Country Context

Mozambique’s economic performance over the past two decades has been strong. The government pursued a structural reform program focused on facilitating private-sector-led growth in a context of macroeconomic stability, more efficient fiscal policy and significant donor support. Mozambique’s economy registered an average annual growth rate of nearly 8 percent between 2001 and 2012. Agriculture, which employs about 78 percent of the active population, accounts for about 25 percent of gross domestic product (GDP), followed by trade and retail services at 12 percent. Manufacturing declined in relative terms and accounted for just 10 percent of GDP in 2012, compared to 17 percent ten years ago. Mozambique is fast becoming a world-class destination for mining and gas; it already plays an important role in aluminum production and will soon be a major exporter of gas and coal. The extractive sector accounts for 5 percent of GDP but is expected to contribute 10 percent in the next 5 to 10 years. Mozambique is set to continue its good macroeconomic management and an overall policy of inclusive development.

In spite of the recent boom in extractive industries, most of the new entrants into the labor force have not been absorbed by capital intensive projects. The government has realized that there is a skills mismatch and is fast implementing concerted programs to address skills development of graduates, not only to respond to a fast emerging economy that requires highly specialized skills but also to improve productivity in the informal sector and reduce poverty. Programs that focus on skills development and technology transfer play a key role in generating long-term social and economic benefits. Such programs improve productivity in agriculture and aid the implementation of transparent measures to convert extractive industry revenues into sustainable economic activities.

Starting from Scratch

When Mozambique became independent in 1975, 93 percent of the population lacked an education and the country had virtually no education system for its citizens. The government was faced with an immense challenge: to build education and, in particular, higher education up from scratch. Massive countrywide literacy campaigns were initiated and heavy investments made in primary and secondary education. To staff the country’s single university, Eduardo Mondlane University (UEM) lecturers were hired from abroad and national staff sent overseas for education and training. A distinct international foundation was thus laid for Mozambique’s higher education system.

The Evolution of Higher Education in Mozambique

In 1985, the government created the Pedagogical University (known as UP) specifically for the training of secondary school teachers. This move revitalized higher education. Recognizing the importance of international partnerships for the development of the country, the government opened a third higher education institute in 1986, the Higher Institute of International Relations, also known as Instituto...
Superior de Relações Internacionais (ISRI), which focused on training people in diplomacy and foreign affairs.

From the late 1980s to 2000, the higher education system was plagued by inefficiencies. There were not enough universities to absorb students eager to pursue their studies in higher education. The outdated curricula produced graduates whose skills and knowledge did not meet employers’ demands. The university staff was overwhelmed by bureaucratic administration. Scarce funds and weak governance meant that higher education institutions could not offer their students a quality education. Overall, a strong common vision for higher education was sorely needed.

INSTITUTIONS MULTIPLY AFTER REFORMS

The demand for higher education prompted the government to develop a strategic approach. Having begun with three public universities—UEM, UP and ISRI—geographically concentrated in Mozambique’s capital city, Maputo—the country’s capacity to deliver higher education accelerated after a legal reform in 1993 allowed private higher education institutions to operate. Since then, the number of private and public institutions has increased to 39 with a student population above 123,000 (Table 1).

SCIENCE AND TECHNOLOGY COME INTO FOCUS

Government-appointed commissions brainstormed about the issues in higher education and presented reports in 1998 and 1999. In 2000, the country’s first Higher Education Strategic Plan 2000-2010 was formulated and its implementation became the responsibility of the specially created Ministry of Higher Education, Science and Technology (MHEST). The plan resulted in updated curricula, the expansion and diversification of higher education institutions, and the establishment of scientific councils; it also paved the way for scientific research as a viable career. Recognizing the need to focus on science and technology, the government approved the science policy in 2003 and in 2006 laid out the National Strategy for Science and Technology. These instruments laid the foundation for a regulatory framework conducive to building, in close partnership with the region and other international partners, an innovative system adjusted to the context and development priorities of the country.

As of 2005, with the dissolution of MHEST and the establishment of the Ministry of Science and Technology (MST), higher education is under the Ministry of Education and science and technology is under MST.

EQUITY INCREASES

With strong policies and governance in place, Mozambique’s higher education system has become more robust, equitable and self-sustaining.

Table 1. The evolution of higher education in Mozambique since independence

<table>
<thead>
<tr>
<th>Year</th>
<th>Students Enrolled</th>
<th>Number of Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td>1975</td>
<td>2,433</td>
<td>0</td>
</tr>
<tr>
<td>1980</td>
<td>1,016</td>
<td>0</td>
</tr>
<tr>
<td>1985</td>
<td>1,442</td>
<td>0</td>
</tr>
<tr>
<td>1990</td>
<td>3,750</td>
<td>0</td>
</tr>
<tr>
<td>1995</td>
<td>6,890</td>
<td>0</td>
</tr>
<tr>
<td>2000</td>
<td>9,817</td>
<td>3,606</td>
</tr>
<tr>
<td>2004</td>
<td>15,113</td>
<td>7,143</td>
</tr>
<tr>
<td>2005</td>
<td>18,863</td>
<td>9,435</td>
</tr>
<tr>
<td>2010</td>
<td>75,705</td>
<td>29,778</td>
</tr>
<tr>
<td>2012</td>
<td>81,576</td>
<td>42,203</td>
</tr>
</tbody>
</table>

(There are 18 public and 26 private institutions but not all had students and/or presented data)
Together, UP and UEM account for approximately 79 percent of the students in the public system. The apparent decrease in efficiency (see Table 2) is a result of the ongoing expansion of the system, which implies that admissions are high compared to graduation. By 2006, both UP and UEM had increased their revenues to 28 percent of the total budget mostly due to the introduction of fee-paying courses. Higher education access to youth from low-income families increased substantially. Students from households in the first, second, and third income quintiles increased from about 3 percent, 6 percent and 6 percent in 2002-2003 to about 11 percent, 13 percent and 18 percent, respectively in 2008-2009. Access for women increased from 32 percent in 2003 to 38 percent in 2009-2010 and 40 percent in 2012 (which is consistent with the trends in the number of girls graduating from senior secondary school).

**QUALITY, INNOVATION, AND EXCELLENCE RECEIVE ATTENTION**

In 2002, the government set up a competitive fund called the Quality Enhancement and Innovation Fund (QIF), which was designed to encourage innovation in teaching programs and research projects. QIF was succeeded by two competitive funds—the Institutional Development Fund (IDF) for higher education and the National Research Fund (NRF) for science, technology and innovation. Over the past three years, the IDF has financed a range of projects among public and private higher education institutions. The total allocated funds amount to approximately US$ 5.3 million. About 60 percent of this amount was allocated to higher education institutions outside Maputo.

From 2006 to 2012, the NRF financed 233 research projects by students at both the undergraduate and postgraduate levels. The fund has also financed several activities designed to promote the visibility and acceptance of science in society. The NRF disbursed US$ 7.4 million from the World Bank (69 percent), Sweden (27 percent) and Finland (4 percent).

The Provincial Scholarship Fund (PSF) was launched by the Higher Education Project (HEP) in 2002 as a way to encourage underprivileged academic achievers from provinces outside Maputo to pursue higher education. The scheme provided the basis for the establishment of the Institute for Scholarship (IBE), a government program, which started to operate in 2008. Currently, through IBE, about 3,000 students benefit from scholarships of which 33.7 percent are funded by the HEST project. About 80 percent of the beneficiaries are from households that earn less than US$ 270 per month; 39 percent are female and 42 percent are enrolled in science, engineering and health.

**The World Bank as Partner**

The World Bank has supported the development of higher education in Mozambique for over 25 years. The Bank's overall support to higher education and science and technology has amounted to over US$ 160 million. Starting with one institution, the Bank gradually extended its support to the entire higher education subsystem and started to build a linkage towards scientific research and technological innovation under the HEP. The subsequent project, Higher Education, Science and Technology (HEST), is still ongoing. As part of technical assistance to the government in drafting various strategies, an indicator system has been set up to monitor higher education in the country. The World Bank’s long-running system approach support to the entire higher education subsystem and the mechanisms needed to build linkages towards scientific research and technological innovation has played an important role in mobilizing system support from other donors, such as Sweden and Finland.
The Bank’s support for higher education, science and technology has focused on institutional capacity building, and increasing access and relevance, and quality.

At the start of its involvement, the World Bank was mainly concerned about relevance (alignment of educational programs and enrollment with developmental needs and goals), access (small system in need of expansion), equity (relative exclusion of women and candidates from outside the Maputo area), quality, sustainability, institutional capacity and governance. As Table 2 shows, higher education has expanded tremendously over the last decade and there has been huge progress with regard to enrollment of students from outside Maputo and gender equity. Despite this progress, enrollment in science, engineering and health remains low, and the number of lecturers per student has markedly decreased.

**Perspectives for the Future**

Although Mozambique has successfully expanded its higher education system, challenges remain with regard to relevance and quality. These challenges must be met if Mozambique is to secure a role in the emerging global knowledge society.

Government documents such as the Strategic Plan for Education, the Higher Education Strategic Plan, the Science and Technology Strategy, the ongoing reform of Technical and Vocational Education and Training (TVET) all emphasize the need to match skills with the changing economy.

The World Bank and selected development agencies have stepped up support to the government. They provide technical assistance (i.e., development of gas master plan, capacity building of government institutions) and financial support to implement key programs aimed to strengthen the provision of skilled professionals. These include TVET reform, Higher Education Financial Reform, implementation of quality assurance and accreditation mechanisms, support to the National Research Fund and other competitive funds and promotion of partnerships in applied science, engineering, and technology with more developed countries.

Employers are eager to hire quality trained professionals in the areas of agriculture, services and extractive industries. However, smallholder farming is important for the survival of a large section of the population; the transformation of agriculture will require a delicate mix of transmitting knowledge about key elements in production and the commodity value chain. This will help subsistence farmers to increase their income and simultaneously support the emergence of medium and large scale technology-based agricultural enterprises which will liberate labor from rural areas and create additional pressure on the capacity of other sectors to provide employment. As for the extractive industries, while very specialized skills are required, the bulk of skills needed are transferable skills that can form the foundation for other sectors, for example, mechanical engineering, civil and electrical engineering, chemistry, accounting, business management and law.

Training in environmental engineering and geology is also essential. The management of natural resources by the public sector requires employees with skills such as contract negotiation and licensing to geological surveying, mine and infrastructure inspection, environmental monitoring and revenue management.

In order to overcome the current insufficiency of qualified professionals in these areas and also to respond to the current and upcoming needs in areas such as health, education and water and sanitation, among others, a shift is needed in the proportion of students in senior secondary education and tertiary education willing to study science-related subjects or willing to pursue a technical and vocational training course. Higher education institutions are part of the solution to this problem and have been a strong pillar for the implementation of selected government strategies. Among others, greater emphasis has been placed on the training of faculty staff and on the training of teachers for secondary education.

The World Bank will continue to focus on the key issues of access, quality, relevance, equity and sustainability and bolster interest and capacity in higher education in science and technology. Maintaining this momentum is fundamental for Mozambique to prepare students for employment in an emerging economy.

**MORE ON THE TOPIC**