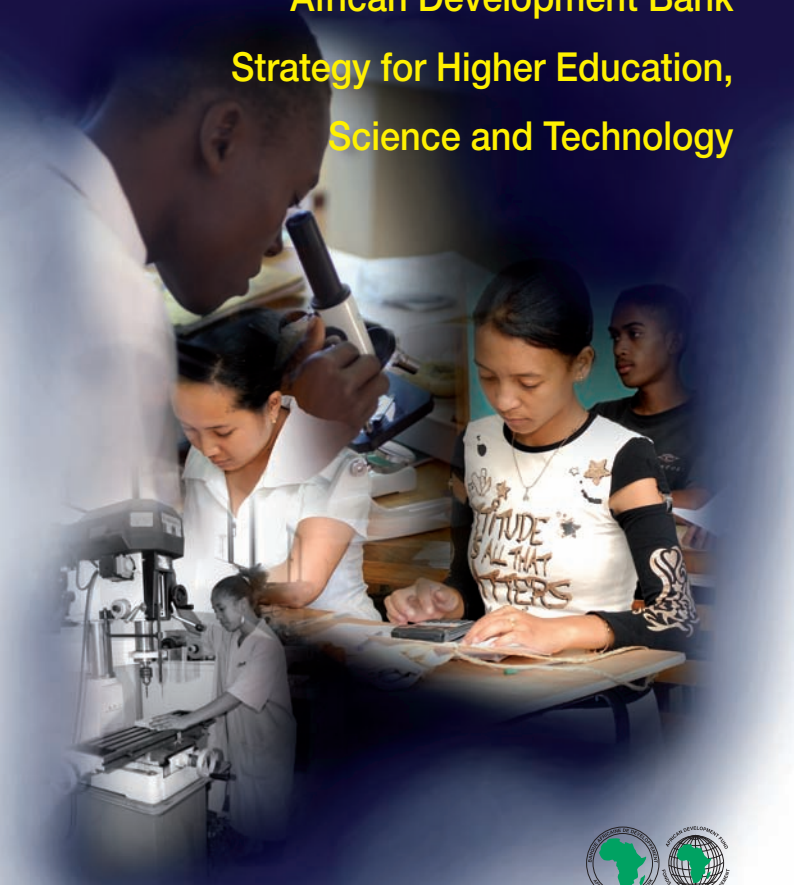


African Development Bank

African Development Bank Strategy for Higher Education, Science and Technology



Higher Education is critical for development. Science, technology, innovation, vocational training and skills development are particularly important for increasing Africa's competitiveness. The African Development Bank works with its member countries to reform and transform higher education systems as well as technical and vocational training in science, technology and innovation in order to accelerate economic growth in Africa.

Background

The Bank began to finance social sector activities in 1975. In 1986, the Bank adopted its first education policy in response to a host of concerns ranging from educational access, equity, quality and relevance to internal and external efficiency, educational management, organization and planning, costs and financing. In 1999, a revised Education Sector Policy targeted five areas: i) access and equity; ii) teaching; iii) Ministry of education management and planning capacities, including data collection and analysis to inform decisions; iv)

decentralization, and v) educational financial mechanisms.

The Higher Education, Science and Technology (HEST) strategy was designed to assist member countries to strengthen their educational systems, particularly tertiary education, science, technology, technical and vocational education as well as training. Given the years of neglect of the tertiary sector and the impossibility of supporting construction and rehabilitation Africa-wide, the Bank focuses on centers of excellence and networks of small national institutions by using distance-learning modali-

ties. HEST focuses on three major areas: supporting centers of excellence; ensuring infrastructure and training in specific areas – agriculture and livestock, health sciences and health delivery support services, engineering, business enterprise, training teachers and educational management – and strengthening links with the labor

market so that trained students can use their knowledge and skills productively.

The new HEST strategy complements the 1999 Education Sector Policy (Table 1) which promotes growth in Africa and builds the critical mass of skills necessary to increase its economic competitiveness.

	EDUCATION SECTOR POLICY	HEST
Objective	Improve access to quality basic education and balanced development of education systems, i.e. paying appropriate attention to secondary, technical vocational training and tertiary education.	Assist member countries to develop the necessary science and technology-oriented skills to increase economic competitiveness and sustain growth.
Guiding Principles	<ul style="list-style-type: none"> • A holistic, integrated approach. • RMC Ownership, responsibility and control. • Participatory Approach. • Regional Integration. • Private Sector and Non-Profit education Providers. 	<ul style="list-style-type: none"> • Improved design and delivery of secondary science and technology-oriented programs. • Tailored approach to selected institutions. • Functional relationship to other Bank sector operations. • Partnerships with the private sector and between countries. • Harnessing the African Diaspora in STI.
Strategic Actions	<ul style="list-style-type: none"> • Improve system-wide Access and Quality of Teaching and Learning. • Improve Management and Planning Capacities and Educational Financing Mechanisms. 	<ul style="list-style-type: none"> • Support to National and Regional Centers of Excellence. • Building HEST Infrastructure and Upgrading Equipment. • Linking HEST and the Productive Sector. • Targeted support to Universities, Polytechnics and specialized technical Training institutions.

1. Support for National and Regional Centers of Excellence

The Bank is helping to create or reinforce networks of higher education, science and technology institutions by harmonizing and linking training programs in different countries so that national institutions can benefit from the staff and curriculum of excellent tertiary education institutions and vocational training centers. The curricular focus of science and technology institutes includes: agriculture and livestock; engineering, infrastructure and water; health services and infrastructure; ICTs and financial management services, among other areas. To ensure adequate faculty participation, experts from the African diaspora are invited to work in these centers of excellence, either on a face-to-face or distance basis.

To help ensure that students are well prepared for tertiary training, the Bank is simultaneously supporting improved science and mathematics teaching in primary and secondary education by helping to provide qualified teachers.

2. Infrastructure for Higher Education and Science and Technology

Infrastructure is critical for HEST. The Bank therefore supports the construction, upgrading and rehabilitation of selected higher education institutions, in particular, research schools and centers, and provides resources for laboratories to promote mathematics and science teaching for engineering, agriculture and human development through education and health. This support will help to create a critical mass of African scientists and technicians and increase access to affordable state-of-the-art re-

search facilities. Fragile states emerging from civil wars and conflicts that have destroyed infrastructure also receive Bank support.

3. Transition to the World of Work

The Bank works with many partners, in particular, the private sector to design and implement strategic interventions for sustaining economic and social growth in its member countries. It also supports reforms designed to establish an environment that is conducive to wider private sector participation and investment in higher education.

There are many areas that offer good opportunities for employment for highly trained students. For example, the extractive industries – abundant natural resources are extracted throughout Africa – require specific skills directly or indi-

rectly linked to their needs. Similarly, tourism has become a major investment sector in Africa and provides revenue to millions of people, but few countries have the trained human resources to provide competitive services (e.g., hotel services, roads, maintenance of infrastructure, construction, repairs, etc.). In order to effectively target and meet these needs, the Bank is helping to produce national and regional science and technology skills profiles and working with other partner institutions and the private sector to do the following:

- Undertake Science, Technology and Innovation (STI) national and regional skills profiles.
- Support member countries in developing national innovation action plans.
- Strengthen HEST-industry linkages, with emphasis on creating incubators.

- Promote and support measures to increase women's participation in science and technology-related training and research activities in all institutions benefiting from Bank support.
- Cultivate technology development through partnerships with the private sector
- Integrate indigenous knowledge into innovation systems.

Building on Bank Operations

Higher education, science and technology interface with activities of the Bank in several fields -- agriculture, livestock and rural development, engineering, energy and infrastructure, water, financial services, business enterprise, health and education training, research and knowledge building. Support to national and regional institutions of training and research therefore

takes into account the nature of existing or prospective Bank interventions in these areas.

Regional Approach

The Bank recognizes that HEST can promote regional integration and cooperation in Africa. Revitalizing higher education, science, technology and research in Africa can make skilled labor more mobile and overcome some of the problems of economic balkanization. By supporting existing national and regional centers of excellence and promoting greater collaboration among institutions in and out of Africa, the Bank aims to position African training institutions among the best in the world and to make them attractive choices for students and families.

African countries have diverse needs for STI. Some have well developed quality basic educa-

tion systems with high rates of completion and are quickly developing tertiary education systems; others are still essentially dealing with Education For All and at relatively early stages of tertiary education development. Therefore, demand for support in STI ranges from capacity building to policy advice to building STI infrastructure and establishing national and regional centers of excellence. Few countries are ready to engage with the private sector in building innovation systems and developing public-private partnerships in HEST.

Partnerships

The Bank HEST interventions cannot, by themselves, meet all of the needs of educational systems. Scarce resources require the Bank to focus on activities that add value to its investments. Significant efforts will be devoted to dialogue with mem-

ber countries so that they focus on science and technology. In addition, other donors with similar or varying fields of interest are being encouraged to support higher education because no single development partner or country can provide even the most basic requirements to enable the HEST sector to play a role in an African economic revival.

The private sector is therefore a strategic partner in African higher education, which is a fast growing segment of post-primary education on the continent. In many countries, private higher education operates in collaboration with foreign universities, including church/religious led partners. In most cases, however, inadequate legal provisions, high demand and poor monitoring on the part of governments have led to the mushrooming of unregulated private higher education.

The Bank thus supports the creation of regional regulatory bodies for quality assurance in higher education and will act as a catalyst to bring private sector financing for incubators and innovations that increase value in the production chain. In addition to the private sector, the Bank will continue to strengthen its partnerships with other development and technical partners – in particular, the World Bank, the United Nations Educational,

Scientific and Cultural Organization, the Agence Française de Développement, the Department for International Development, the African Union & New Partnership for Africa's Development, the Association of African Universities, the United Nations Economic Commission for Africa, the Association for the Development of Education in Africa, and the African Capacity Building Foundation, among other partners.