

African Perspectives on Progress and Challenges in Transforming Agriculture To Help Cut Hunger and Poverty ¹

Background. Four times between 1993 and 1999, a distinguished group of senior African scholars, policymakers, and private sector representatives have met to consider the way forward for African agricultural development. These “Agricultural Transformation Workshops,” organized by African research and policy organizations and their US partners,² shared several broad objectives: (1) to identify *strategic policies and investments* needed to transform agriculture systems to stimulate broad-based economic growth; (2) to focus on *who should do what*--identifying appropriate roles for, and relationships among, public and private sectors; other elements of civil society, such as farmer and trader associations; national and local governments; regional organizations; donors; and private non-governmental organizations; and (3) to identify an *analytic agenda* -- areas where research would have a high payoff in terms of providing key information needed to design successful transformation strategies.

This purpose of this note is to synthesize what we believe to be the main points expressed by African colleagues at these workshops. This paper may be included in the background materials for the African Advisory Committee members. One option would be to ask key African observers for their feedback on whether we have included all the relevant issues here, and whether we have understood the issues correctly.

Overview of Results. The workshop participants identified several elements, discussed in more detail below, that need to be incorporated into future strategies to foster agricultural growth in Africa:

- **Rapid globalization is redefining the conceptualization of agricultural growth strategies in Africa** – African leaders must either make the policy decisions to become interconnected with their regions and the rest of the world in a trade-based and specialized competitive system, or be left behind. Regional and global integration, rather than national food self-sufficiency, is the best way to assure broad-based growth and food security.

- Although African economies are increasingly market-driven and integrated with the global economy, **the role of the state remains critical in strengthening the laws and policies that**

¹This paper has been drafted/edited by Julie Howard, Thomas Jayne and Michael Weber, and summarizes key findings from the two most recent workshops and draws on (1) Staatz, John M. and Moussa Batchily Ba. 1996. *Fostering Agricultural and Food System Transformation in Africa*. Policy Synthesis Number 13. East Lansing: Michigan State University; and (2) Argwings-Kodhek, Gem, T.S. Jayne, and Isaac Minde. 1999. *African Perspectives on Progress and Challenges in Agricultural Transformation*. Policy Synthesis Number 47. East Lansing: Michigan State University.

²These organizations included the Institut du Sahel, African Development Bank, Tegemeo Institute of Egerton University, and the Eastern and Central Africa Program on Agricultural Policy Analysis.

allow the market to function well and broaden peoples' access to more lucrative economic opportunities.

● **Reducing hunger and increasing rural incomes will require strategies that focus on linking agricultural development to industrial development and the broader economy, not just focus on farming and food supply.**

● **Accelerating technology development and dissemination is central to agricultural transformation and integration with the global economy.** Many African national agricultural research and extension systems have performed poorly. Restructuring is needed to speed access to technology being developed in international public and private research organizations, encourage private investment in research and extension, and improve the client focus of research and extension systems.

● **Future agricultural growth will require more decentralized and flexible organizations capable of reacting quickly and responding to international market opportunities. Good public governance, better public-private coordination, and farmer empowerment are essential** for the development and functioning of these market-responsive organizations.

Why Focus on Agricultural Transformation and Global Integration? Transforming agriculture and fostering integration with the broader world economy are essential if African countries are to:

- Overcome widespread poverty and hunger in the face of rapid population growth.
- Promote broad-based economic growth and new job opportunities for the swelling labor force.
- Protect the environment.

Transforming the agricultural system has been a linchpin in the development strategy of almost every country that has achieved broad-based economic growth. Such a transformation requires agriculture to become increasingly integrated into the world economy. Farmers expand their use of science-based inputs developed off the farm and exchange more of their outputs with others. Consumers (including farmers) increasingly rely on markets for secure, low-cost supplies of food. This process fosters greater specialization and productivity.

Increasing productivity growth at the farm-level, however, is not enough. For economic growth and employment to expand in the rest of the economy, the real price of food to consumers (a major determinant of wage rates, real incomes, and food security in poor countries) must fall. Generating the productivity increases needed to bring about lower food prices, while still maintaining incentives for farmers, traders, and processors, requires an ongoing stream of technological and institutional changes *throughout the agricultural system*. In addition to better farm-level technology, improvements are needed in input and output markets, factor markets, tax systems, and market-supporting infrastructure, such as roads, market facilities, and information systems.

Policy reforms are central to agricultural transformation. Increasing agricultural system productivity requires a combination of decentralized decision making by individual farmers, merchants, and consumers; and collective actions to benefit from new cost-reducing technologies and institutions. This mix of individual and collective actions is unlikely to flourish in economies where the state dominates agricultural production and marketing. Nor is it likely in pure laissez-faire systems that leave little room for collective action by various groups in civil society, such as farmer cooperatives or local units of government.

Detailed Workshop Findings. Participants reviewed background studies, based on original research by African scholars, which analyzed the experience of various countries and regions of Africa in fostering agricultural transformation, undertaking policy reform, and responding to the challenge of integration with regional and global markets. Out of the discussions came the following conclusions and recommendations:

Strategies to Promote Agricultural Transformation and Global Integration: The case studies demonstrated that macro policy reforms have had positive effects on agriculture in some parts of Africa. The impact of such reforms, however, has been slower and less dramatic than expected. The following actions could speed up the process of agricultural transformation and integration into the global economy.

Strategies should focus on transforming the food and agricultural system, not just farming. The constraints to assuring sustainable growth and food security lie both on and off the farm. In many countries, well over half of consumers' cost of food comes from post-harvest operations and purchased inputs. Improving productivity of input and output marketing, storage and processing are therefore critical to driving down the real cost of food to consumers. Competing internationally increasingly means serving niche markets that have tight quality specifications. Meeting both these challenges requires improved technologies and institutions (such as contracting procedures) not only at the farm level, but throughout the marketing and processing sectors as well.

Regional and global integration, rather than national food self-sufficiency, is the best way to assure broad-based growth and food security. Workshop participants endorsed regional and global integration, based on local comparative advantage and trade, as an important element of an agricultural transformation strategy. The participants felt there were many unexploited opportunities for greater regional specialization and trade within Africa. Exploiting these requires improved transportation and handling facilities, reduction of transaction costs, better information, and lowering of trade barriers among African countries.

The increasing emphasis on market-driven economies and global integration implies a different, but no less important, role for the state and public sector. *The role of the state remains critical - not in the historical role of active participant in production and marketing processes, but in formulating and enforcing the laws and policies that allow the market to function well.* These policies constitute the "rules of the game" for participation in the new market-based economy, and play a key role in determining whether economic development is broadly or narrowly based.

New models of public-private collaboration in technology development and dissemination are needed that will be pro-active in seeking out, adapting and disseminating new technology from international research centers and private sources. Most national agricultural research and extension systems in Africa are under-productive, top-heavy with large numbers of non-research staff and poorly paid, unmotivated scientists. Most of their budgets come from government or donor sources, creating weak stakeholder oversight. ***In cases where improved technologies have been developed, the ability of farmers to use them has often been impeded by high costs of distribution, caused by poor infrastructure, high transaction costs, and policies that thwart private investment in the system.*** Workshop participants emphasized the importance of public-private collaboration to (a) increase the effectiveness of public research and extension systems through active stakeholder participation in financing, planning and oversight, (b) the creation and financing of complementary private research and extension systems; and (c) mobilize political and financial support for improving input markets and infrastructure.

Tapping the potential of biotechnology. Africa needs to be aware of both the risks and the very great potential of this new branch of science to transform agriculture. Workshop participants concluded that ***ensuring African farmers' access to the productivity-enhancing benefits of biotechnology is crucial for future competitiveness and poverty alleviation.*** Biotechnology is already being widely used throughout the world. African governments will need to forge agreements with multinationals and research centers to gain access to this technology, or risk becoming uncompetitive in increasingly globalized markets.

Technologies should be specific to each agroecological zone. African agriculture is tremendously diverse; Africa-wide strategies for agricultural transformation (e.g., based on an Asian-style Green Revolution) are unlikely to be successful. As a first step at disaggregation, workshop participants identified 6 broad agroecological zones: the arid/ semi-arid zone, the subhumid areas, the humid tropics, the medium and high-altitude areas, the Mediterranean zone, and the veldt. Within these zones, further disaggregation is necessary, based on local socio-political and agroecological conditions. A disaggregated, agroecological approach to agricultural transformation implies the need to strengthen national research and extension capacity to access technology through public and private research systems worldwide that are working in similar agroecological zones.

Good governance, decentralization, and farmer empowerment are keys to agricultural transformation and global integration. Evidence is clear that farmers and traders *will* invest to increase production when they see a clear connection between such investments and future income. But arbitrary enforcement of rules, corruption, lack of information, and ponderous and inefficient state bureaucracies often rob agricultural system participants of the incentives to make the investments needed to foster agricultural transformation. Where transformation has proceeded, it has most often been in areas where farmers and traders have “voice” in the system, where rules of the market are transparent, and where many economic decisions are delegated down to the level of local governments, individuals, and professional organizations.

Successful integration will also require the development of more sophisticated marketing, contracting, and risk-sharing arrangements. Most private markets are still based on spot market transactions with little coordination between credit, input, and output marketing. The evolution of more productive economies has featured the development of more complex marketing, contracting and risk-spreading arrangements. These more complex marketing arrangements have successfully reduced risks and transaction costs of investment in more technically efficient production processes, and have proven valuable because they have encouraged productivity growth at other stages of the system. Market reform policy should be regarded as a continuous process of searching for alternative institutional arrangements, adapted to local conditions, capable of promoting new investment and productivity growth throughout the food system.

Sustained support for human capital development is essential for agricultural transformation. African government and donor funding has increased for basic primary education in the past decade, but support for higher education has weakened considerably. At the same time, the AIDS epidemic has taken the lives of many educated Africans. Support for training in the agricultural sciences and policy analysis is particularly important, since the sustainability of agricultural research/extension systems and policymaking bodies depends on assuring a continual stream of well-trained Africans. This implies increased levels of funding for local and regional faculties of agriculture as well as for long-term overseas training.

Agricultural transformation and global integration require greater coordination across development actions. Agricultural transformation involves greater integration of the agricultural system into the broader economy. To facilitate that integration, greater coordination among various public and private actions is needed. Workshop participants identified three areas where public decision-making by Africans requires greater coordination and communication:

- *Policy reforms across countries.* In the presence of regional and global trade and capital flows, policy reforms in one country spill over onto its neighbors. This has posed problems when one country (e.g., Zambia) is reforming its economy faster than its neighbors (Zimbabwe and South Africa). The slower-reforming countries may flood the faster reformer with subsidized agricultural exports, thereby undercutting incentives for local producers.
- *Across various ministries.* Agricultural transformation depends not only on decisions by the Ministry of Agriculture. Transportation, trade, and macro-economic policies often have more effect on farmer and trader incentives than do agricultural sectoral policy. Yet often there is little coordination of policies made among various ministries. Mechanisms, such as the authority granted the Ghanaian Ministry of Agriculture to coordinate the budget requests of five other ministries having a strong impact on agriculture, need to be explored by other countries in Africa.
- *Consistency and communication.* Even though the official policy environment across Africa is more conducive to private investment now than a decade ago, conflicting policy statements by government officials in the press raise the specter of policy reversals, and are likely to be

incorporated into the private sector's expectations of the payoffs and risks of future investment in the system. The result is often an atmosphere of mutual suspicion and policy unpredictability. One of the most important steps African leaders can take to promote agricultural transformation and global integration is to create the capacity and the political will to allow representatives of society to sit down, discuss and work out mutually agreeable ways of achieving goals and allocating public resources.

Analytic Agenda: What Do We Still Need to Know? The workshops attempted to identify critical areas where more information is needed to design effective strategies to transform agriculture and promote integration with the global economy. Five priority questions emerged:

1. What are the best ways to foster and support producer and village organizations as tools for mobilizing local participation and resources in making policies, carrying out investments, and increasing accountability of governments, firms, and other development organizations? Most agree that greater local participation and empowerment are needed. The challenge is to find the best ways to support them.
2. What strategy should be used to allocate public investment between “high-potential” areas and more marginal zones, if the goal is to foster *broad-based* development? Many of the poor live in areas where very heavy investments are needed to increase agricultural productivity. How much public investment should be made in these areas versus more environmentally favored zones?
3. What institutional innovations will allow appropriate public and collective action to strengthen agricultural production and marketing, given the very tight budget constraints facing most African states? For private markets to work well, some collective action is needed. The challenge is to identify what needs to be done collectively, who should provide different types of services (national government? local government? business associations? or ?) and how to finance such actions.
4. How can investments more effectively promote agricultural transformation? Specifically, what tools can attract non-traditional sources of investment (particularly foreign investment) to African agricultural systems? How can investments across sectors be coordinated more effectively to avoid duplication and capture synergies? What are the impacts of different ways of coordinating production and distribution of agricultural products (for example, contract farming vs. reliance on spot markets) on domestic resource mobilization and re-investment in the food system?
5. What are effective models of public-private collaboration to improve technology acquisition, adaptation and dissemination in Africa? How can these systems be financed in a sustainable way? How can the articulation between public and private researchers at national, regional and international levels be improved?