

ICT in Education in Lesotho

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Source: *World Fact Book*¹

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This short *Country Report*, a result of a larger *infoDev*-supported *Survey of ICT in Education in Africa*, provides a general overview of current activities and issues related to ICT use in education in the country. The data presented here should be regarded as illustrative rather than exhaustive. ICT use in education is at a particularly dynamic stage in Africa; new developments and announcements happening on a daily basis somewhere on the continent. Therefore, these reports should be seen as “snapshots” that were current at the time they were taken; it is expected that certain facts and figures presented may become dated very quickly.

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Overview

Despite its poor ICT infrastructure and high levels of poverty, Lesotho has begun to take the necessary steps to promote higher levels of ICT access and usage in its communities and education institutions. The Government of Lesotho has adopted a national ICT policy that makes some references to the education sector. Over the last two years, the NEPAD eSchools Demo Project in Lesotho has been a catalyst in focusing attention on the potential that ICTs hold to enhance education in the country.

Country Profile

Lesotho is a small, landlocked mountainous country with a small population, a low GNP per capita, and a high level of poverty. Lesotho's economy is based primarily on subsistence agriculture, livestock, and remittances from miners employed in South Africa (though this work has declined steadily over the past several years). A small manufacturing base depends largely on farm products that support the milling, canning, leather, and jute industries. Proceeds from membership in a common Customs union with South Africa and from the Lesotho Highlands Water Project (which controls, stores and redirects water to South Africa) form the majority of government revenue.

Table 1 provides a brief overview of basic socio-economic indicators for the country.^{1,2}

Table 1: Socio-economic Indicators: Lesotho

Indicator	
Population	2 million (2006)
Languages	Official languages of Sesotho (southern Sotho) and English. Other languages: Phuthi, Xhosa, and Zulu
2005 Economic activity (% of GDP)	Agriculture: 17.5 Industry: 40.9 Services: 41.5
Human Development Index (2004)	148 (out of 177 countries)
Gender Parity Index*	0.486 (2004)
Per capita gross national income (US dollars)	\$590 (2003); \$740 (2004); \$960 (2005)

*GPI = gross enrolment ratio (GER) of females, divided by the GER of males and indicates the level of access by females to education compared to males. A GPI of 0.486 suggests there are very low levels of gender parity in Lesotho schools.

The Education System

The Lesotho education system includes integrated early childhood care and development (IECCD) which lasts three years, primary education which lasts seven years, junior secondary which lasts three years, senior secondary which lasts two years, and tertiary which lasts four years. There is also a parallel technical vocational diploma course (senior secondary + or three years TVET). This system operates within a unitary state with 10 administrative districts.

Table 2 below shows the numbers of institutions at each level.³ The schools listed are largely those schools that are registered with the Ministry of Education and Training of Lesotho. There are also schools that are not registered with the ministry.

Table 2: Education Institutions, 2005

Level	No. of schools/centres
IECCD	622
Primary schools	1,477
Secondary schools	256
Skills training centres	21
Technical institutes	7
Polytechnics	1
Teacher-training colleges	1
Universities	1

For more than a century, the missionaries assumed responsibility for education in Lesotho, including organising the schools, providing the curriculum, paying and professional supporting the teachers, and providing the facilities. Church halls were used as classrooms, and often teaching and learning were conducted in the open air. Even though the Government of Lesotho has been involved in education since the 1920s, sharing responsibility for its provision with the churches, much of the formal education system is still run by missions and is largely administered by the three largest churches – the Roman Catholic Church, the Lesotho Evangelical Church, and the Anglican Church of Lesotho – under the direction of the Ministry of Education.⁴

Primary education is free, but secondary and tertiary education is not. The latter two levels operate on a loan bursary scheme.

Lesotho's adult literacy rate stands at 82.2% (2004).

Challenges

Lesotho faces severe challenges. Approximately 25% of children do not attend school, particularly in rural areas where families involved in subsistence activities need the help

of their children to survive. The costs of school attendance, books, uniforms, and educational materials are unaffordable for many families especially those suffering family stress, poverty, the spread of HIV/AIDS, and divorce, all of which has also led to a rise in child homelessness and abandonment, creating growing numbers of street children. Boys are more affected by non-attendance than girls.

Lesotho's educators are also challenged by the lack of financial resources needed to meet the growing demand for well-educated local teachers, the need for literacy, and for vocational and technical training outside the formal academic setting. Attempts are being made to introduce more practical subjects to make education relevant.

HIV/AIDS has exacted a heavy toll on the education system. There are reportedly increasing numbers of orphaned and vulnerable children becoming heads of families, and boarding facilities are required for these school-going children. There has also been an increased demand for teacher supply because of teachers lost through the HIV/AIDS pandemic in addition to other causes of attrition such as retirement or transfers to other sectors.⁵

Infrastructure

Lesotho has a severely underdeveloped infrastructure. Table 3 provides an overview of the country's ICT infrastructure indicators.⁶

Table 3: ICT Infrastructure Indicators

Indicator	
Fixed lines	48,000 (2005)
Cellular	245,100 (2005)
Radio broadcast stations	AM 1, FM 2, shortwave 1 (1998)
Television broadcast stations	1 (2000)
Internet hosts	168 (2006)
Internet users	43,000 (2005)

Approximately only 10 out of an estimated 1,477 primary schools have any form of rudimentary access to ICTs, and sometimes this is in the form of only one PC with no Internet access. Of the total number of schools (about 1,700) in Lesotho, only 20 have electricity. Some have solar panels which are used to power groundwater pumps.

ICT Policies

While Lesotho does not have an explicit independent national policy on ICTs in education, the government adopted a National ICT Policy in 2005 in which are embedded considerable references to and implications for the education sector. Lesotho also has an education strategy which mentions the role of ICTs.

The National ICT Policy highlights ICTs as tools to enable the country to achieve its development goals as articulated in the Lesotho Vision 2020 policy document and the Poverty Reduction Strategy paper. The policy also provides a brief stakeholder analysis and the roles that are expected in realising the policy goals. It identifies 10 catalysts in the implementation of the policy, which include education and human resource development as well as health, agriculture and food security, tourism, gender, and youth.

The policy's stated vision is "To create a knowledge-based society fully integrated in the global economy by 2020." This vision anticipates the successful development and deployment of ICTs by 2015 that will:

- Respond to national needs and priorities
- Reduce inequalities between the sexes and decrease the digital divide between urban and rural areas and the haves and have-nots
- Improve governance and deepen democracy
- Develop the human capacity needed to drive and sustain an information economy
- Support economic activities at home and throughout the world

Its mission is "To fully integrate information and communications technologies throughout all sectors of the economy in order to realise rapid, sustainable socio-economic development."

Some of the strategies include investing in ICT education and human resource development by:

- Requiring that ICT literacy and training programmes be available throughout the education system and within the public at large
- Growing the resource pool of ICT professionals with standardised skill sets and ensuring that appropriate incentives are in place to retain these workers
- Encouraging lifelong learning among the population at large and promoting on-the-job training and retraining within the public and private sectors
- Promoting electronic distance learning to maximise scarce resources and expand access to educational training and research

Education institutions also feature among the key stakeholders identified to play a role in realising the policy by improving teaching and learning mechanisms that promote ICT literacy and produce local ICT products and services. They should ensure that ICT literacy is part of the core curriculum and they must use ICTs to expand access to education as well as improving the quality of education.

The policy proposes investment in all levels of formal education and that policy efforts shall be directed at using ICTs to facilitate education and lifelong learning and to support efforts of the private sector in its delivery of on-the-job training and retraining programmes.

Some of the strategies to be considered include:

- Encouraging all educational institutions to invest in computers and to connect to the Internet
- Promoting electronic distance learning, training, and virtual learning systems to complement and supplement campus-based education and training systems
- Developing ICT curricula for all levels of the education system
- Encouraging collaboration between local and international educational institutions to facilitate educational exchange and promotion of ICT education and training
- Working with the private sector to create affordable packages and schemes under which students, teachers, and educational institutions can afford ICT products and services
- Using electronic educational management and information systems to improve the management of educational institutions
- Developing mechanisms to retain a large pool of ICT professionals to meet the needs of the country
- Establishing and enforcing standards for the certification of ICT professional skills
- Encouraging lifelong learning among the population at large and promoting on-the-job training and retraining within the public and private sectors
- Improving access to education to people with disabilities
- Encouraging public and private sector apprenticeship programmes, internships, co-ops, and work-study programmes

The policy states government's commitment to:

- Developing partnerships with stakeholders to facilitate the acquisition of ICTs for all education institutions
- Facilitating the provision of distance learning applications through ICTs to ensure academic and training programmes are available nationally
- Encouraging the National Library to be equipped with appropriate ICT tools and resources
- Integrating ICTs in mainstream educational curricula as well as other literacy programmes and providing for equitable access for students at all levels
- Developing special ICT training programmes for disabled persons, youth, and women
- Setting up mechanisms that promote collaboration between industry and training institutions to build appropriate human resources capacity
- Promoting twinning of training institutions in Lesotho with those outside the country to enhance skills transfer
- Working with private industry to establish initiatives and programmes aimed at improving and upgrading the technical skills of existing employees

Policy implementation

The Ministry of Education and Training is reportedly ahead of the rest of the public sector in Lesotho, particularly in implementing an effective education management and information system (EMIS). The EMIS also assumes the form of a geographic information system (GIS) in which all schools and education institutions have been

plotted by the ministry. The ministry also has a wireless area network (WAN), which connects to remote sites, and a local area network (LAN), which has been active for eight years. Every work station in the ministry has Internet access, and there is also a dedicated Web site⁷ in addition to the Lesotho Government Web site.

Policy implementation in education includes a few initiatives in the form of pilot projects in the schooling and tertiary sectors

Current ICT Initiatives and Projects: Schools

Two key projects stand out in the school sector: the NEPAD eSchools Demo Project and SchoolNet Lesotho. There are also reportedly a few private sector companies engaged independently in making some technology accessible to schools at a price on the basis of leasing the PCs for rental to schools.

NEPAD eSchools Demo Project

The New Partnership for Africa's Development (NEPAD) eSchools Initiative is a multi-country, multi-stakeholder, continental initiative that aims to impart ICT skills to young Africans in primary and secondary schools and improve the provision of education in schools through ICT applications and the use of the Internet.

The first phase of the initiative is a demonstration (demo) project that is being implemented by the private sector partners. The objectives of the Demo Project are to:

- Determine typical e-school scenarios and requirements in various circumstances in Africa
- Highlight the challenges inherent in a large-scale implementation of e-school programmes
- Monitor the effectiveness of multi-country, multi-stakeholder partnerships
- Determine best practice and exemplary working models for the large-scale implementation of the initiative, which aims to equip more than 550,000 African schools with ICTs and connect them to the Internet
- Demonstrate the costs, benefits, appropriateness, and challenges of a satellite-based network
- Demonstrate the costs, benefits, and challenges of ICT use in African schools

Lesotho is one of the 16 countries where the Demo Project was co-ordinated by a dedicated country liaison person based at the Ministry of Education and Training. Oracle and Microsoft are two companies that formed consortia to support the Demo Project in six Lesotho high schools where the typical model involved fitting each school with a lab comprising approximately 20 PCs, a server and printer, and a media lab which in some instances included a PC-based kiosk containing health information and satellite television access to education channels. Teachers at the six schools received training and learners have subsequently used the PC labs in the classroom.

The Demo Project was launched by the prime minister of Lesotho, which gave the project significant prominence. The success of the NEPAD eSchools Demo Project in Lesotho is attributed to the support and buy-in at the highest level. The project has reportedly influenced thinking among policymakers in Lesotho and has created huge demand.⁸

SchoolNet Lesotho

SchoolNet is a registered NGO in Lesotho. Its history dates back to 1999 when it operated as a project from the National University of Lesotho. Its role is to promote learning and teaching through ICTs to schools in Lesotho. SchoolNet Lesotho held launch workshop in 2005 with the support of the Open Society Initiative for Southern Africa (OSISA). It is run largely as an organisation of volunteers and is dependent on donor funds.

Current ICT Initiatives and Projects: Higher education

Lesotho has three main institutions of higher learning: the National University of Lesotho (NULS), the Lesotho College of Education, and Lerotholi Polytechnic.

The National University of Lesotho was the base for attempts at establishing ICT initiatives. For instance, a Technology Enhanced Learning Initiative of Southern Africa was established in the form of a telecentre at the Institute for Extra Mural Studies based at NULS, although this project is no longer functional.

In general, NULS does not have ICT facilities to support integration into learning and teaching for its students.

Current ICT Initiatives and Projects: TVET, ABET, and Informal

The Ministry of Education and Training has a Technical and Vocational Department that is the governing regulatory body that aims to improve the quality of technical and vocational training. To date there have been no significant projects and programmes incorporating the use of ICTs. However, the semi-autonomous Lesotho Skills Agency (LSA) and the National Training Fund will raise sufficient funds to support high-quality training, allocate funds to support national and sectoral skill priorities, and promote the delivery of quality and market relevant training.

CECS

The Community Education Computer Society (CECS) is a South African-based NGO which focuses on the development of ICT skills in the form of literacy programmes across southern Africa. Lesotho is one of six countries where CECS has a dedicated ICT literacy programme that was established with the support of the Open Society Initiative for Southern Africa (OSISA).

The 80-hour programme on ICT literacy enables participants to use word processing, spreadsheet and presentation software, design a basic Web page using HTML, and perform basic computer troubleshooting and maintenance.

Implementing ICT in Education: What Helps and What Hinders?

Table 4 provides a summary of the current stage of ICT development in Lesotho in terms of enabling or constraining features in the education system.

Table 4: Factors Influencing ICT Adoption

Factors	Enabling Features	Constraining Features
<i>Policy framework and implementation</i>	Lesotho has a national ICT policy that incorporates the education sector.	
<i>Advocacy leadership</i>	Departments and individuals within the Ministry of Education and Training are actively pursuing strategies and projects to support the implementation of the national policy, particularly in the aftermath of the NEPAD eSchools Demo Project success.	
<i>Gender equity</i>	National ICT policy recognises explicitly the role ICTs can play in promoting gender equality and women's empowerment.	
<i>Infrastructure and access</i>		The lack of national infrastructure seriously constrains the use of ICTs in Lesotho's education institutions.
<i>Collaborating mechanisms</i>		While there are attempts at collaboration between Ministries of Education and other ministries, the private sector and civil society institutions, there are no explicit collaborating mechanisms in place.
<i>Human resource capacity</i>		There remains a very limited layer of skilled personnel and champions within ministries to drive the national policy implementation, and often

		consultants and groups from South Africa are drawn in to support projects and programmes.
<i>Fiscal resources</i>		Currently lacking
<i>Learning content</i>		Local contextually relevant learning content is currently lacking although there are attempts by the ministry to address this.
<i>Procurement regulations</i>		The duties and taxes currently levied on ICT products makes them too expensive.
<i>Attitudes</i>	Since the launch of the NEPAD eSchools Demo Project, attitudes have been more supportive of ICTs in education.	

Notes

1 Estimates for this country explicitly take into account the effects of excess mortality due to AIDS; this can result in lower life expectancy, higher infant mortality and death rates, lower population and growth rates, and changes in the distribution of population by age and sex than would otherwise be expected (July 2006 est.) <https://www.cia.gov/cia/publications/factbook/geos/lt.html>

2 Country Fact Sheets: Lesotho. "Human Development Report." 2006. UNDP.

http://hdr.undp.org/hdr2006/statistics/countries/country_fact_sheets/cty_fs_LSO.html

3 "Education Challenges in Lesotho." Ministry of Education and Training. 2006.

http://siteresources.worldbank.org/EDUCATION/Resources/278200-1121703274255/1439264-1153425508901/Lesotho_Issues_Paper.pdf.

4 Lesotho History & Background. <http://education.stateuniversity.com/pages/836/Lesotho-HISTORY-BACKGROUND.html>

5 IBID.

6 The World Fact Book. 2007. <https://www.cia.gov/cia/publications/factbook/geos/lt.html>

http://hdr.undp.org/hdr2006/statistics/countries/country_fact_sheets/cty_fs_LSO.html

7 www.education.gov.ls

8 Interview with Lesotho Ministry of Education and Training representative.

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