachers are highly qualified in information technology and most of the country's schools make use of Internet-assisted learning. But training enough teachers to use and teach ICT skills remains a challenge in most developing countries — and even in some developed ones.

In terms of connecting scientific and research centres with ICT, the report shows that today most research institutes and universities have access to the Internet, often through a broadband connection. Data also show that the number of national research and educational networks (NRENs) is growing and that by early 2010, around 62 per cent of countries had an NREN (Figure 4). At the same time, the bandwidth availability

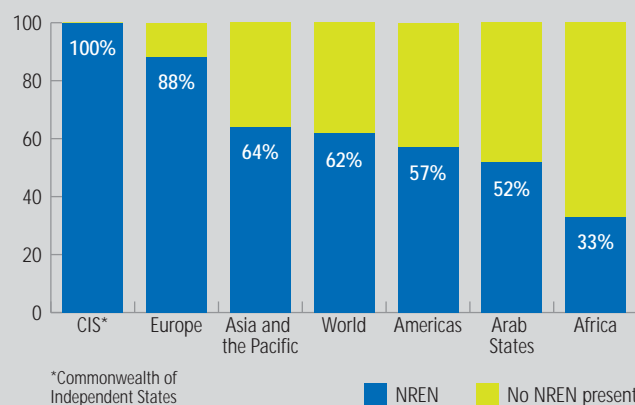
of countries' NRENs varies considerably, from just a few Megabits in some developing countries to over 10 Gigabits in developed countries.

Figure 3 — Proportion of schools with broadband Internet access, 2008/2009



Source: UNESCO Institute for Statistics.

Figure 4 — Countries with a national research and education network (NREN), by region, 2010



Source: ITU.

The report finds that the availability of ICT in health institutions in developing countries is limited and more needs to be done to achieve the target of “connecting all health institutions to the Internet”, ideally through broadband. M-health, which refers to medical and public health practices that are supported by mobile devices, is another area with great potential and the report highlights that over 75 per cent of countries today have launched some m-health initiatives. This includes, for example, the use of text messages in South Africa, to support HIV/AIDS treatment.

An area where much progress has been made since WSIS is e-government. The target set by the Summit to “connect all local and central government departments” has been at least partially achieved, since almost all central governments have a web presence and provide basic information to their citizens (Table 1). The next step is to ensure that all countries move towards more sophisticated and interactive online e-government applications and services, for example, applying for a driver's licence, filling out a tax form, or making online payments using a credit or debit card.

### The Internet is dominated by only a few languages

With regard to WSIS Target 9, the report points to the lack of local content, in local languages on the Internet. The web is still largely dominated by the English language, even though only around 15 per cent of the world's population understands it (Figure 5). On the other hand, the proportion of English-speaking Internet users is declining, suggesting that non-English speakers are increasingly going online. Another indication for the diversification of content on the Internet is the growing number of

websites that are registered under country domain names. Some of the highest 2005–2009 growth rates in terms of newly registered domain names were found in India (.in), the Russian Federation (.ru) and China (.cn).

### Goal to provide high speed online access to half the world's population by 2015

Overall, the report concludes that while major achievements have been made over the past five years, substantial efforts are required in developing countries to achieve WSIS targets by 2015. The report makes three main recommendations on the

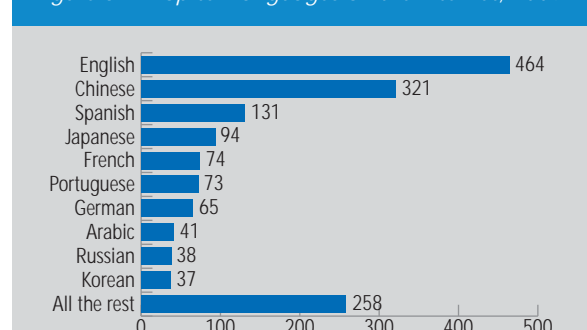
**Table 1 — Countries with government websites, 2003 and 2009**

	2003	2009
Countries with central government websites	173	189
Countries without central government websites	18	3
<b>Total UN Member States</b>	<b>191</b>	<b>192*</b>

\*On 28 June 2006, Montenegro was accepted as a United Nations Member State, bringing the total of UN Member States to 192.

Source: United Nations Department of Economic and Social Affairs.

**Figure 5 — Top ten languages on the Internet, 2009**



Source: Internet World Stats.



# The 10 WSIS targets to be achieved by 2015



1

"To connect villages with ICTs and establish community access points"

2

"To connect universities, colleges, secondary schools, and primary schools with ICTs"

3

"To connect scientific and research centres with ICTs"

4

"To connect public libraries, cultural centres, museums, post offices, and archives with ICTs"

5

"To connect health centres and hospitals with ICTs"

6

"To connect all local and central government departments and establish websites and e-mail addresses"

7

"To adapt all primary and secondary school curricula to meet the challenges of the information society, taking into account national circumstances"

8

"To ensure that all of the world's population has access to television and radio services"

9

"To encourage the development of content and put in place technical conditions in order to facilitate the presence and use of all world languages on the Internet"

10

"To ensure that more than half the world's inhabitants have access to ICTs within their reach"

policies and measures needed to help achieve the targets:

- ▶ Ensure that half the world's population has access to broadband by 2015
- ▶ Build an ICT-literate society globally
- ▶ Develop online content and applications.

To this end, governments can take a number of concrete steps, such as licensing mobile broadband operators and ensuring that broadband infrastructure is accessible to all citizens. Policy-makers in developing countries, in partnership with the international community, should continue to commit resources to connecting educational institutions to ICT and to adapting their curricula. The development of online content and applications in local languages should be promoted, for example, through the digitization of books and documents to create an e-culture. With more than half of the Internet users speaking

languages with non-Latin scripts, the recent opening up of Internet domain names to non-Latin script characters is an important development.

Finally, the report highlights the importance for setting clear policy targets and monitoring progress. To this end, it proposes a list of 50 concrete indicators to monitor the targets over the next five years, until 2015.

The report is the result of a joint effort among several international organizations, led by ITU, and includes contributions from the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO) and the United Nations Department of Economic and Social Affairs (UNDESA), as well as from representatives of civil society.

## Going digital

ITU issues Guidelines for the transition from analogue to digital broadcasting



- *Broadcasting is one of the most economic and influential media for delivering content such as news, education and entertainment. Broadcasting also contributes to narrowing the digital divide.*

Now broadcasting is on the verge of a revolution that is expected to affect not only broadcasting itself but also other media.

The transition from analogue to digital broadcasting will create great opportunities for the provision of information and communication technology (ICT) applications and multimedia services, including higher quality video and interactivity. It will also contribute to the efficient use of spectrum and pave the way for a “digital dividend”, because the released spectrum can be used for wireless broadband communications and other applications.

### ITU support for transition from analogue to digital

Given the advantages of digital broadcasting, ITU is engaged in facilitating the transition from analogue to digital. ITU has developed frequency plans for digital terrestrial broadcasting (the GE06 Plans) for Region 1 and the Islamic Republic of Iran.

### Acknowledgements

*This article presents the Guidelines for the transition from analogue to digital broadcasting, recently published by ITU and issued during a side event at the World Telecommunication Development Conference 2010 (WTDC-10) in Hyderabad, India.*

*The guidelines were developed in response to a request by WTDC-06, and were drawn up with the support of ITU and the Korea Communications Commission of the Republic of Korea. They were written by a group of international experts each in their field of responsibility as follows: Jan Doeven (coordinator) for DTTB networks; Peter Walop for “policy and regulation, analogue switch-off, market and business development”; and Gu-Yeon Hwang for “MTV networks”. Senior ITU experts from the Telecommunication Development Bureau and the Radiocommunication Bureau also contributed to the work. The guidelines are available at: [www.itu.int/publ/D-HDB-GUIDELINES.01-2010/en](http://www.itu.int/publ/D-HDB-GUIDELINES.01-2010/en). For further information, please contact: [tnd@itu.int](mailto:tnd@itu.int)*



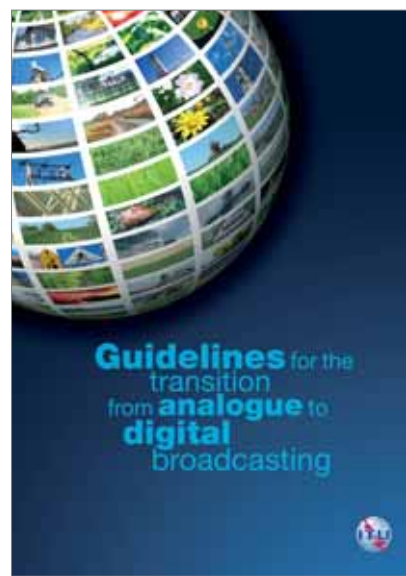
Countries are to implement these plans by 17 June 2015, except for some developing countries, which have until 17 June 2020 to make the transition. Through various projects, ITU is helping developing countries and least developed countries to make this transition smooth.

With this in view, ITU has developed *Guidelines for the transition from analogue to digital broadcasting*.

The guidelines provide information and recommendations on policy, regulation, technologies, network planning, customer awareness and business planning to ease the transition to digital terrestrial television broadcasting (DTTB) and the introduction of mobile television broadcasting (MTV). The guidelines will help countries develop a road map for the transition, covering national goals, strategies and key activities. They will also provide a basis for reaching consensus on requirements and solutions, and for identifying key milestones. Basically, the guidelines constitute a framework to help countries plan and coordinate the steps for the transition.

The regional preparatory meetings for the World Telecommunication Development Conference 2010 (WTDC-10) recognized the transition from analogue to digital broadcasting as a key regional initiative. These guidelines are therefore timely, and member countries can use them to develop their own road maps for transition.

The guidelines are intended for use in Africa and take into account the provisions of the GE06 Agreement. Thus, in principle, the guidelines are



applicable within the whole of the GE06 planning area\*. The guidelines could also be applied in countries outside the GE06 planning area, but in that case the applicable regulations would have to be taken into account, rather than GE06.

### Decisions and choices

The transition to DTTB and the introduction of MTV services is a complex process, involving decisions on key topics and choices of functional building blocks. The

guidelines are designed to help countries move confidently through the process. Whatever the particular circumstances of any individual country, experience has shown that some conditions have to be met for the transition to DTTB and the introduction of MTV services to be successful. These conditions include:

- ▶ strong leadership from government;
- ▶ firm decision that sets the analogue television switch-off date;
- ▶ close cooperation between the regulator and market parties;
- ▶ clear and timely regulatory framework (including decisions on the "digital dividend");
- ▶ adequate information and assistance to viewers.

\* The planning area of GE06 Agreement covers Region 1 (parts of Region 1 situated to the west of meridian 170° E and to the north of parallel 40° S, except the territory of Mongolia) and the Islamic Republic of Iran.



## Functional framework for introducing DTTB and MTV

The guidelines present a comprehensive functional framework, indicating the decisions to be taken in introducing DTTB and MTV. This framework covers five areas:

- A. Policy and regulation
- B. Analogue switch-off
- C. Market and business development
- D. Networks (DTTB and MTV)
- E. Road map development.

A number of functional building blocks have been identified in each area (see Figure 1 on page 21). In general, the green functional building blocks are to be addressed by the regulator, and the blue functional building blocks are to be addressed by the DTTB and MTV network operator and service provider. In some countries, however, the roles and tasks may be assumed by different players.

## Contents of the guidelines

The guidelines are structured in six parts, as outlined below.

**Introduction (Part 1)** provides general information on the functional framework of the guidelines, highlights the advantages of digital switch-over, and describes the status of the transition.

**Policy and regulation (Part 2)** gives an overview of the key issues, and sets out the choices the regulator faces when formulating DTTB, MTV or analogue switch-off policy objectives. In striving for rapid service up-take and development of the DTTB and MTV markets, the regulator will implement such policies by issuing information, funds, rights, licences and permits to qualified market parties, in compliance with the relevant legislation.

Because of the one-off nature of analogue switch-off, this process is dealt with in five consecutive stand-alone chapters of the *Guidelines*.



**Market and business development (Part 3)** provides an overview of the key business issues and choices that DTTB and MTV service providers and broadcast network operators face when planning the commercial launch of these services. It includes a set of business activities and tools for defining the DTTB/MTV service proposal, and the associated business case and plan, taking into account identified demand drivers, service barriers and financial feasibility, as well as receiver availability and customer support issues.

Part 3 is intended both for commercial market parties (such as DTTB/MTV service providers and broadcast network operators) seeking an acceptable return on their investments, and for regulators needing to understand the key business issues and choices so as to define realistic DTTB/MTV policies and licence conditions.

Commercial parties will want to draw up a proposal for DTTB or MTV service that responds to consumer demand and that generates sufficient revenues (either through advertising or subscriptions). In contrast, public service broadcasters are generally motivated by a need to meet public interest objectives in the field of information and culture. Public service broadcasters may also receive advertising income. Both commercial and public service broadcasters will be interested in viewing ratings and high population coverage.

**DTTB networks (Part 4) and MTV networks (Part 5)** contain guidelines on key issues and choices that operators face when planning transmitter networks for DTTB and MTV services. Choices in network architecture, frequency planning, network planning, roll-out planning and network operation need to fulfil licence requirements, as well as meeting business objectives. Thus, optimum solutions have to

be found between, often conflicting, requirements regarding picture and sound quality, coverage level and transmission costs.

Depending on the roles and responsibilities of regulators and network operators in different countries, some of the issues discussed regarding technology choices, frequency planning and network planning may also be of interest to regulators.

DTTB and MTV networks are dealt with in separate parts of the guidelines because, in general, the key topics and choices involved regarding technology, regulation and business aspects are different. However, the issues are similar in regard to network planning, radiation characteristics, and certain design principles, so these topics are dealt with in Part 4 for both DTTB and MTV.

**Road map development (Part 6)** provides a set of generic road maps for the whole process of transition to DTTB and the introduction of MTV. There are separate examples for use by the regulator, and the DTTB and MTV network operators and service providers.

The road maps match short-term and long-term goals, and indicate the main activities needed to meet these goals. Developing a road map has three major benefits:

- ▶ It helps in reaching consensus on the requirements and solutions for the transition to DTTB and the introduction of MTV.
- ▶ It provides a mechanism for monitoring the achievement of key milestones in the transition to DTTB and the introduction of MTV.
- ▶ It sets out a framework for planning and coordinating the steps needed for the transition to DTTB and the introduction of MTV.

The guidelines will be further developed to take account of the conditions and requirements in other regions.

Figure 1 — Functional framework for introducing digital terrestrial television broadcasting (DTTB) and mobile television broadcasting (MTV)

A	Policy and regulation	2.1 Technology and standards regulation	2.2 Licensing framework	2.3 ITU-R Regulations			
		2.4 National spectrum plan	2.5 Assignment procedures	2.6 Licence terms and conditions	2.7 Local permits (buildings and planning)	2.8 Media permits and authorizations	
		2.9 Business models and public financing	2.10 Digital dividend				
		2.11 National telecom, broadcast and media acts	2.12 Law enforcement and execution	2.13 Communication to consumers and industry			
B	Analogue switch-off	2.14 Transition models	2.15 Organizational structure and entities	2.16 Analogue switch-off planning and milestones	2.17 Infrastructure and spectrum compatibility	2.18 Analogue switch-off communication plan	
C	Market and business development	3.1 Customer insight and research	3.2 Customer proposition	3.3 Receiver availability considerations	3.4 Business planning	3.5 End-consumer support	
D	Networks  DTTB	4.1 Technology and standards application	4.2 Design principles and network architecture	4.4 System parameters	4.6 Network interfacing	4.8 Transmitting equipment availability	4.9 Network roll-out planning
		4.3/5.3 Network planning	4.5/5.5 Radiation characteristics	4.7/5.7 Shared and common design principles			
	MTV	5.1 Technology and standards applicaiton	5.2 Design principles and network architecture	5.4 System parameters	5.6 Network interfacing and studio facilities	5.8 Transmitting equipment availability	5.9 Network roll-out planning
E	Road map development	6.1 DTTB/MTV road map example for regulator	6.2 DTTB road map example for operator	6.3 MTV road map example for operator	<div><div></div> Government led</div> <div><div></div> Market led</div>		

Note — The numbers in this figure refer to the corresponding sections in the ITU Guidelines for the transition from analogue to digital broadcasting.





## Reaching the remote in Bhutan

- *A cooperation project between the Royal Government of Bhutan, the Government of India, ITU and the Universal Postal Union connects isolated communities*

Travel to the easternmost part of the Himalayas, drive to the end of the most desolate road, walk for four days along a 50-km path and you will reach Shingkar Lauri. There you will find a post office that now links villagers to the rest of the world.

Or take the villages of Laya and Lunana in the Bhutanese Himalayas. They are some of the highest and most remote human settlements on earth. The

people, who live there are yak herders who spend time between the villages and the high altitude yak herding camps and are cut off from the outside world for six months a year by deep snow. In Lunana, the people have no contact with the outside world for seven months of the year, isolated by a combination of impenetrable harsh winter weather and treacherous high mountain passes.

Bhutan is, indeed, a country of remote villages that have remained largely disconnected from the world and from one another until recently. News travelled as it had for centuries, on foot. Telephones, and not to mention data services that are so common

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*This article is based on the report "Satellite Connectivity to Remote Areas and E-Services for Development: Initiatives through Post Office Telekiosks in Bhutan", prepared by the Telecommunication Network Development Division of ITU's Telecommunication Development Bureau. The report was released at the World Telecommunication Development Conference 2010 (WTDC-10) in Hyderabad, India. It presents the results of a recent study conducted in Bhutan in order to assess the impact of the joint Government of India, Royal Government of Bhutan, ITU and UPU project.*

elsewhere, were simply non-existent. Even today, Bhutan's telephone penetration stands at 12.2 per cent in urban settings and a mere 4.9 per cent in rural areas. In the most connected community, Internet connections are present in less than 4 per cent of households with most communities under 1 per cent. And yet it is generally accepted that access to information and communication technology (ICT) services is an important component of both social and economic development. ICT encourages national and international trade, facilitates both business and personal banking transactions and lays the foundation for tourism, construction and other key employment sectors.

The good news is that a six-partner cooperation project is helping to connect communities throughout Bhutan using 38 post offices as ICT centres. ITU, the Universal Postal Union (UPU) and the Government of India initiated a project in 2003 in partnership with the Royal Government of Bhutan, Bhutan Telecom and Bhutan Post as in-country partners. The goal was to deliver the benefits of digital

technology to the most remote areas of Bhutan using post offices. These offices were seen as the evident venue for providing telekiosk-based telephone access, Internet and e-post with postal employees as an integral component for service delivery, as well as for maintenance, repairs and replacement.

Connecting 38 post offices is a challenge. Connecting communities as remote as Shingkar Lauri is a test of logistical ingenuity. Satellite links between remote stations and a hub in the capital city Thimphu were seen as the only solution for the most remote links. The Government of India agreed to fund the very small aperture terminal (VSAT) equipment for the hub and six remote stations. It also agreed to provide a free space segment on India's INSAT satellite for the two-year duration of the project, a contribution estimated at a total of USD 500 000. Part of the ITU contribution to the project was from funds provided by British Telecom, Deutsche Telekom, Ericsson, INTELSAT and Telstra. The project was inaugurated in March 2006

Some of the VSAT sites were so remote that helicopters had to be used to transport materials. For other sites, such as Merak, Bhutan Telecom had to hire 112 people and 26 horses to carry the equipment over steep terrain from Phongmey, the nearest road point. Clearly, setting up these VSAT stations, all at locations ranging from 3000 to 4000 metres, was the project's greatest challenge and accomplishment.

Choosing the proper hardware model was important. To ensure sustainable power, the 1.2-metre VSAT terminals used solar power with approximately eight days of autonomy. The telekiosks were equipped with one voice and one data channel and a three-line private automatic branch exchange (PABX). Telekiosks in less remote communities are using traditional dial-up connectivity. The system was



built with the future in mind. The Thimphu hub can be expanded to handle up to 100 remote stations.

Village communities, the schools, the Basic Health Units and the Renewal Natural Resources Centres of the Ministry of Agriculture are the direct beneficiaries of the project. The main users are students and professionals, who appreciate the access telekiosks provide to career development and health programme information. Farmers, in this heavily agricultural society, rank as the third most frequent users. More broadly, all users welcome the ability to connect with distant relatives affordably. In many cases, users walk 10 to 15 km to access the services of a telekiosk.

A statement posted on the website of the Bhutanese Newspaper Kuensel shows just how grateful people are: "So far, we were cut off from other parts of the country. We had to walk for days to the "dzongkhag" (district) headquarters for official work. Now, with telephone connections and Internet services, we are saved from all this trouble. We feel connected." In another e-mail, the head teacher of a primary school says: "I can see the changes already in front of me, and I can feel the differences of yesterday and today. So, it is indeed a blessing for all of us here in Sombeykha and we are very much grateful for this opportunity to convey our sincere thanks to all of you involved in bringing these wonderful changes in the lives of humble people, who are residing in the most remote area."

Beyond gratitude, the impact of the telekiosks has been transformative both throughout society and within the companies that manage them. At both Bhutan Telecom and Bhutan Post, the telekiosks have changed the work culture, reinforced staff commitment and spurred innovative initiatives such as the development of software for the online tracking system and to overcome challenges of slow

dial-up connectivity. In addition, the enhanced digital infrastructure has enabled the post office network to work together as it never could.

If empowered to continue, telekiosks specifically and ICT in general can catalyze structural change in Bhutan's economy inasmuch as improved regional economic performance has been tied to access to ICT infrastructure. ICT will also contribute to economic diversity, a much-needed shift in an agriculturally weighted economy.

There are also challenges and problems. The VSAT stations have been subjected to harsh weather, all stations face serious technical challenges and the system is not yet financially self-sustaining. Repairing and maintaining remote stations is actually more than a challenge. It requires sufficient parts inventory, always present technical staff and reliable power. None of these are currently guaranteed in Bhutan. This said, by the end of the project period, five out of six VSAT stations were still working and are still working today, a testament to local ingenuity and motivation.

"Now that this project has reached its conclusion, it offers concrete evidence that providing rural and remote areas with access to digital technology can have significant benefits. The VSAT system has proved to be the lifeline for the communities in remote locations, and has become an essential part of the national administration. These revamped post offices provided most people with their first experience of access to ICT," said Sami Al Basheer Al Morshid Director of ITU's Telecommunication Development Bureau (BDT) and Edouard Dayan, Director General of the Universal Postal Union.

The private sector is also knocking at the door. They are setting up their own breed of commercial connectivity in many telekiosk communities and they



are doing so with lower organizational overhead. Average revenue from each of the five active VSAT stations is between USD 110 and 180 per month and is frustratingly insufficient to meet operational costs. But there is room to grow, and the Royal Government of Bhutan has expressed its long-term commitment to the project. The key now is to make the project sustainable.

Sustainability is by far the project's major challenge. Maintaining current VSAT connectivity is expensive and difficult. Expanding the VSAT infrastructure requires funding. So too does ongoing management, equipment replacement, training and awareness building. Soon, broadband will be a necessary upgrade for dial-up locations.

There is a solution, one that has been used successfully in Viet Nam: the transition to a community-managed operation. Gradually, the community could take over their telekiosk. They could manage it, hire someone from the community to operate it and even enjoy the financial rewards of profit. The rationale is that they would more willingly support a telekiosk that belonged to them. In this scenario, the post office would still have a role. It would oversee installation, train new staff, maintain the equipment and advise on new services.

This shift to a community-based model does need transitional support. Partners, both existing and new, will hopefully support the project until it becomes sustainable. If they look beyond the business model, they will see that access to digital technology is a win-win for citizens and governments alike.

In closing, one cannot underestimate the impact the telekiosks have had on Bhutan. Unimaginable a few years ago, the results of the national election were sent to all telekiosk communities in real time. Postmasters are now tracking parcels and liaising with



their counterparts both in the capital and throughout the country. The system has also brought a sense of pride to its citizens and to employees within Bhutan Telecom and Bhutan Post. Overcoming all obstacles, setting up a modern infrastructure in the high Himalayas and providing a genuinely appreciated community service has given them a sense of accomplishment. For a cost of just over USD 1 million, the 50-km mountain path to Shingkar, connectivity for just under 700 000 citizens, greater postal efficiency and the potential for substantial economic growth is now only a click away.



## Digital revolution

### Transforming the post office into a vehicle for delivering ICT services to people

- Post offices, more than any other institutions, are in effect the outposts of government in rural and remote areas. In most countries, however, the traditional mail business of the public postal operators is under pressure, buffeted both by competition from private operators and by alternative and faster means of communications. Postal operators are consequently searching for new business opportunities, particularly in finance and logistics. Product and service diversification is the key to their future, and information and communication technologies (ICT) play an important role in this process.

A new book entitled *"ICTs, New Services and the Transformation of the Post"*, launched by ITU and the Universal Postal Union (UPU) during the World Telecommunication Development Conference (WTDC-10) in Hyderabad, India, presents the experience of seven postal enterprises in adopting ICT. The studies were carried out in countries at various stages of economic development. And the projects implemented vary considerably in the technology used and the services offered. The projects include:

- using post offices to deliver integrated communication services in rural areas in Bhutan and Botswana;

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*This article is based on the book "ICTs, New Services and Transformation of the Post", prepared by the Telecommunication Network Development Division of ITU's Telecommunication Development Bureau and the UPU-International Bureau's Executive Office. The book was released at the World Telecommunication Development Conference 2010 (WTDC-10) in Hyderabad, India.*

- ▶ innovative mobile banking and commerce by Italy's PosteMobile;
- ▶ basic banking services provided through Brazil Post's retail network;
- ▶ Saudi Arabia's delivery service, making use of an innovative electronic address system;
- ▶ Internet-based e-post office shopping in the Republic of Korea;
- ▶ ICT-based postal services as part of a multi-sector plan to usher in the information society in the Russian Federation.

UPU has always maintained that the convergence of the Post's physical, electronic and financial network would give the postal sector a competitive edge. The book supports this claim. The case studies reveal that, while success is rooted in the inherent strengths of the postal enterprises, ICT-based projects have, in turn, enriched these enterprises, enabling them to improve the quality of their services and introduce new value-added services.

What is more, the impact of ICT use by Posts is not confined to the postal sector but has a cascading effect on societies and the economy. Besides contributing to more inclusive economic growth and more responsive governance, the projects have also encouraged the growth of e-commerce and mobile commerce, as highlighted in the examples below.

## Bhutan

ITU, the Universal Postal Union (UPU) and the Government of India initiated a project with the Royal Government of Bhutan, Bhutan Telecom and Bhutan Post as in-country partners to connect isolated communities. As part of the project, 38 telekiosks were set up in post offices throughout Bhutan to provide access to information and communication facilities, particularly for hitherto deprived communities in rural and remote areas. Six of the telekiosk locations had no telecommunication connections or even electricity before the project. Telecommunication connectivity was provided by solar-powered very small aperture terminal (VSAT) stations linked to India's communications satellite, INSAT.

The villages near the six remote VSAT locations had previously been isolated from other parts of the country. Mail took five to seven days to reach residents, and the nearest telephone connection was two to seven days away on foot. Thanks to the project, the villages now have access to telephones, fax, Internet and e-post. Their lives have changed dramatically. In the other 32 locations, the telekiosks gave people Internet access and services for the first time (see article on pages 22–25).



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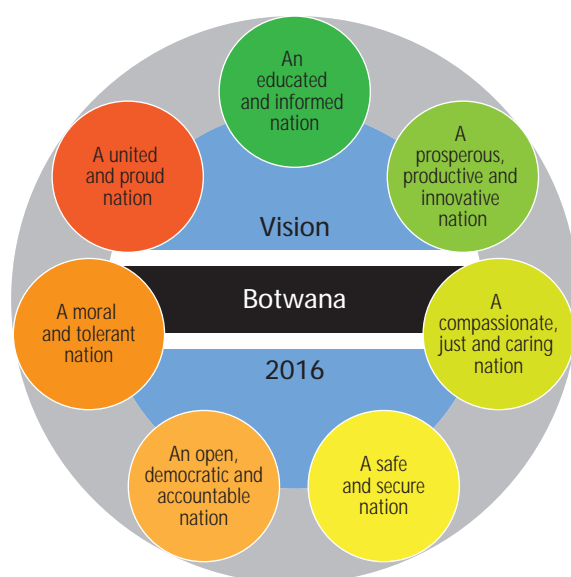
## Botswana

In the urban areas of Botswana, access to ICT for people without computers or Internet connections at home is provided mainly by privately operated Internet cafés. Rural and remote areas have generally lacked such access because of private operators' concerns about financial viability.

Botswana has one of the lowest population densities in the world. Delivering any type of universal service to such a sparse and widespread population presents enormous challenges to the government. And delivering ICT services where electricity and Internet connectivity are intermittent is even more challenging.

### Vision 2016

In 2016, Botswana will celebrate its 50th anniversary of independence. The Botswana Vision 2016 is the government's strategy to transform the country into a competitive and prosperous nation. The strategy is based on seven pillars, as shown in the diagram below.



### Kitsong centres

*Kitsong* (knowledge) centres, offering access to information and communication facilities, are the means by which the Government of Botswana is narrowing the digital divide between urban and rural communities. Botswana Post, with its country-wide network of 192 postal facilities, was the natural choice to provide such centres. The government and Botswana Post have already installed 49 *Kitsong* centres, with five more to open in 2010.

Besides Internet access, *Kitsong* centres offer fax, photocopying, desktop publishing, printing and digital photography services. They also provide local content, such as agricultural information.

The number of people using *Kitsong* centres is growing, and the income of post offices with *Kitsong* facilities has increased by an average of 25 per cent, reflecting the use of the new services. Clearly, if the number of customers is growing, there must be a perceived benefit to each individual using the centre. This may be for business reasons in obtaining information about markets, it may be for educational reasons with e-learning programmes, or it may simply be for social reasons, such as chatting or gaming.

The project has also led to greater computer literacy because these centres also provide training in the use of computers. The government is pleased with the results achieved so far, seeing these centres as helping to meet its national objectives and its commitment to the United Nations Millennium Development Goals.

Botswana Post has also benefited from hosting the *Kitsong* centres. Besides contributing to increased revenue, *Kitsong* facilities have "revitalized Botswana Post by providing an injection of new technology-based services".

## Brazil

The Banco Postal project of Empresa Brasileira de Correios e Telégrafos (ECT) uses its retail network to provide basic banking services to people without access to any formal financial institution. The project has shown that ICT and posts can be successfully combined to provide “win-win” scenarios, including improved efficiency, competitiveness and profitability (for posts), and increased utilization of and access to ICT.

Now, ECT maintains an interactive website that offers information and enables postal and financial transactions. ICT also allow ECT to provide e-commerce and e-government services. As one user put it, the integration of the physical, electronic and financial networks “has significantly enhanced the numerous nationwide services that are distributed through the ECT network”.

### Serving the “unbanked”

When the Banco Postal project was launched in 2002, it was estimated that over 45 million adults in Brazil were “unbanked”. These individuals, together with many small and medium-sized enterprises, had limited access to credit. By 2009, the situation had improved significantly, with 6021 Banco Postal branches serving 8.8 million “unbanked” individuals. Over 1.2 million Banco Postal transactions are now made daily. More than 700 000 loans have been disbursed since 2002, and Banco Postal has become an important player in the microcredit market.

The incorporation of ICT and the establishment of the Banco Postal have enabled ECT to maintain profitability and strengthen its universal service. Some post offices that were losing money and in danger of being closed now continue to operate because they have become profitable with income earned from



Banco Postal services. In some post offices, Banco Postal revenues exceed postal revenues.

With individuals, municipalities and businesses now keeping their money at the local Banco Postal branch, the bank is able to extend credit to local businesses and farmers, helping them to expand their activities and increase employment. There are still communities without financial institutions, but the Banco Postal project has made people's lives easier and the future more promising.



## Italy

Poste Italiane launched PosteMobile to offer basic mobile services such as voice, text messages (SMS), multimedia messages, video calls, 3G data connections, as well as standard value-added services including browsing, news, entertainment, music and games, along with mobile banking, mobile commerce, mobile payment and mobile postal services (for example, bills and telegrams).

### How PosteMobile works

As a virtual mobile network provider, PosteMobile has no proprietary network, but relies on the infrastructure of one of the mobile phone operators. There are four licensed operators in Italy. There are also other virtual providers competing with PosteMobile. Like all virtual providers, PosteMobile has negotiated a roaming agreement with a host network provider. This agreement means that Poste Italiane can avoid expensive network investment.

PosteMobile was launched in November 2007 and by the end of 2009 had 1.2 million customers. Over EUR 8 million are transferred via PosteMobile each month. The unique nature of the PosteMobile model lies in its “capability to provide distinctive value-added mobile services”, such as bank transfers from one BancoPosta account to another or any other bank account, or the purchase of products and services by BancoPosta account or via the PostePay pre-paid card.

### Investment in innovation

Investments by Poste Italiane in technological innovation have allowed the company to guarantee its customers cutting-edge services, and have made it an important factor in Italy's general economic growth and modernization. Financial services promoted by Poste Italiane also played a leading role in the gradual integration of the new immigrant population. PosteMobile services are expected to strengthen this integration by offering attractive pre-paid call packages.

PosteMobile is also helping Poste Italiane to “innovate and improve performance”. It has designed and developed a new system infrastructure with a Windows mobile client application, allowing postal employees to transfer, track and trace information

about mail delivery by mobile phone. The aim of this particular application is to improve the management of the postal mobile workforce, and in particular to optimize delivery processes.

PosteMobile has helped to expand mobile banking and mobile commerce in Italy. During 2007 and 2008, over EUR 35 million was invested in PosteMobile, and during its first 14 months of operation, the company generated close to EUR 40 million in revenues. Although still a loss-making business, it is anticipated that the break-even point will be reached during 2010.

### Republic of Korea

For Korea Post, the desire to transform its traditional home shopping service into an e-commerce venture (ePOST) was an important reason for the development of its information systems. Korea Post's e-commerce portal was launched in 1999 for the post office shopping mall. By the end of 2000, it had been expanded and transformed into the so-called Internet post office. Customers could use ePOST to





access postal services in addition to the shopping option. The portal enabled producers throughout the country to sell local specialties direct to consumers online and gave customers the opportunity to purchase products in a secure environment.

#### A shopping portal

Korea Post has played an important role in the growth of e-commerce in the country. The operator has established a platform where as many e-commerce businesses as possible could appear directly or be linked to the e-commerce system of the post office and has served as “a shopping portal through linkages with several shopping malls and major retailers”. The government has used Korea Post’s e-commerce venture as a test bed for developing sound e-commerce practices, such as quality guarantee, certification and refund systems.

Post office shopping was launched in 1986, primarily to sell the farming and fishing products of rural communities and to increase their income by eliminating the intermediary between the buyer and the seller. It has now become the country’s premier specialty shopping mall for agricultural and marine produce. Beginning with only eight products in 1986, the shopping mall now offers more than 7200 items and has an annual turnover of USD 135 million.

Korea Post has also computerized the entire mail handling process, from acceptance to delivery, and has set up a web-based postal logistics system for seamless tracking and tracing.

The use of ICT by Korea Post has led to more efficient mail, banking and insurance services, and has contributed greatly to the country’s e-commerce growth and economic development, particularly in the farming and fishing communities.



#### The Russian Federation

The origins of the Russian Post date back many centuries, but its role as a network binding the nation developed during the Soviet era. The transformation since the early 1990s towards a market economy brought changes and challenges in terms of the legal and institutional framework, management, services and products, and the business model for logistics, distribution and ICT.

A new concept of postal service development was adopted in 2001 by the government. Another important milestone was the government’s approval in 2002 of e-Russia (2002–2010), a multi-sectoral plan to advance and coordinate the development of the information society. ►►

#### Cyber Money

Within the framework of e-Russia and postal development, Russian Post has implemented several important cyber projects, including the Cyber Money

project. The provision of postal money transfer services is socially important, especially for users in rural areas who may not have easy access to banks. To enhance the competitiveness of Cyber Money, modern ICT have been introduced to implement high-speed transfers. This has required large capital inputs.

Some banks make transfers between legal entities and individuals without bank accounts, but most provide such services through agreements with specialized money transfer operators.

Cyber Money provides millions of Russians with a way of rapidly and securely transferring money from one place to another. In the past five years, the Cyber Money service has expanded to neighbouring countries, under UPU agreements.

Cyber Money replaces the old paper-based postal money order, and attracts customers who prefer the reliability, convenience and proximity of the postal network. Volumes and value have sky-rocketed, with nearly 200 million transactions in 2009 to a value of USD 15 billion. Competition with banks and agents is fierce, and ICT evolution continues, facilitating money transfers via Internet or mobile phone (GSM) technology. Anticipating that development, the Russian Post has secured partnerships with GSM operators throughout the Russian Federation, so as to be ready for the next generation of ICT-based transfers.

## Saudi Arabia

Saudi Post launched the Wasel service project in 2005 to establish an automated mail processing system from reception to delivery. The overall aim of the project is to improve the quality of mail processing and the speed of delivery to residential addresses, but the project has also instigated e-commerce and e-government initiatives in Saudi Arabia.

The Wasel project requires each location to be assigned a proper address. The new addressing system is driven by satellite technology and has resulted in the "integration of the Post's electronic and physical platforms". Wasel service is currently available in 25 cities, serving two million locations and 58 per cent of the Saudi population. Saudi Post plans to gradually extend it throughout the country. Delivery service is now 99.99 per cent accurate and, although 45 per cent of the Kingdom's population moves every year, the new system makes it possible to directly forward mail items to the new address.

### Customer database

The availability of a customer database, a key outcome of the addressing system, has enabled Saudi Post to develop many e-services, including the e-mall and a postal e-mail service. The e-mall, which is similar to amazon.com, has become the largest of its kind in the country, allowing customers to buy a wide variety of products online and have them delivered to their homes the next day. People without Internet access can go to the nearest post office to place their orders. The prices offered by vendors in the e-mall are competitive.

Saudi Post has surveyed and catalogued the handmade goods of local craftsmen in remote areas, and these goods can now be purchased through the e-mall. This initiative has not only helped to preserve the national heritage, but also has provided a huge market for local craftsmen and contributed to inclusive economic growth. The assignment of a secure e-mail address to every Wasel subscriber has led to the creation of a "targeted and cost-effective marketing platform". To fully utilize this platform, Saudi Post has launched its own direct mail company. Private

businesses can access the address list on payment of a fee.

The availability of a residential database has also contributed to better governance of the country, helping the government to provide many of its services online. The social security agency uses the information to deliver welfare benefits to beneficiaries anywhere in the Kingdom and to provide emergency services.

Residents also benefit from the new system. They can find the address of any individual, organization or facility, be it a private home or hospital.

#### Lessons learned

Each of these initiatives has not only transformed the postal enterprise, but also had far-reaching effects on the society at large.

In developing countries, the post with its vast network of outlets is usually seen as the natural partner for delivering e-government and a host of other Internet-based services in rural locations. The Bhutan

and Botswana studies show how the post office network and ICT can be combined to benefit both the Post and disadvantaged communities in rural and remote areas.

Postal enterprises are diversifying into banking. The Brazil study demonstrates how the rural economy was stimulated by providing financial services to the “unbanked”. It also shows that financial inclusion can emerge as a profitable business by leveraging technology to lower costs and increase the range of services. Installing cash dispensers in rural branches, along with automated processing for small loans, lowered the cost of Banco Postal’s operations.

Postal enterprises are keen to enter the arena of e-commerce and Internet shopping because they already have the strong distribution and delivery network that is critical to the success of an e-commerce venture.

A proper address is needed for efficient distribution. Many developing countries lack a proper addressing system, but need such a system as a basis for e-commerce. Case studies from Saudi Arabia, the Republic of Korea and Italy show that such ventures can be highly successful.

The case studies hold important pointers, particularly for developing countries where postal operators need to modernize in order to fulfil the potential offered by their physical presence in remote areas. By transforming themselves, Posts could become vehicles of social and economic change in the societies they serve.



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## Multipurpose community telecentres: Lessons learnt

### Six countries surveyed

■ Over the past decade ITU has initiated a number of projects with the aim of providing access to information and communication technologies (ICT) for rural communities. Typically, these projects have involved a number of national and international partners, with some of them joining forces to adapt content to demonstrate the impact of ICT on such sectors as agriculture, health and education.

From Mali (Timbuktu), Bhutan, Honduras, Viet Nam, Nicaragua to Tanzania, the settings vary from marginal economies, economies in transition and emerging economies. One project is explicitly designed for communities living in refugee camps in Tanzania.

A study entitled "ICTs, Community Access and Development: Case Studies from Six Developing Countries" was launched during the World Telecommunication Development Conference 2010 (WTDC-10) in Hyderabad, India. It compares the

lessons learnt from the different projects in these six countries, all with varying socioeconomic status and needs of the beneficiary communities or target groups.

Beginning with a brief theoretical outline of the relationship between information and development, the study postulates that a marginal economy (in other words a rural and remote economy) can be distinguished from a developed economy not only in economic terms, but also in terms of the nature and extent of information use, which becomes more complex as an economy progresses from being a simple subsistence economy to becoming a highly diversified global economy. It has been argued that, in the process of this transformation, the community-centric marginal economy blossoms into a proliferation of individual enterprises.

To achieve this transformation, there have to be planned efforts to prepare the people of a marginal

economy so that they will be ICT-ready. One way of handling this preparation is to create community-based access to ICT services. ICT, however, only is a tool. To make it useful, access to ICT has to come with other social and economic development programmes, such as universal education, skill development and infrastructure development, as well as programmes that create economic opportunities.

Six multipurpose community telecentre (MCT) programmes were studied in the context of this broad understanding. The cases chosen provided an opportunity to compare at least four different stages of economic and social development. These ranged from a project located in a marginal economy in Mali, to projects in Bhutan and Honduras, to a project in the fast growing economy of Viet Nam.

The study was conducted with the help of project teams located at each site of the MCT. The teams were asked to prepare reports on specific issues, including the technology adopted, the services and applications provided, impediments encountered, and ways to attain sustainability. There was also a village-level survey of users and non-users of MCT services.

In Honduras, a cost-revenue balance is achieved by catering to a particular type of demand (communication needs of villagers who work abroad and remit money back home). MCTs managed by a local community were found to be much preferred and more successful.

The study reveals that social and economic progress creates the foundation for a demand for information and, in turn, for ICT. This was seen in the case of Viet Nam. Any anomaly in social and

economic parameters distorts the demand for ICT services. Thus Honduras, despite a high literacy rate, could not match the achievements of Viet Nam because its weak economic and social foundation was unable to bear the weight of ICT. Similarly, although the rising educational level among the younger generation has helped the Bhutanese villages articulate their need for ICT services at community level, demand at individual level is limited by the lack of social and economic development.

The projects encountered different circumstances at different project sites in different countries. These differences actually offer a great opportunity to study two important, but often poorly understood aspects related to ICT and social and economic development. These are: social and economic factors that influence the acceptance and use of ICT; and how to best realize the role that ICT can play in the process of economic and social development of marginal economies.

The study suggests that the social rate of return from access to information is likely to be very high, and ignoring it for the sake of cost-revenue balance would be self-defeating. It concludes that access to information should be considered as an investment that has an overarching impact on all the activities of an economy, and should not be constricted by requiring a monetary return in the short run. ■



Telesur



Digicel

## Rural access in Suriname

- Suriname is a country with a surface area of 163.820 km<sup>2</sup> and around 507 000 inhabitants. State-owned Telesur is currently the sole provider of fixed-line and fixed broadband services in the country, but the mobile sector is a dynamic, competitive industry with three companies vying for market share. The country's mobile penetration rate passed the 100 per cent milestone in December 2008, and continues to grow. The fixed-line infrastructure is reasonable in the more populated coastal region, but poor in the interior. However, efforts are under way to connect inland communities with very small aperture terminal (VSAT) or CDMA 450 fixed wireless systems.*

What is the best way of ensuring rural access? In Suriname, there is a legal provision in the Telecommunications Act for the establishment of a Universal Service Obligation (USO) Fund to

compensate service providers operating in less profitable areas.

In general, Surinamese operators can install and exploit telecommunication infrastructure nationwide. Following the liberalization of the telecommunication sector in April 2007, the country now has two new entrants (Digicel Suriname nv and Intelsur nv), along with the incumbent operator Telesur.

The Minister of Transport, Communication and Tourism has assigned every concessionaire a certain service area in keeping with a ministerial decree. These concession holders are required to provide universal services in the assigned area within two years after assignment.

However, at the request of the concessionaires, the USO Fund has not been established. The argument they put forward was that the resources (a fixed percentage of income, to be determined by the minister) could be used more efficiently by investing in establishing telecommunication infrastructure.



Digicel Suriname nv and Telesur have already built infrastructure in several parts of the Surinamese interior — the interior covers 70 per cent of the national territory. Intelsur nv recently started operations in Atjoni, Guyaba, Apoera and in the areas around the multinational company, Iamgold, in the District of Brokopondo.

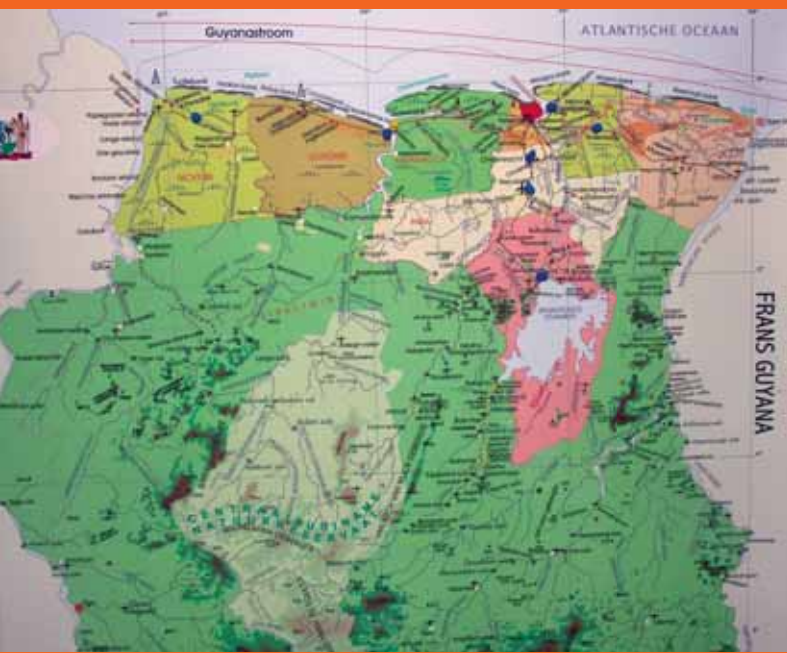
The maps below show the rural areas in the interior of Suriname that were connected before and after liberalization. The rural areas where Telesur provides services are shown in yellow (map 2), while those served by Digicel Suriname are indicated in red.

In general, Telesur provides services using GSM, but in three districts (Sipaliwini, Brokopondo and Marowijne) services are provided via wireless technology (CDMA).

Members of indigenous communities living in the interior appreciate the many advantages offered by access to telecommunications. Rural entrepreneurs immediately saw how telecommunications could help their businesses. As one boat owner said, “I’m a boat man. My customers now just call me up, and I’m ready for action.”

Another villager hoped that young people would benefit from the educational opportunities that access to telecommunication would open up, saying “we have many students in our village, so perhaps later on they can make use of the Internet for their studies”. The general feeling is that telecommunication makes life easier. As one rural inhabitant put it, “now we walk less, as telecommunications enable us to connect everywhere”.

*Coverage before liberalization*



*Coverage after liberalization*



*Note — The rural areas where Telesur provided services before liberalization are marked in blue.*



## Case Study: Egypt

### ICT for health

#### Women's Mobile Health Unit Project



*In Egypt, a partnership between the Ministry of Communications and Information Technology and the Ministry of Health and Population is expanding healthcare provision to women nationwide, using information and communication technologies (ICT). Inaugurated in October 2007 by Egypt's First Lady Suzanne Mubarak, the Women's Mobile Health Unit Project aims to promote the early detection of breast cancer. To date, the cumulative total number of women screened is around 60 000.*

The Women's Mobile Health Unit Project is one of many e-health initiatives covered in the 2010 Edition of the WSIS Stocktaking Report: Tracking the Progress, released during WSIS Forum 2010, held in Geneva on 10–14 May. The report provides an update on activities undertaken, between the end of 2008 and mid-2010, by governments, the private sector, civil society, as well as regional and international organizations in relation to the goals of the World Summit on the Information Society (WSIS).

This article takes a closer look at the Women's Mobile Health Unit Project as a case study.

### Women's health

The only way to decrease mortality and morbidity from breast cancer is to detect the disease before the patient presents with symptoms. In Egypt, a national breast-screening programme to improve early detection was launched by the Ministry of Communications and Information Technology in partnership with the Ministry of Health and Population. The programme operates under the patronage of Mrs Mubarak, who was also a laureate of the 2008 ITU World Telecommunication and Information Society Award.

As a government-funded service, the programme offers free-breast screening to Egyptian women over the age of 45 years. Along with mammography, the programme also offers screening for diabetes and hypertension, and measurement of body mass index (BMI).

The screening programme consists of mobile units, as well as static mammography units located in



general hospitals. All the units are linked to a centre of excellence in Cairo, by means of satellite connections and leased lines, so that images can be transmitted directly from the remote units to the centre for diagnosis by senior radiology consultants.

Based on the findings of their initial mammograms, patients are directed as necessary to the nearest hospital to receive adequate treatment and follow-up, or medical advice. All services, including treatment, are currently free of charge.

### Scope of the project

By the end of 2009, the mammography mobile clinics had visited 17 locations in Greater Cairo, as well as sites in five other governorates. Of a target population comprising around a million women aged more than 45 years resident in the areas visited, around 60 000 have been screened to date.

The plan for 2010 is to cover seven more governorates, with a target population of about 1.3 million women. A further six governorates are planned to be covered in 2011, with a target population of

about 2 million women. In 2012, the plan is to cover five more governorates, with a target population of about a million women.

### Early detection

The progress of breast cancer, like other forms of cancer, is categorized into four stages. If women are screened at regular intervals, the disease can be detected at an early stage, when there is the best chance of cure. Over 90 per cent of women with the very early 1st and 2nd stage cases are most likely to overcome the disease, and over 70 per cent with 3rd stage breast cancer could recover.

### Mobile mammogram clinics

The primary reason for developing the mobile units was to be able to reach the rural population. By bringing screening services to each area, access to health care is increased, and the costs and efforts on the part of the patient are minimized. The only alternative for a woman resident in a rural area is to go to one of the radiology centres in the main cities, but that involves paying for the journey and obviously takes much more time. It is questionable whether women without any symptoms would make that effort. Yet the importance of early detection in preventing morbidity and mortality from breast cancer cannot be overemphasized.

### Mobile units: equipment and safety features

The mobile unit is housed in a trailer. At the rear of the reception area is a cupboard used for general storage, which also contains the main power board. In front of this cupboard is an admissions counter, with data connections and power sockets. On the reception desk are two computers for use in accessing patient data files. Throughout the trailer is a CAT6



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network circuit with RJ45 connectors, which sends the patient data to all needed points.

A technical room provides space for water supply, two network points, power sockets and several electrical components. Above the worktop in the viewing room are three wall sockets and data connections.

The unit has emergency lighting inside and outside. There are also warning lights to control entry to the X-ray room. This room has an emergency exit.

### Obstacles to implementing the screening project

The key to early detection is quick and correct diagnosis, so it is of primordial importance to ensure the connectivity between the mobile units and the diagnostic centre. Project staff have taken time to develop an optimal design for the mobile units and to perfect the technical specifications.

Another issue concerns communication. Most of the women in the target population do not know when to begin mammography screening and at what intervals the screenings should be repeated. Also, many women are afraid that the mammogram examinations are not reliable. There is obviously a need for more information to the target population, in particular to raise awareness of the screening guidelines.

In order to encourage the target population to attend the clinics, the project launched an information campaign, with advertisements broadcast on radio and television. Before that, the availability of the service was not commonly known.

Another problem relates to the bad road conditions in Egypt, not to mention careless drivers. The mammography equipment is very sophisticated and sensitive, and care has to be taken to ensure that it is not damaged in transit.

### Looking ahead

By operating mobile units to bring mammography clinics close to the target population, especially women living in rural areas, and using telecommunication technology to ensure rapid expert diagnosis of screening results, the project is improving the early detection of breast cancer in Egypt. Combining early detection with free treatment gives women the best chance of surviving the disease. Obviously, the programme would be even more effective if it could be expanded to reach more women.

The project could be replicated in other countries, based on the experience gained in Egypt. In particular, the Ministry of Communications and Information Technology could share its experience on the technological design specifications. It is important to recruit adequate staff to operate the hardware and the software applications.

The programme is well under way and is starting to reach the target population. But screening is an on-going challenge. The programme is therefore looking for partners, with a view to strengthening its operational capacity through increasing the number of units as well as training more staff. Another overall goal that partners could help to support is to continue to offer the service free of charge.

# India at the helm of Council 2010

## Paving the way for the Plenipotentiary Conference in Guadalajara, Mexico

Leadership of the Council is rotated among the world's regions. This year it was the turn of Asia and Australasia to provide a Chairman. R.N. Jha, Deputy Director-General, Department of Telecommunications, Government of India, having served as Vice-Chairman last year, was elected Chairman by acclamation. The vice-chairmanship this year falls to Region A (Americas) and went to Mexico's Fernando Borjón, *Coordinador de Desarrollo Tecnológico, Secretaría de Comunicaciones y Transportes*. Leadership of the Council's Standing Committee on Administration and Management remains the same as last year, with Reynaldo C. González Bustamante of Mexico as Chairman, alongside Vice-Chairmen Jason Ashurst (Australia) and Blanca González (Spain).

The Council ended its work (13–22 April 2010) having taken decisions that pave the way for the Plenipotentiary Conference, to be held in Guadalajara, Mexico, from 4 to 22 October 2010

(PP-10). Guadalajara is the capital of the state of Jalisco. It is Mexico's second-largest city, with a population of 3.5 million. It embodies the soul of the nation. Guadalajara is affectionately known as *La Perla del Occidente* (or "Pearl of the West").

Mexico's Ambassador to the United Nations Office in Geneva, Juan José Gómez Camacho, along with the Deputy Secretary for Communications, Gabriela Hernández Cardoso, and the Minister of Tourism of the state of Jalisco Aurelio López Rocha wished everyone a warm welcome to a land well-known for its rich culture. ▶▶

ITU's activities and strategies need to respond to the dynamic world of information and communication technologies (ICT). This calls for an understanding of what is happening in that world, a choice of strategies for the Union, and a way of funding activities. Between plenipotentiary conferences, which are held every four years, ITU is governed by the Council, which meets annually.



*At the close of the session, ITU Secretary-General, Dr Hamadoun I. Touré, paid tribute to the Chairman of the 2010 session of the Council, Mr R.N. Jha and presented him with the ITU Silver Medal and certificate in recognition of his outstanding leadership. "You have steered our discussions with skill and ability," Dr Touré said.*

## Opening of the Council

The Council's role is to consider broad telecommunication policy issues to elucidate the path that the Union should follow. The Council is also responsible for the vitally important task of approving biennium budgets for ITU's work, and controlling the Union's finances and expenditure.

In his opening address, Mr Jha emphasized that ITU, which celebrates its 145th anniversary this year, has since its inception dealt with one of the most important aspects of the civilized world. "I would say that communication and ICT services are as important as water for human beings. Water can extinguish thirst of human beings. Similarly, communication and information can satisfy mental thirst. One can remain without food and water for a few days, but for a civilized society, it has become impossible to remain unconnected and uninformed even for a single day," Mr Jha stated.

The outgoing Chairman of the 2009 session, Haruna Iddrisu, Member of Parliament and Minister of Communications of Ghana recalled the far-reaching decisions taken last year, notably aimed at improving "the governance structure of the Union to

enhance the delivery of quality service and also encourage innovative initiatives by the Management of the Union to the benefit of Member States".

In his state of the Union address, ITU Secretary-General Dr Hamadoun I. Touré made three observations that need to be addressed by PP-10. As Dr Touré put it:

- ▶ "It is very important for the future of the Union that we find the right way to put in place more stable and more predictable funding mechanisms — for the benefit of both membership and the secretariat. As the world moves out of the present financial crisis, Member States will consider increasing their contributions to ITU.
- ▶ PP-10 should take steps towards stabilizing the basic texts of the Union (Constitution and Convention), with a view to seeing if we can create durable texts that do not require frequent amendment, and which make it easier for the membership to tell us clearly what they want.
- ▶ We need to work together to increase our Sector membership, to broaden and strengthen the Union. As a market-responsive organization in a fast-changing environment, we need to work



constantly to continue to increase our relevance. To this end, we must attract and welcome new members from all branches of ICT — from traditional players to new market entrants — while retaining existing members with active engagements across our three Sectors.”

## Highlights of the conclusions

### Strategic and financial plans for 2012–2015

Fabio Bigi, Chairman of the Council Working Group for the elaboration of the draft Strategic Plan and the draft Financial Plan for 2012–2015 presented the group’s preliminary report.

Mr Bigi underlined that the section in the plan corresponding to ITU’s Telecommunication Development Sector (ITU-D) was provisional and subject to change after the fifth World Telecommunication Development Conference (WTDC-10), which ends on 4 June in Hyderabad, India. Due to conflicting schedules, flexibility is needed to take into account the results of WTDC-10, notably the programmes

and initiatives it will approve for ITU-D and for the regions for the next four years.

As for the draft financial plan for 2012–2015, forecast expenses exceeded forecast revenue by CHF 31.4 million. Steps would therefore have to be taken to achieve a balanced budget.

In the end, the Council approved a resolution saying that its Working Group for the elaboration of the draft Strategic Plan and the draft Financial Plan should continue its work to prepare these plans for the period 2012–2015. The resolution instructs the Director of the Telecommunication Development Bureau (BDT) to send the contribution on ITU-D’s outputs, objectives and goal to the group as soon as possible after the end of WTDC-10, and not later than 11 June 2010. The Council has also instructed the Chairman of the group, with the assistance of the Secretary-General, to produce on its behalf, a coordinated draft new Strategic Plan for 2012–2015 not later than 15 June 2010 and a draft Financial Plan for 2012–2015 not later than 30 June 2010.





### ITU's role in implementing WSIS outcomes

The Council agreed that its Working Group on the World Summit on the Information Society (WG-WSIS) will hold another meeting in June 2010 to finalize its report to the Plenipotentiary Conference.

The Chairman of WG-WSIS, Vladimir Minkin of the Russian Federation, presenting a report explained that the main results of the group's sixteenth meeting related to the financial effort deployed by ITU for implementing WSIS outcomes, the impact and evaluation of the "Connect the World" initiative, development of the necessary functionalities for monitoring and implementation of the road maps for Action Lines C2 on "information and communication infrastructure" and C5 on "building confidence and security in the use of information and communication technologies (ICT) and C6 (enabling environment), and the possibility that ITU take the initiative for a WSIS+10 in 2015, preceded by a high-level meeting on the subject in conjunction with the Plenipotentiary Conference in 2014.

### ICT and climate change — now to Mexico

ITU was an active participant in the United Nations Climate Change Conference, held in Copenhagen, Denmark, in December 2009. As the specialized United Nations agency for ICT, ITU was asked by its Member States to raise awareness of the critical role of information and communication technologies in addressing climate change.

The next step will be taken at another meeting to be held in Bonn, Germany, from 31 May to 11 June 2010. ITU has observer status and will continue

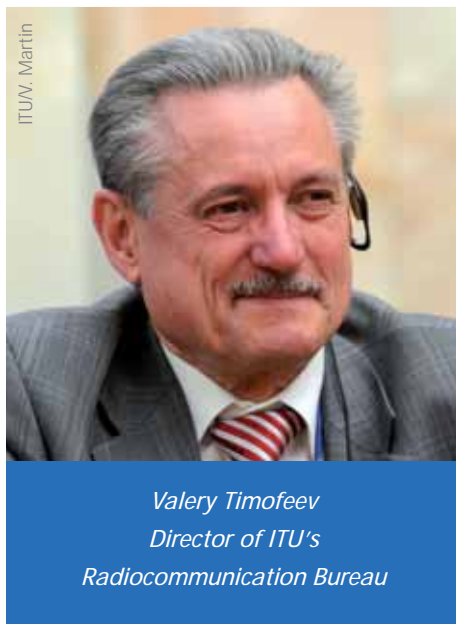
pressing for full recognition of the role of ICT in mitigating and adapting to the effects of climate change. In this regard, further opportunities to add ICT to the negotiating text will be sought in the run-up to a conference, which will be held in Mexico from 29 November

to 10 December 2010, Deputy Secretary-General Houlin Zhao said. He called on the Council to continue supporting ITU in its efforts to promote ICT as a cross-sectoral tool for combating climate change. ITU will continue to assist in the effort of the UN system to "deliver as one" to address climate change and is committed to working in partnership with other organizations. The Council endorsed ITU's activities in this area.

### Dates and agenda for the World Conference on International Telecommunications in 2012

In its Resolution 146, the Plenipotentiary Conference (Antalya, 2006) called for a World Conference on International Telecommunications to be convened in 2012 (WCIT-12). Its task would be to review the International Telecommunication Regulations (ITR), one of the four treaties of ITU — the other three being: the Constitution, the Convention and the Radio Regulations.

The Council approved a resolution fixing the dates and agenda for this conference. It says that in line with Resolution 146 (Antalya, 2006), WCIT-12 will be held in Geneva in the period 5–30 November 2012, following the World Telecommunication Standardization Assembly (WTSA). The Council has now formally appointed Alexander Kushtuev as Chairman of its working group on WCIT-12. It was



formerly chaired by Dr Vladimir Minkin, who had been appointed by Council 2009.

### Free-online access to ITU-R Recommendations and to the basic texts of the Union

In 2008, the Council approved a six-month trial period (January–June 2009) for free-online access to ITU-R Recommendations and to the basic texts of the Union to ITU Member States, Sector Members and Associates. At its 2009 session, the Council decided to defer any decision until a later time, on the understanding that the trial period for this free-online access would be extended to PP-10. It also requested the secretariat to undertake an in-depth study of the subject and on the financial impact, and submit the issue to PP-10.

The study presented to Council 2010 revealed that free access to ITU-R Recommendations would result

in a projected reduction in income of around CHF 600 000 for the 2010–2011 biennium, and that loss of income for the 2012–2015 financial plan period would be around CHF 1.2 million.

After a long debate, the Council noted the proposals on

this subject from Brazil and the Russian Federation. It has requested the secretariat to continue the study and to submit “an enriched discussion paper” to PP-10. ►►

### Conformity and interoperability testing

Malcolm Johnson, Director of the Telecommunication Standardization Bureau (TSB), reported on progress made in implementing work on conformity and interoperability testing, as requested by Resolution 76 in 2008 (WTSA-08).

## **Tribute to the memory of Pekka Tarjanne, President Lech Kaczynski and Larry Palmer**

At the opening of the Council, a minute's silence was observed in memory of Dr Pekka Tarjanne, ITU Secretary-General from November 1989 to January 1999, whose untimely death had occurred recently (see the April 2010 issue of *ITU News*), and also in memory of the Polish President, Lech Kaczynski, his wife and many leaders in his entourage, who had tragically lost their lives in a plane crash in Smolensk, Russian Federation. Many councillors took the floor to offer their sincere condolences to the family of Dr Tarjanne and express their sorrow to the Polish Government and people. The Ambassador of Poland said that he was very touched by the words of sympathy from the speakers, and the observer for Finland assured the councillors that she would convey their condolences to the family of Dr Tarjanne.

Tribute was also later paid to the memory of Larry Palmer, a former staff member of both the United States Federal Communications Commission (FCC) and NTIA, who had passed away during the weekend of 17–18 April. Larry Palmer had participated in ITU Radiocommunication conferences and study groups for over 20 years. He would be sorely missed by his many friends and colleagues. The United States delegation wished to express its sincere condolences to his family. ITU Secretary-General Dr Hamadoun Touré and the Director of the Radiocommunication Bureau, Valery Timofeev, said that the ITU community, and ITU-R in particular, had suffered a sad loss. They joined in transmitting their deepest condolences to Mr Palmer's family.





In introducing the work, Mr Johnson said: "Currently all successful standards development organizations (SDOs) dealing with standards on interoperability have, in addition to the production of paper standards, three additional components: testing specifications; conformance testing to determine compliant products; and interoperability testing amongst various manufacturers' products implementing the standard(s)."

ITU's Telecommunication Standardization Sector (ITU-T), which is the pre-eminent global telecommunication standards body dealing specifically with global interoperability currently lacks these three additional elements to develop the full range of interoperable standards, Mr Johnson explained.

"This prompted a plea for help from developing countries, expressed in WTSA Resolution 76, to redress this problem as an important element of assistance to them in achievement of their desired level of conformity and interoperability nationally and internationally in telecommunications.

"Successful implementation of this programme is therefore crucially important to ITU-T maintaining its status as the pre-eminent global standards development organization in the face of increasing competition from other SDOs, forums and consortia.

"Defining more interfaces where interoperability can be tested increases competition and reduces the chances of being locked in to a single product."

Mr Johnson went on to define various actions, starting with a pilot version of a conformity database which is under development in line with a proposal put to Council 2009 and taking

account of advice provided by the Telecommunication Standardization Advisory Group (TSAG) and ITU-T's Joint Coordination Activity on Conformance and Interoperability Testing (JCA-CIT). He said that the database would only record in-

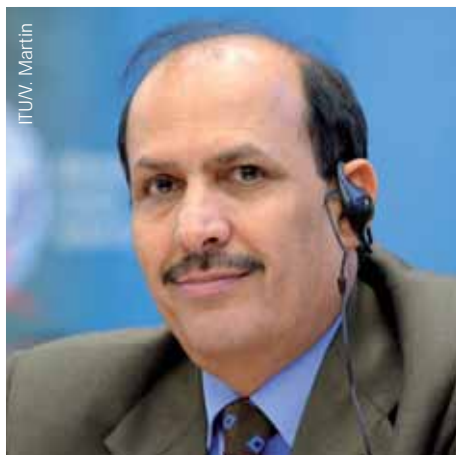
formation provided by companies on conformity of their products to ITU-T Recommendations.

The second action is the establishment of a calendar of "informal" interoperability events, some in partnership with interested SDOs/forums/consortia. The first such interoperability event is to take place on 20-23 July 2010, in Geneva to test ITU-T's standards for IPTV.

The third action will be the implementation of human resources capacity building events. Mr Johnson said that ITU-T's secretariat, the TSB and the secretariat of ITU-D, the Telecommunication Development Bureau (BDT) are preparing a programme of such events. Events are planned for Quito (Ecuador) and Nairobi (Kenya). Both Bureaux, he added, looked forward to receiving advice in this regard from the World Telecommunication Development Conference 2010 (WTDC-10) in Hyderabad.

### Strengthening the Regional Presence

A report was presented to the Council outlining progress made by the Union in implementing Resolution 25 (Rev. Antalya, 2006), and correlating this work to recommendations made by the United Nations Joint Inspection Unit (JIU) on the Effectiveness of the ITU Regional Presence. Topics covered progress made in staffing, succession planning, training, BDT working methods and procedures, enhancement of



*Sami Al Basheer Al Morshid*  
*Director of ITU's Telecommunication*  
*Development Bureau*

office connectivity, empowerment through delegation, and collaboration and cooperation between the General Secretariat and the Bureaux, as well as in the regional and international contexts.

The Director of BDT, Sami Al Basheer Al Morshid emphasized that work towards Resolution 25 was being carried out on an on-going basis by BDT. He further stated that never before had vacant posts in the region been filled so rapidly, sometimes even before the retirement of the incumbent so as to ensure operational continuity, either by the swift publication of vacancy notices or agreed reassignment of staff between Headquarters and the Field.

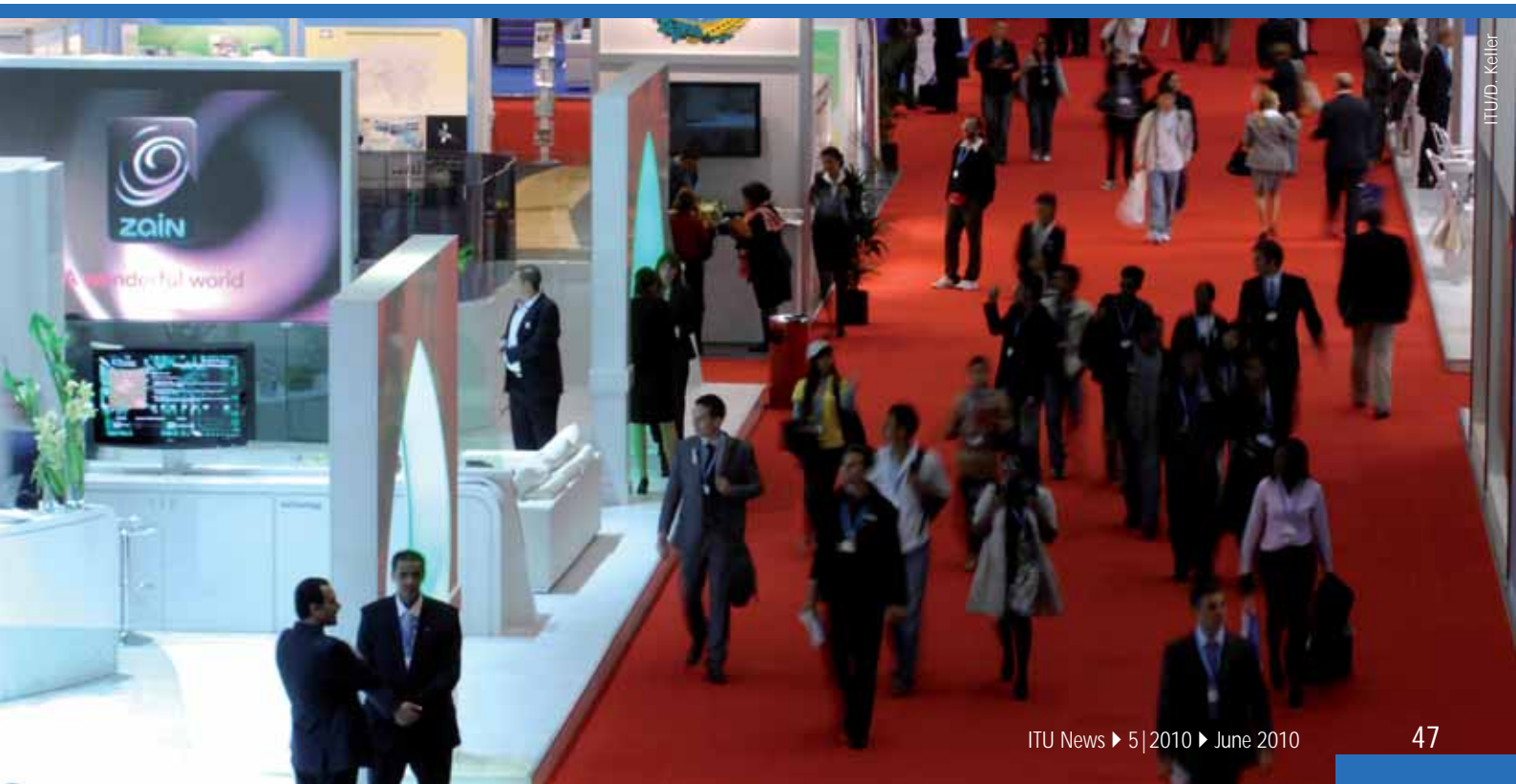
### Shaping the future of ITU TELECOM events

ITU TELECOM is forging a new strategic direction to better respond to today's fast-changing global ICT

marketplace. Two documents were presented to the Council, with one highlighting this future direction and the other focusing on ITU TELECOM activities in 2010–2011. Building on the strengths and successes of the 2009 WORLD event, ITU TELECOM has been developing a

new model for the 40th Anniversary Event that will take place in Geneva in October 2011. The event will include high-level forums and summits, with a key focus on business networking, as well national and thematic pavilions showcasing different technologies and solutions to global challenges.

The secretariat highlighted some of the challenges that ITU TELECOM events are facing. One is that the traditional approach of organizing WORLD events every two to three years and regional events at different locations around the world is no longer sustainable. Recent ITU TELECOM events have all experienced



a sharp decrease of key indicators — for example the number of exhibitors, number of visitors, as well as the number of Forum passes and total net square metres sold. Possible reasons for this decline are: small and medium-sized businesses being squeezed out because costs of exhibiting were too high; and visitors finding it too expensive to attend. To be successful, TELECOM events needed to be able to help companies strengthen their competitiveness.

But one thing is certain. The ICT industry still needs a “place to meet” — a “place” that enables it to engage on a regular basis. And this place must be ITU TELECOM. To this end, a new format was proposed that would boost participation and a new frequency for WORLD events. Industry feedback and comments have indicated that having an ITU TELECOM WORLD event as a regular, predictable feature on their calendar is important. The secretariat proposed to replace the regional events by holding a world event every year, alternating between Geneva and other venues, ensuring rotation.

To enable ITU TELECOM to forge ahead with this vision, the Council was requested to examine Resolution 11 (Rev. Antalya 2006) and to propose amendments to PP-10. Meanwhile, it has agreed on three principles to help the Plenipotentiary Conference in their discussion. Mr Jha explained, “as I understand, the principles are:

- ▶ TELECOM events should be held annually, and be financially profitable.
- ▶ There will be a fixed location where TELECOM events will be held every two years, and in keeping with the principle of geographic rotation at an alternate location every two years, through a competitive bidding process.
- ▶ ITU will develop a model host country agreement to be approved by the Council.”

### ITU's role in ICT and improving road safety

Based on a proposal by the United States, the Council approved a resolution on ITU's role in ICT and improving road safety. This new resolution highlights recent developments to improve road safety around the world. It takes into account Resolution A/RES/64/255 adopted in March 2010 by the United Nations General Assembly on improving global road safety.

Driver distraction and road-user behaviour include “texting”, “text messaging” and interfacing with in-vehicle navigation or communication systems. These are cited among the leading contributors to road traffic fatalities and injuries.

The new resolution says that the proliferation of integrated in-vehicle ICT and nomadic devices (including navigational information and electronic data communication devices) may contribute to driver distraction. But it also notes that other ICT, including intelligent transport systems (ITS), provide mechanisms for vehicular and passenger safety.

It recognizes that these technologies have been the subject of ITU's workshop known as the “Fully Networked Car @ Geneva International Motor Show”. In addition, ITU has on-going work in its Sectors, including the ITU-T Focus Group on Car Communications (FG CarCom), which has been identified as an appropriate place to address driver distraction. Finally, the resolution recognizes that the successful implementation of this task, including the development of an in-vehicle architecture and Vehicle Gateway Platform (VGP), requires cross-sectoral collaboration within ITU and among the World Standards Cooperation (WSC) partners.



According to the resolution, the theme of “driver distraction” will be included among the themes to be addressed at the WSIS Forum 2011. It will also be considered as a theme for the “2012 World Telecommunication and Information Society Day”. All ITU Member States are invited to take practical steps to promote national and domestic policies, programmes and/or educational initiatives to increase awareness of the safety risks associated with unreasonable use of ICT and driver distraction. At the same time, they should promote the benefits of ICT and vehicular safety technologies to help improve global road safety. The Council also instructs the Director of TSB to bring the new Resolution to the attention of relevant groups in ITU-T, in particular ITU-T Study Group 12 and its Focus Group on Car Communication.

### Cooperation agreement between ITU and the European Organization for Nuclear Research

The Council has provisionally approved a draft co-operation agreement between ITU and the European Organization for Nuclear Research (CERN). Recent discussions between ITU and CERN had resulted in a consensus on the usefulness to establish a framework for structured relations. The provisionally approved agreement will now be sent to the Plenipotentiary Conference for review and final approval.

The agreement will constitute the legal framework within which the two organizations will develop, on the basis of reciprocity, cooperation in fields which are in line with their mandates. It will also ease the carrying out of joint initiatives of mutual interest, which are expected to cover such areas as the extension of broadband communication systems to developing countries, training in “digital library” in these countries, and cybersecurity.



## Management and functioning of the Union

The Plenipotentiary Conference (Antalya, 2006) in its Resolution 147 called for a review of the management and functioning of the Union. At its 2009 session, the Council instructed the Secretary-General to continue work on this resolution by conducting a consultation on six issues, one of which concerns “methods to stabilize the basic instruments of the Union, and, in particular, the Constitution, on the understanding that this should focus on existing text and should not include new issues”.

In the light of the replies from Member States of the Union consulted through Circular Letter 181 of 16 December 2009, the Council agreed to recommend to ITU Member States and to PP-10 “to make only an extremely small number of amendments to the Constitution and Convention, or even, as far as possible, not to amend these two instruments at all”. The Council further agreed that the best approach would be for PP-10 to set up a Council working group open to all Member States.

## Number of Member States on the Council

Currently, the Council has 46 Member States (or 46 seats) as listed below. The Plenipotentiary Conference (Antalya, 2006) decided that the number of Council seats should be increased, with effect from PP-10, in compliance with Nos. 50 and 50A of the Convention. In this regard, the Council considered and took note of a report proposing that the 47th seat of the Council be allocated to Region A (Americas), that a draft resolution on the methodology for allocating seats of Council Member States be adopted by PP-10, and that No. 207 of the General Rules of Conferences, assemblies and meetings of the Union be amended accordingly. The Council will submit this report to PP-10. The recommendation to allocate the 47th seat to Region A will have to be approved by PP-10 before the elections for Council are held.

Meanwhile, the Council also considered and approved its four-year report to PP-10 on the activities of the Union since the Antalya Plenipotentiary Conference in 2006.

### Americas (8 seats)

 Argentina  Brazil  Canada  Cuba  Mexico  Trinidad and Tobago  United States  Venezuela

### Western Europe (8 seats)

 France  Germany  Italy  Portugal  Spain  Sweden  Switzerland  Turkey

### Eastern Europe (5 seats)

 Bulgaria  Czech Republic  Romania  Russian Federation  Ukraine

### Africa (13 seats)

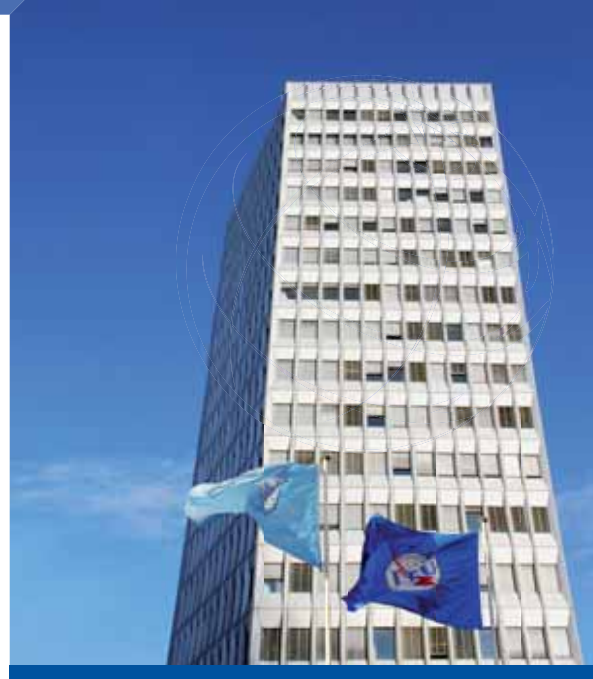
 Algeria  Burkina Faso  Cameroon  Egypt  Ghana  Kenya  Mali  Morocco  Nigeria  
 Senegal  South Africa  Tanzania  Tunisia

### Asia and Australasia (12 seats)

 Australia  China  India  Indonesia  Japan  Republic of Korea  Malaysia  Pakistan  
 Philippines  Saudi Arabia  Thailand  United Arab Emirates

# Official Visits

*During April 2010, courtesy visits were made to ITU Secretary-General Hamadoun I. Touré by the following ambassadors to the United Nations Office and other international organizations in Geneva, and other important guests.*



Abdul Hannan, Ambassador of Bangladesh



Marion Williams, Ambassador of Barbados



Luis Manuel Piantini, Ambassador of the Dominican Republic



Achim Klein, Vice-President, Head of Global Government Business, Rohde & Schwarz GmbH&Co.KG

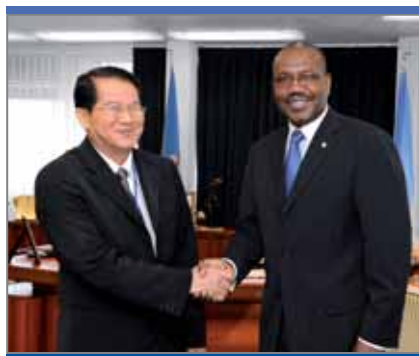


Jelena Surculija, Assistant Minister for International Cooperation, Ministry of Telecommunications and Information Society, Serbia



Gabriela Hernández Cardoso, Deputy Secretary for Communications, Mexico





Sue Lo-Utai, Permanent Secretary  
for the Ministry of Information and  
Communication Technology of Thailand



Alexander Jharov, Vice-Minister, Ministry  
of Telecom and Mass Communications,  
Russian Federation



Peter Woolcott, Ambassador of Australia



Dipu Moni, Minister for Foreign Affairs,  
Bangladesh



Laura Mirachian, Ambassador of Italy



Catalin Marinescu, President of the National Authority for Management and Regulation  
in Communications of Romania; Dr Hamadoun I. Touré, ITU Secretary-General; and Ms  
Maria Ciobanu, Ambassador of Romania



Khédija Hamouda Ghariani, Secretary-  
General of the Arab Information and  
Communication Technology Organization,  
Tunisia



Mykola Maimeskul, Ambassador, Ukraine  
Mission



Justin Gournu Zacko, New Technologies  
secretary, Ministry of Posts, Central African  
Republic



Maria Ciobanu, Ambassador of Romania

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