Namibia is located in southern Africa and borders the South Atlantic Ocean, Angola, Botswana, South Africa, and Zambia. The country covers 824,292 km² and the capital is Windhoek. After being ruled by Germany from the late 1800s and then South Africa after World War I, Namibia gained independence from South Africa in 1990. The country has subsequently been governed by the South West Africa People’s Organization (SWAPO), with President Hage Geingob at the helm since 2015.

The country is a member of South African Development Community (SADC), the African Union (AU), South African Customs Union (SACU), the United Nations (UN), the Non-Aligned Movement, and Commonwealth. The population of Namibia was 2,458,830 in 2015 with an annual population growth of 2.30%.
2. Information Communication Technology

The Ministry of Information and Communication Technology (MICT) is a government Ministry aimed at improving ICT use in Namibia and to coordinating information management within the government. The National Commission on Research, Science and Technology (NCRST) ensures evaluation, monitoring and coordination of research, science and technology in Namibia. The Communications Regulatory Authority of Namibia (CRAN) regulates telecommunications services and networks in Namibia.

There is a total of 493,000 internet users in Namibia, translating into 22.3% of the national population. About 70% of the Namibian population can access affordable ICT services.

Namibia was the first country in Africa to introduce 4G and 4.5G technology. Figures from 2015 indicate that there are;

- 182,507 fixed line telephone subscriptions in Namibia, translating into eight subscriptions for every 100 people in the population. This ranks the country at 128 in comparison to the rest of the world.
- Estimates from 2012 show that there are 2,433 million cellular phones and 110 mobile subscriptions per 100 inhabitants, ranking Namibia at 143 in the world.

In 2016, the MICT made a commitment to provide the entire nation with cellular phone coverage within 18 months as part of a promise to make information more accessible, affordable, and relevant. The programme intends to contribute N$13,072,000 for the Institutional Policy and Information Technology Infrastructure development. In addition, Telecom Namibia, the national telecommunications parastatal made in excess of N$ 1,5 billion in revenue.

The country has a fibre-optic cable linking it to South Africa as well as direct links to neighbouring southern African countries, and a microwave radio relay link to Botswana. Namibia is also connected to the South African Far East submarine cable through South Africa, as well as the West Africa cable.

The Namibian government invested in the West African submarine Cable System (WACS) as a step towards making Namibia a globally connected, knowledge-based society.

The Windhoek Internet Exchange Point (WIXP) was launched in 2014 and is envisioned as facilitating innovation and development of internet services in Namibia.

In an index of overall e-readiness, Namibia scored 2.2 out of 4 and an ‘Average’ 40%-45%, on the United Nations’ 2012 international e-readiness index, standing it in good stead to start implementation of e-services.

Challenges in ICT sector

- A lack of reach in rural areas of Namibia,
- Insufficient resources in terms of budget and infrastructure equipment,
- Outdated policies,
• Technology dumping,
• Inadequate internal use of ICT (Slow adjustment of staff to adopt new ICT),
• Scarce budget allocation.
• A lack of linguistic diversity in materials – materials not translated into local languages and a lack of communication between directorates.

3. Education

Education falls under the Ministry of Education, Arts and Culture (MoEAC) which, in turn, oversees three directorates: the Department of Finance and Administration, the Department of Lifelong Learning, and the Department of Formal Education. The education system is divided into four levels: Pre-primary, Primary, Secondary and tertiary schooling. The first ten years of education from ages 6 to 16 are compulsory.

The MoEAC introduced free primary education in 2013. Primary school has seven grades which are divided into lower primary (grades 1-4) and upper primary (grades 5-7). At the end of grade 5, students sit for a national standardized assessment.

109.54%: The Gross Enrolment Ratio (GER) for female primary school students in 2013

113.3% The Gross Enrolment Ratio (GER) for male primary school students in 2013.

The Gross Enrolment Ratio (GER) for primary as a percentage of the primary school-age population is 109.5% while the GER for secondary school was 64.8%.

In 2013, the MoEAC recorded:

32,793 students in pre-primary education,
454,027 students in primary education
203,798 students in secondary education.
27,886 teachers – 18,140 females and 9,746 males – employed by the Ministry of Education
1,796 government schools.

A report about ICT use in the education sector in Kavango East Region in Namibia states that:

- 49 schools participated in the SchoolLink programme;
- 22 schools received computers and printers from the head office for the programme;
- 32 schools are connected to the internet and using the system to generate timetables and report cards;
- some schools are using 3G network from MTC, but it’s too expensive to sustain

TECH/NA! is Namibia’s ICT in education initiative developed by the Ministry of Education and was created based on the Ministry’s ICTs for Education Policy. It provides a comprehensive strategy to use international and local support in an effort to integrate ICTs into the education system. Amongst its activities are teacher training programmes as well as ICT Literacy and Computer Studies Workshops. The MoEAC has also partnered with GESCI, an organization founded by UN Secretary General Kofi Annan’s ICT Taskforce. The organization works closely with partners from the developing world in its efforts to make effective use of ICTs for education and community improvement.

ICT training

The Ministry of Education adopted an ICT Policy for Education: ICT Integration for Equity and Excellence in Education in 2005, which speaks to three overarching aspects; ICT literacy, ICT as a subject and Cross Curricular ICT.

**Basic education programme**

The Ministry of Education, Arts and Culture (MoEAC) is the umbrella organization responsible for overseeing curriculum development. ICT is integrated into other subjects in the basic education curriculum as a cross-curricular element.

In 2010, an ICT Literacy Foundational Syllabus was implemented, which was intended to help learners develop skills in using a computer and its various application software such as Word Processing and Spreadsheet, and to introduce learners to gather online resources and communicate with peers locally and internationally.

The percentage of qualified teachers in Namibia rose sharply from 61% in 2005 to 79% in 2012.

The University of Eastern Finland (UEF) accepted 25 Namibian teachers for a Master’s degree in Primary Education Programme which, among other objectives, encourages blended learning and making use of research-based teaching.

**Challenges facing education sector**

- Insufficient funds,
- Gender discrepancies,
- High dropout and repetition rates,
- Teachers have to contend with an over load of work and are under-resourced to be able to carry out their duties effectively
- Basic infrastructural issues such as a backlog in the construction of some schools
- A self-identified ‘lack of connectivity’ in a lot of schools create impediments to the education system.
4. Science, Technology, and Innovation (STI)

The National Commission on Research, Science and Technology (NCRST) is a key organization that facilitates research, science, technology and innovation. The Vision 2030 document makes note that one of the goals for the education system should be ‘a strong general education base in Science and Technology, flexible delivery of a flexible curriculum, combined with new teaching methodologies’.

UNESCO has worked closely with the Namibian government with regard to STI. Between 2004 and 2005, the Minister of Higher Education, Training and Employment in Namibia requested that UNESCO dispense technical assistance in developing a strategic plan that would allow for reformulation and reinvestment in science, technology and innovation for Namibia’s national development.

In 2013, two more technical missions were conducted, the outcome of which was two policy documents, namely, Final Draft Procedure Manual for the Operation of the National Research, Science and Technology Fund of Namibia and a proposed model to design a STI information platform for the country.

A bi-lateral STI Cooperation agreement that was signed in 2005 between South Africa and Namibia has called for research in STI sectors and areas of research including ICT, bioscience and energy and environmental sciences. Researchers from each country submit joint research proposals, which Namibia and South Africa then co-fund. In 2013/14, eight projects out of 30 were in the area of ICT. Among the aims of the programme is to aid in the scientific advancement of both countries.

Namibia is implementing a Scan-ICT programme which will identify worthwhile ICT indicators and then put structures in place to be able to reliably measure Information Communication for Development (ICT4D) and measure the impact of ICTs socially and in all economic sectors.

In 2015 the NCRST launched a Science, Technology and Innovation Festival. The week-long festival was aimed at promoting STI for the youth and the broader public. With over 3,000 participants, the festival held a number of activities including a research symposia, interactive demonstrations, and exhibitions that revolved around science, technology, innovation and engineering. This was followed by a roadshow, in which the NCRST and other STI stakeholders were involved, where they travelled to all 14 regions of Namibia in 5 months.
5. In conclusion:

- Plans and policies show evidence of a desire to create a KS, and KS development is a central tenet of Vision 2030.
- The strength of the economy is indicative of its great potential to become a leader on the African continent, although significant social inequality remains an issue.
- Namibia’s IDI has been increasing steadily since 2002, and the percentage of individuals and households using the internet is increasing. However, these figures are still low.
- Government plans for ICT are clearly articulated in relevant policies, and there are efforts to develop infrastructure.
- There is an increase in primary completion rates, and significant strides in achieving gender equity. However, tertiary institutions still do not have the capacity to enrol all those seeking a university education.
- Although ICT literacy has been made a priority in the education system, supplying ICT hardware to schools across the country remains a challenge. However, there are several ICT in Education initiatives in schools.
- STI has also been noted as a priority area, and the results of several partnerships have yielded positive developments.
- There is still a significant amount of work that needs to be done. In particular, additional work is required in policy development and implementation of policies.

Key Partners

⇒ Directorate of Research, Science and Technology (DRST)
⇒ UNESCO
⇒ Telecom Namibia
⇒ Ministry of Information and Communication Technology (MICT)
⇒ Namibian Broadcasting Corporation (NBC)
⇒ National Commission on Research Science and Technology (NCRST)
⇒ Communications Regulatory Authority of Namibia (CRAN)
⇒ Mobile Telecommunication Ltd. (MTC)
⇒ Development Bank of Namibia
⇒ Namibia Development Corporation (NDC) Namibia Press agency (Nampa)
⇒ Namibia Investment Centre (NIC)
⇒ Namibian Competition Commission (NaCC)
⇒ Ministry of Education, Arts and Culture
⇒ Ministry of Higher Education, Training, and Innovation (MHETI)
⇒ National Institute for Education Development (NIED)
⇒ Namibia Qualifications Authority (NAMQA)
⇒ Millenium Challenge Account (MCA)
⇒ Namibia National Teacher’s Union (NNTU)
⇒ SchoolNet
⇒ Namibian Education Technology Organization (NETO)
⇒ MultiChoice Resource Centre Programme (MRC)
⇒ Namibia Open Learning Network Trust (NOLNet)
⇒ Namibian College of Open Learning (NAMCOL)
Namibia was the first country in Africa to introduce 4G and 4.5G technology.

Namibia is implementing a Scan-ICT programme which will identify worthwhile ICT indicators and then put structures in place to be able to reliably measure Information Communication for Development (ICT4D) and measure the impact of ICTs socially and in all economic sectors.

Estimates from 2012 show that there are 2,433 million cellular phones and 110 mobile subscriptions per 100 inhabitants, ranking Namibia at 143 in the world.

The Gross Enrolment Ratio (GER) for primary school students was 109.54% for females and 113.3% for males in 2013.

Mobile cellular subscriptions totaled 20.135 million ie 80 subscriptions per 100 inhabitants.

The percentage of qualified teachers in Namibia rose sharply from 61% in 2005 to 79% in 2012.

INTERESTING FACTS ABOUT KS DEVELOPMENT IN NAMIBIA
KEY HIGHLIGHTS

Namibia Country Study June 2017

©GESCI 2017

All queries on rights and licenses should be addressed to GESCI, Unga House, Muthiti Road, Westlands, Nairobi, Kenya;
e-mail: info@gesci.org