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AFRICA

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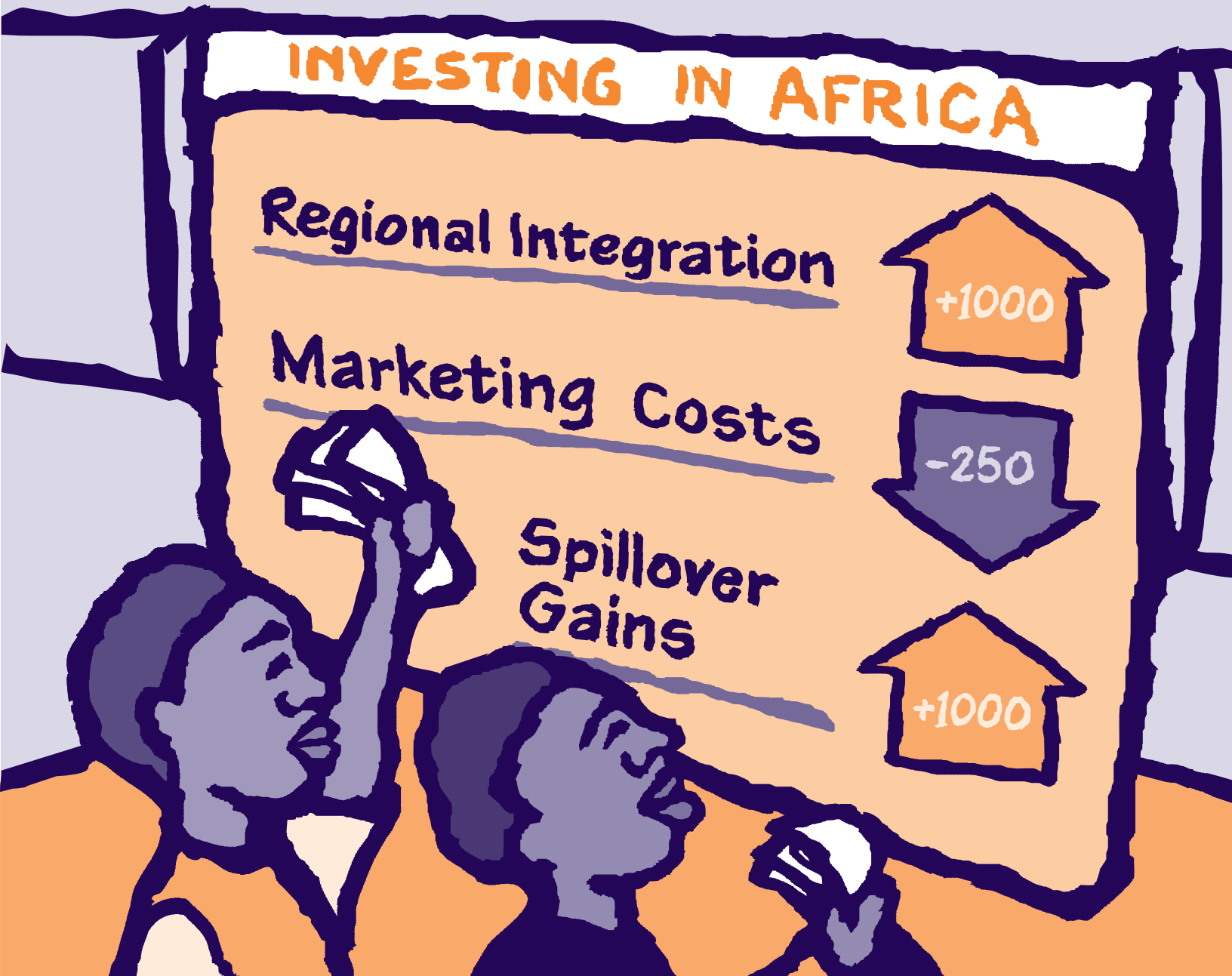
Building Blocks for Regional Growth



Globalization is a two-edged sword. The global marketplace expands access to information, technologies, inputs, and markets. By integrating their economies with the global market, countries can exploit the comparative advantage of their labor, environmental, and financial resource base. Many countries in Sub-Saharan Africa,[1] however, are having trouble competing in the global arena. Despite Africans' very low wages, their products are not competitive on world markets. Africa accounts for 11 percent of world population but only about 1 percent of the world economy and 2 percent of world trade. Low productivity, high marketing costs, and the persistence of both formal and informal trade barriers erode the competitiveness of the continent's products.

Heavy investment in many aspects of development is needed to bring Africa into the world economy. With a large share of their populations living and working in the rural economy, many African governments are emphasizing the agricultural sector in their strategies for economic growth, poverty reduction, and food security. A growing commitment to market-oriented agricultural growth is reflected in numerous high-level government statements as well as in the Comprehensive Africa Agriculture Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD).

Although many investments in agricultural growth are necessarily country-focused, there are economic reasons for African countries to coordinate and cofinance some of these efforts. The small size, economic isolation, and rudimentary infrastructure of many African economies present development challenges not easily surmounted at the national level. With a regional approach, countries can capture economies of scale and scope unavailable to them individually owing to their limited access to markets, finance, human capital, and knowledge. They can address cross-border ills caused by epidemics, pollution, and conflict. And by working regionally, countries are held accountable to a larger group of stakeholders for their policy commitments.

Recent IFPRI research shows how coordinated investments in regional agricultural trade and productivity can leverage regional growth dynamics and improve Africa's competitiveness in an increasingly globalized world.

INVESTING IN TRADE

TARGETING AFRICA'S OWN MARKETS

Markets are critical to the success of an agriculture-led development plan. Without rising demand for Africa's agricultural commodities, investments that raise productivity can trigger price collapses, undercutting agricultural income growth and preventing the agricultural sector from contributing to meaningful decreases in hunger and poverty.

Demand for agricultural products need not come only from outside of Africa. After all, although Africa is highly dependent on trade, with the value of exports rising from 23 to 30 percent of gross domestic product (GDP) from the early 1980s to the late 1990s, its share of total world exports fell from less than 3 percent to less than 2 percent during that same period.

With such low international demand for Africa's products, the greatest market potential lies in domestic and intraregional markets. Africa's own demand for various food products is already large (more than US$50 billion a year) and is expected to double by 2020 owing to population growth, urbanization, and income growth. Although some of this demand will be met by farmers' consumption of their own production, there will still be high and growing demand for marketed foodstuffs. The challenge is to satisfy this demand with domestic and regional production rather than with imports from abroad. Already, Africa turns to international markets to meet 25 percent of its demand for foodgrains such as maize, rice, and wheat. The value of maize imports alone is approximately equal to the value of Africa's coffee exports. Displacing some of these substantial imports and satisfying growing food demand could generate important gains in income for Africa's smallholder producers.

Can Africa's domestic and regional producers meet this challenge? There are several reasons to think Africa can recapture its own market, particularly through regional trade. First, although Africa's regional markets are currently fairly thin (accounting for only 10 percent of total African exports and 18.5 percent of total African agricultural imports), they offer great scope for expansion. Second, there is already more installed capacity than meets the eye. Official data have repeatedly been shown to understate the actual trade flows between countries because they do not include informal traders, who move around formal trade restrictions.

[1] Henceforth in this brief, "Africa" will denote Sub-Saharan Africa.

Furthermore, an IFPRI analysis shows that many countries are currently importing the very products that their regional neighbors have a comparative advantage in producing. In the most recent period, almost half of commodities imported matched exports, and the match seems to be improving over time. African tastes and standards are compatible with the continent's production and transformation capacity, perhaps more compatible than tastes and standards in global markets.

To meet existing and growing demand, African farmers must compete with low-cost food imports from outside the continent. Reducing these imports requires political pressure against subsidies in developed countries (primarily Europe and North America), economic integration with neighboring countries, and drastic cost-cutting and productivity-enhancing measures to improve the competitiveness of African products in their own regional markets. Regional action is required on all scores.

IMPROVING ECONOMIC INTEGRATION

African commodity flows are hampered by many types of barriers, including trade tariffs; seasonal export restrictions; poorly harmonized measures, grades, and standards; and corruption at customs posts. Using simulation models, IFPRI has analyzed the impacts of eliminating both intra-African and trading partner tariffs on trade flows.

Removing Africa's own trade barriers would have a significant impact on agricultural trade. Full trade liberalization in Sub-Saharan Africa—including removal of barriers in the non-agricultural sectors, which also distort agriculture trade—would increase total agricultural exports from Africa by 19 percent. Trade within Africa would jump by more than 50 percent.

Working together to open European and American markets would have a similar effect on aggregate exports, but would do less to build linkages within the continent. Agricultural liberalization in the European Union and the United States could increase total agricultural exports from Africa by as much as 20 percent while increasing trade within Africa by only a modest 4 percent.

REDUCING MARKETING COSTS

Africa's poor export performance in both regional and international markets is also due to the high cost of bringing African products to market. The physical, telecommunications, and marketing infrastructure in Africa is rudimentary, even by historic standards compared with other developing countries. For example, in the early 1990s Africa had about one-sixth of the rural road density that India had in 1950.

Investments in public goods such as road and transport infrastructure could help reduce marketing costs. Indeed, model simulations show that efforts to decrease marketing costs by improving the productivity of the transport sector by 30 percent in South Africa and by 50 percent in all other African countries could boost Africa's total agricultural exports by 28 percent and intraregional trade by 22 percent.

Such improvements in the transport sector have spillover effects that can stimulate bilateral trade between neighboring countries. For instance, Mozambique's high transport costs also affect landlocked Malawi, which transports a majority of its exports and imports through its coastal neighbor. As a result, improving the productivity of Mozambique's transport sector by 50 percent would generate a 16 percent increase in Mozambique's agricultural exports, as well as a 7 percent increase in Malawi's agricultural exports. Improving Mozambique's transportation infrastructure would increase its GDP and real agricultural incomes by 6.6 percent and 6.9 percent, respectively. Moreover, Mozambique's investment would increase GDP and real agricultural incomes across the border in Malawi by 1.8 percent and 3 percent, respectively.

The gains from improved transportation networks extend far beyond the cost savings in the marketing of export crops. Lower-cost transportation will open markets for high-value perishable crops and processed foods and improve access to inputs needed to increase productivity in all sectors, including agriculture. The results cited, therefore, suggest only the minimum expected cross-country benefits from improved regional economic integration.

INVESTING IN RESEARCH AND DEVELOPMENT (R&D)

Investments in R&D can lead to regional gains when complemented by programs designed to help transfer and adapt productivity-enhancing innovations developed in focus countries. Using IFPRI's Dynamic Research Evaluation for Management (DREAM) model, researchers simulated a 1 percent productivity increase in each of 15 major commodities in Kenya, Tanzania, and Uganda through 2020. This productivity increase causes shifts in the supply of each commodity, with consequent welfare gains projected to 2020. Each of the three innovating countries gains directly, and spillover gains go to their regional neighbors with similar agroecological conditions and the ability to partially adapt such technology with minimum costs.

For each commodity, Figure 1 shows the dollar value of the gain from such technological innovation directly in the three innovating countries as well as spillovers to their regional neighbors. Gross regional benefits (direct plus spillover) from investments in plantains, maize, cassava, dairy, beef, and veal are especially high. These commodities make up a large part of regional production and consumption.

For certain of these crops, a great proportion of the total gain comes from spillovers. For each crop, Figure 1 also shows a multiplier comparing the direct gains in the three innovating countries with total regional gains (direct plus spillovers). This total spillover multiplier is very high for lamb/mutton, groundnuts, sorghum, and rice.

On the other hand, crops such as cashew nuts, plantains, maize, and dry beans have lower spillover effects because they are produced primarily in the three focus countries and thus

do not contribute much to the well-being of non-innovating neighbors. Benefits from countries' investments in these crops would unfairly accrue to a narrow set of countries.

Having a large spillover multiplier does not necessarily make a commodity a good candidate for regionally-funded investments.

Investments in regional public goods should seek to generate large, well-distributed benefits with substantial cross-border spillovers. Using the coefficient of variation as a measure of the distribution of spillover gains between countries, Figure 2 shows that, aside from lamb, the benefits from these large spillovers accrue to only a few of the non-innovating countries. (The higher the coefficient of variation, the greater the difference in gains between countries). In East Africa, for example, the commodities with reasonably large absolute spillovers, reasonably large spillover multipliers, and fairly well distributed regional benefits are likely to be cassava, mutton, sorghum, dairy, and beef. These findings support the need for African countries to maintain regionally focused agricultural R&D programs to facilitate technology spillovers for commodities with sizable, widespread benefits for smallholders across the region.

Figure 1 Gross annual benefits from a one percent productivity increase in focus countries (Kenya, Tanzania, and Uganda), including spillovers to other countries in the region

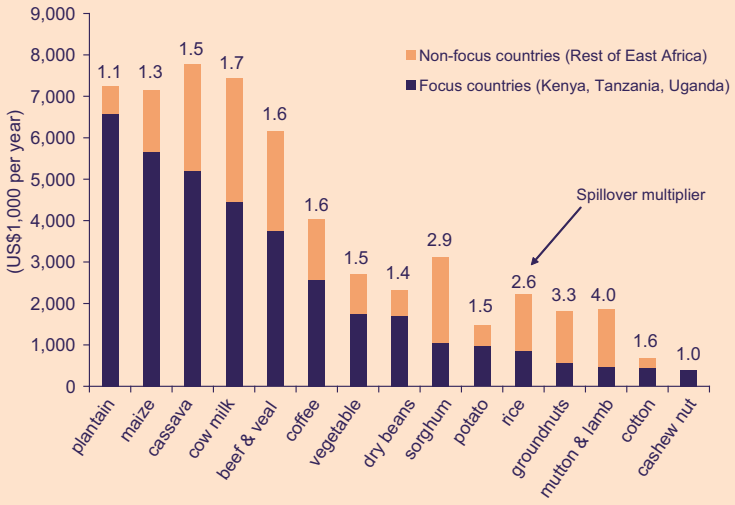
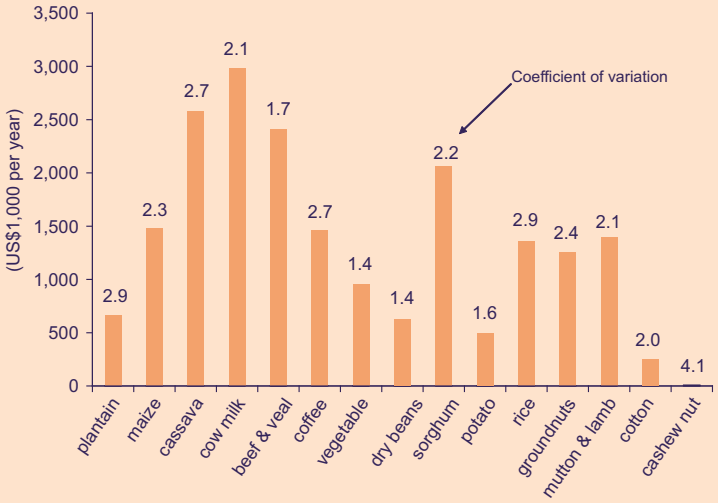


Figure 2 Cross-country variation in spillover gains



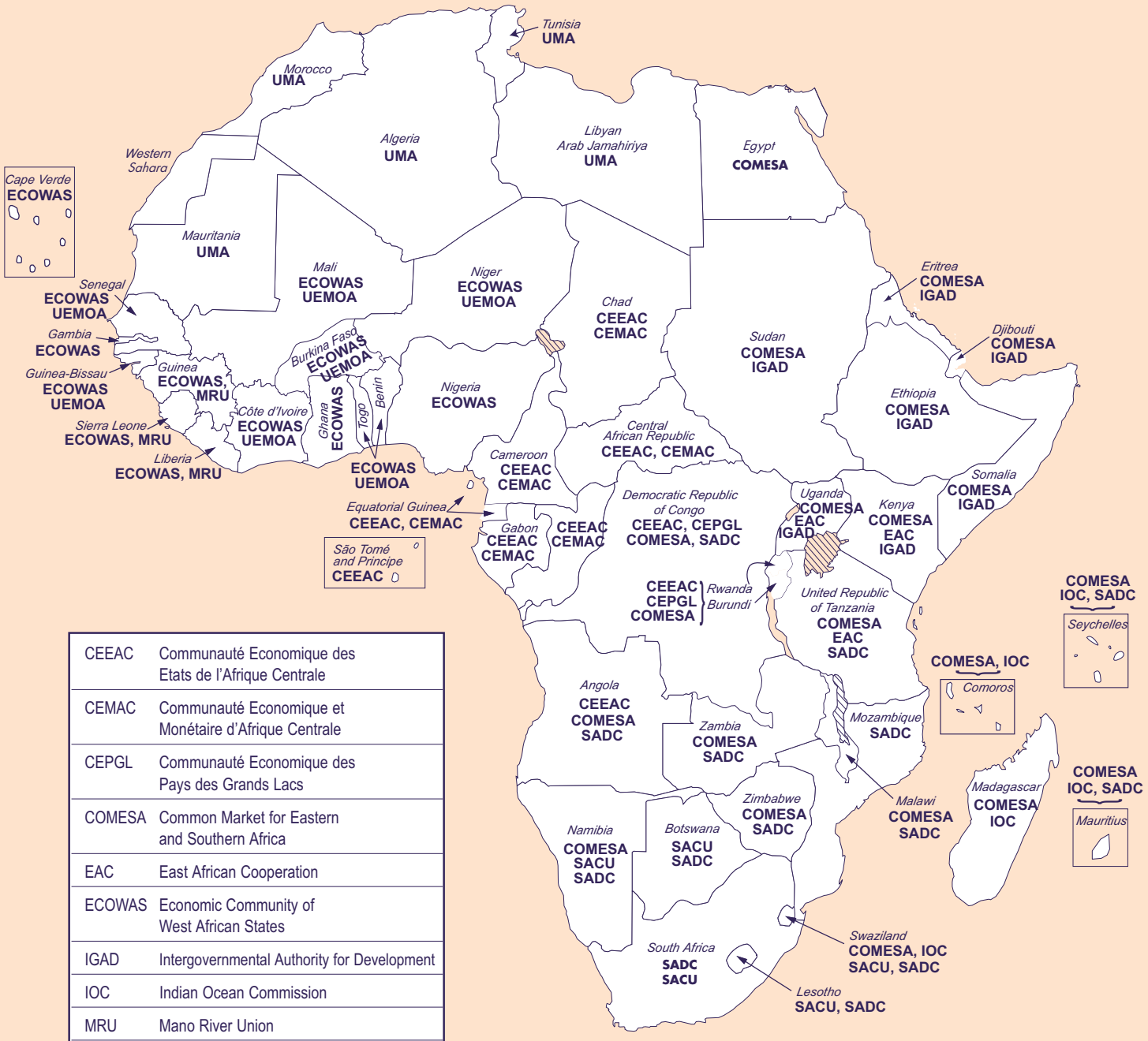
Source for figures 1 and 2: A. Abdulai, X. Diao, and M. Johnson. *Achieving Regional Growth Dynamics in African Agriculture*, Development Strategy and Governance Division, Discussion Paper 17 (Washington, DC: IFPRI 2005).

STRENGTHENING REGIONAL INSTITUTIONS

In response to the opportunities and challenges presented by the global economy, Africans are building a broad array of regional institutions to tackle a range of development challenges (see map). These partnerships aim to facilitate the safe flow of people, goods, capital, and knowledge across colonial-era borders. They include free-trade zones; common monetary unions; harmonized customs, grades, and standards; science and technology networks; and partnerships for regional security and governance. Some of the regional economic communities involve a small number of countries that share a common colonial past (such as the Economic African Community of Kenya, Tanzania, and Uganda), whereas others reach across historic barriers to include entire subregions (such as the Common Market for Eastern and Southern Africa [COMESA], the Economic Community of Central African States [CEEAC], the Economic Community of West African States [ECOWAS], and the Southern African Development Community [SADC]). The continent's low rates of formal interregional trade and persistence of important informal cross-border movements suggest, however, that the regional economic organizations are failing to harness the value of regional growth dynamics.

In the area of agricultural R&D, three subregional organizations have been established to promote and facilitate technology spillovers across national boundaries: the Southern African Centre for Cooperation in Agricultural Research and Training (SACCAR, 1984), the West and Central African Council for Agricultural Research and Development (WECARD/CORAF, 1987), and the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA, 1994). ASARECA and WECARD/CORAF, established as nongovernmental organizations, have been able to increase the efficiency and effectiveness of agricultural research in their regions through competitively funded research networks and projects. SACCAR has struggled to

Africa's multiple regional economic groups



CEEAC	Communauté Economique des Etats de l'Afrique Centrale
CEMAC	Communauté Economique et Monétaire d'Afrique Centrale
CEPGL	Communauté Economique des Pays des Grands Lacs
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Cooperation
ECOWAS	Economic Community of West African States
IGAD	Intergovernmental Authority for Development
IOC	Indian Ocean Commission
MRU	Mano River Union
SACU	Southern African Customs Union
SADC	Southern African Development Community
UEMOA	Union Economique et Monétaire Ouest-Africaine
UMA	Union du Maghreb Arab

** Boxed islands not to scale*

The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Source: UN Africa Recovery, September 2002.

extract itself from the intergovernmental politics of its parent organization, SADC, leaving a coordination void in the agricultural research landscape in Southern Africa.

These institutional arrangements are a good start but need to become more effective in facing the very real challenges of cooperation, harmonization, and integration. Most are struggling to create the momentum, capacity, credibility, and resource base to help members capture the returns to regional coordination. While some are based on economic or scientific relations that extend back several decades, most are relatively fragile institutional structures. It has not been easy in the context of Africa's poverty and turbulent political environment for these institutions to garner the commitment and authority they need from their member states to pursue their strategic objectives.

Despite the enormous challenges, African leaders have committed to using these regional bodies as building blocks for integration, supported by the African Union and NEPAD. There is now an imperative to strengthen the mandates, strategic planning, management and implementation structures, performance-based monitoring systems, and funding base for these organizations so they can deliver the regional synergies needed to assure the continent's economic future.

MOVING FORWARD

When neighboring African countries remove barriers to agricultural trade and technology transfers, large benefits can result, and regionally focused programs can supplement the gains from country-level interventions. The results presented here capture only the immediate gains in agriculture. The total returns would be much greater over time as skilled labor, capital, and other technologies move more freely across African borders

Encouraging both short- and long-term regional growth dynamics requires investments in the institutional capacity of Africa's regional economic and scientific organizations. Regional economic bodies have been instrumental in organizing their members around NEPAD's CAADP agenda. Now decision-makers must identify the country and regional components of the resulting action plans and assess and strengthen the capacity of public and private bodies to carry out those roles at country and regional levels. For the regional bodies, these roles will include both facilitating the CAADP process at the country level and tending to the uniquely regional dimensions of the agenda. Individual regional economic communities will need to quickly improve the governance and coordination mechanisms for their respective regions and strengthen the relevant departments of their own institutions to carry out their assigned regional responsibilities.

An effective regional agenda will include coordinated and potentially cofinanced investments in infrastructure such as roads and ports, communications, warehouses, and markets; energy provision; harmonized and improved financial systems; regional market information systems; regional producer and trade associations; basic investments in the generation and diffusion of regionally relevant agricultural technologies; common policy frameworks for grades and standards, contracts, regulations, and tariff structures; common monitoring and evaluation frameworks; and consultative processes to build understanding and trust among the many different national and international players operating at the regional level. ■

FOR FURTHER READING

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