

Foreword

The most striking contrasts in the modern world are the vast differences in technological development and human well-being—differences most evident in Africa. Poverty and hunger are widespread. AIDS has cut life expectancy by more than 10 years in some countries. Forests are being depleted at the rate of an acre a second due to unsustainable farming practices. And technological development is woefully deficient. In many cases it is the poor, particularly women and children, who suffer the most. They live in environmentally fragile areas, depend on marginal lands, are exposed to health hazards and natural disasters, have very little coping capacity, and have hardly any assets to fall back upon in times of crisis.

This Report is about how African societies can reverse these alarming trends. Its main message is that harnessing new and emerging technologies is critical for development because—as Nobel prize winner Joseph E. Stiglitz put it—“human development is more than just the accumulation of capital and the reduction in distortions (inefficiencies) in the economy; it is a transformation of society, from traditional ways of doing things and traditional modes of thinking.” We have long understood the importance of technology for human development. This Report provides a fresh perspective focusing on the major challenges facing Africa as it seeks a rapid transition to sustainable development.

New technology is often assumed to be information technology because it has enormous and still evolving potential to alleviate poverty and speed development. Indeed, information and communications technology was the theme of ECA’s first African Development Forum in 1999. The novelty of this Report is that it focuses on other new and emerging technologies that can deliver new medicines to fight diseases, reduce hunger and food insecurity, and reverse the degradation of the environment. These exciting new technologies range from genetically engineered mosquitoes that have the potential to eradicate malaria to vitamin A-enriched rice that can reduce blindness in children.

Many are touting these new technologies as the missing link that can allow poor countries to catch up to their rich country counterparts. But this Report emphasizes that the new technologies are not a panacea or silver bullet. Spreading the benefits of technology will not happen automatically. It will require critical analysis and planning—by regional and international organizations and governments along with the private sector and civil society—to take full advantage of the technological revolution. This Report is presented in this spirit of continuous inquiry and feedback in framing development thinking. It is addressed to policymakers, practitioners, and others interested in Africa’s development.

While focusing on new technologies, the Report recognizes that many low-tech, simple solutions are available for many development challenges. For example, biotechnology can produce AIDS treatments that prolong life, but people need to be trained in safe sexual habits so that the benefits are not inadvertently countered. The Report also emphasizes that new technologies can be of use only if placed in an environment of supportive policies.

The Report recognizes that poor people and poor countries do not have adequate access to technology that can benefit them. They lack the resources, infrastructure, quality of governance, and business environment necessary to attract the foreign investment that can bring technology to their countries. The Report outlines the key considerations and building blocks for a technology-infused development strategy. It includes lessons about what practices and products have been proven to work, about how to scale them up, and about how to encourage new ideas and initiatives.

The Report makes a compelling case for an integrated framework to catalyze the transition of African countries to a sustainable path. It includes several specific recommendations along four critical dimensions: education, innovation, regulation, and delivery.

The sustainable development indices developed by ECA—and reported for the first time in this Report—allow for tracking progress of African countries over the last three decades in the areas of economic transformation, institutional development, and environmental conservation. Apart from assessing performance, these indicators also help in identifying key factors that determine successes and failures in achieving a higher level of sustainability. They show what governments can do to encourage investment in productive assets, how Africa's environment can be conserved without hindering development, and what key areas of action can improve institutional structures.

Within the UN family, ECA's mandate is to advance the socio-economic development of the continent. This Report is an important contribution to fulfilling that mandate, particularly in a year that sees the World Summit on Sustainable Development hosted in Johannesburg, South Africa. It is my hope that the main message of this Report—the need for a technology-infused development strategy—will be a clarion call to action that can lead to a better quality of life for all.

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