Connecting the world

ITU | Digital development

A global mission to connect the unconnected

Just over 20 years ago, the International Telecommunication Union, the United Nations agency for information and communication technologies, commissioned a report entitled "The Missing Link." The first study to provide a coherent global picture of the state of access to ICT worldwide and to quantify the impact of access on economic development, it painted a disturbing picture.

In the developed world, the landline telecommunication networks that had long served as engines of economic growth were assuming a new importance. Networked computing — a development that would quickly give rise to the Internet — meant that the advantages of fast, reliable communications networks were snowballing, providing a new conduit for economic growth.

Developing countries, with their chronically poor network penetration, were suddenly falling even further behind the global growth curve. While no one had yet coined the term "digital divide," the gulf that separated the world's information haves and have-nots was fast turning into a chasm so wide it might never be bridged.

Sami Al Basheer Al-Morshid, director of ITU's Telecommunication Development Bureau, says convincing governments of the critical importance of ICTs to economic performance and establishing a regulatory environment that stimulates private-sector investment has been vital to start redress the balance.

"We've been emphasizing this strongly for many years, with some good results," he says. "In addition, the UN World Summit on the Information Society, held in 2003 in Geneva and in 2005 in Tunis, helped focus global attention on the problem by bringing together key stakeholders from new constituencies spanning all sectors of the community."

With objectives set by world leaders during WSIS and priorities developed at ITU's own World Telecommunication Development Conference (WTDC-06), ITU activities around the world are designed to meet a broad range of needs.

Its E-Strategies program, for example, focuses on delivering expertise and seed funding in six priority areas: Internet Protocol network development, e-services (agriculture, health, e-government, education and e-commerce), multipurpose community telecenters, cybersecurity, e-legislation and community programs designed to build ICT awareness.

"We're striving to bring sustainable, affordable improvements to the daily lives of ordinary people," says E-Strategies Unit Chief Robert Shaw. "The aim is to empower communities to develop their own ICT capacity and resources according to their unique needs."

ITU's network of field offices, strategically located throughout Africa, the Asia-Pacific region, Latin America and the Caribbean, and the Commonwealth of Independent States, also focuses on building solid relationships with local authorities and communities, with a view to promoting sustainable ICT access initiatives that enjoy the support of public and private sector partners. ■

The International Telecommunication Union's initiatives play a vital role in promoting the use of information and communication technologies to enhance economic performance

ITU's Connect the World mission includes projects like Village Phone, which provides local livelihoods as well as ICT development.

A snapshot of the digital divide

International Telecommunication Union's 2005 statistics paint a stark picture of the information gap that continues to separate the rich from the poor.

- **In 2005, fewer than four out of every 100 Africans used the Internet, compared with one out of every two people living in the Group of 8 nations.**
- **The G-8 is home to just 15 percent of the world's population, yet has 45 percent of the world's Internet users.**
- **At 2004-05 growth rates, less than 25 percent of people living in the developing world will be online by 2010, compared with 55 percent of the inhabitants of the developed world who were already online by 2005.**
- **An estimated 30 percent of all villages worldwide still have no access to basic telephone service.**
- **Seventy-nine percent of Africa's 27 million fixed phone lines are located in just six of its 54 nations.**
- **Access to broadband — the "big pipe" connections increasingly vital to Internet access — now extends to 13 percent of the population in high-income countries. It remains close to zero in the developing world.**
- **Some 30 countries still rely on a single 10Mbps international connection to serve their entire population; in wealthy countries, consumers can now buy their own personal 10Mbps connection at very affordable prices.**

Partnerships | Multistakeholder initiative

International partners mobilize to 'Connect the World'

In a bid to identify and implement innovative and successful new strategies to leapfrog the digital divide, the International Telecommunication Union is leading a global multistakeholder development partnership comprising major information and communication technology companies, development agencies, international and regional organizations, civil society and governments.

Called Connect the World, the initiative was launched in 2005 in the lead-up to ITU's holding of the UN World Summit on the Information Society in Tunis as part of its commitment to bringing the power of communications and access to information to people the world over.

Now, 18 months later, the original 22 founding partners — which include giants like Alcatel-Lucent, Cisco, Huawei, Intel and Microsoft, along with UN agencies, nongovernmental organizations and governments from the developed and developing worlds — have been joined by a host of new players, all of whom are actively involved in hands-on projects at the grassroots level designed to bring ICT access to the estimated one billion people still unconnected.

The program is predominantly focused on rural communities — far and away the most marginalized, with an estimated 800,000 villages worldwide still lacking telephone service and access to basic information resources like TV and radio. It is structured around three key domains — Enabling Environment, Infrastructure and Readiness, and Applications and Services — which ITU experts say constitute the primary building blocks that must be addressed to reach the WSIS goal of connecting all the world's people by 2015.

"It's clear that no single player has the resources or expertise to meet this tremendous challenge alone," says ITU Secretary General Hamadoun I. Touré. "That's why ITU conceived Connect the World around the model of public-private partnership. We're now working with 50 partners from government, business and civil society, with a steady stream of new members lining up to join."

Sharing the vision that hybrid strategies that incorporate education, microcredit and entrepreneurship can help communities out of poverty, ITU has joined with like-minded partners through the UN Advisers Group on Inclusive Financial Sectors. The group of more than 20 global financial experts from governments, central banks, regulatory agencies, microfinance institutions, the private sector, civil society, development agencies and academia work together to make financial services accessible for the poor and for small enterprises across the globe. ITU is also currently working with the microcredit pioneer Grameen, the organization founded by the Nobel laureate Dr. Muhammad Yunus, and other partners, on effective ways of combining Grameen's microcredit expertise with ITU's experience implementing global ICT development programs that can help the poor earn a sustainable income.

Empowering the network

To that end, ITU, Grameen, Cisco Systems, Qualcomm and the newly formed consortium Enclusion recently launched a virtual global ICT Empowerment Network consisting of numerous independent, self-financed groups of partners. Each group will focus on at least one of three workstreams.

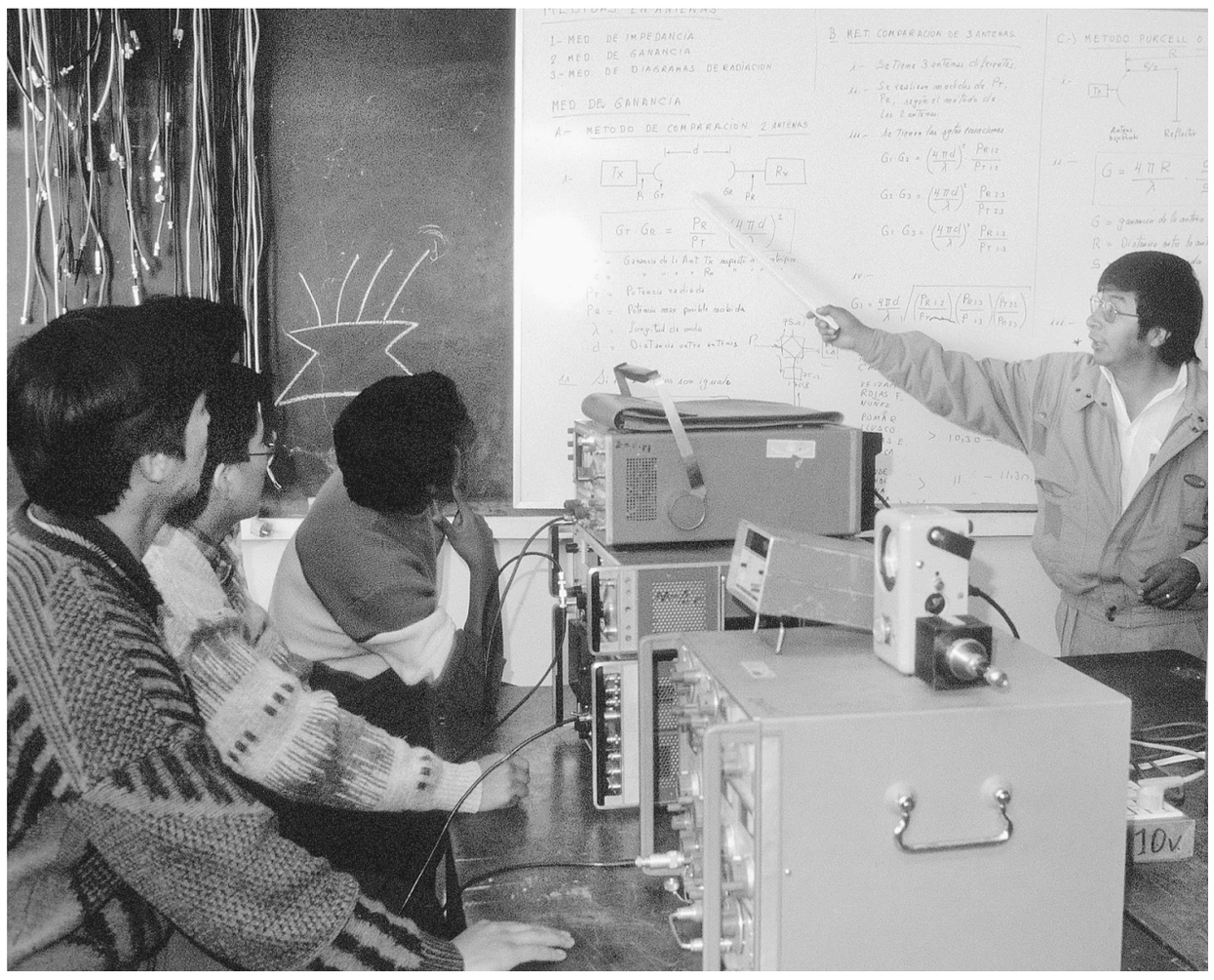
The workstream on ICT solutions focuses on developing and implementing low-cost ICT solutions; one example is Enclusion's plan to provide affordable ICT access by expanding the reach of existing GSM networks in remote rural areas. Using very low-cost VHF radio, local farmers and small businesses will be able to access low-bandwidth data services such as SMS and e-mail for microcredit applications. Short-range voice capability to unserved and hard-to-reach villages will also be provided.

Under the Sustainable Business Models workstream, promising young entrepreneurs can have their business plans assessed for potential microcredit financing; graduates of ITU's Internet Training Centers will be the first to gain access to business-plan mentoring and microcredit start-up capital to launch their own ICT-related businesses. Under this workstream, the ITU is also working with Grameen and the GSM Association to spread the village phone and shared-access models, which provide microcredit to local entrepreneurs in developing countries so they are able to purchase a mobile phone and then resell airtime to others in their communities. This creates opportunities for the entrepreneurs as well as spreading access to ICTs in underserved communities.

The third workstream on Capacity Building will leverage Grameen's microcredit financing and expertise to expand the availability of loans for students in ICT-related studies. To begin with, Grameen will provide microcredit-financed loans to eligible students at ITU Internet Training Centers as well as to eligible applicants to ITU's Youth Education Scheme. Over time, ITU and Grameen will encourage additional ICT training programs to join the network and expand the availability of microcredit loans for additional students.

Connect the World partner Cisco Systems has already pledged $1 million to the new network, with the money principally going to fund student and entrepreneurial loans.

The ICT Empowerment Network represents the first concrete collaboration to emerge from a broader cooperation agreement signed between Grameen and ITU at the ITU Telecom World 2006 event in Hong Kong last December. ■



ITU

ITU's cooperative efforts are proving particularly fruitful in education through partnerships with local universities and educational authorities.

Development programs | Education and human resources

The age of enlightenment, 21st-century style

Nelson Mandela famously said that education is the most powerful weapon humankind has at its disposal for changing the world.

A strong advocate of this view, the International Telecommunication Union's Telecommunication Development Sector is making human resource development a top priority through a variety of diverse development programs.

One example is ITU's work with the Connect the World partners Cisco Systems and the European Commission on its Internet Training Centers Initiative (ITCI), designed to help developing countries build their own pool of "new economy" professionals who will drive ongoing information and communication technology growth at a local level.

ITU's work with Cisco — which earned the UN agency a Cisco Partnership Award earlier this year — has already seen the establishment of 66 centers in 56 nations, 20 of which are UN-designated Least Developed Countries (LDCs). The ITCI program already boasts more than 3,000 graduates, with another 3,000+ students currently enrolled. As well as creating a skilled local workforce, the initiative also seeks to break entrenched gender barriers, targeting an annual intake of 30 percent female students.

The project's success recently prompted ITU to redouble its efforts through a new partnership with the EC, adding 12 new centers, six in LDCs. The curriculum provides two streams for beginners and advanced students, including a course on Free and Open Source Software (Floss) for dynamic Web design and a basic ICT course focusing on using computers and applications donated by Microsoft, another Connect the World partner, through its Unlimited Potential program.

Funding and resources

Complementing the emphasis on Internet skills, ITU has also provided some $9 million in seed funding, along with organizational and intellectual resources, for the establishment of a number of ICT Centers of Excellence.

Designed to offer face-to-face workshops as well as distance-learning sessions to high-level ICT managers and policymakers in government and the private sector, the centers serve as regional focal points for professional development, research and information exchange. Thanks to substantial support from multilateral and regional organizations and local business, there are now ITU Centers of Excellence serving east and west Africa, Latin America (including the Caribbean), the Arab states, the Asia-Pacific region, Europe and the Commonwealth of Independent States countries.

Recognizing the vital importance of developing the skills of young people — particularly in the developing world, where under-25s account for more than half the total population — ITU also partners with a host of leading ICT manufacturers and service providers to fund YES, the ICT Youth Education Scheme.

Since its inception in 2003, the program has awarded more than 50 educational scholarships to disadvantaged tertiary students to enable them to pursue their studies. Active partners include Alcatel-Lucent, Thales Communications, Vodafone, Nokia Communications, NTI of Egypt and Anacom, Portugal's national telecommunications regulator. ■

Regulatory framework | Toward open markets

Leveling the playing field for operators and start-ups

At first glance, poring over musty legislation and reviewing arcane regulatory criteria don't sound like very hands-on ways of bringing access to information and communications technology to poor communities.

"In fact, getting the regulatory framework right has a massive impact on a country's ability to unleash the development potential of ICTs," explains the International Telecommunication Union's head of regulatory and market environment, Doreen Bogdan. "Markets need to be open enough to encourage competition and allow established operators and start-ups to provide sought-after services to end users. Consumers need affordable access to appropriate technologies, and companies need a stable and transparent operating environment with sufficient profit incentive to encourage them to develop and expand their services."

That usually means that countries must comprehensively revise current licensing regimes to make it easier for new service providers to enter the market. It also means ensuring that sufficient radio-frequency spectrum is available for the wireless services that are often easier and more cost-effective to deploy than traditional fixed-line networks. Finally, it means ensuring that competing operators and service providers can seamlessly interconnect with one another, so that users of different networks can communicate with one another.

"Regulators in the world's developed markets have already begun updating their regulatory frameworks to take account of emerging technologies and user demand for new services," says Susan Schorr, ITU regulatory specialist. "But developing countries seeking to revise their regulations to harness the potential of new technologies often lack the skills, expertise and human resources to overhaul markets governed by legislation that can be decades out of step with technological change."

"Telecommunications can define a country's success — or lack of it — in the world economy," says Ernest Chukwuka Ndukwe, chief executive officer of the Nigerian Communication Commission. "The telecom regulator's role is to create a level playing field, attract investment and foster competition and growth in the ICT sector."

To help governments in under-resourced nations reconfigure their markets in a way that encourages both investment and local entrepreneurship, ITU is partnering with the World Bank's infoDev program to develop an online ICT Regulation Toolkit. Conceived as a permanently evolving resource, the kit consists of a series of modules on key regulatory issues including service authorization; legal and institutional aspects of regulation; competition and price regulation, including interconnection; new technologies; and radio spectrum management. A further module on universal access is currently under development.

Regulatory reform is also a key element of ITU's Connect the World initiative, through its Enabling Environment building block. ITU recently helped 15 West African countries develop a common regulatory framework through an ICT Market Harmonization project funded by the European Union and adopted by the heads of state and government of the Economic Community of West African States (Ecowas). The agency is now working to expand this project to cover the entire African continent, in line with recent decisions of the 2006 ITU World Telecommunication Development Conference.

ITU also holds the only annual gathering for the world's ICT regulators. The Global Symposium for Regulators seeks to promote information exchange and adoption of regulatory best practices and to tackle topical issues confronting regulators worldwide. The most recent event, held in Dubai in February, debated the regulatory implications of emerging "next-generation networks," which pose special challenges by blurring the boundaries between previously disparate technologies. ■

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