

# Skills Development for Structural Transformation

## Potential for China-Africa-World Bank Group Collaboration

China's growing investments in light manufacturing and services could contribute substantially to the structural transformation of African countries through the creation of globally competitive medium- and large-sized domestic firms. Government policy and the business environment are critical, but China's own development experience, as well as that of other East Asian countries, shows that investment in appropriate education and skills training is also essential.

Limited availability of skilled labor is a constraint to accelerated industrialization in most African countries. This is particularly the case as companies move up the value chain and adopt more complex production systems. Both domestic and international — including Chinese — firms operating in African countries suffer from professional and skilled labor shortages. While many Chinese firms provide on-the-job training, some have also needed to import skilled technicians to fill gaps and maintain competitiveness and productivity. Specific firm-level training is necessary and important, but does not significantly close the growing skills gap faced by African countries.

Comprehensive, strategic frameworks are needed to develop the skills required for a 21st century workforce. Creating a skilled workforce requires improvements in both access to, and quality of, basic education. But more advanced skills are also needed,

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particularly in applied sciences, engineering and technology (ASET), if countries are to broaden their industrial base. In order to create the professional and skilled labor required for its own transformation, China

combined substantial investments in good quality basic education with targeted vocational training, higher education, and science and technology.

Beyond education, system-wide quality training is essential for a competent labor force. This requires: a) implementing competency-based training; b) national qualifications based on employer-ratified occupational standards; c) employer participation in training certification and representation on governing boards of training institutions; d) financial sustainability through cost sharing and involvement of employers; and e) effective use of public finance through performance-based transfers to training institutions. Involving the

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### Stepping Up Skills for Employment and Productivity (STEP)

The World Bank's STEP framework identifies five levels of skills development:

#### STEP 1 and 2:

basic education provides physical and cognitive skills.

#### STEP 3:

job-relevant skills are gained through secondary and post-secondary education, TVET, apprentice programs and on-the-job training.

#### STEP 4:

higher-level professional and technical skills, innovation, and entrepreneurship, are generally learned at tertiary education institutions.

#### STEP 5:

using skills for productive employment, requires job-matching and labor mobility.

private sector at the policy, sectoral, and institutional levels is essential to ensure that training meets the needs of employers.

China provides substantial levels of assistance to African countries for education and training. This includes a large number of scholarships to Chinese universities (rising from 1,600 per year in 2006 to 6,326 in 2011), professional training in a variety of fields, specialized training by Chinese experts, partnership programs with a number of Ministries and institutions, and considerable support for education infrastructure.

## PASET

The Partnership for Skills in Applied Sciences, Engineering and Technology (PASET) is a regional initiative to build skills—from technical and vocational to higher education and applied research—in priority sectors in African countries. It is a collaboration between the World Bank, African countries, and partners, including China.

Enhanced Chinese involvement in PASET could:

- Expand analytical work, benchmarking of African universities specializing in ASET, and sharing of the Chinese experience.
- Support the Regional Scholarship Fund for postgraduate studies, and Regional Centers of Excellence, including for TVET.
- Co-finance technical, vocational, and higher education projects in African countries.

## CHINA DEVELOPMENT BANK – FOCUS ON SKILLS

Complementing other assistance provided by the Government of China, CDB has developed an extensive skills development program, mainly through short-term training. This covers:

**CDB Training:** management level training covering a wide range of program content.

**Joint Training Sessions:** organized with Ministry of Commerce and the World Bank, focused on China's experience and microfinance

**Corporate Leadership Program:** Executive MBA program for entrepreneurs, especially women

**Scholarships:** for MBA and PhD student in Chinese institutions.

The challenge is to ensure that this assistance provides the best value for the level of investment, and that it delivers the maximum impact in African countries.

Institutional partnerships can develop capacity over the long-term. Partnerships between Chinese and African universities could follow the

Technology Consolidated Plan of Action, and the Plan of Action for the Accelerated Industrial Development of Africa. All of these emphasize skills for employment and the linkages between education, training, and the private sector. In addition, 19 regional Centers of Excellence focused on ASET for priority sectors in industry, agriculture and health, have started

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Chinese experience of a two-step transfer of knowledge. In this way, lead institutions in African countries could act intermediaries between more advanced Chinese partners and institutions with less capacity in the same country.

African countries and institutions are stepping up efforts to close the skills gap. The AU has adopted a number of initiatives, including the Pan African University—a network of higher education centers of excellence, the Africa Science and

functioning in Western and Central African countries, supported by the World Bank. More are planned, under Phase II of the project for Eastern and Southern Africa. African countries such as Senegal, Ghana, Rwanda, Mozambique, Republic of Congo, and Mauritania, are revamping their approach to TVET, adopting a demand-driven methodology and involving the private sector in the design and provision of training, as well as accreditation of programs. The World Bank is supporting these efforts. ■