Mavis Ampah and Boutheina Guermazi of the World Bank looks at efforts to improve access for growth and development in sub-Saharan Africa

Connecting Africa is critical to accelerated economic growth

The significance of information and communication technology as a critical engine for productivity and growth is increasingly well recognized all over the world. Research indicates that countries which have a 10% higher telephone penetration rate over the long run are likely to register 0.6% higher annual growth in GDP than would otherwise be the case.

There is also evidence that higher rates of ICT penetration are associated with great levels of exports.

There is indication that companies that invest more in ICT have higher levels of productivity and are more profitable.

In Africa, the impact of ICT on trade, productivity, growth and efficiency are even more germane. More Africans than ever before are finding it essential to use phones, e-mail and the internet to communicate, share information, entertain, work and do business.

The impact on incomes, productivity and efficiency of public and private services has been unparalleled. In Ghana, the government was able to reduce customs processing time from several weeks to a couple of days and increased customs revenue by 49% within the first 18 months of implementing e-government applications.

In Kenya and South Africa, mobile phones are being used to transfer money between prepaid electronic money accounts through the M-Pesa and Wizzit programmes.

And all over Africa, teachers, doctors, farmers and fishermen are using communications to find better prices, improve access to markets, and increase their bargaining power.

Environment for private investment

In recognition of the enormous potential of communications, many African countries have taken some preliminary steps to reform markets by introducing competition and improving the legal and regulatory environment.

Reforms implemented over the last decade in Africa have unleashed competitive forces in the telecommunications and IT sectors, fostered private sector participation in the fixed and mobile phone markets in particular, and continue to nurture an ISP market.

The result has been an unprecedented increase in investment — some $19 billion between 2000 and 2005.

Thanks in particular to the explosive growth of the mobile sector — from less than two million to over 150 million subscribers between 1998 and 2007, and increasing at a rate of about 45% in the last year — Africa is considered to be the fastest growing region in the global cellular market.

Assuming an average revenue per user of $100 a year, the size of the sub-Saharan African telecom market is currently approximately $15 billion a year and still growing.

The impressive growth highlights the challenge that Africa faces in providing access to modern technology for its 750 million population.

Africa still has the lowest telephone and internet penetration — at about 14% and 3%, compared to the world average of 52% and 14% respectively — and the highest costs: the price basket for internet is $45 a month, compared to the world average of $22.

These averages also mask big variations between countries within the region. Countries which implemented the most far-reaching reforms have typically been rewarded with the highest sector growth rates.

However, the exceptionally fast growth of the telecom and ICT sector in some markets in Africa presents its own difficulties. Regulators and policy makers are faced with daily challenges to respond to fast-changing market conditions and fast evolving technologies, and to update regulatory tools to capture those changes.

Focusing resources

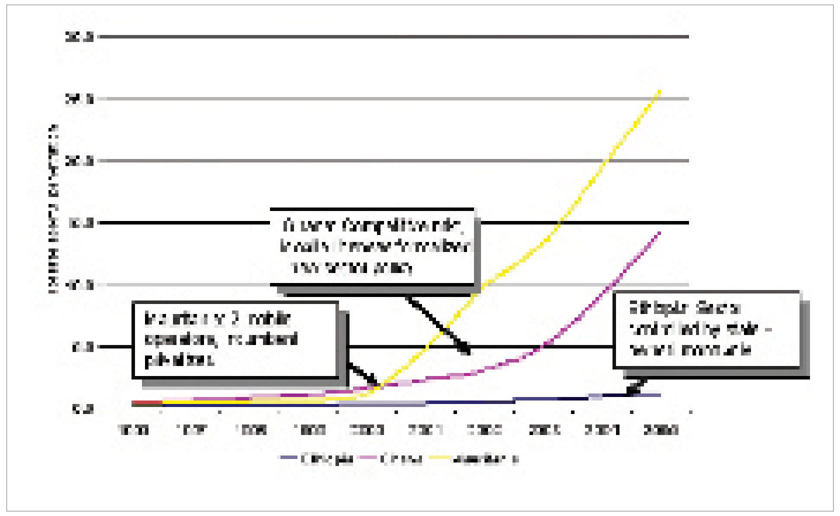
With increased evidence that access to affordable infrastructure and services is an essential building block for economic and social development, and a key ingredient for effective institutions, governments, markets and societies, the World Bank Group is revitalizing its approach to information and communication sector development.

Building on earlier programme of support to Africa which included technical assistance before and after privatization, policy reforms, support in drafting of new laws, establishment of regulatory frameworks, the World Bank is now positioning itself to provide a more targeted and balanced programme of policy and regulatory reforms and investments to accelerate sub-Saharan Africa's efforts to connect to each other and the world more efficiently.

Since 1996, the bank's private sector arm, the IFC, invested $563 million in the information and communications sector in sub-Saharan Africa, and has helped mobilized another $220 million.

On the policy side the World Bank is supporting

The size of the sub-Saharan African telecom market is $15 billion a year and still growing



Comparison of telecoms penetration in reforming and less-reforming countries in sub-Saharan Africa

World Bank support through output-based aid to expand rural access in Uganda

Uganda faces a number of challenges in achieving universal access, with a per-capita income of about $300 and over 80% of the population rural.

Uganda began introducing sector reforms in 1996 and is reputed to have achieved one of the most competitive markets in sub-Saharan Africa.

In 2001, a Rural Communications Development Fund was created under the supervision of the Uganda Communications Commission, collecting annual contributions from all sector players in the amount of 1% of direct retail service revenues.

Since 2003, the RCDF has launched and successfully implemented small pilot projects involving the private provision of about 70 public phones in unserved rural locations, 20 internet points of presence in district capitals, 22 internet cafés, 33 ICT training centres, and 26 district information portals.

The World Bank is providing technical assistance for the definition of nationwide projects for public telephony, internet points and telecentres, as well as regulatory instruments, institutional arrangements and bidding documents.

The ICT component was initially estimated at $5.5 million and later increased to $12 million in line with more ambitious policy objectives, of which $10.5 million was covered by an International Development Association credit and the rest by government counterpart funds.

Output-based aid subsidies in this amount would support the build-out of telecommunications facilities in areas where the operation of services — but not the construction of the facilities — can be commercially viable, and the social returns of the investments high.

The project accelerates access to voice telephony by providing at least one public telephone per 2,500 inhabitants throughout Uganda: this equates to an average distance of about three kilometres.

It provides broadband internet points of presence in 32 of the 562 district capitals of the country as well as dedicated internet access for institutions and internet kiosks connecting to the points of presence, and establish rural multipurpose telecentres at "vanguard institutions", such as schools, hospitals, associations of farmers and micro-entrepreneurs, in selected districts.

Addressing Africa's missing link: The World Bank's Regional Communications Infrastructure Program

East and southern Africa is the only region in the world not connected to the global broadband infrastructure.

This "missing link" explains why the region accounts for less than 1% of the world's bandwidth capacity.

Twenty countries of the region lack direct terrestrial access to global information and communications infrastructure and networks and are forced to rely on expensive satellite connectivity to link up with each other and the rest of the world.

This translates into some of the highest communications costs in the world. International wholesale bandwidth prices are 20-40 times higher than in the US, and international calls are on average 10-20 times more than in other developing countries.

The region's growth and development are being held back by this lack of access to low-price and high-quality telecommunications services.

Furthermore, it impedes regional and international trade and limits the extent of job creation.

The limited and costly access also hinders the potential of information and communication technologies to extend learning, promote social participation and improve government efficiency and transparency.

The World Bank's $424 million Africa Regional Communications Infrastructure Program aims to close this connectivity gap and bring affordable high speed connectivity to as many as 25 countries in east and southern Africa. RCIP financing of terrestrial networks will be a catalyst to attract and maximize private sector investment in telecommunications infrastructure.

RCIP complements regional undersea cable initiatives, such as the Eastern Africa Submarine Cable System developed by telecommunications operators with support from the International Finance Corporation and other development partners.

There is more information at www.worldbank.org/rcip

Growth and good governance through eGhana

The World Bank is supporting the government of Ghana through a $40 million facility which seeks to generate growth and employment by using ICT and public-private partnerships to develop an IT-enabled services industry and contribute to improved efficiency and transparency in selected government functions through e-government applications.

Thanks to cheaper bandwidth, targeted training and capacity building programmes as well as funding, the government aims to develop a robust local IT industry. The Government expects to create some 37,000 jobs and generate about $750 million within five years.

The government is focusing on ICT-enabled transformation to create an efficient, transparent and responsive environment for rapid economic growth.

The programme will support public-private partnerships in the delivery of e-government services in selected ministries, departments and agencies.

This programme builds on the government's earlier experience with a customs modernisation programme which reduced drastically customs processing time and increased government revenue by close to 50% within first 18 months of implementation.

Countries which have implemented the most far-reaching reforms have typically been rewarded with the highest growth rates

over 30 sub-Saharan countries to develop a conducive and enabling environment for private sector investment in the sector, and providing continuous support to countries to update policy and regulatory frameworks to address evolving market dynamics and technological developments.

Increasingly the bank is focusing on closing the access gap by helping countries devise innovative private-public sector partnerships to close infrastructure and service gaps in key areas — including establishment of universal access funds and providing capacity building support to manage those funds.

The World Bank has collaborated with a number of countries including Uganda, Nigeria and Mozambique.

The next 200 million and beyond

Despite impressive growth in penetration rate, the sector is yet to fulfil its full potential for economic and social development of Africa.

Evidence across the world demonstrates that success is largely market-driven. And experience in Africa largely demonstrates that competition and effective regulation is the key to successful telecommunications sector development.

Effective regulatory frameworks ensure proper competition, reduce the investment risk, guard against market abuse by dominant market players and balance the goals of market efficiency, flexibility and innovation. Deepening reform, strengthening regulatory frameworks and building institutional capacity are key elements for sustaining reform in the sector and for moving beyond the mobile success story to improve access to rural areas and enlarge the broadband footprint in Africa.

With the advent of convergence, a new host of opportunities linked to the sector is beginning to unfold in many countries. Increasingly, network operators are competing to offer bundles of voice, data and video services over telecommunications networks, cable networks, wireless networks, and even over utility networks.

Supporting African policy makers and regulators to update regulatory rules and structures to reflect the shift in technology and market realities is a fast-growing area of World Bank support to African countries.

Many countries — including Zambia, Uganda, Nigeria, Lesotho and Mali — are in the process of adopting technologically neutral laws and regulations allowing greater competition between different delivery platforms and greater access to end users.

Beyond the policy and regulatory considerations, the World Bank is also focusing on closing the communications infrastructure gap. It is increasingly apparent that private capital alone may not be sufficient to fill the national and regional backbone infrastructure gap.

Infrastructure is the foundation on which more sophisticated services for commerce, government and society can be developed, and it is essential for Africa to have robust broadband backbones to create the fertile conditions for growth.

The World Bank's recent approval of a Regional Communications Infrastructure Program for high-speed connectivity in east and southern Africa is the first critical step in addressing regional infrastructure gaps.

In response to increasing demand from African countries to support innovative applications to create jobs and efficient public service delivery, the bank is also supporting public sector reform through public-private partnerships in information and communications applications as well as promoting economic growth and competitiveness by enhancing ICT and IT enabled services.

Bank support is being provided to promote use of ICT for better delivery of services to the government itself, citizens and businesses in order to foster transparency and accountability which in turn reduce the incentives for corrupt behaviour.

The World Bank support is also being targeted in the use of information and communications technology to increase business productivity and efficiency of the private sector leading to better services and lower costs.

In the case of Africa, such support can increase the continent's ability and potential to compete for a share of the $300 billion global services industry, of which only 10% has been realized.

Assisting Sub-Saharan Africa countries to develop robust local industries will also help generate more economic output, attract foreign investment, energize local exports and create more employment for the local populations. ■