GLOBAL INFORMATION SOCIETY WATCH 2008

Focus on *access to infrastructure*

Global Information Society Watch

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Introduction

In July 2008, legislation governing the development of an in-formation society in Senegal was signed by parliamentarians in the National Assembly. This legislation includes:

- A law which lays down the main trends of the infor-mation society in Senegal by supplementing current legislation regarding information and communications technologies (ICTs)

- A law on cyber crime

- A law dealing with the protection of private data

- A related law dealing with electronic transactions (e-commerce).

This new legislation is proof of the political will in Senegal to develop an inclusive information society to the benefit of all the country's citizens.

Country situation

In Senegal, telecommunications contributes significantly to the improvement of macroeconomic indicators and the development of social and economic activity, with a con-tribution of 8% to the country's gross domestic product (GDP). The sector recorded a growth in value of 22.5% in 2006. While the fixed-line telephone market performed well, the internet sub-sector grew by 60.4% in the same year.

Senegal's advanced telecommunications network makes the country an attractive location for businesses establishing a presence in Africa. The domestic market is small but offers cheap labour, low operational costs, and a modern and af-fordable telecommunications infrastructure.

Mobile services were introduced in 1996 and compe-tition in that sub-sector began two years later. Since the introduction of competition, the number of mobile sub-scribers has grown dramatically, with cellular lines now representing more than 85% of all telephone lines. Internet usage has doubled every year since 2003 when asymmet-ric digital subscriber line (ADSL) services were introduced. There is already extensive investment in fibre-optic infra-structure. Overall market penetration of broadband is still low, making it an attractive opportunity as ICT companies look to compete for new licences to operate.[1]

At the end of 2006, there was one national telecommu-nications company, SONATEL; two mobile phone companies, TIGO and Orange Senegal (SONATEL's cellular branch); and 412 internet hosts. A new licence has been granted to the

Sudan Telecommunications Company (SUDATEL), which will shortly start offering fixed-line, mobile and internet services.

Policy and regulation

In 1985, telecommunications in Senegal was completely reformed. The post and telecommunications activities of the Senegalese Post and Telecommunications Office were separated, and SONATEL was established.[2] In 1996, new legislation outlined the basic policy governing the telecom-munications sector. In 1997, SONATEL's capital was partially privatised, with 42.33% held by France Telecom, 27.67% still owned by the government, 20% public-owned, and 10% employee-owned.[3]

This privatisation did not drastically change the ICT sector, since SONATEL maintained its control over all tel-ecommunications services. In 2004, the incumbent's monopoly ended but by 2006, the second national operator (SNO) was still unannounced. Senegal made commitments under the World Trade Organisation's basic telecommu-nications agreement to introduce a regulatory structure promoting fair and healthy competition between operators.

Universal access

Universal access and services in Senegal are one of the few areas privatised. SONATEL provides a type of franchise opportunity for small operators to set up a pay phone, fax, internet or other communications access services in rural areas. The opportunity seems to work well for rural com-munities by creating local access to ICTs, and encourages entrepreneurship among small businesses and individuals who run the telecentres. Table 1 offers a snapshot of ICT usage data for 2006.

Participation

Telecommunications are reaching even the most rural parts of the country. With a secure infrastructure and modern net-work, even small and medium businesses can survive in the Senegalese market. The following are just a sample of some of the ICT programmes and organisations operating in the country.

A leading-edge Senegalese business that provides local farmers with up-to-the-minute market prices for their crops through their mobile phones has won two major African ICT awards. Manobi-Senegal was named most innovative

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1   Budde Comm: www.budde.com.au

2   National Information and Communication Infrastructure (NICI) in Africa
    Country Profile: Senegal

3   Novatech 2006 Investor Profile: Senegal

Table 1: **ICT usage 2006**		
Service	Number of users	Teledensity (Pop. 11.9 million)
Fixed-line	266,600 (2005)	2.24 %
Mobile	2,218,906	18.6%
Internet	540,000	5%

company, and was also selected the overall organisational winner at the African ICT Achievers Awards. Manobi's founder and CEO, Daniel Annerose, started the internet and mobile service company with support from the Acacia initiative of the International Development Research Centre (IDRC), the communications company Alcatel, and SONATEL.

Farmers in remote areas of Senegal were provided with wireless application protocol (WAP)-enabled cell phones that allowed them to connect to the internet to check strategic market information and compare competing local buyers' offers for produce. Subscribers have received, on average, about 15% higher profits for their produce after having covered costs, including the price of Manobi's service. Acacia's contribution has been to put in place a method for collecting the necessary market information and to test how the system was accepted by the farmers. The World Bank has subsequently also supported Manobi in extending the cellular network to include market information related to the fisheries sector.

Telecentres are another initiative with a major impact. SONATEL launched the first four pilot telecentres in Dakar in 1992. Ten years later there were over 15,000 privately owned telecentres in Senegal, more than in any other country in Africa. Since 1997, SONATEL no longer provides public telephone services, but instead has been licensing telecentres, which are operated by small businesses. Most of these centres only provide access to public telephones, but an increasing number of them have faxes, computers and internet access. Telecentres now constitute up to 30% of SONATEL's annual revenues. To foster further growth, SONATEL provides a 40% discount on services to telecentres. There are already around 6,000 telecentres in Dakar alone and over 30% of all telecentres are located in rural areas. Together, these make up over 7.5% of SONATEL's total fixed lines.

Senegal was a beneficiary country for the Digital Freedom Initiative (DFI). DFI volunteers are working with United States (US) businesses and the Senegalese government to implement several internet-based initiatives, such as an electronic payment system and basic information technology (IT) training for Senegalese merchants.

The DFI has also identified and developed a variety of ICT-enabled training materials, which have been used to help improve cybercafé operations, business management, and market access for dozens of small and medium-sized enterprises in Senegal. DFI is now working to leverage its investment in these materials to have them used countrywide. The programme is run by the government.

The Senegalese Information Technology Association (SITSA) is the first national association to represent the information industry and professionals in Senegal. SITSA was created in 2003 by representatives of most of the information technology and services companies in Senegal. They decided to work cooperatively to create a new association to promote the ICT industry nationally and internationally.

E-commerce is at its early stages of development in Senegal. The country's first experience with e-commerce was launched by Trade Point, an initiative of the United Nations Conference on Trade and Development (UNCTAD) to facilitate international trade. Trade Point uses the internet to promote matchmaking between Senegalese businesses and international partners.

In September 2008, kheweul.com, an ICT company, launched a project that created 200 websites for musicians, drawing on local expertise.

SONATEL and the Gambia Telecommunications Company (Gamtel) launched a new prepaid card, called *Carte Sama Yai*, aimed at Senegalese living in Gambia. The card allows them to communicate with their families back in Senegal more easily, and at an affordable price.

The Group for Population Studies and Education (GEEP), a non-profit organisation, has established a project known as Youth Cyberspaces. The objective of this project is to support an existing network of family life education clubs active in secondary schools. The project offers network access in order to improve communication among the club's members. It also serves as a vehicle for the distribution of different educational tools that are related to reproductive health, environmental management, population, etc. There are twenty active clubs in different parts of Senegal. IDRC/Acacia funds this project and linkages have been established with the World Links programme.

The Ministry of Education and SONATEL signed an agreement that establishes preferential terms for access to the internet to make it more affordable for learning institutions. Discounts vary depending on the type of connection, but can go as high as 75%. Installation costs are also discounted. SONATEL is directly responsible for invoicing the schools.

Political will and the role of the president

Senegalese President Abdoulaye Wade is effectively the cantor of ICTs in the country. It is Wade who is promoting the idea of a universal access fund in Senegal, and who supervises the e-government initiative.

Senegal has started a three-phase roll-out of its e-government initiative, which entails networking 63

administrative buildings, connecting 35 department capitals, expanding the network nationwide, and incorporating value-added e-government applications.

Senegal is divided into eleven regions and 35 departments, and there are 11,000 villages spread throughout the country. These are not yet connected to one another via a government intranet, which results in a higher cost of communication between government entities. The roll-out of e-government services will first reduce intergovernmental operating costs, and, with the application of value-added services and e-government applications, will create an efficient, low-cost government that is more accessible to constituents.

The governmental intranet has been envisaged as carrying voice, video and data. This network is based on a fibre-optic loop which joins together eight principal nodes. It will offer:

- High-speed access to the internet

- Internet protocol (IP) telephony

- Advanced services: conference calls, video conferencing, and an online directory

- A server and portal based on free software, as well as a tool for productivity and effectiveness for all the public authorities.

Conclusion

Even if Senegal has one of the best telecommunications infrastructures in Africa, and despite all the political will in the world, this infrastructure is largely underutilised for various reasons. The prices of services are relatively high because of the absence of competition in international fixed telephony and the internet, as well as limited competition in the mobile telephony sector. Moreover, innovation is restricted by regulation which consolidates the dominant position of SONATEL. The question of rural telephony is largely ignored, and the digital divide between cities and rural areas is still significant.

Various reforms were never led within a participative framework. Civil society's engagement with policy processes has not been active or influential. Even when all stakeholders were invited to a two-day national consultation process, recommendations from civil society were not included in the decisions.

The relationship between government and civil society or the private sector is, however, being consolidated. The regulator has included them in a task force set up to manage the universal access fund. The most important objective for Senegalese civil society is to be a part of this group and advocate for changes in policy direction that will benefit citizens' practices of freedom, and the effective use of ICTs in development processes. ■

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GLOBAL INFORMATION SOCIETY WATCH 2008 is the second in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world.

GLOBAL INFORMATION SOCIETY WATCH or **GISWatch** has three interrelated goals:

- **Surveying** the state of information and communication technology (ICT) policy at the local and global levels

- **Encouraging** critical debate

- **Strengthening** networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. **GISWatch 2008** *focuses on access to infrastructure* and includes several thematic reports dealing with key access issues, an analysis of where global institutions stand on the access debate, a report looking at the state of indicators and access, six regional reports and 38 country reports.

GISWatch 2008 is a joint initiative of the Association for Progressive Communications (APC), the Humanist Institute for Cooperation with Developing Countries (Hivos) and the Third World Institute (ITeM).

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