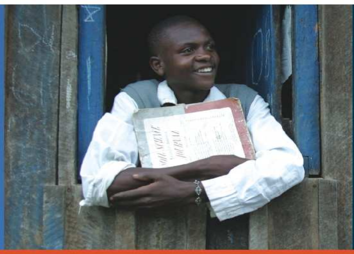
CAADP

THE COMPREHENSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAM



PILLAR 2

Framework for Improving Rural Infrastructure and Trade Related Capacities For Market Access

FIMA

PARTNERSHIPS IN SUPPORT OF CAADP

NEPAD
A Programme of The African Union

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LIST OF ABBREVIATIONS

ACA	Africa Cashew Alliance
ADC&E	African Dairy Conference and Exhibition
APROCA	Association des Producteurs de Coton Africains
ARE	Agricultural production, processing, and related enterprises
AU	African Union
B2B	Business-to-business
BOT	Build-operate-transfer
CAADP	Comprehensive Africa Agriculture Development Program
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
CMA-WCA	Conference of Ministers of Agriculture of West and Central Africa
CNCAS	Caisse Nationale de Crédit Agricole du Sénégal
CNCFTI	Comité National de Concertation de la Filière Tomate Industrielle
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Development
DUS	Droit Unique de Sortie
EAFCA	Eastern African Fine Coffees Association
EAFF	Eastern Africa Farmers Federation
EAGC	Eastern Africa Grain Council
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
ESADA	Eastern and Southern African Dairy Association
FIMA	Framework for the Improvement of Rural Infrastructure and Trade-Related Capacities for Market Access
FO/TA	Farmer organizations and Trade Associations
GDP	Gross domestic product
GTZ	Gesellschaft für Technische Zusammenarbeit
I4GI	Infrastructure for Growth Initiative
ICAC	International Cotton and Textiles Advisory Council
ICO	International Coffee Organization
ICT	Information and communications technology
IDF	International Dairy Federation
IFPRI	International Food Policy Research Institute
IIRR	International Institute of Rural Reconstruction
ITC	International Trade Center
KIT	Koninklijk Instituut voor de Tropen
LSMS	Living Standards Measurement Study
M&E	Monitoring and evaluation
MDG	Millennium Development Goal
MFN	Most favored nation
MLR	Maximum limit residue
NASFAM	National Smallholder Farmers Association of Malawi
NCTTCA	Northern Corridor Transit Transport Coordination Authority
NEPAD	New Partnership for Africa's Development
NTC	National Transport Regulatory Commission
PDMAS	Projet de Developpement des Marches Agricoles et Ruraux
PIP	Pesticide Initiative Program
PPDEA	Projet de Promotion et de Diversification des Exportations Agricoles

PPEA	Projet de Promotion des Exportations Agricoles
PPP	Public-private partnership
RATES	Regional Agricultural Trade Expansion Support Program
REC	Regional economic community
RECAO	Réseau des Chambres d'Agriculture de l'Afrique de l'Ouest
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
ROPPA	Réseaux des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest
ROSCA	Rotating savings and credit association
SACAU	Southern African Confederation of Agricultural Unions
SACCO	Savings and credit cooperative
SADC	Southern African Development Community
SAED	Societe d'Amenagement et d'Exploitation des Terres du Delta du Fleuve
SAKSS	Strategic Analysis and Knowledge Support System
SIDA	Swedish International Development Cooperation Agency
SMS	Short message service
SSA	Sub-Saharan Africa
SSATP	Sub-Saharan Africa Transport Program
SSI	Small-scale irrigation
STS	Structured trading system
TA	Trade association
UMA	Union du Maghreb Arabe
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
WASEX	**West African Commodity Exchange**
WFP	World Food Program
WRS	Warehouse receipt system
WTO	World Trade Organization

GLOSSARY

Agriculture	Crops, livestock, forestry, fisheries, and, for the purposes of the current framework, all segments of the value chain, including on- and off-farm as well as pre- and postharvest activities all the way to the consumer
Commodity products	Coffee, tea, cocoa, sugar, cotton, oilseeds, and bananas
Development domain	A cluster of growth poles (see below) that can be linked together through coordination and harmonization of economic policies and investment strategies to achieve economies of scale and spread growth across a given region or between regions
Economic governance	Economic governance covers a wide range of governmental activities. It includes the responsibility of government for (a) macroeconomic management—for example, in curbing inflation, intervening in interest and exchange rate markets, establishing fiscal policy and setting tax structures, managing domestic and external debt, and combating corruption—and (b) sectoral policies dealing with pricing, marketing, input distribution, financial regulation, science and technology, norms and standards, and quality regulation. Economic governance is influenced by the nature of political governance in the country, and, in turn, shapes the nature of regulation of and support for the corporate sector. Economic governance can be defined as the framework of rules and institutions through which economic policy is made and implemented. Economic governance is influenced by both state and nonstate actors.
Growth pole	Describes the actual or potential geographic concentration of a critical mass of natural resources, physical infrastructure, and market opportunities that could provide leverage to generate a cluster of economic activities at a scale that significantly affects growth in a broad area
High-value agricultural products	Meat and meat products; dairy products; fish products and seafood; vegetables, fruits, and nuts (fresh, preserved, and prepared); spices; vegetable oils and fats; and inedible ornamentals such as cut flowers
Infrastructure	In addition to the physical elements, agricultural infrastructure includes a wide range of public services that facilitate production and trade. The following types of infrastructure are distinguished: (a) transport infrastructure, that is, major roads linking production zones to centers of consumption, rural roads, and tracks and trails, but also regional transport corridors and

	cross-border transit points; (b) irrigation infrastructure; (c) electricity (interconnected and isolated); (d) ports and airports; (e) telecommunications (telephone and rural cabins); and (f) postharvest infrastructure such as processing, sorting, grading, assembly, and marketing infrastructure, including commodity exchanges.
Strategic products	Rice, legumes, maize, cotton, oil palm, beef, dairy, poultry, fisheries products, cassava, sorghum, and millet (as defined by the AU/NEPAD Abuja Food Summit)

THE COMPREHENSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAM (CAADP)

Framework for the Improvement of Rural Infrastructure and Trade-Related Capacities for Market Access (FIMA)

EXECUTIVE SUMMARY

THE CAADP AGENDA AND ITS OBJECTIVES

The Comprehensive Africa Agriculture Development Program (CAADP) is at the heart of efforts by African governments under the African Union (AU)/New Partnership for Africa's Development (NEPAD), a program of the African Union to accelerate growth and eliminate poverty and hunger. As such, CAADP emanates from and is fully owned and led by African governments. Although continental in scope, it is integral to national efforts to promote agricultural growth and economic development.

As a common framework for agricultural development and growth for African countries, CAADP is based on the following:

- the principle of agriculture-led growth as a main strategy to achieve the Millennium Development Goal (MDG) of poverty reduction;
- the pursuit of a 6 percent average annual sector growth rate at the national level;
- the allocation of 10 percent of national budgets to the agricultural sector;
- the exploitation of regional complementarities and cooperation to boost growth;
- the principles of policy efficiency, dialogue, review, and accountability, shared by all NEPAD programs;
- the principles of partnerships and alliances to include farmers, agribusiness, and civil-society communities; and
- the implementation principles, which assign the roles and responsibilities of program implementation to individual countries, coordination to designated regional economic communities (RECs), and facilitation to the NEPAD Secretariat.

CAADP defines four major intervention areas, or pillars, to accelerate agricultural growth, reduce poverty, and achieve food and nutrition security in alignment with the above principles and targets:

- Pillar I. Extending the area under sustainable land management and reliable water control systems
- Pillar II. Improving rural infrastructure and trade-related capacities for market access
- Pillar III. Increasing food supply, reducing hunger, and improving responses to food-emergency crises
- Pillar IV. Improving agriculture research and technology dissemination and adoption.

THE AGENDA AND OBJECTIVES OF PILLAR II

The ultimate objective of Pillar II is to accelerate growth in the agricultural sector by raising the capacities of private entrepreneurs, including commercial and smallholder farmers, to meet the increasingly complex cost, quality, and logistical requirements of domestic, regional, and international markets, focusing on strategic value chains with the greatest potential to generate broad-based income growth and create wealth in rural areas and the rest of the economy. The Pillar II agenda focuses on policy and regulatory actions, infrastructure development, capacity-building efforts, and partnerships and alliances. The Pillar's objectives and activities are summarized in Box 1.

THE CONTRIBUTION OF AGRIBUSINESS DEVELOPMENT AND TRADE TO CAADP GROWTH AND POVERTY-REDUCTION TARGETS

Agriculture as an engine of growth. Empirical evidence in Africa and elsewhere shows that agricultural growth (a) contributes more than any other sector to overall income growth in rural areas where the bulk of the poor and vulnerable live and work; (b) stimulates growth in other sectors of the economy by expanding demand for the goods and services that are produced outside the sector; and (c) reduces overall poverty, hunger, and malnutrition levels by raising the supply of food while improving access to it through higher incomes in rural and other sectors of the economy. Research findings by the International Food Policy Research Institute (IFPRI) indicate that a sustained expansion of revenues from agricultural products traded in local, regional, and international markets would result in an increase in overall incomes in the local economy that is at least twice as high as the initial increase in incomes in the agricultural sector itself.

The role of trade in local and regional markets. According to the findings of a study commissioned by the NEPAD Secretariat in 2005, foreign demand for commodities and high-value exports is projected to grow from US$8 billion and US$3 billion in 2000, respectively, to roughly US$10 billion in each category in 2030. In contrast, demand in local and regional urban food markets across Africa is expected to jump from US$50 billion to US$150 billion during the same period. By 2030, farmers could derive potential income from these various markets totaling US$4.5 billion from foreign export markets, and as much as US$30 billion from domestic and cross-border markets.

The contribution of Pillar II to the CAADP growth and poverty-reduction agenda. The agricultural growth and trade multipliers described above indicate that the implementation of Pillar II should seek to achieve at least a 4 percent annual growth rate for agricultural output and exports in order to induce a growth rate of 6 percent in the rest of the economy. Country-level analyses carried out as part of the implementation of the CAADP agenda indicate that growth of the same magnitude may also be required outside agriculture to ensure that the poverty and nutrition MDGs are met. The same multipliers also indicate that achieving the 6 percent agricultural growth rate would raise growth in the nonagricultural sector to more than 7 percent and will ultimately result in an economywide growth rate of about 6 percent. The contribution of increased sales of agricultural goods in local and regional markets to overall incomes in rural areas suggests that a successful Pillar II agenda—which would allow African smallholders to capture the estimated US$30 billion in potential additional income in regional markets—would raise rural incomes by up to another US$60 billion, thereby making a significant contribution to poverty reduction and food and nutrition security.

THE FRAMEWORK FOR THE IMPROVEMENT OF RURAL INFRASTRUCTURE AND TRADE-RELATED CAPACITIES FOR MARKET ACCESS (FIMA)

FIMA specifies key long-term challenges, strategy options, and partnerships and alliances to accelerate agribusiness development in Africa. Its primary goal is to guide the facilitation and coordination roles of the NEPAD Secretariat, leading RECs, and country governments, as well as actions by all other major stakeholders, particularly the private sector, farmer organizations, civil-society organizations, and the development community. The diagram below, together with the description in Box 2, summarizes the strategic approach underlying the Pillar II agenda.

KEY STRATEGIC AREAS OF PILLAR II

Actual implementation of the agenda under Pillar II is to be carried out through the five strategic areas described below. The framework specifies core program components for each of the strategic areas to guide planning and implementation activities by regional economic communities and their member countries. Not all countries and regions have to implement all of the individual program components. Rather, the set of activities are to be treated as guideposts for defining national policies and investment programs, as well as for establishing the necessary partnerships and alliances to advance the Pillar agenda. It is to be expected that some elements may be more relevant than others, depending on the challenges, options, and pre-existing strengths in individual countries and regions.

Strategic Area A: Raising competitiveness and seizing opportunities in domestic, regional, and international markets—Core Program Components

Successful implementation of the Pillar II agenda calls for the following five sets of activities in order to effectively raise the competitiveness of the domestic sectors in key agricultural markets:

a. *Raising and sustaining performance in traditional and foreign export markets:*
   (i) identify the factors behind the recent growth in African agricultural exports in order to transfer the success to a larger number of countries and thereby sustain and expand the strong trade performance of the past five years;
   (ii) exploit the fast-growing demand in the emerging economies of Asia and Latin America, in particular by:
      - seeking stronger partnerships between the local agribusiness sector and agribusiness operators in the above regions;
      - reflecting the long-term market and production trends in these countries in national agricultural development strategies;
      - working toward establishing agricultural trade agreements with India, China, and other leading emerging economies.
   (iii) develop strategies to compete in the emerging biofuels sector, focusing on the oilseeds and traditional indigenous plant sectors;
   (iv) strengthen regional and national negotiation capacities, preferably organized around RECs in order to accelerate the reform of protectionist global policies and safeguard African interests in international trade agreements.
b. *Raising competitiveness and expanding trade in domestic and regional markets:*
   (i) eliminate regulatory and administrative barriers and disincentives impeding or raising the unit cost of the movement of goods across local and cross-border markets;
   (ii) develop quality management and certification services systems and harmonize standards, norms, and grades across national markets;
   (iii) modernize regional trading systems, including the development of regional and national commodity exchanges;
   (iv) establish trade surveillance and knowledge systems within RECs to monitor policies and barriers to trade and provide information on demand dynamics and long term trends in regional markets;
   (v) invest in transport infrastructure corridors to link high potential production zones and major market areas within and across regions.
c. *Promoting partnerships and alliances for value-chain enhancement:*
   (i) identify successful models of public-private partnerships (PPP) and business-to-business (B2B) alliances to raise value-chain competitiveness, scale them up, and promote their transfer to more sectors and countries;
   (ii) establish targeted PPP and B2B alliances to develop the capacity of smallholder farmers and their organizations to act as credible commercial partners to banks, processors, input dealers, and other operators along the value chain.
d. *Integrating smallholder farmers and medium-scale enterprises:*
   (i) develop required strategic public–private partnerships to meet the institutional, infrastructural, and technological challenges associated with the sector's fragmentation
   (ii) foster business-to-business alliances, not just among African entrepreneurs, but also between the entrepreneurs and outside operators to create scale and promote integration into the traditional and emerging value chains.
e. *Improving sector governance and the policy environment of the trading sector*
   (i) deepen and refine the positive sector policy reforms and continue to improve the management of exchange rate, trade, and fiscal policy regimes.
   (ii) carry out necessary regulatory and administrative reforms to enhance the operations of input dealers, output traders, and financial and advisory services providers

Strategic Area B: Investing in commercial and trade infrastructure to lower the cost of supplying national, regional, and international markets—Core Program Components

Four sets of activities are identified for this strategic area in order to contribute to the overall Pillar objective and advance the CAADP agenda at the regional and country levels. These are:

a. *Value-chain infrastructure development*
   (i) upgrade transport infrastructure, roads, rails, ports, airports, and expand rural roads;
   (ii) invest in processing and market-related infrastructure for assembly, storage, grading, and packaging, in order to accelerate the integration of smallholder farmers into value chains;
   (iii) invest in the innovative use of information and communications technologies, including content and access, to improve market operations, cut transactions costs, and integrate smallholder farmers into local, regional, and export value chains;
   (iv) expand other critical infrastructure, including irrigation, potable water, and rural electricity and telecommunications;
b. *Public–Private Partnership (PPP) for infrastructure development*
   (i) build PPP platforms to encourage the private sector to invest in transportation and trading infrastructure services and allow governments to play their roles more efficiently;
   (ii) establish the required regulatory mechanism and related legal framework to level the playing field between new entrant companies and incumbent operators;
   (iii) create partnership opportunities for small-scale infrastructure investment in rural areas—such as post-harvest and other market-related infrastructure—to integrate smallholder farmers into local and export value chains.
c. *Exploitation of regional complementarities in infrastructure development*
   (i) build capacities to coordinate regional infrastructure projects and promote complementarity between national infrastructure investment programs;
   (ii) develop regional infrastructure corridors by scaling up investment in intra-regional roads, railways, air transport, commercial infrastructure, energy, and telecommunications in a way to link linking major consumption areas with high production potential zones;
d. *Sector governance and policy*
   (i) clearly define the role of the state, the role of the private sector, and the role of public–private partnerships in policies, program design, implementation, and funding;
   (ii) establish institutional tools to harmonize regional policies and regulations related to infrastructure, using the European Union's experience as a possible model;
   (iii) improve the investment climate and business environment, including the creation of the necessary legal system to minimize corruption at all levels, among both local and external actors.

Strategic Area C: Developing Value-Chains and Financial Services—Core Program Components

As in the case of the other strategic areas, a set of activities has been identified in the framework document to guide regional and national efforts to promote the development of competitive value chains and related financial services. The most important activities include:

a. *Levers for Agricultural Enterprise Growth and Value-Chain Development*
   (i) undertake targeted actions on country- and sector-specific determinants of agribusiness enterprises growth;
   (ii) implement priority interventions that raise the value accruing to actors at each level of the chain, with a focus on:
      - unit cost reduction
      - volume expansion
      - product value addition

b. *Financial Services Sector Development for Value Chain Growth*
   (i) develop adapted credit information systems;

(ii) create and/or strengthen regulatory mechanisms for collateral enforcement;
(iii) provide training and other capacity building mechanisms to improve risk perception and thus reduce the barriers to as well as cost of borrowing;
(iv) mobilize non-bank financial institutions (insurance, pension funds, microcredit systems) to ease access to long-term investment funds and expand financial services in rural areas;
(v) raise the capacity of agribusiness enterprises to improve business reporting and provide satisfactory documentation in support of loan applications;
(vi) raise the capacity of banks to provide affordable, flexible, and innovative financial products that meet the varied needs of ARE.

c. Sector Policy and Governance

(i) promote a stable and well-balanced exchange rate, as well as monetary and fiscal policy regimes;
(ii) implement conducive bank regulations, business and trade taxation, regulation of business start up and closing; ensure the legal compliance of business operations and employment laws, and enforce contracts;

Strategic Area D: Strengthening the Commercial and Technical Capacities of Farmers' Organizations and Trade Associations - Core Program Components

a. The Role and Evolution of Farmer Organizations and Trade Associations (FO/TAs) in Promoting the Integration of Smallholders into Agricultural Value Chains

(i) promote the institutional maturation of leading local FO/TAs through the adoption of more effective governance and management practices, which is required for them to serve as vehicles for the integration of smallholders into the emerging and dynamic value chains;
(ii) encourage the operational diversification of leading local FO/TAs through the acquisition of the necessary technical, commercial, and financial resources so as to enable them to:

- efficiently and effectively fulfil all the major technology, market, and financial needs of their membership; and
- develop into business-oriented entities that can serve as credible business partners to other actors along the value chain.

b. Smallholder Farmer Integration Pathways

(iii) encourage the development of FO/TAs into effective "chain actors," primarily as "product specialists," which is often the first step in integrating smallholders that are predominantly outside of the value chains;
(iv) intensify chain integration in the case of FO/TAs that maintain some level of contact with the remaining segments of value chain. Such intensification can take place along the following three axes:

- partnership with other chain members through horizontal integration with FO/TAs specializing in production as "chain partners;"
- value addition through vertical integration, with FO/TAs evolving into "chain integrators;"
- expansion into other activities along the value chain, leading to FO/TAs becoming "chain owners."

c. Sector Policy and Regulatory Alignment

(i) foster a conducive legal framework that allows for the registration and effective operation of farmer organizations as business entities; and
(ii) foster a regulatory environment that avoids disincentives in the pricing, marketing, input distribution, financing, and technology areas so as to not discourage the emergence of efficient, FO/TA-based agribusiness enterprises.

PROPOSED EARLY ACTIONS TO FACILITATE FIMA IMPLEMENTATION

The proposed early actions listed under each strategic area serve as entry points to scaling up the Pillar II agenda at the country and regional levels. They target key priority areas and activities that respond to needs that are broadly shared across countries and regions, hence requiring collective action and lending themselves to economies of scale. In several cases, they start with pilot programs that can be taken up and scaled out as implementation proceeds. Detailed objectives and indicative activities are presented in the main framework document for each of the early actions.

Strategic Area A: Raising Competitiveness and Seizing Opportunities in Domestic, Regional, and International Markets

1. ***Facilitating agricultural trade*** to create the required institutional, regulatory, and policy frameworks to facilitate the emergence of regional economic spaces and boost the expansion of regional trade and cross-country investments.
2. ***Building capacity for international trade advocacy and negotiation*** to better articulate African interests in bilateral and multilateral trade negotiations in order to remove foreign-policy distortions that limit market access and affect the competitiveness of African exports.
3. ***Developing quality management and trade certification service systems*** to facilitate compliance with international trade agreements and overcome nontechnical barriers affecting the growth of African exports.

Strategic Area B: Investing in Commercial and Trade Infrastructure to Lower the Cost of Supplying Domestic, Regional, and International Markets

1. Promoting the Infrastructure for Growth Initiative (I4GI) to develop and implement a master plan to link current regional transport infrastructure corridor projects to potential agricultural growth poles

Strategic Area C: Value-Chain Development and Access to Financial Services

1. Encouraging agricultural investment and creating enterprise development platforms to promote the adoption of effective and efficient tools for PPPs and B2B alliances that can boost agricultural value-chain development.

2. Promoting agribusiness joint venture fairs to expand joint venture opportunities in the agribusiness sector by facilitating contacts between entrepreneurs and investors in the early stages of enterprise creation.

3. ***Promoting fertilizer and seed systems development*** to (a) speed up the emergence of broadly accessible, cost-effective, and competitive seed and fertilizer supplies and financing systems, and (b) significantly raise the use of both inputs by smallholder farmers.

Strategic Area D: Strengthening the Commercial and Technical Capacities of Farmer Organizations and Trade Associations

1. Designing and piloting effective models of value-chain integration for smallholder farmers in order to develop effective and scalable tools to support partnerships and alliances between governments, private-sector operators, and leading local FO/TAs that can broaden the access of smallholder farmers to commercial and technical services.

2. Designing and piloting innovative vocational training and workforce development systems for future scale-up to accelerate the modernization of farming systems and ensure the long-term technological competitiveness of Africa's smallholder and agribusiness sectors in the global agricultural economy.

BOX 1
Pillar II of the Comprehensive Africa Agriculture Development Program

CAADP Agenda and Objectives
The Comprehensive Africa Agriculture Development Program (CAADP) is at the heart of efforts by African governments under the African Union (AU)/New Partnership for Africa's Development (NEPAD) initiative to accelerate growth and eliminate poverty and hunger among African countries. The main objective of CAADP is to help African countries reach a path of higher economic growth through agriculture-led development, which eliminates hunger, reduces poverty and food insecurity, and enables the expansion of exports. As a program of the AU, it emanates from and is fully owned and led by African governments. Although continental in scope, it is an integral part of national efforts to promote agricultural growth and economic development. NEPAD's overall vision for agriculture seeks to maximize the contribution of Africa's largest economic sector to the achievement of self-reliant and productive economies. In essence, NEPAD aims for agriculture to deliver broad-based economic advancement, to which other economic sectors (such as manufacturing, petroleum, minerals, and tourism) may also contribute in significant ways, but not to the same extent as agriculture.

CAADP, as a common framework for agricultural development and growth for African countries, is based on the following:

- the principle of agriculture-led growth as a main strategy to achieve the Millennium Development Goal (MDG) of poverty reduction;
- the pursuit of 6 percent average annual agricultural growth at the national level;
- the allocation of 10 percent of national budgets to the agricultural sector;
- the exploitation of regional complementarities and cooperation to boost growth;
- the principles of policy efficiency, dialogue, review, and accountability;
- the principles of partnerships and alliances to include farmers, agribusiness, and civil-society communities; and
- implementation principles that assign roles and responsibilities for program implementation to individual countries, coordination to designated regional economic communities (RECs), and facilitation to the NEPAD Secretariat.

CAADP identifies four major intervention areas, or pillars, to accelerate agricultural growth, reduce poverty, and achieve food and nutrition security:

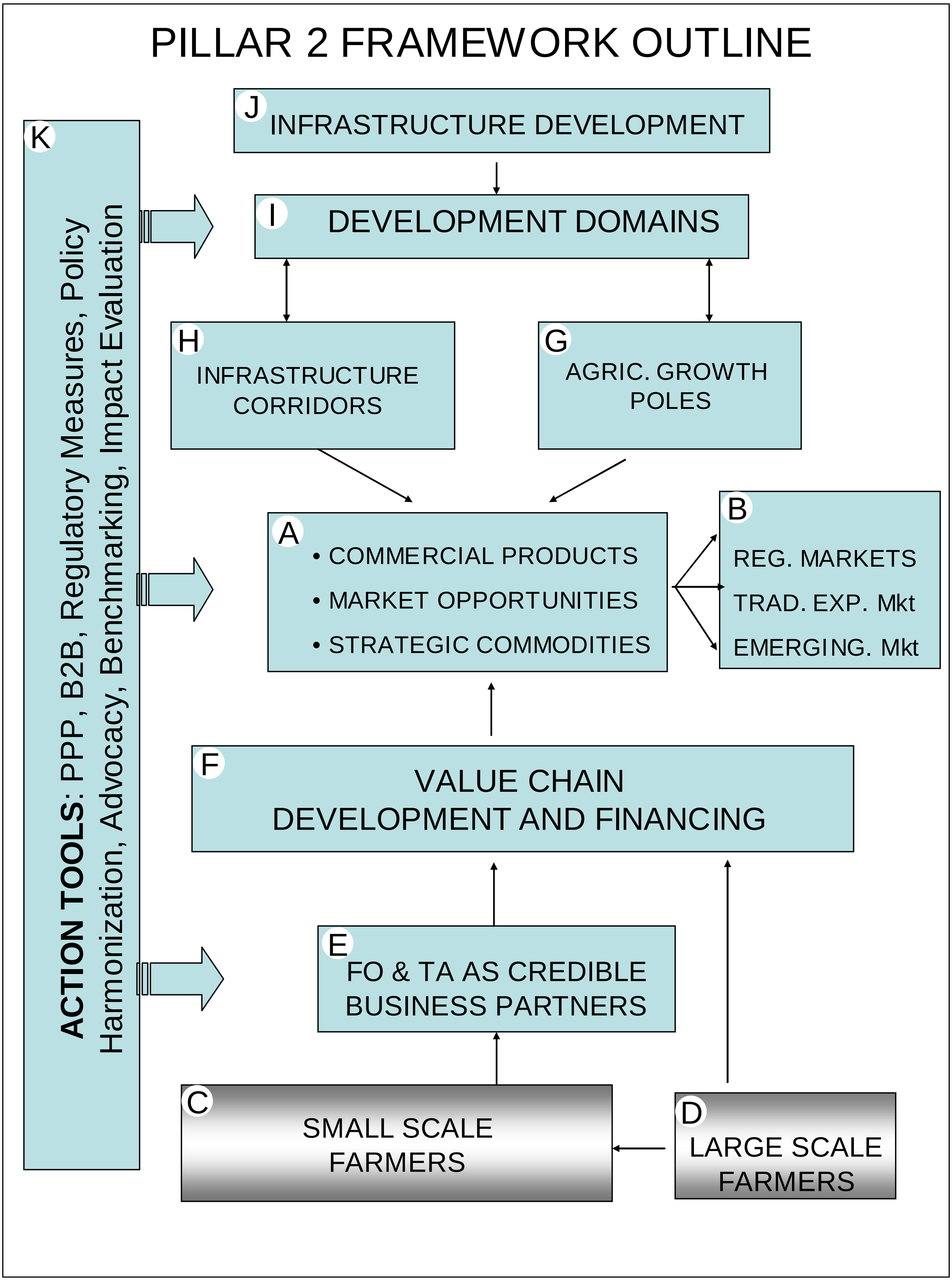
- Pillar I: extending the area under sustainable land management and reliable water control systems;
- Pillar II: improving rural infrastructure and trade-related capacities for market access;
- Pillar III: increasing food supply, reducing hunger, and improving responses to food emergency crises; and
- Pillar IV: improving agriculture research and technology dissemination and adoption.

Pillar II Agenda and Objectives
The ultimate objective of Pillar II is to accelerate growth in the agricultural sector by raising the capacities of private entrepreneurs, including commercial and smallholder farmers, to meet the increasingly complex quality and logistics requirements of domestic, regional, and international markets, focusing on strategic value chains with the greatest potential to generate broad-based income growth and create wealth in the rural areas and the rest of the economy. The Pillar agenda focuses on policy and regulatory actions, infrastructure development, capacity-building efforts, and partnerships and alliances that could facilitate smallholder-friendly development of agricultural value chains to stimulate poverty-reducing growth across African countries.

Key Pillar Strategic Areas
Actual implementation of the agenda under Pillar II is to be carried out through the following main clusters of activities, or strategic areas, guided by the vision described:

- *Area A:* raising competitiveness and seizing opportunities in domestic, regional, and international markets;
- *Area B:* investing in commercial and trade infrastructure to lower the cost of supplying domestic, regional, and international markets;

Conceptual Framework for Implementing Pillar 2



BOX 2

FIMA's Strategic Approach: An Overview

The objective is to target efforts to expand the supply base to respond to future demand opportunities and develop value chains to raise the competitiveness in domestic, regional, and foreign export markets. The following steps are to be followed in developing country strategies and investment programs at the national and regional levels:

Step 1: The starting point consists of (a) the identification of a portfolio of strategic commodities, ranging from basic staples to high-value products, that exhibit short- and long-term market opportunities and potential commercial products that would allow the acceleration of broad-based poverty-reducing growth and (b) careful deployment of country and regional resources around these commodities. (See Box A in the Conceptual Framework diagram on page 7)

Step 2: The second step is to review and align investment and trade policies so as to fully exploit demand trends in domestic/regional markets, traditional export markets, and emerging markets, in particular in Asia, associated with the above commodities. (See Box B)

Step 3: Countries and sector actors then need to identify the types of regulatory and institutional changes and partnerships and alliances that are required to build the technical and commercial capacities of farmer organizations and trade associations (FO/TAs) as a strategy to broadly expand the supply capacity of smallholders and other farmers to respond to the above demand. (See Boxes C, D & E)

Step 4: The government, agribusiness, financial sector, and farmer organizations identify the strategic investments and models of public-private partnerships (PPPs) and business-to-business (B2B) alliances needed to overcome the constraints to the development of smallholder-friendly value chains in the strategic commodity sectors, including the fertilizer and other modern inputs sector. (See Box F)

Step 5: Concomitantly to the national processes, country and regional stakeholders specify, under the leadership of RECs, the necessary efforts and roles to (a) harmonize country strategies to facilitate the emergence of cross-border agricultural growth poles and (b) link these poles to the main transport/communications corridors within and across regions in order to create regional development domains with more diversified growth patterns. (See Boxes G, H & I)

Step 6: Based on the above, RECs and member governments design rural infrastructure strategies to develop the required complementary infrastructure to link the above development domains with national consumption centers and exit points to foreign export markets. (See Box J)

THE COMPREHENSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAM (CAADP)

Framework for the Improvement of Rural Infrastructure and Trade-Related Capacities for Market Access (FIMA)

I. PILLAR II IN THE CAADP AGENDA

I.1. CAADP Agenda and Objectives

The Comprehensive Africa Agriculture Development Program (CAADP) is at the heart of efforts by African governments under the African Union (AU) / New Partnership for Africa's Development (NEPAD) initiative to accelerate growth and eliminate poverty and hunger among African countries. The main objective of CAADP is to help African countries reach a path of higher economic growth through agriculturally led development, which eliminates hunger, reduces poverty and food insecurity, and enables expansion of exports. As a program of the AU, it emanates from and is fully owned and led by African governments. Although continental in scope, it is an integral part of national efforts to promote agricultural sector growth and economic development. NEPAD's overall vision for agriculture seeks to maximize the contribution of Africa's largest economic sector to achieve self-reliant and productive economies. In essence, NEPAD aims for agriculture to deliver broad-based economic advancement, to which other economic sectors, such as manufacturing, petroleum, minerals, and tourism, may also contribute in significant ways, but not to the same extent as agriculture. The NEPAD goal for the sector is agriculture-led development that eliminates hunger and reduces poverty and food insecurity, opening the way for export expansion.

CAADP, as a common framework for agricultural development and growth for African countries, is based on the following key principles and targets:

- The principle of agriculture-led growth as a main strategy to achieve the Millennium Development Goal (MDG) of poverty reduction
- The pursuit of a 6% average annual sector growth rate at the national level
- The allocation of 10% of national budgets to the agricultural sector
- The exploitation of regional complementarities and cooperation to boost growth
- The principles of policy efficiency, dialogue, review, and accountability, shared by all NEPAD programs
- The principles of partnerships and alliances to include farmers, agribusiness, and civil society communities
- The implementation principles, which assign the roles and responsibilities of program implementation to individual countries, coordination to designated regional economic communities (RECs), and facilitation to the NEPAD Secretariat

CAADP defines four major intervention areas, or pillars, to accelerate agricultural growth, reduce poverty, and achieve food and nutrition security in alignment with the above principles and targets:

- Pillar I: Extending the area under sustainable land management and reliable water control systems
- Pillar II: Improving rural infrastructure and trade-related capacities for market access
- Pillar III: Increasing food supply, reducing hunger, and improving responses to food emergency crises
- Pillar IV: Improving agriculture research and technology dissemination and adoption

I.2. Pillar II Agenda and Objectives

The ultimate objective of Pillar II is to accelerate growth in the agricultural sector by raising the capacities of private entrepreneurs, including commercial and smallholder farmers, to meet the increasingly complex quality and logistics requirements of domestic, regional, and international markets, focusing on strategic value chains with the greatest potential to generate broad-based income growth and create wealth in the rural areas and the rest of the economy. The pillar agenda focuses on policy and regulatory actions, infrastructure development, capacity-building efforts, and partnerships and alliances that could facilitate smallholder-friendly development of agricultural value chains to stimulate poverty-reducing growth across African countries.

I.3. The Contribution of Agribusiness Development and Trade to the CAADP Growth and Poverty-Reduction Targets

Agriculture as an engine of growth

The contribution of agribusiness development and trade to the CAADP agenda derives from the wider implications of faster agricultural sector growth for the overall economic growth and development process, and the role of trade therein. There is now broad consensus that agricultural growth (a) contributes more than any other sector to overall income growth in rural areas where the bulk of the poor and vulnerable live and work; (b) stimulates growth in other sectors of the economy by expanding demand for goods and services that are produced outside the sector; and (c) reduces overall poverty, hunger, and malnutrition levels by raising the supply of food while improving access to it through higher incomes in rural and other sectors of the economy.

The above relationships are demonstrated by empirical studies in Africa and elsewhere. Figure 1.1 illustrates the relationship between agricultural growth and growth in the rest of the economy based on a summary of a large number of studies across all major

Figure 1.1: Impact of Agricultural Growth on Growth in the Rest of the Economy

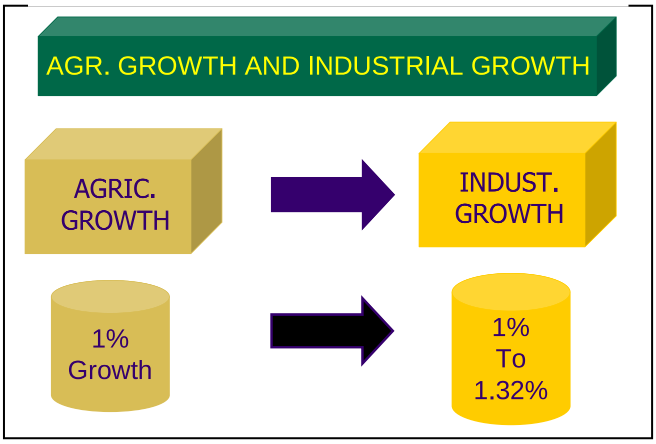
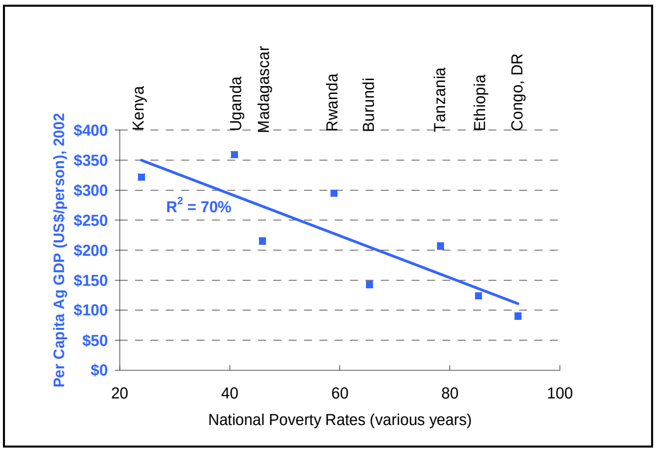


Figure 1.2: Impact of Agricultural Growth on Poverty Reduction



Source: Badiane and Rosegrant (2006); Badiane and Spencer (1995) world regions, covering both developed and developing countries. Figure 1.2 shows the relationship between per capita income growth in the agricultural sector and the decline in the national rate of poverty for selected African countries.

Globalization and the role of trade in the agriculture-led growth process

Economists have long stressed the critical link between overall trade, economic development, and growth. A key conclusion from the literature is that, at lower levels of development, the stimulus for structural transformation and growth must come from internal demand, which, in turn, is fueled by growth in the agricultural sector. Globalization has introduced a significant change in the growth dynamics mentioned above. Falling transport costs, developments in international finance, higher levels of trade exchange with the rest of the world, and a greater degree of openness in domestic economies have together gradually reduced the dominant role of domestic demand in stimulating structural transformation and growth. These factors explain why Africa's situation today is quite different from that of Asia in the 1950s and 1960s, despite the frequent comparisons. In Asia, the greater role of internal demand, combined with lower levels of external competition in domestic markets during that period, meant that supply-raising agricultural technology advances could go a long way toward meeting part of the growth challenge. This, in principle, explains the extent of the success and impact of the Green Revolution. African countries today find themselves in a different situation. Globalization and related factors mean that advances on the supply side are more intricately linked to factors on the demand side. African countries not only need to produce more, they also need to "sell" better in far more competitive domestic as well as external markets in order to raise supplies.

Figure 1.3: Impact of Agricultural Export Growth on Growth in the Rest of the Economy

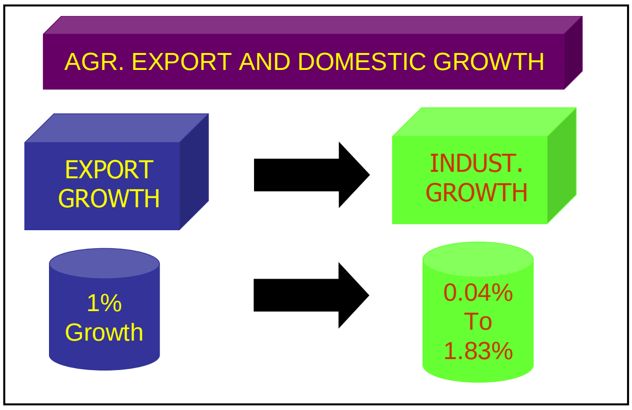
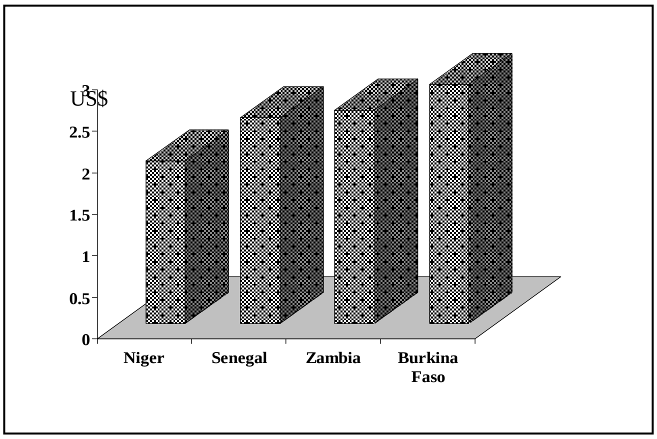


Figure 1.4: Incremental Rural Income from US$1Additional Revenue from Agricultural Tradables



Source: Badiane and Rosegrant (2006); Badiane and Spencer (1995)

Figure 1.3 summarizes the relationship between agricultural export growth and overall economic growth based on the same cross section of studies and regions cited earlier. The positive contribution of agricultural trade to income outside the sector is also documented at the local level. Figure 1.4 shows the additional growth in rural incomes outside agriculture that emanates from a US$1 increase in the sales of agricultural commodities outside the rural areas, including in local, regional, or foreign markets. The numbers indicate that adding US$1 to farm tradable income could increase total income by US$2 to US$3. In other words, a sustained expansion of revenues from agricultural products that are traded in local, regional, and international markets would result in an increase in overall incomes in the local economy that is at least twice as high as the initial increase in incomes in the agricultural sector itself.

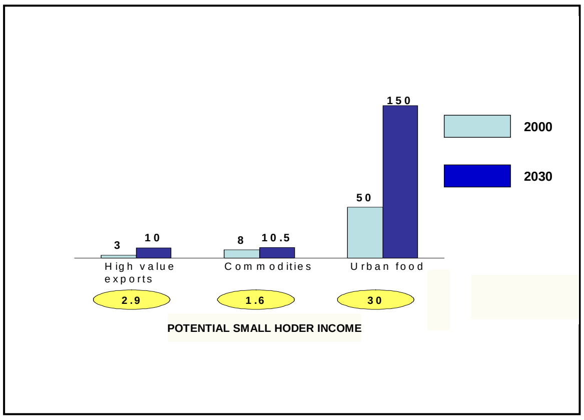
The role of regional trade and integration

Although neglected or even discouraged for quite a long time, domestic and cross-border trade can make a significant contribution to future agricultural and economywide growth in African countries. The projected demand and revenue growth in these markets will by far exceed the projected growth in foreign export markets, for commodities as well as for nontraditional high-value products, as illustrated in Figure 1.5. While foreign demand for commodities and high-value exports is projected to grow from US$8 billion and US$3 billion in 2000, respectively, to roughly US$10 billion in each category in 2030, demand in local and regional urban food markets across Africa is expected to jump from US$50 billion to US$150 billion during the same period. The potential income that farmers could derive from these various markets by 2030 amounts to a total of US$4.5 billion from foreign export markets, and as much as US$30 billion from domestic and cross-border markets.

Despite the importance of the potential contribution of domestic and regional markets to future agricultural growth and food and nutrition security, foreign export markets and trade in general still have a vital role to play. Demand in these markets, as indicated earlier, is expected to grow by an additional US$20 billion over the next 20 years, and African countries should maximize efforts to seize large shares of these revenues.

The export performance of African countries since the turn of the century indicates that it is entirely possible for Africa to expand its share in the international export market. As illustrated in Figures 1.6 and 1.7, agricultural exports from African countries have grown much

Figure 1.5: Projected Increase in Intra-African Demand



Source: NEPAD Secretariat, 2005

Figure 1.6: Evolution of Volume of Agricultural Exports by African Countries Compared to the Global Average (2000=100)

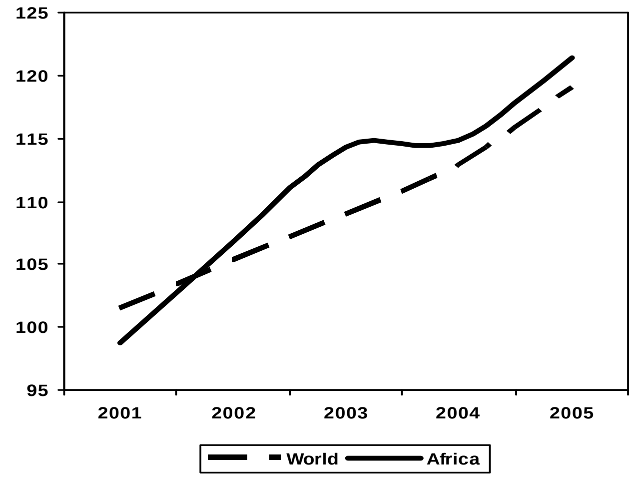
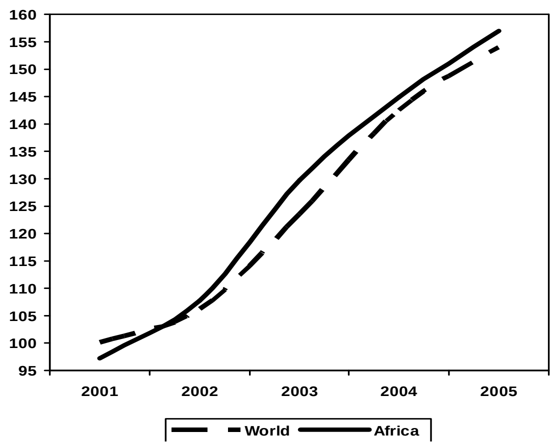


Figure 1.7: Evolution of Value of Agricultural Exports by African Countries Compared to World Average (2000 = 100)



Source: Badiane (2007b). Data from WTO International Trade Statistics, 2007, and UNCTAD) Trade and Development Report, 2007 faster than the world average, in both volume and value terms, between 2001 and 2005. It is very tempting to explain the recent improved export performance by the increase in world market prices. It is clear, however, that this is not the first time that African countries have witnessed increasing prices in foreign export markets. They have, however, so far not been able to exploit these opportunities to stop the declining trends in agricultural exports, let alone increase their share in the market by growing faster than the rest of the world. It is more likely that the reforms of the preceding 15 to 20 years have indeed increased the supply responsiveness of African countries to changes in international prices. The objective under the Pillar II agenda should seek to sustain and expand this strong export performance.

A summary of the discussion above on agricultural growth and trade multipliers indicates that the implementation of Pillar II should seek to achieve at least a 4% annual growth rate of agricultural output and exports in order to induce a growth rate of 6% in the overall economy. It is true that the 6% growth rate is set only for the agricultural sector. The outcome of the country-level analysis in support of the CAADP roundtable process indicates that a growth rate of at least that magnitude would be required outside agriculture as well in order to ensure that the poverty and nutrition MDGs are met. The agricultural multipliers also indicate that achieving the 6% agricultural growth rate would raise growth in the nonagricultural sector to about 7%, which, given the average sector shares, would sustain the current economywide growth at about 6%. Finally, the level of multiplier effects from tradables in rural areas suggests that a successful Pillar II agenda, which would allow African smallholders to capture the estimated US$30 billion in potential additional income in regional markets, would raise rural incomes by up to another US$60 billion. The contribution to poverty reduction and food and nutrition security would be substantial.

II. THE PILLAR II FRAMEWORK: OVERVIEW AND STRATEGIC APPROACH

The primary goal of the framework is to guide the facilitating and coordinating roles of the NEPAD Secretariat, leading RECs, and country governments, as well as actions by all other major stakeholders, in particular the private sector, farmer organizations, civil society organizations, and the development community. The main role of the Pillar II framework in the country-level roundtable process will be to provide technical support in terms of quality assurance for the analysis and to function as a support/guide to the design of investment programs. The framework highlights the main roles and action areas of key stakeholders: public sector (African governments, RECs, AU/NEPAD), private sector (private companies, farmer organizations and trade associations [FO/TAs]), and development partners, bilateral as well as multilateral.

The basic strategic vision and approach to achieving the objectives laid out above are summarized in Figure 2.1. The objectives are (a) to target efforts to expand the supply base in order to respond to future demand opportunities and (b) to develop value chains to raise competitiveness in domestic, regional, and foreign export markets. The following steps should be followed in developing country strategies and investment programs at the national and regional level:

Step 1: The starting point consists of (a) the identification of a portfolio of strategic commodities, ranging from basic staples to high-value products, that exhibit short- and long-term market opportunities and potential commercial products that would allow the acceleration of broad-based poverty-reducing growth and (b) careful deployment of country and regional resources around these commodities (Box A in Figure 2.1).

Step 2: The second step is to review and align investment and trade policies so as to fully exploit demand trends in domestic/regional markets, traditional export markets, and emerging markets, in particular in Asia, associated with the above commodities (Box B).

Step 3: Countries and sector actors then need to identify the types of regulatory and institutional changes and partnerships and alliances that are required to build the technical and commercial capacities of FO/TAs, as a strategy to broadly expand the supply capacity of smallholders and other farmers to respond to the above demand (Boxes C, D, and E).

Step 4: The government, agribusiness, financial sector, and farmer organizations identify the strategic investments and models of public-private partnerships (PPPs) and business-to-business (B2B) alliances to overcome the constraints to the development of smallholder-friendly value chains in the strategic commodity sectors, including the fertilizer and other modern inputs sector (Box F).

Step 5: Concomitantly to the national processes, country and regional stakeholders specify, under the leadership of RECs, the necessary efforts and roles to (a) harmonize country strategies to facilitate the emergence of cross-border agricultural growth poles and (b) link these poles to the main transport/communications corridors within and across regions in order to create regional development domains with more diversified growth patterns (Boxes G, H, and I).

Step 6: Based on the above, RECs and member governments develop rural infrastructure strategies to develop the required complementary infrastructure to link the above development domains with national consumption centers and exit points to foreign export markets (Box 10).

The approach outlined above necessitates the identification of strategic commodities and sectors. An indicator can be obtained by multiplying the estimated short- and long-term growth rates of demand for such commodities with the share of people employed in the corresponding sector along the supply chain. The indicator can be calculated for each of the three market segments addressed in Box B to show their relative contribution to poverty-reducing growth, which in turn would help fine-tune market-specific strategies. Governments and private sector actors, including farmers and their organizations, can use the action tools listed in Box K to successfully implement the Pillar II agenda in their countries.

The major transport and communication corridors, as well as river basins that have a high agricultural production potential, are shown in Figure 2.2. The overlapping of these corridors and production zones yields the potential development domains referred to in Box I. Current efforts to develop the described corridors seem to be primarily dictated by the location of mineral resources and are entirely disconnected from the consideration of exploiting these agricultural-based development domains (see Box 1As indicated in Step 5 above, additional efforts must be undertaken under Pillar II to develop the complementary infrastructure to strengthen the agricultural dimension of the corridors, including regional irrigation initiatives to facilitate the exploitation of the production and growth potential around river basin areas.

Figure 2.1: Conceptual Framework for Implementing Pillar 2

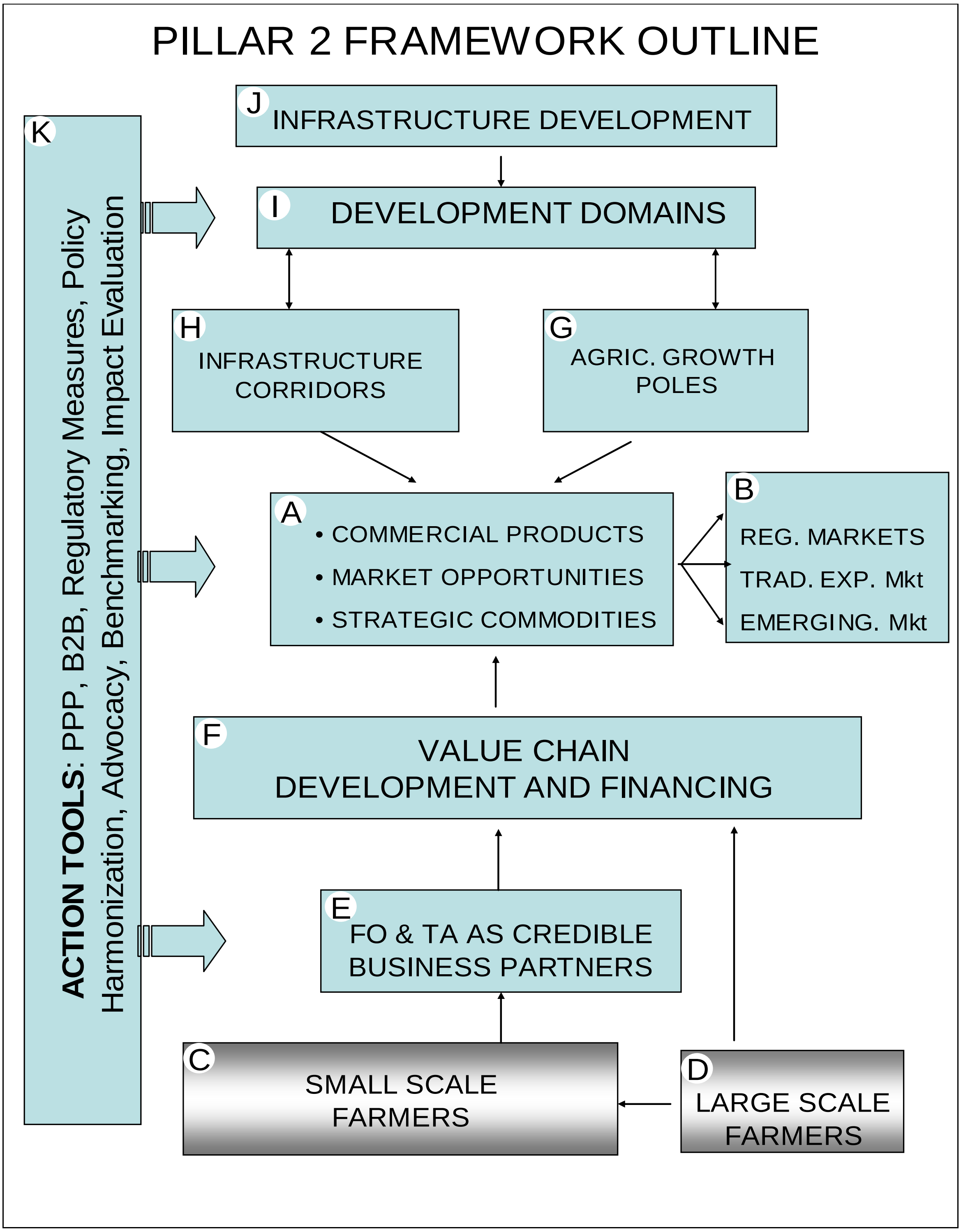
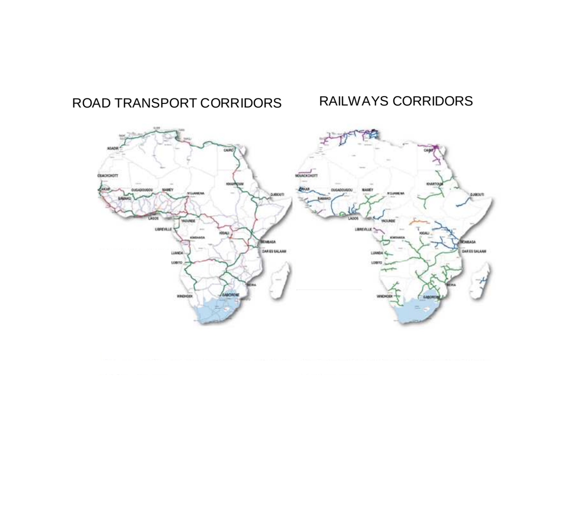
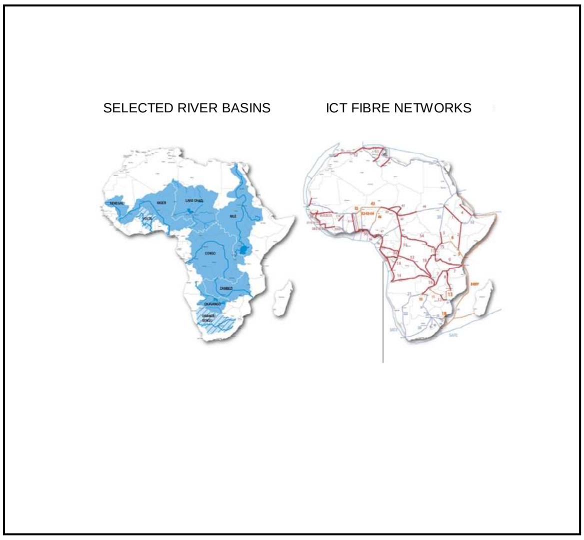


Figure 2.2: Infrastructure Corridors and High- Potential Agricultural Zones





Box 1: The Sub Saharan Africa Transport Policy Program (SSATP)

SSATP

- Established in 1987, the Sub-Saharan Africa Transport Policy Program (SSATP).
- SSATP is an international partnership of 35 Sub-Saharan Africa (SSA) countries and the Regional Economic Communities (RECs) of Sub-Saharan Africa.
- SSATP is funded by 11 donor agencies – the European Commission, Sweden, Denmark, Norway, Ireland, United Kingdom, France, African Development Bank, Islamic Development Bank, United Nations Economic Commission (UNECA), and the World Bank.

SSATP Regional Integration and Transport Initiatives

The Trade and Transport Logistics component of the 1990s led to:

- Creation of guidelines for trade and facilitation programs

And the Railway Management component led to:

- Creation of guidelines for railways concessioning
- Concessioning of several African railways and many of them show efficiency gains

<u>**East and Southern Africa Corridors**</u>

- **Northern Corridor** (serving Kenya, Uganda, Rwanda, Burundi, and eastern DRC)
  - Establishment of a one-stop border post at Malaba (between Kenya and Uganda) – expected to nearly halve the transit time
  - Reduction in truck turnaround times between Mombasa and Kampala from 10 days in 1995 to 6.25 days in 2005
- **North-South Corridor** (serving DRC, Zambia, Zimbabwe, Malawi, and Botswana)
  - Monitoring at Beit Bridge has identified the causes and actors for the delays; the sensitization process has continued through the Beit Bridge action plan committee
  - Establishment of one-stop border posts at Chirundu, Zambia, and Beit Bridge have been initiated
  - Establishment of corridor management group is in progress
  - Dar es Salaam security audit has been completed

<u>**Central African Corridors**</u>

- **CEMAC and ECCAS Corridors**
  - Conducted a workshop, organized by Comité International du Bassin du Congo-Oubangui-Sangha (CICOS)/SSATP in October 2006 that identified for the first time many issues regarding traffic flow impediments along the Congo basin

<u>**West African Corridors**</u>

- **UEMOA and ECOWAS Corridors**
  - Establishment of a one-stop border post at Cinkansé (between Burkina and Ghana), which is under construction, and a border post at Paga (Burkina and Ghana), which has been initiated
  - Adoption by member states of an agreement/memorandum of understanding on the establishment of corridor management committees/groups in Western Africa

Action taken by government of Ghana to reduce the number of authorized checkpoints between the port of Tema and the border of Burkina Faso to four checkpoints

Sources: Torero (2007)

III. USING THE PILLAR FRAMEWORK

The framework would not be complete without the specification of a set of tools and instruments that can be used to implement the recommended activities and measures. Given that production, processing, trade, and other activities along the value chain are carried out by the private sector, the most promising tools to implement the strategies proposed here are those based on PPPs and B2B alliances, together with the necessary policy and regulatory measures to ensure the lowest possible unit cost of linking the supply base with the demand in the three market segments. These and other tools and instruments are described and discussed in detail in Table 1.

As indicated above, the primary goal of the framework is to guide the facilitating and coordinating roles of the NEPAD Secretariat, leading RECs, and country governments, as well as actions by all other major stakeholders, in particular the private sector, farmer organizations, civil society organizations, and the development community. This guiding and facilitating role is best defined in the context of the main tools and instruments that have been identified to support the implementation of the pillar agenda. Table 1 describes the tools and actions that should be pursued by the different groups.

III.1. Pillar II Framework Function in the Country Process

The role of the Pillar II framework in the country-level roundtable process will be to provide technical support in the following areas:

- Quality assurance for analysis
- Support to and guidance for the design of investment programs
- Tools and analytical instruments for the following tasks:
    - Monitoring and evaluation (M&E)
    - Stocktaking
    - Stakeholder analysis
    - Reviews of sector performance
    - Institutional capacity assessment
    - Identification of priority drivers for growth
- Provision of and access to best practices and lessons learned
- Facilitation of partnerships and alliances to leverage resources and achieve economies of scale

III.2. Relations between Pillar II and Other Pillars

The framework recognizes the need of for strong links between Pillar II and the other three CAADP pillars. The main value added by Pillar II will be to draw attention to the value-chain requirements and orientation of activities that are undertaken under other pillars, as follows:

- *Pillar I* focuses on extending the area under sustainable land management and reliable water control systems. The main linkage between Pillars I and II will be centered on activities needed to improve productivity at the farm level, such as the development of irrigation schemes.

Table 1: Roles and Action Areas by Key Groups of Actors

TOOLS AND INSTRUMENTS	PUBLIC SECTOR			PRIVATE SECTOR			DEVELOPMENT PARTNERS
	African Country Governments	RECs	AU/NEPAD	Private Sector Companies	FO/TAs	Financing Institutions	Bilateral and Multilateral Partners
PPPs	Establish partnerships to build required commercial infrastructure and strengthen commercial and technical skills of FO/TAs for value-chain integration	Partner with private sector to remove barriers to transborder trade	Partner with private sector on major Africa-wide Pillar II initiatives	Establish partnerships with governments and leading FO/TAs for value-chain development	Establish partnerships with governments and private sector to build commercial, management, and technical skills	Establish partnerships with governments and companies to improve regulatory environment for lending	Partner with public and private sectors on major Africa-wide Pillar II initiatives
B2B Alliances				Promote alliances between domestic and foreign firms and with FO/TAs for enterprise growth and market integration	Create alliances with other FO/TAs and private companies for access to technologies and markets	Set up mechanisms for credit and risk reporting and collateral enforcement	
Policy and Regulation	Align policies and regulations with pillar objectives and principles	Work with member governments to harmonize country trade and agribusiness sector policies		Advocate elimination of domestic and regional trade barriers and harmonization of country trade policies, including norms and standards	Advocate policies and regulations that ensure autonomy, good governance, and undistorted input and output markets	Advocate effective regulations for collateral realization and enforcement	Align development assistance policies with objectives of Pillar II agenda
Review Benchmarking and M&E				Participate in CAADP Partnership Platform as well as regional and country forums	Participate in CAADP Partnership Platform as well as regional and country forums		

- *Pillar III* focuses on increasing food supply, reducing hunger, and improving responses to food emergency crises. One of the main linkages between Pillars II and III will involve the linking of food aid with commercial trade in local markets. These two pillars will also harmonize activities for the development of infrastructure and productive capacity among vulnerable groups to promote pro-poor growth and improve food security through higher incomes and better-performing markets.

- *Pillar IV* focuses on improving agricultural research and technology dissemination and adoption. The main linkage to Pillar II concerns the targeted development of technologies to meet the technical challenges of specific segments along the value chain.

IV. KEY PILLAR STRATEGIC AREAS

Actual implementation of the agenda under Pillar II is to be carried out through the following five main clusters of activities, or strategic areas, guided by the vision described above and using the tools listed in Figure 2.1:

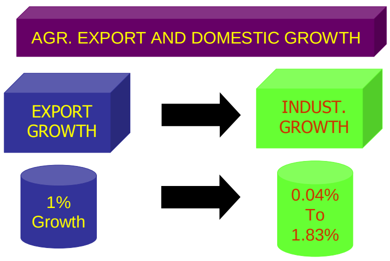
- *Area A:* Raising competitiveness and seizing opportunities in domestic, regional, and international markets
- *Area B:* Investment in commercial and trade infrastructure to lower the cost of supplying domestic, regional, and international markets
- *Area C:* Value-chain development and access to financial services
- *Area D:* Strengthening the commercial and technical capacities of farmer organizations and trade associations
- *Area E:* Benchmarking and monitoring and evaluation

Strategic Area A addresses issues related to Boxes 1 and 2 in the Pillar II framework outline (Figure 2.1). Area B deals with Boxes 7 to 10, Area C with Box 6, and Area D with Boxes 3 to 5.

IV.1. Area A: Raising Competitiveness and Seizing Opportunities in Domestic, Regional, and International Markets

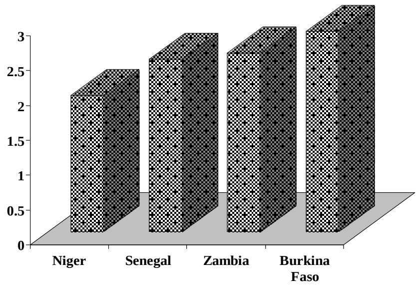
Trade in general, and agricultural trade in particular, plays a crucial role in stimulating economic growth and reducing poverty and food and nutrition insecurity. Research results from a large sample of countries over several decades show that a 1 percent increase in the growth rate of agricultural exports increases the overall rate of economic growth by 0.04 to 1.83 percent (Figure 1). Furthermore, an incremental income increase of US$1 from tradable goods was shown to generate additional income of between US$1.50 and US$2.50 in rural areas of selected African countries (Figure 2). Conversely, a 1 percent decline in the export price of Benin's main export crop, cotton, was shown to lead to a 0.5 percent decline in incomes in the growing zones and a nearly 2 percent increase in the overall number of households falling below the poverty line.

Figure 1—Impact of agricultural export growth on growth in the rest of the economy



Source: O. Badiane and M. Rosegrant, "Past performance and future prospects for agricultural development and food security in Africa," paper presented at the Parliamentary Conference on NEPAD (New Partnership for Africa's Development), May 15–18, 2006, Capetown, South Africa.

Figure 2—Incremental rural income from US$1 additional revenue from agricultural tradables



Source: O. Badiane and D. Spencer, Agriculture and economic recovery in African countries, in G. H. Peters and D. D. Hedley, eds., *Agricultural competitiveness: Market forces and policy choice* (Brookfield, VT: Dartmouth, 1995).

The loss of market share in regional and international export markets thus imposes substantial costs on African economies in terms of missed growth. African countries cannot meet the growth and poverty-reduction objectives under the Comprehensive Africa Agriculture Development Program (CAADP) (see Box 1) unless they improve their trade performance and reverse their decline in market shares. They must adopt strategies targeting not only international, but also domestic and regional, markets.

Challenges and Emerging Trends

CAADP's agricultural trade agenda will need to address longstanding and emerging challenges in order to allow African countries to successfully compete in domestic, regional, and international markets. Among the most important of these challenges are the following:

- **Production challenges**. Changing market trends and conditions under globalization pose challenges to production systems and productivity. The unit costs of supplying national, regional, and foreign markets and facing competition in these markets can be high. And it can be difficult to establish and operate businesses in other segments of the value chain. In addition, there is a need for greater agroindustrial capacity to adjust the supply of agricultural commodities to changing consumer tastes and preferences. Finally, farmers, agribusinesses, and processors need better access to finance.

- **Inadequate quality standards and market and trade knowledge systems**. High quality norms and standards are crucial not just for reaching international markets, but also for reaching expanding domestic urban markets. Through concerted effort, it is possible to build national quality management systems. Globalization has raised the complexity of obtaining and managing market intelligence, but there are sufficient technological avenues to improve knowledge on conditions, trends, and outlooks in local, regional, and international markets.

- **Barriers to trade**. African countries need to remove their own policy and administrative barriers to trade. In addition, a number of Africa's trading partners place tariffs on African exporters and subsidize exports to Africa (Figures 1 and 2), while trade preferences granted to African countries deliver less value than expected. These global trade regimes need to be reformed. African countries also need improved trading infrastructure, which is a major determinant of the competitiveness of local goods in all markets from domestic and regional to international.

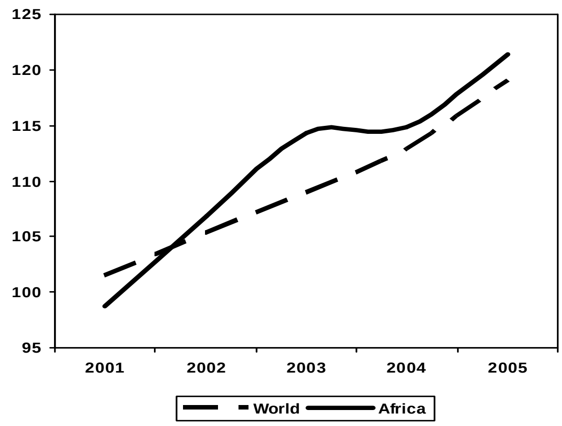
Responses and Opportunities for Action

The most important opportunities to be targeted are discussed here. The core elements of a program to exploit these opportunities are summarized in Box 2.

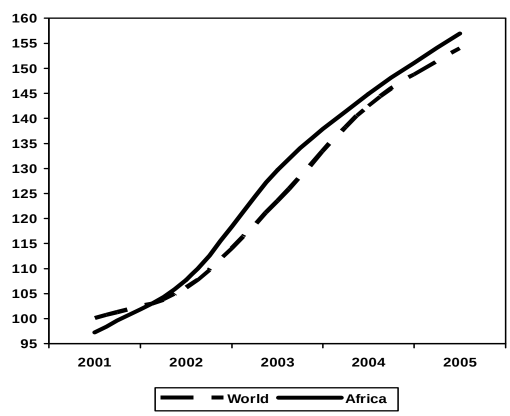
- **Opportunities in traditional export markets.** African countries can successfully compete in international agricultural markets. Over the past five years, the rates of growth in the volume and value of Africa's agricultural exports have exceeded the world average (Figure 3). Irrespective of the outcome of the Doha Round, the target of the CAADP agenda in this area should be to enable RECs and their member countries to (1) identify the factors behind the recent success in order to sustain and expand it; (2) exploit demand in the emerging economies of Asia and Latin America for food, raw materials, and processed goods; and (3) develop strategies to reap potential gains related to higher world market prices and the emerging biofuels sector. The agenda should also seek to strengthen the negotiation capacities of African countries to push for a reduction in global protectionism.

Figure 3—Volume and value of agricultural exports by African countries compared with world average, 2001–05

Volume



Value

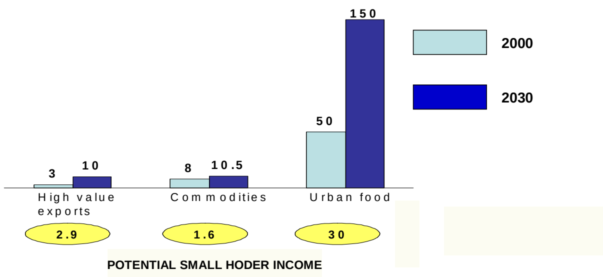


Source: O. Badiane, "Agricultural growth, poverty reduction, and food security in Africa: Progress in advancing the implementation of the Comprehensive Africa Agriculture Development Program," report prepared for the NEPAD Secretariat for the meeting of the African Partnership Forum, Algiers, December 2007. Data from

World Trade Organization, *International trade statistics 2007,* and United Nations Conference on Trade and Development (UNCTAD), *Trade and development report 2007*.

- **Opportunities in domestic and regional markets.** Demand in Africa's urban and regional markets is expected to grow from its current US$50 billion to US$150 billion over the next 25 years (Figure 4). Furthermore, regional trade and integration of cross-border markets can significantly help stabilize supplies in local food markets. The CAADP agenda will therefore involve working with RECs and their member countries to (1) eliminate barriers and disincentives to trade in local and cross-border markets; (2) scale up existing efforts to modernize regional trading systems and facilitate cross-border trade; and (3) treat regional trade and market development as a key criterion in infrastructure development strategies.

Figure 4—Projected increase in intra-African demand



Source: NEPAD Secretariat, "Agribusiness, supply chain, and quality control initiative," CAADP implementation concept note (Midrand, South Africa, 2005).

- **Opportunities in emerging export markets.** Most of the growth in foreign demand for Africa's agricultural exports will take place in the emerging economies of Asia and Latin America, many of which apply high tariffs to African exports. Furthermore, changes in production, labor markets, and demand conditions will increase costs and reduce the competitiveness of these countries over the next couple of decades. RECs and their member states should therefore (1) seek stronger partnerships between Africa's agribusiness sector and agribusiness operators in these countries; (2) reflect market and production trends in these countries in national agricultural development strategies; and (3) work toward establishing trade agreements with China, India, and other leading emerging economies.

- **Financing and partnership models for value-chain enhancement.** The agenda under Pillar II should (1) identify successful models of partnerships and alliances currently operating across African countries, scale them up, and promote their transfer to more sectors and countries; (2) help individual countries develop partnership strategies to engage with the private sector; and (3) help smallholder farmers transform their organizations into credible commercial entities.

Strengths to Build Upon

African countries have a number of strengths upon which the CAADP agenda can build.

- **Production and consumption potential.** Agricultural growth is resuming and accelerating in a number of countries, so a key goal of the CAADP agenda is to sustain and accelerate output growth in order to (1) close the productivity gap with the rest of world and (2) capture a greater share of the rising demand for food and other agricultural commodities.

- **Regional markets and potential for cross-border trade.** Several promising efforts to facilitate domestic and regional trade in agricultural commodities are under way at the regional and country levels. To build on these strengths and boost domestic and cross-border trade, the CAADP agenda will include (1) the modernization and harmonization of standards, norms, and grades across national markets and (2) the promotion of modern trading systems, including the development of regional and national commodity exchanges.

- **Proximity to global markets.** African countries are well positioned to become larger players in international agricultural markets thanks to their proximity not only to the large European market, but also to Middle Eastern and Asian markets. Long-term trade strategies of African countries should reflect growth and consumption dynamics in these export markets.

- **Private sector role and capacity.** The CAADP agenda can build on the prevalence of smallholder farmers and small- and medium-scale enterprises by facilitating (1) strategic public-private partnerships to meet the institutional, infrastructural, and technological challenges associated with the sector's fragmentation and (2) business-to-business alliances among entrepreneurs within and outside Africa.

- **Policy dialogue and partnership.** Open and inclusive dialogue, the creation of knowledge systems and capacities, and strengthened policy and strategy planning and implementation, can greatly improve growth, poverty, and food and nutrition security outcomes. CAADP-wide peer review and dialogue processes can be established at the regional and national levels and supported by Regional Strategy Analysis and Knowledge Support Systems (ReSAKSS), which are already operational in several African regions.

- **New and emerging value chains.** New value chains based on local food staples and traditional food recipes hold great promise for growth and poverty reduction, especially if they integrate smallholder farmers. The CAADP agenda in this area will focus on (1) scaling up the successful cases be found across African countries and (2) developing chains to target rapidly growing urban markets in Africa and in middle-income countries outside Africa.

Proposed Early Actions for Pillar II Area A

The proposed early actions under each strategic area serve as entry points to scaling up the Pillar II agenda at the country and regional levels. They target key areas and activities that respond to needs that are broadly shared across countries and regions, hence requiring collective action and lending themselves to economies of scale. In several cases, they start with pilot programs that can be scaled up as implementation proceeds.

- **Agricultural trade facilitation.** The objective is to create an institutional, regulatory, and policy framework that will boost regional trade and cross-border investment. Indicative activities include building the capacities of the RECs to develop and operate agricultural and trade policy surveillance systems to monitor and remove barriers to cross-border commodity movement, to collect and disseminate information on regional trade flows, and to study trends in regional commodity markets. Other indicative activities include creating trading platforms to better link international supply and demand and reducing the cost of transactions in regional staples markets by building on East African efforts to develop a regional commodity exchange and replicating these efforts in West Africa.

- **International trade advocacy and negotiations skills.** The objective is to build international trade advocacy and negotiation skills to better articulate African interests in bilateral and multilateral trade negotiations in order to remove foreign policy distortions that limit market access and affect the competitiveness of African exports. Indicative activities include establishing full-time regional and national negotiating teams with mechanisms for effective coordination of positions and representations and providing short-term training in international trade policies and negotiation processes to equip these teams with the skills to effectively formulate and represent regional and country positions.

- **Quality management and certification services provision.** The objective is to develop systems for managing quality and certifying products to facilitate compliance with international trade agreements and overcome nontechnical barriers affecting the growth of African exports. Indicative activities include strengthening regional and country legal and institutional frameworks and harmonizing quality laws, standards, regulations, and policies; establishing integrated quality information management and reporting systems at the country and regional levels; and creating and strengthening certification agencies, facilitating the accreditation of regional and country certification services providers, and strengthening quality monitoring and enforcement capacities at the country level.

Box 2: Strategic Area A: Raising competitiveness and seizing opportunities in domestic, regional, and international markets: Core program components

a. Raising and sustaining performance in traditional and foreign export markets:

(i) identify the factors behind the recent growth in African agricultural exports in order to transfer the success to a larger number of countries and thereby sustain and expand the strong trade performance of the past five years;

(ii) exploit the fast-growing demand in the emerging economies of Asia and Latin America, in particular:

a. seek stronger partnerships between the local agribusiness sector and agribusiness operators in the above regions;

b. reflect long-term market and production trends in these countries in national agricultural development strategies;

c. work toward establishing agricultural trade agreements with India, China, and other leading emerging economies;

(iii) develop strategies to compete in the emerging biofuels sector, focusing on oilseeds and traditional indigenous plants; and

(iv) strengthen regional and national negotiation capacities, preferably organized around RECs, in order to accelerate the reform of protectionist global policies and safeguard African interests in international trade agreements.

b. Raising competitiveness and expanding trade in domestic and regional markets:

(i) eliminate regulatory and administrative barriers and disincentives impeding or raising the unit cost of moving goods to local and cross-border markets;

(ii) develop quality management and certification services systems and harmonize standards, norms, and grades across national markets;

(iii) modernize regional trading systems, including the development of regional and national commodity exchanges;

(iv) establish within RECs trade surveillance and knowledge systems to monitor policies and barriers to trade and provide information on demand dynamics and long-term trends in regional markets; and

(v) invest in transport infrastructure corridors to link high-potential production zones and major market areas within and across regions.

c. Building partnerships and alliances for value chain enhancement:

(i) identify successful models of public-private partnerships (PPPs) and business-to-business (B2B) alliances to raise value chain competitiveness, scale them up, and promote their transfer to more sectors and countries; and

(ii) establish targeted PPP and B2B alliances to develop the capacity of smallholder farmers and their organizations to act as credible commercial partners to banks, processors, input dealers, and other operators along the value chain.

d. Integrating smallholder farmers and medium-scale enterprises:

(i) develop required strategic public-private partnerships to meet the institutional, infrastructural, and technological challenges associated with the sector's fragmentation; and

(ii) foster B2B alliances, not just among African entrepreneurs, but also between African and outside operators to create scale and promote integration into the traditional and emerging value chains.

e. Improving sector governance and the policy environment of the trading sector

(i) deepen and refine positive sector policy reforms and continue to improve management of exchange rate, trade, and fiscal policy regimes; and

(ii) carry out necessary regulatory and administrative reforms to enhance the operations of input dealers, output traders, and financial and advisory services providers.

IV.2. Area B: Investment in Commercial and Trade Infrastructure to Lower the Cost of Supplying Domestic, Regional, and International Markets

The development community is increasingly in agreement that providing adequate hard infrastructure (like telecommunications, electrification, water, and rural roads) is an important step in alleviating poverty and providing more equitable opportunities for citizens in developing countries. In infrastructure development, Africa has lagged behind the Western Hemisphere, even trailing behind Latin America. This gap has normally been attributed to geography and the initial condition of Africa's infrastructure.

The slow development of an efficient regional transportation infrastructure has impeded growth in regional and international trade and is a major barrier for landlocked countries. It has also created disincentives to domestic private sector and foreign direct investment in Africa. Although in some cases firms can make up for deficient infrastructure services by investing privately, such substitutions impose additional costs. Moreover, some types of infrastructure services—such as transport infrastructure—cannot be easily substituted.

Limited access to infrastructure in rural areas could encourage the emergence of powerful groups of actors who could control local agricultural markets and retard the integration of smallholder farmers into major value chains. Infrastructure should not be restricted to capital-intensive forms (like roads and ports), but should also include commercial and postharvest infrastructure such as markets and storage, grading, packaging, and processing infrastructure. Moreover, the development of the first category of infrastructure should seek to generate complementarities with the second category, such as by reducing barriers to smallholder integration into input and credit markets and other segments of agricultural value chains. Infrastructure for information and communication technologies (ICTs), in particular, offers an opportunity to reduce asymmetries of information and to open new local, regional, and international markets, particularly for high-value products for which transaction costs are significant. Finally, a regional approach to infrastructure development can provide an opportunity to create the economies of scale necessary to lower the cost of meeting rapidly expanding infrastructure demand.

Challenges and Emerging Trends

Key challenges and emerging trends related to infrastructure are the following:

- historically much stronger telecommunications and road linkages between Africa and other regions of the world than among African countries;
- low population density, which significantly raises the amount of resources needed to build, operate, and maintain infrastructure in rural areas;
- rapid urbanization, which is gradually shifting demand from dispersed rural areas to urban centers, raising the demand for infrastructure to link food domestic supplies to the growing consumption centers;
- strong need for postharvest infrastructure to help small farmers extend the shelf life of their crops, as well as add value to them;
- growing pressure to (1) upgrade trade infrastructure such as airports, ports, and roads; (2) develop infrastructure corridors, in particular road and rail network corridors; and

(3) adopt regional policies to better coordinate country infrastructure priorities and promote effective interconnection of national road networks; and

- the increasing competition from emerging markets for global resources for infrastructure development.

Responses and Opportunities for Action

Developments in several areas create opportunities for many countries and regions.

- **Renewed interest in agriculture and infrastructure development**. The importance of infrastructure, especially roads, has been amply shown by the experience of Asian countries. The need to sharply increase public investments in rural infrastructure, roads, and communications in order to improve market access by African farmers is now widely recognized.

- **Public-private partnerships for infrastructure development**. The public sector must play a facilitating role in infrastructure development to open the possibility of private sector investment in road transportation services. Such investment in turn would increase the willingness of development partners to scale up investment in infrastructure development. Governments must also establish regulatory mechanisms and legal frameworks to level the playing field between new-entrant companies and incumbent operators. In addition, they need to create partnership opportunities for small-scale infrastructure investments in rural areas, such as postharvest and other market-related infrastructure, to integrate smallholder farmers into local, regional, and international value chains.

- **Regional coordination to raise returns to infrastructure investments**. Infrastructure in Africa requires an integrated regional approach. Improved roads and ports in Tanzania, for example, can help landlocked countries such as Malawi and Uganda trade more efficiently. Therefore, Malawi and Uganda have a direct stake in road and port improvements in Tanzania. Better coordination of infrastructure development plans between countries could result in higher returns to investments, stronger growth linkages, more regional and foreign direct investment, and more stable local food markets.

Strengths to Build Upon

A number of strengths could help Africa sustain rapid and long-term infrastructure development for value-chain growth.

- **Africa's relative proximity to foreign markets and the existence of large transborder market areas**. African countries have greater access to foreign markets than to domestic and regional markets, where a significant potential remains largely underexploited. The low quality of trade-related infrastructure in Africa implies that policies and investments to raise the level and quality of infrastructure would yield high returns. This is particularly true if such interventions are carried out in a coordinated manner to exploit regional complementarities and in a way that links infrastructure to areas with high production potential.

- **RECs' capacities to coordinate and manage regional infrastructure projects**. RECs are increasingly better positioned to facilitate collective action to boost the quantity and quality of investments in infrastructure development. Better coordination of infrastructure investments creates economies of scale, reduces average costs for participating countries, and, as a result, makes infrastructure projects more attractive for private and foreign investors.

- **Knowledge and information infrastructure for trade and market access**. Innovative use of telephones and access to the Internet could play a crucial role in reducing the asymmetries of information and transaction costs and thereby increasing the integration of farmers into regional, national, and international trade networks. By opening trading opportunities and supporting the functioning of markets, improved ICTs can increase the availability of food as well as monetary income. Under the Pillar II agenda, ICTs can be harnessed to improve, for example, the negotiating capacity of farmers; information on market standards and requirements, including sanitary and phytosanitary requirements; and diffusion of new production technologies.

- **Infrastructure investments in ICTs to boost capacity to deal with systemic climate, health, and other risks.** ICTs increase country capacities to deal with climate, health, and other risks affecting their agricultural production supply. They do so by helping to improve (1) the quality of public goods provision, such as health services; (2) the quality of human resources, primarily through better access to education; (3) the use or extension of existing social networks; and (4) the operation of existing or new institutional arrangements to empower poor people and communities.

Sector Governance and Policy

Given the apparent failure of purely public-sector-based services provision in the 1970s and the failure of market-based alternatives to take off in the 1980s and 1990s, it is necessary to search for institutional innovations that would yield greater success in African countries. Governments should focus on the following approaches:

- **A demand-driven infrastructure system.** An infrastructure system that is responsive to the needs of the agricultural sector and the demands of people living in rural and remote areas is a prerequisite for social and economic development in Africa. At present, the estimation of rural infrastructure investment is generally based on a needs assessment for each sector at the national level, with little or no assessment of demand and coordination at the local level where the services will ultimately be provided.

- **Market-led reforms.** Compared with the provision of electric power and roads, the development of telecommunications infrastructure in Africa has been relatively successful, thanks to technological progress, and particularly market-led reforms. Lessons from such reforms will be helpful in charting a future course of action for infrastructure development.

- **Existing institutional frameworks.** Governments can use existing frameworks to introduce innovative institutional designs to reduce the access gap in various infrastructure categories. Such interventions should allow for the simultaneous development of the legal, institutional, and regulatory framework needed to advance different strategies.

- **Public intervention.** In remote poor rural areas, public intervention is needed to close the gap in access to infrastructure. Where the government believes that services should be provided beyond what a well-functioning market will offer, subsidies may be justified, but the government must improve the functioning of the market so that subsidies can provide maximum benefit when and where they are needed.

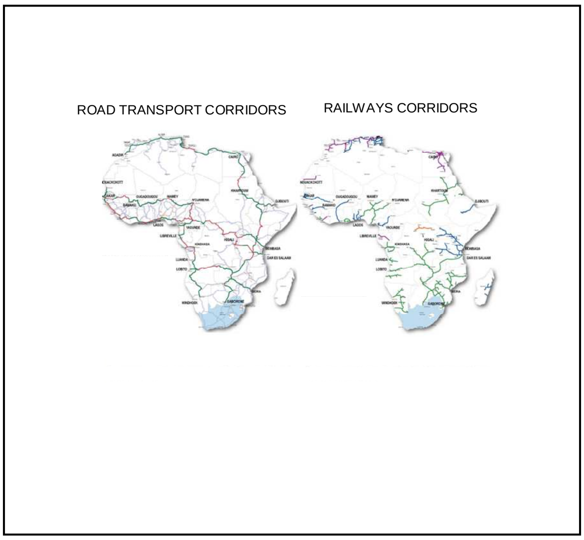
- **Public-private partnerships (PPPs).** Practices that have proven successful usually rely on market mechanisms and effective PPPs. PPPs require regulation and the related legal framework to set rules for interaction and minimize transaction costs among various players.

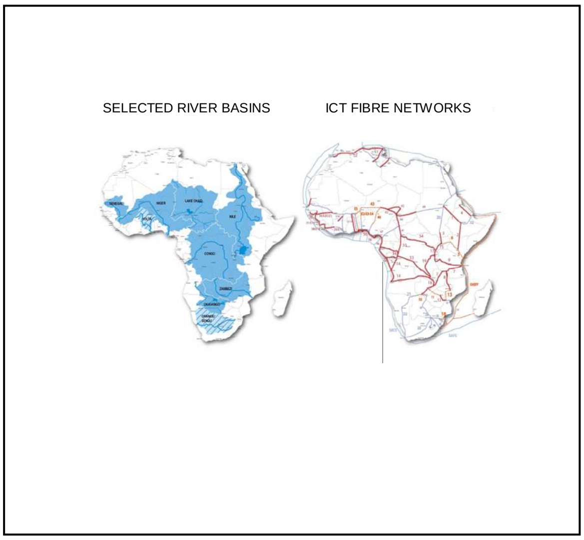
Proposed Early Action for Pillar II Area B: The Infrastructure for Growth Initiative (I4GI)

The proposed early actions under this as well as other strategic areas serve as entry points to scaling up the Pillar II agenda at the country and regional levels. They target key areas and activities that respond to needs that are broadly shared across countries and regions and that hence require collective action and lend themselves to economies of scale. In several cases, they start with pilot programs that can be scaled up as implementation proceeds.

The objective of the I4GI early action is to develop and implement a master plan to link current regional transport infrastructure corridor projects to potential agricultural growth poles. Indicative activities will include identifying the main agricultural growth poles in the Union du Maghreb Arab (UMA), the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS), and the Southern African Development Community (SADC) regions. Other such actions will consist of systematically reviewing existing infrastructure corridor projects under elaboration, specifying necessary modifications to these projects as well as additional infrastructure needs to link them to agricultural growth poles within and across regions; elaborating strategies to improve coordination of infrastructure development programs at the regional level and across countries; and creating opportunities for partnerships to promote investment in regional infrastructure projects oriented toward agricultural growth.

Figure 1—Infrastructure corridors and high-potential agricultural zones





Box 1

Strategic Area B: Investment in commercial and trade infrastructure to lower the cost of supplying national, regional, and international markets: Core program components

1. **Value chain infrastructure development**
   - (i) Upgrading of transport infrastructure, roads, rails, ports, airports, and expansion of rural roads;
   - (ii) Investment in processing and market-related infrastructure for assembly, storage, grading, and packaging to accelerate integration of smallholder farmers into value chains;
   - (iii) Investment in innovative use of ICTs, including content and access, to improve market operations, cut transaction costs, and integrate smallholder farmers into local, regional, and export value chains; and
   - (iv) Expansion of other critical infrastructure, including irrigation, potable water, and rural electricity and telecommunications.
2. **Public-private partnership (PPP) for infrastructure development**
   - (i) Build PPP platforms encourage the readiness of the private sector to invest in transportation and trading infrastructure services and allow governments to play their roles more efficiently;
   - (ii) Establish the required regulatory mechanisms and related legal framework to level the playing field between new entrant companies and incumbent operators; and
   - (iii) Create partnership opportunities for small-scale infrastructure investment in rural areas, such as postharvest and other market-related infrastructure to integrate smallholder farmers into local and export value chains.
3. **Exploitation of regional complementarities in infrastructure development**
   - (i) Build capacities to coordinate regional infrastructure projects and promote complementarity between national infrastructure investment programs; and
   - (ii) Develop regional infrastructure corridors by scaling up investment in intraregional roads, railways, air transport, commercial infrastructure, energy, and telecommunications to link major consumption areas with high production potential zones.
4. **Sector governance and policy**
   - (i) Clearly define the roles of the state, the private sector, and public-private partnerships in policies, program design, implementation, and funding;
   - (ii) Establish the institutional tools to harmonize regional policies and regulations related to infrastructure, which could, for instance, be modeled after the example of the European Union; and
   - (iii) Improve the investment climate and business environment, including by creating a legal system that can minimize corruption at all levels, among both local and external actors.

IV.3. Area C: Value-Chain Development and Access to Financial Services

The renewed focus on agriculture and agribusiness, as priority sectors for spurring economic growth in Africa, calls for developing value chains that integrate producers and markets to make the agricultural sector more responsive to consumer demand. The value-chain approach builds on conditions in the consumer market and emphasizes the interface, linkages, and segments that connect the final product demanded by consumers all the way to agricultural commodities produced at the farm level. This market-driven approach to formulating investment plans, public policies, and partnerships to integrate smallholder farmers can bring about the significant changes being sought in Africa's agriculture and agribusiness sectors.

The key segments in the value chain are (1) the consumer market, (2) trade logistics, (3) packaging, (4) processing, (5) postharvest risk management, and (6) agricultural production. These segments may be different businesses, or they may be combined through vertical integration. The strategic benefit of the value-chain approach for Pillar II of the Comprehensive Africa Agriculture Development Programs (CAADP) derives from the contribution that public investments in agribusiness and financial services make has to the overall CAADP goal of 6 percent agricultural growth. The Pillar II objectives and activities are summarized in Box 1.

Challenges and Emerging Trends

The most critical challenges and emerging trends with respect to value-chain development and financial services are the following:

- **Fragmentation of the agricultural value chain at the production segment level**. African agriculture is dominated by geographically dispersed smallholder farmers who produce limited surplus quantities. This geographic and quantitative dispersion of farm-level supply has resulted in many barriers to marketing, which in turn result in high product assembly and marketing costs, high cost of access to modern inputs, slow diffusion of technical innovations, relative vulnerability to weather-induced supply fluctuations, and in many cases low level of and returns to productive investments.

- **Limited availability of adapted financial services products**. Banks and nonbank financial institutions often cite the high cost of reaching individual smallholders as a key constraint to serving the vast group of smallholder producers. The Pillar II agenda will need to address the host of disincentives and obstacles linked to the sector policy and regulatory environment in order to accelerate expansion of the finance industry in Africa and promote the introduction of financial services products that are adapted to the needs of smallholders as well as the small and medium-size enterprise operators across the value chain.

- **High cost of establishing and operating businesses**. Despite improvement in governance effectiveness in a growing number of African countries, it is relatively difficult to establish and operate a business in African countries compared with other major regions. At the country level, the challenge is to reduce obstacles related to laws and regulations affecting business registrations, licensing, worker employment and compensation, property registration, investor protection, taxes, financial sector transactions, and contract enforcement. At the regional level, the challenge is to rapidly advance toward establishing effective economic unions.

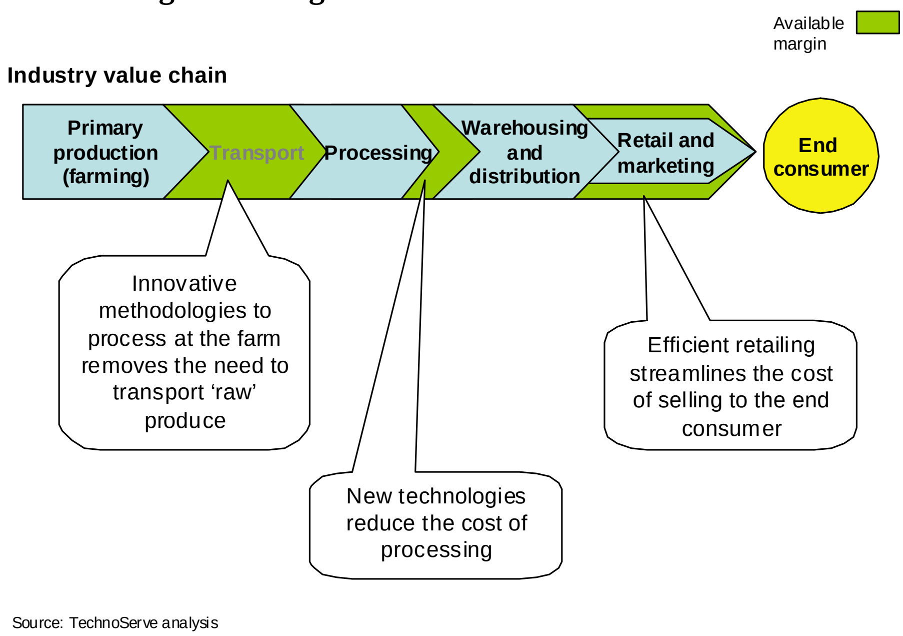
Responses and Opportunities for Action

Promising areas for response and action are discussed here. The core elements of a program to exploit these opportunities are summarized in Box 2.

- **Public-private partnerships (PPPs) and business-to-business (B2B) alliances focusing on strategic commodities and markets**. Exploiting the opportunities created by rising demand and prices will require both private sector and public sector involvement. Such partnerships would target agriculture-friendly infrastructure investments, including transport, information and communication technologies (ICTs), and commercial infrastructure, as well as training, institutional support, quality management, logistics, and market intelligence to reduce cost of doing business along the value chain, as indicated in Figure 1.

- **Modernization of agricultural commodity trading systems**. Recently established trade associations in East Africa for dairy, coffee, grains, and textiles highlight the opportunities for organized commodity trade. Trade associations can help establish commodity grades and standards and serve as vehicles for establishing market information networks. Better organization of commodity trade also contributes to strengthening existing commodity exchanges and spurs the development of new exchanges, all of which is necessary to integrate and stabilize local markets and improve conditions for the creation and growth of agribusiness enterprises.

Figure 1—Segment-level cost-reduction actions



Source: NEPAD Secretariat (2005).

- **Effective communication of investment opportunities and changes in the policy environment in Africa.** The CAADP process is fostering renewed African and international attention to key value chains in agriculture. Converting this attention to Africa's agricultural sector into investments in poverty-reducing economic growth will require advocacy on the continent and beyond to transform international investors' perceptions of risk with respect to investment in Africa. A few African countries have invested in country marketing programs, and stepped-up investment by regional economic communities (RECs) to promote Africa's subregions would complement these national efforts.

Strengths to Build Upon

Future strategies for value-chain development ought to fully exploit the following strengths:

- **Growing awareness of the opportunities and interest in value-chain development**. Urbanization and changing consumer preferences, along with new developments in distribution, processing, and packaging, have led to a rapid expansion of value chains for traditional staples in many parts of Africa. Globalization and advances in communications technologies have also increased the interest of private sector actors in value-addition opportunities in the traditional commodity sectors.

- **Demonstrated capacity by smallholders and commercial farmers to integrate into value chains**. Smallholder farmers have, under the right conditions, participated in fast-growing value chains as individual entrepreneurs, contract farmers, members of out-grower schemes, and participants in other contractual arrangements. Smallholders in most countries have successfully integrated into value chains in horticulture, traditional export commodities, staple foods, meat, or dairy. Such successes should and can be emulated and scaled up.

- **Introduction of innovative mechanisms to deliver financial services**. Advances in ICTs and the process of administrative decentralization can be used to improve the supply of financial services to smallholder farmers and rural enterprises. Strategies are also needed to build upon the rapidly growing microlending institutions to extend the reach of financial services providers into rural areas.

Levers for Agricultural Enterprise Growth and Value-Chain Development

A value chain must be seen and understood in its full context, from the primary producer/farmer through the final consumer. A successful agenda to support value-chain development needs to target (1) the factors that determine the success and failure of agribusiness enterprises and (2) the type of interventions that would raise the value accruing to actors at each level of the chain. The pillar agenda needs to focus on helping African countries and private sector actors, including farmer organizations, stimulate the process of enterprise creation while effectively controlling the factors that lead to business failure.

Three key levers that African countries and private sector operators, including farmer organizations, must concentrate on to stimulate their value chains are (1) unit cost reduction, (2) volume expansion, and (3) product value addition. It will also be important to ensure that as much as possible of the added value is captured within Africa, including by smallholders.

Financial Sector Development for Agricultural Value-Chain Growth

Value-chain development is impossible without adequately functioning financial institutions to provide funding for investment and business operations across the various segments. Specific segments have different needs and capacities to access finance. The pillar agenda can build on the various types of financial institutions, ranging from commercial banks to group-based savings organizations such as rotating savings and credit associations (ROSCAs). Financial institutions in most African countries, in particular commercial banks but also microfinance institutions, in general lack the skills to assess and manage risk related to lending to agricultural production, processing, and related enterprises (AREs). These constraints not only limit absolute access, but also add to the cost of credit. AREs, conversely, lack the knowledge or skills to produce accurate information presented openly and transparently (see Figure 2).

The focus of the Pillar II agenda in this area, as summarized in Figure 3, is to establish (1) partnerships and alliances that can help lead to better knowledge among lending institutions about AREs' financial strengths, requirements, and risks; (2) lending facilities that adequately cover the working capital needs of ARE; and (3) long-term capital funding to support needed investments in plants and equipment.

Proposed Early Actions under Pillar II Area C

The proposed early actions under this and other strategic areas serve as entry points to scaling up the Pillar II agenda at the country and regional levels. They target key areas and activities that respond to needs that are broadly shared across countries and regions and that hence require collective action and lend themselves to economies of scale. In several cases, they start with pilot programs that can be scaled up as implementation proceeds.

- **Agricultural investment and enterprise development platforms**. The objective is to promote the adoption of effective and efficient tools for PPPs and B2B alliances to boost agricultural value-chain development. Indicative activities would consist of piloting platforms in 10 countries—5 each in the Common Market for Eastern and Southern Africa (COMESA) and Economic Community of West African States (ECOWAS) regions—to remove the regulatory, technical, and financial obstacles to enterprise creation and growth and to develop the commercial infrastructure and build skills that would facilitate the integration of smallholder farmers into dynamic and higher-value chains.

- **Agribusiness joint venture fairs**. The objective is to expand joint venture opportunities in agribusiness by facilitating contacts between entrepreneurs and investors in the early stages of enterprise creation or product development. The main indicative activities are to (1) design a fair to link investors and entrepreneurs at the business planning stage; (2) develop the capacities of African entrepreneurs to participate in such a fair; (3) ensure the financial sustainability of such an effort; and (4) pilot the organization of such a fair in the COMESA region.

Figure 2—Barriers to adequate access to financial services for agribusiness development

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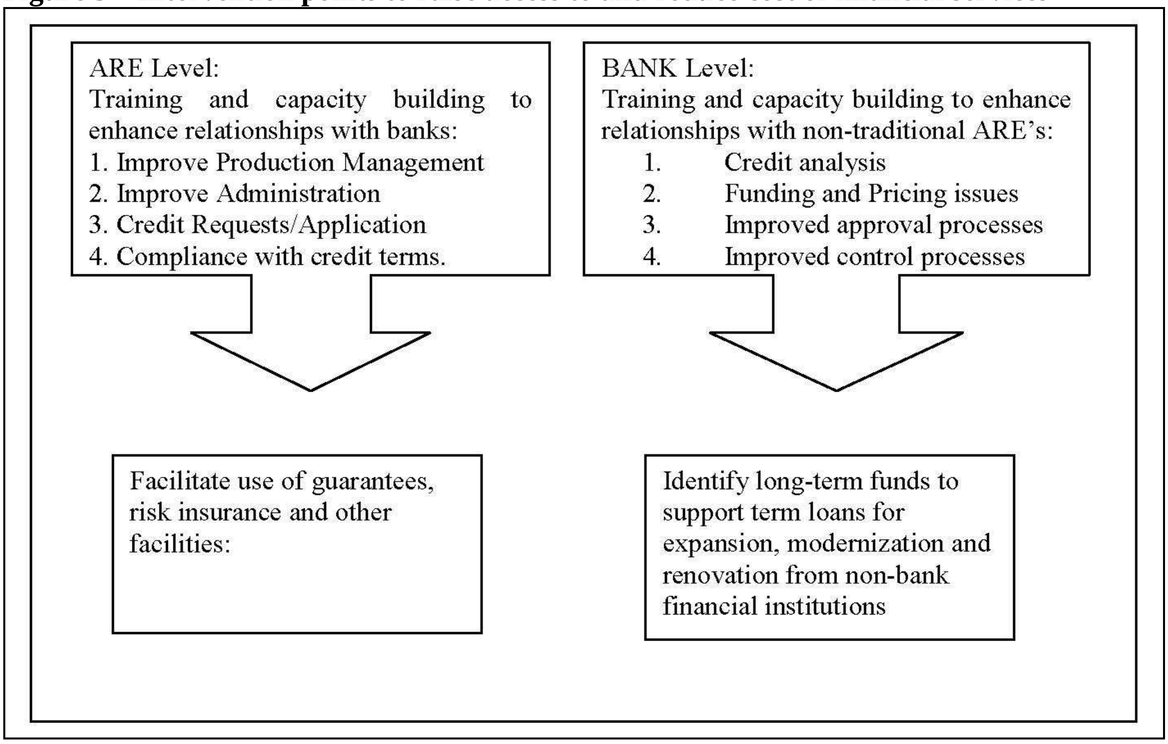
Figure 3—Intervention points to raise access to and reduce cost of financial services



- **Fertilizer and seed systems development**. The objectives is to speed up the emergence of broadly accessible, cost-effective, and competitive seed and fertilizer supply and financing systems and to significantly raise the use of both inputs by smallholder farmers. Main activities include establishing strategic PPPs and B2B alliances between key actors along the seed and fertilizer supply chains to lower transaction costs, facilitate access to finance, and expand distribution networks. Early actions will also build the institutional and commercial capacities of farmer organizations to manage procurement and financing of seed and fertilizer requirements.

Box 2: Strategic Area C: Value-chain development and financial services: Core program components

1. **Levers for agricultural enterprise growth and value-chain development**

   (i) Targeted actions on country- and sector-specific determinants of agribusiness enterprise growth;
   (ii) Priority interventions that raise the value accruing to actors at each level of the chain focusing on:
      a. Unit cost reduction;
      b. Volume expansion; and
      c. Product value addition.

2. **Financial services sector development for value-chain growth**

   (i) Development of adapted credit information systems;
   (ii) Creation of new and strengthening of existing regulatory mechanisms for collateral enforcement;
   (iii) Provision of training and other capacity-building mechanisms to improve risk perception and thus reduce the barriers to as well as cost of borrowing;
   (iv) Mobilization of nonbank financial institutions (insurance, pension funds, microcredit systems) to ease access to long-term investment funds and expand financial services in rural areas;
   (v) Enhancement of agribusiness enterprises' capacity to improve business reporting and provide satisfactory documentation in support of loan applications; and
   (vi) Enhancement of banks' capacity to provide affordable, flexible, and innovative financial products that meet the varied needs of AREs.

3. **Sector policy and governance**

   (i) Stable and well-balanced exchange rate, monetary, and fiscal policy regimes; and
   (ii) Conducive bank regulations, business and trade taxation, regulation of business start-up and closing, legal compliance of business operations, employment laws, and contract enforcement.

IV.4. Area D: Strengthening the Commercial and Technical Capacities of Farmer Organizations and Trade Associations

The smallholder sector dominates much of Africa's productive activity and its labor market, and will continue to do so for the foreseeable future. The sector therefore constitutes a core component of long-term growth and poverty-reduction strategies and should be at the heart of efforts to expand the supply base and raise the competitiveness of African economies—in particular the agribusiness and agriculture-related segments. Given the large number of farmers involved, the limited size of holdings, and the fragmentation of production, such efforts must target farmer organizations and trade associations (FO/TAs) in order to achieve economies of scale and improve efficiency. The focus of this strategic area is to illustrate how African countries can implement programs to successfully revitalize the smallholder sector and accelerate its integration into the growing and higher-value chains of tomorrow. Effective integration of smallholder farmers into the modern and higher value chains is critical to achieving the competitiveness and market access objectives under Pillar II of the Comprehensive Africa Agriculture Development Program. The Pillar's objectives and activities are summarized in Box 1. Box 2 describes the core program components under the current strategic area.

Challenges and Emerging Trends

Key areas of challenge related to efforts to deepen and broaden the integration of smallholder farmers into agribusiness value chains include the following:

- **A rapidly changing and increasingly complex market environment**. The increasing globalization of agricultural markets presents African smallholders with considerably more complex challenges than those faced by Asian producers during the Green Revolution era. African smallholders today need not only to produce more efficiently, but also to contend with far more logistically complex and competitive markets. Growing specialization in distribution channels and logistics; rapidly changing and differentiated consumer preferences; and increasingly complex norms, standards, and other technical specifications place increasing demands on the production and management skills of the average smallholder.
- **Scale and fragmentation of supply**. The challenges faced by the smallholder sector in an environment such as the one described above are augmented by the limited size and spatial dispersion of production units. These factors tend to raise the unit costs of access to services and markets and limit the range or capacity utilization of technologies that can be economically applied at the farm level.
- **Low and slowly increasing productivity**. The factors discussed in the preceding section tend to keep the level of productivity of individual holdings far below their potential. Consequently, and despite the sector's recent growth recovery, total factor productivity has grown by only about 50 percent over the past quarter century, and average productivity per hectare and per farmer ranges between US$60 and US$120, with the lower levels observed in southern Africa and the higher ones in West Africa. Average yields in Africa have hovered around 1 metric ton over the past 20 years compared with an increase of 2 to almost 3 metric tons for the average developing country.
- **Inefficient integration into value chains**. With the exception of producers of major traditional and some high-value export commodities, the large majority of African smallholders tend to be cut off from the remaining segments of the agricultural value chains. The set of constraints related to the market environment, production conditions, and access to services has the combined effect of raising the cost and logistical difficulty of linking the smallholder sector to these segments. Issues such as the quality, quantity, and reliability of supplies often constitute significant constraints, in addition to the cost of assembly, storage, and transport.
- **Absence of adapted financial services products**. The fragmentation and scale of smallholder production complicates the provision of financial services and raises the cost of financial intermediation. The problem here is on both the farming and the financial sector sides. The lower levels of productivity and limited integration into value chains negatively affect the rate of return and thus smallholders' propensity to invest. The size of operations and the dispersion of holdings raise the cost of delivering financial services by the banking sector, which in turn raises the cost of credit to smallholders who are ready to invest. Hence, individually, smallholders are unlikely to generate the necessary demand for financial services to stimulate significant investment by the banking sector to meet their requirements. The banking sector, for its part, offers a limited range of services that do not meet the requirements of the bulk of smallholders.

Responses and Opportunities for Action

Opportunities to respond to the challenges described above lie in the areas outlined below.

- **Rapid expansion of local demand and growing cross-border trade**. A multitude of factors will lead to significant changes in domestic food value chains in the near future. Such factors range from the ongoing, sustained economic recovery among a growing number of African countries, the continued population growth, the rapid rate of urbanization, and the expanding demand for food based on local staples, to the greater integration of local and regional markets and the expansion of cross-border trade, as well as the responses by the fast-growing packaging, processing, and distribution sectors. The consequence is that in most African countries, smallholder farmers will be facing rapidly expanding markets at their doorstep. With good planning, smart and innovative interventions, and strategic partnerships between the public and private sectors and FO/TAs, this demand potential can be tapped to boost supply, create wealth, and reduce poverty in rural areas.
- **Modern technology advances**. The constraints related to technology, market logistics, and access to services can be overcome to a large extent through innovative use of modern technologies, in particular information and communications technology (ICT) and biotechnology. ICT is already being used to solve market information and intermediation constraints. It can also be used more aggressively to revolutionize extension services and overcome physical and human capital constraints to disseminating and accessing better technologies and improved cropping practices. Technologies are also being piloted in the area of financial intermediation. Great value exists in building strategic partnerships to advance corporate interests, while providing the kinds of solutions suggested above.

  Biotechnology's potential contribution goes beyond expanding the space for seed technology innovation to making a significant contribution to relaxing constraints related to cropping practices and the need to customize technologies to meet the conditions of smallholders. For that to happen, however, African countries will need to adopt an entirely different attitude in the biotechnology debate, which ought to address the imperative need for African countries to master biotechnologies for their own use by creating domestic capacities in terms of skills, laboratories, and equipment to generate technical solutions to the problems their local producers face.

Strengths to Build Upon

Areas and factors of strength to support future strategies to integrate smallholder farmers into value chains include the following.

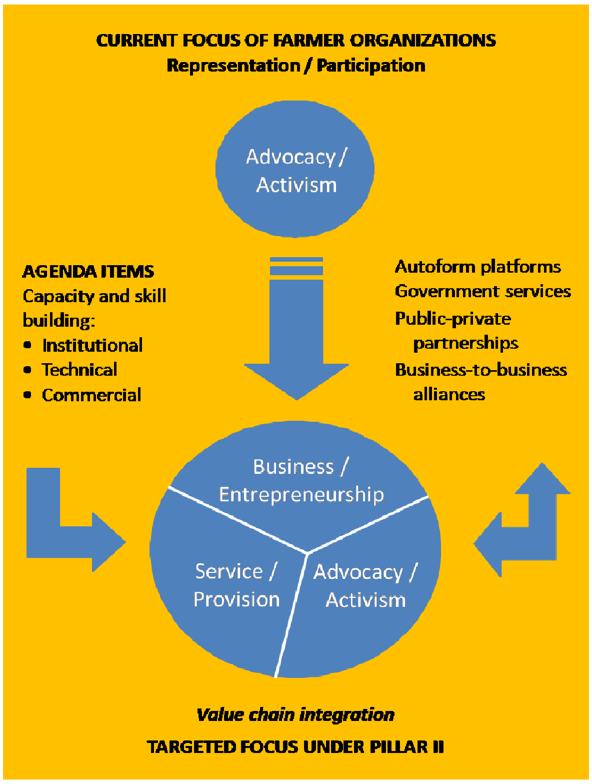
- **Increasing FO/TA capacity for mobilization, advocacy, and partnership**. The growing number of relatively autonomous farmer organizations in the smallholder sector and their growing role in the post–structural adjustment era provides an effective entry point to plan and implement interventions to reach the large number of smallholders at a much lower cost. The increasing organizational capacities of farmer organizations also facilitate the establishment of partnerships and alliances with the public sector and other private-sector actors to broaden access to and reduce the cost of services and technology, as well as accelerating the integration of smallholders into the local agricultural value chains.
- **Relative flexibility and adaptability of production structures**. Smallholders have few sunk investments and can thus easily adapt production to new market and technology demands to the extent allowed by physical cropping conditions. Moreover, the important yield gap that is frequently observed among smallholder farmers should make it easy to

significantly boost supply in a relatively short period of time. Efforts under this pillar should therefore seek to link the market potential referred to above to the smallholder supply base by augmenting the use of conventional policy, institutional, and technical instruments through innovative tools using current advances in technology and organizational management.

Smallholder Farmer Integration Pathways

Farmer organizations can follow different strategies to promote successful smallholder integration into agribusiness value chains. In the case of commodities with high potential demand, the starting point for smallholders who have not yet entered the market is to work on improving key products to meet the requirements of the first segment of the market that they are in contact with and to help them enter the value chain as "product specialists." The objective here is to upgrade the position of the smallholders to become effective *chain actors.* In cases where smallholders have already entered the chain, farmer organizations face three options to intensify integration: (a) to develop partnerships through *horizontal integration* with other chain members, with specialization of smallholders in production and management through their organizations, which act as *chain partners*; (b) to add value to smallholder products through *vertical integration* without involvement in chain management activities, so that smallholder organizations act as *chain activity integrators*; and (c) to develop ownership over the chain by expanding management and other activities along the value chain, such that smallholder organizations act as *chain owners*.

Interventions to support FO/TAs to implement value-chain integration strategies are required at three levels. At the sectoral level, such interventions would include the creation of a sound input- and output-sector policy environment and development of the required basic infrastructure, such as roads, communication facilities, rural electricity, and water infrastructure. At the individual farmer level, intervention should target the strengthening of the technical and management skills that smallholders need in order to master the commercial requirements of producing for a competitive market and to



successfully manage business risks and product innovations. At the FO/TA level, the focus ought to be on developing the chain competence of farmer organizations by expanding their access to chain knowledge and on modernizing their management and business alliance practices.

The Role and Evolution of FO/TAs in Promoting the Integration of Smallholder Farmers into Agricultural Value Chains

A major challenge in using FO/TAs as a locus of intervention to deepen the integration of smallholder farmers into agricultural value chains is the lack of sufficient customer service and business orientation among the majority of organizations and associations, which hinders their ability to deal with the commercial and technical issues facing their members. In addition, in most cases such organizations and associations are not considered as credible partners by service and finance providers or other actors along the value chain. As a result, they fail to exploit the potential for PPPs and B2B alliances, which are critical to the development of smallholder agriculture in the post–structural adjustment era. Consequently, a critical component of the Pillar II agenda focuses on investing in the transformation of leading, non-apex organizations and associations, as well as their affiliates from primarily advocacy-oriented organizations into market-driven organizations that can efficiently provide technical and commercial services to their members and serve as credible partners to banks, traders, processors, input dealers, and other actors along the value chain. Such a transformational process pursues three complementary subobjectives (see Figure 1):

- *institutional maturation*, reflected in the capacity of FO/TAs to apply effective governance and management practices that ensure transparency and accountability;
- *operational diversification*, whereby FO/TAs act more as credible economic agents with greater business orientation and focus on service delivery to members as well as partnership with other actors along the supply chains; and
- *policy and regulatory alignment* to create the necessary legal and regulatory framework to allow for the registration and effective operation of FO/TAs as business entities, as well as eliminate disincentives in the areas of pricing, marketing, input distribution, financing, and technology, which discourage the emergence of efficient FO/TA-based agribusiness enterprises.

Proposed Early Actions under Pillar II, Area D

- The proposed early actions under each strategic area serve as entry points for scaling up the Pillar II agenda at the country and regional levels. They target key priority areas and activities that respond to needs that are broadly shared across countries and regions, hence requiring collective action and lending themselves to economies of scale. In several cases, they start with pilot programs that can be adopted and scaled out as implementation proceeds:

Figure 1. Integrating smallholder farmers into value chains through farmer organizations and trade associations (FO/TAs)

- *Designing and piloting effective value-chain integration models for smallholder farmers.* The objective is to develop effective and scaleable tools to support partnerships and alliances among governments, private-sector operators, and leading local FO/TAs to broaden smallholder access to commercial and technical services. Indicative activities include a systematic review of successful FO/TA models in terms of providing technical, financial, and commercial services to their members, and the design of an action plan to facilitate adoption of the critical model elements among a selected number of leading FO/TAs.
- *Designing and piloting innovative vocational training and workforce development systems.* The objective is to accelerate the modernization of farming systems by scaling up training and development systems in the future, and to ensure the long-term technological competitiveness of Africa's smallholder and agribusiness sectors in the global agricultural economy. Indicative activities include reviewing successful vocational training and workforce development models in and outside Africa, and piloting prototype training systems in selected countries under the coordination of leading regional farmer organizations and their national member organizations.

BOX 2

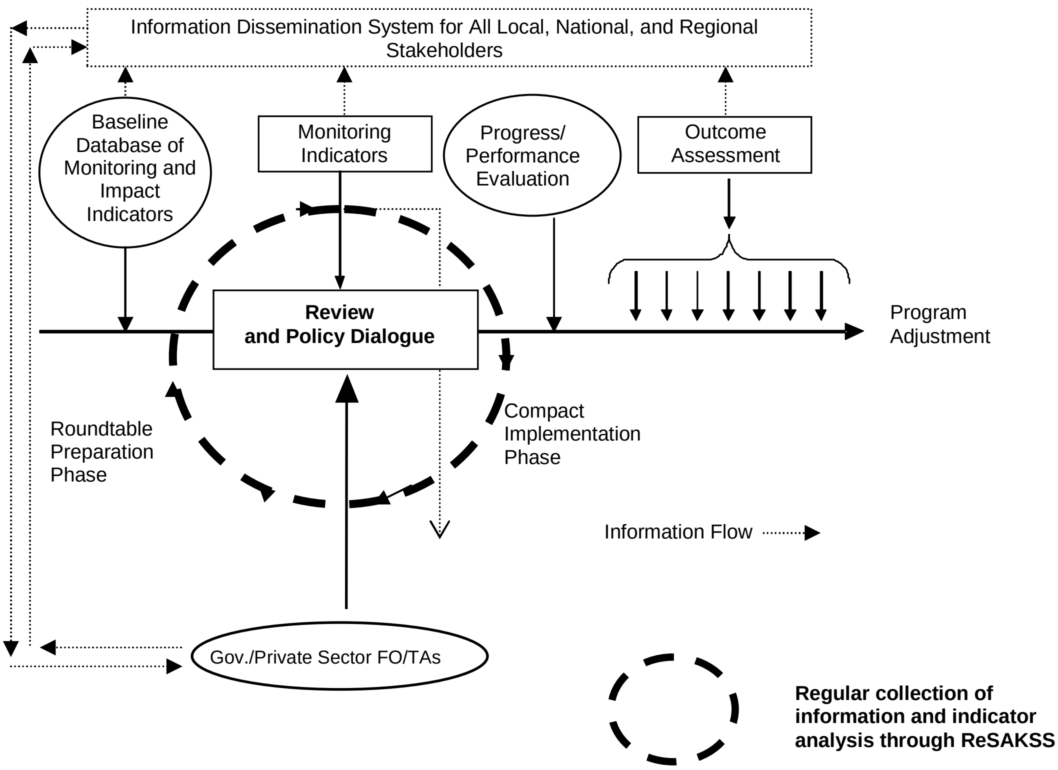
Strategic Area D—Strengthening the commercial and technical capacities of farmers organizations and trade associations: Core program components

1. **The role and evolution of farmer organizations and trade associations in promoting the integration of smallholders into agricultural value chains**
   (i) Institutional maturation of leading local FO/TAs through the adoption of more effective governance and management practices, which is required for them to serve as vehicles for the integration of smallholders into the emerging and dynamic value chains;
   (ii) Operational diversification of leading local FO/TAs through the acquisition of the necessary technical, commercial, and financial resources such as to enable them to:
      a. efficiently and effectively fulfill all major technology, market, and finance related needs of their membership; and
      b. Develop into business oriented entities that can serve as credible business partners to other actors along the value chain.
1. **Smallholder farmer integration pathways**
   a. Development into "chain actors" as product specialist, which is often the first step in the case of FO/TAs with smallholders members that are predominantly outside of the value chains;
   b. Intensification of chain integration is the next step and applies to FO/TAs that are already in contact with the value chain; such intensification can take place along the following three axes:
      I. partnership with other chain members through horizontal integration with FO/TAs specializing in production as "chain partners";
      II. value addition through vertical integration, with FO/TAs evolving into "chain

IV.5. Area E: Benchmarking and Monitoring and Evaluation

The implementation of CAADP Pillar II requires several innovations of institutional arrangements, which will need to be carefully monitored over time. In this regard, it is crucial to include an information system for benchmarking and monitoring and evaluation (M&E) of the process. For the proposed M&E system, several activities will be implemented, as shown in Figure 4.9.

Figure 4.9: System of Monitoring and Evaluation



The first activity includes the identification of a system of general indicators for the overall process. The next step is to identify the sources to be used to obtain such information. The list of possible sources includes censuses that have been or will be implemented by the different government agencies; the information collected in ReSAKSS and country knowledge system nodes; household surveys; and surveys of specific social service providers. A specific format must be designed for information requirements for the different agencies involved in the implementation process. The next step is to collect the information from the identified sources—permanently over time—and measure the evolution of the monitoring and impact indicators identified. All this information should then be uploaded into an Internet-accessible database so that each country can follow the evolution of its monitoring and impact indicators over time and relative to other countries in the region.

The benchmarking and M&E system serves to assess progress against stated goals and helps identify the weaknesses and strengths of past approaches and hence possible future improvements. For these purposes, the selection of indicators must be linked to the analytical framework used in the framework strategy. This is particularly critical in providing a basis for analyzing cause-and-effect relationships and for identifying why goal indicators (such as an increase in trade) changed the way they did, how much of the change was due to planned interventions, and what could be done better in the future.

The framework has identified a list of indicators to be tracked and has suggested an approach to implementing an effective benchmarking and monitoring system (see Annex II). Actual implementation will take place under the leadership of ReSAKSS. The sources of data, the collection methodology, the data format and standards, and the monitoring and reporting procedures will all be an integral part of ReSAKSS.

THE COMPREHENSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAM (CAADP)

FRAMEWORK DOCUMENT FOR PILLAR II
INFRASTRUCTURE, AGRIBUSINESS DEVELOPMENT, AND MARKET ACCESS

ANNEX I: BEST PRACTICES

1. AREA A BEST PRACTICES: RAISING COMPETITIVENESS AND SEIZING OPPORTUNITIES IN DOMESTIC, REGIONAL, AND INTERNATIONAL MARKETS

One of the main constraints for the development of regional trade relates to the obstacles to transborder trade. The Common Market for Eastern and Southern Africa (COMESA) region provides a good example of the commitment to overcome these constraints by implementing a trade facilitation program and regional market development for staple food crops.

Best Practice A1: Regional Agricultural Trade Expansion Support Program (RATES)

RATES is a commodity-focused initiative that currently supports seven commodity value chains, including specialty coffee, maize, rice, beans, cotton and textiles, and dairy; its overall goal is to support the region to increase the volume and value of agricultural trade within the region and with the rest of the world.

RATES seeks to improve the East and Southern African regional business environment by taking actions that

- strengthen institutions,
- improve the availability of technologies,
- increase public-private sector cooperation, and
- reduce policy and regulatory constraints, thereby providing the foundation for reducing food insecurities in the region and creating a conducive environment for agricultural trade and for establishing market linkages and value addition.

The key ingredients for the success of this trade facilitation program are as follows:

- A commodity-focused approach with emphasis on a few commodities and staple food crops as well as on promoting agricultural trade
- Stakeholder analysis to identify key private and public sector leaders in the respective commodity areas who could lead policy change and innovation and inform and shape both national and regional strategies in the respective commodity areas
- Extensive national and regional consultative processes that lead to a definition of regional policy platforms in the commodity focus areas
- Creating private sector networks at the national level and linking these at the regional level to create regional trade and industry associations within a commodity focus area, resulting in building common consensus and approaches on issues such as a common regional identity for hitherto fragmented national entities
- Linking regional approaches to global trends and developments by linking the regional trade and industry associations to respective international entities and organizations such as the International Dairy Federation (IDF) for dairy, the International Coffee Organization (ICO) for coffee, and the International Cotton and Textiles Advisory Council (ICAC) for cotton
- Promoting linkages and market access and establishing platforms for information sharing through dedicated Web-based trade linkage sites that are commodity specific
- Staging major international conferences and exhibitions that bring together key players along the value chains (producers, suppliers, equipment manufacturers, processors, distributors, financiers,

retailers, and others) from the region and globally, thus ensuring linkages between regional development and global dynamics and trends
- Creating a framework for private sector organizations to buy into the programs and to provide leadership in their areas of interest, thus ensuring sustainability

Best Practice A2: The Development of Staple Food Crops in the Regional Market: The "Maize without Borders" Strategy in the COMESA Region

Regional trade in cereals in the East and Southern Africa region is being promoted through the "Maize without Borders" strategy, which emphasizes the removal of barriers to regional grain trade to enable key staple food crops, including maize, to move from surplus to deficit areas unimpeded. This is the only way that both governments and industry players can have confidence in the market and move away from the current ad hoc approach characterized by periodic import/export bans toward a rational and predictable regional grain market. It is recognized that this cannot be achieved overnight but requires a systematic approach over time.

The establishment of the Eastern Africa Grain Council (EAGC) in 2006, which brings together players in the grain industry value chain from East Africa and other COMESA countries, provides a regional institutional framework, as in other commodity sectors, to address issues affecting the grain industry in the region in a holistic manner.

The EAGC is promoting the concept of structured trading systems (STSs) aimed at encouraging governments to move away from equating food security with holding physical stocks, and to instead use modern market instruments such as commodity exchanges, hedging, and collateral management in order to mitigate risk and be assured of the availability of grains from within the region in the event of shortfalls that may need to be bridged in individual countries. As government confidence in these systems increases, it is expected that this will lead to less government intervention in the market and therefore to a more stable and predictable regional grain market.

The STS is to be linked to the warehouse receipt system (WRS). The advantage of the WRS is that it enables all farmers, both large- and small-scale, to produce to agreed standards. This means that farmers are not limited by the size of the local market but can produce to feed into the large regional market provided the produce meets the required standards for grains to be accepted into the WRS.

A major emphasis is on better organization of the grain sector in individual countries. Most countries have a strategic grain reserve, millers association, produce board, or similar structure in place, including the presence of food aid agencies that have a role to play in the grain sector (such as the World Food Program [WFP]). However, there is often no coordinated forum at the national level to bring these players together, resulting in overlap and suboptimal use of resources. The aim is to work with countries to put cohesive institutional structures in place. These structures will then form the basis for implementing STSs under the ambit of the EAGC, commodity exchanges, or similar organizations.

Best Practice A3: The Dairy Sector in East Africa

Since the formation of the Eastern and Southern African Dairy Association (ESADA), the dairy sector in the region has become better organized, and there has been an appreciable move from harmful competition to healthy competition as a result of increased information exchange, networking, and partnerships among industry players in the dairy sector in the region. Key interventions in the dairy sector have involved dairy market expansion and promotion, addressing nontariff barriers to regional dairy trade, enhancing the capacity of ESADA to deliver services to its members, and initiating a dairy investment and finance program.

A major marketing tool for the dairy sector has been the African Dairy Conference and Exhibition (ADC&E). Launched in May 2004 in Kenya, the ADC&E has become not just a major regional dairy event but also an international event attended by participants from Europe, the United States, and Asia. This event adds value to ESADA members in promoting products on regional and international markets and in providing linkages between buyers and sellers—not just for finished dairy products but also for the supporting industries such as suppliers of feed, equipment, chemicals, packaging materials, and specialized services to the dairy industry.

ESADA works through the national associations to which it is linked. The overall strength of the regional association is therefore dependent on the strength of the national associations. The national associations in turn work with producers at the farm level. The producers are encouraged to form dairy cooperatives, as this makes it easier to extend support through an organized group. Farmers are also supported in improving the handling and storage of milk through better hygiene practices and standards. Thus, the regional association links to the national and to the grass roots at the farm level. This is a two-way process, which ensures that the regional body is informed about what happens on the ground and, in turn, the national body benefits from best practices set at the regional level.

2. AREA B BEST PRACTICES: INVESTMENT IN COMMERCIAL AND TRADE INFRASTRUCTURE TO LOWER THE COST OF SUPPLYING DOMESTIC, REGIONAL, AND INTERNATIONAL MARKETS

There is no universal remedy to the existing problems of access to infrastructure and institutions, and best practices depend on the degree of institutional development in each country. Public-private partnerships (PPPs) have been resorted to frequently to efficiently close the access gap. Public intervention alone is usually not cost effective, and isolated private initiatives also fail to deliver all services. Despite the rise in private sector involvement in infrastructure provision and institutions, the overall investment levels, particularly in rural areas in Sub-Saharan Africa (SSA), are far from adequate and much lower than in Asia and Latin America. Because there is little evidence that rural infrastructure and institutions are commercially viable on a stand-alone basis, the role of the public sector must be reinvented.

Best Practice B1: Small-Scale Irrigation (SSI): The Kenya Example

In Kenya SSI development is one of the key strategies for land use intensification, with expected positive effects on rural incomes and poverty alleviation. Currently, 20% of the irrigation potential, or 106,000 hectares, is already under irrigation; 50% of this area is under SSI. About 15,000 hectares of the area under SSI are cultivated by individual farmers, and about 35,000 hectares are under communal irrigation schemes. The key characteristics of successful individual SSI schemes include (a) their establishment in areas where small farmers have direct access to usable water resources close to their fields, (b) access to finance, and (c) the existence of opportunities to produce financially attractive products. In the case of communal schemes, they include (a) establishment in zones where water sources are not immediately bordering agricultural development areas; (b) significant investment in irrigation infrastructure; (c) a minimum number of participants, often 150 to 250 farmers; (d) farmers' exclusive responsibility over production decisions; and (e) access to finance, as in the case of individual SSI.

Best Practice B2: Second-Generation Road Funds for Infrastructure Maintenance

The evolution of "second-generation" road funds in SSA has been quite rapid since the idea began to take shape in the early 1990s and since a first fund of this kind was established in Zambia in 1993. There are currently at least 27 countries in SSA with road funds in place, and this number is likely to increase further in the coming years as a result of ongoing reforms in West and Central Africa. Road funds have secured a more stable and predictable flow of funds for road maintenance. However, country progress varies widely, and although a country might have established a road fund, this does not necessarily mean that it is either fully efficient or fully autonomous. In most cases, the establishment of a road fund has not resolved the insufficiency of funds for road maintenance. The results also show that more efforts are required to capture and sustain the efficiency gains that could derive from the improvement of road management practices and better use of available resources.

The key characteristics of successful road funds include (a) a sound legal basis, with separate road fund administration and clear rules and regulations; (b) an agency that is a purchaser, not a provider, of road maintenance services; (c) strong oversight by a broad-based private-public board; (d) revenues that are incremental to the budget, coming from charges related to road use and channeled directly to the road fund bank account; (e) sound financial management systems and a lean, efficient administrative structure; and (f) regular technical and financial audits.

A review by the World Bank describes the experiences and performance of road funds across Africa as follows. A total of 27 active road funds are in place, of which 9 have been established since 2000, 7 of them in francophone Africa. Of these, 18 are established by law and 12 have a board with a private sector majority. In terms of funding sources, 14 road funds rely on road user charges for 80% or more of revenues. In nearly all cases, a fuel levy is the principal means of implementing road user charges. The average fuel levy is US$0.08 and US$0.07 per liter for gasoline and diesel, respectively. A total of 11 road funds have their revenues channeled directly to their bank accounts. Only about one-third of road funds are currently meeting routine maintenance expenditure needs on a regular basis.

Best Practice B3: Port Infrastructure and Management: The Nigerian Port System

The Nigerian port sector has, for a long time, been recognized as one of the least efficient and most costly in the world. For years it was plagued with an unusual degree of centralization, leading to more inefficiency and lengthy decision-making processes. In 2005, a reform process was initiated with the adoption of the “landlord” model, in which public institutions are responsible for regulation of the sector and port planning, as well as owning port land and infrastructure. The private sector is responsible for marine and terminal operations, superstructure, and equipment. The key reform components included (a) creation of two autonomous port and harbor authorities, (b) creation of a National Transport Regulatory Commission (NTC), (c) limiting the role of the government (Ministry of Transport), and (d) transfer of port operations to private operators. Preparation and implementation of the reform followed three main parallel processes: (a) legal and regulatory reform, (b) labor reform, and (c) competitive and transparent transactions to select private operators. As part of the implementation, a new port bill and an NTC bill have been introduced, labor redundancies with severance packages have been undertaken, and 26 terminal concessions have been granted. In 2006 the initial concessions became operational.

While the long-term benefits will take time to become evident, the improvement in port operations is already having a positive impact. According to reviews by the Sub-Saharan Africa Transport Program (SSATP), chronic delays in obtaining berthing space nearly vanished within a few months after private operation of the Lagos container terminals began, leading shipping lines to reduce their congestion surcharge from 525 euros in March 2006 to 75 euros in January 2007. Using rough estimates, the reduction in congestion charges alone is saving the Nigerian economy about US$200 million annually.

Best Practice B4: Electricity, Information and Communications Technology (ICT), and Roads

A typology of selected best practices relating to electricity and ICT and their key features is provided below. These are primary PPP-based interventions to extend services and access beyond what the market would otherwise allow.

- Models relying on market forces
  - Bottom-up identification of demand
  - Competition for the market
  - Subsidies allocated through market-based processes
- Models based on minimal regulation
  - Freedom of business and technical choice
  - Attractive licenses designed to encourage growth

- Limited price controls
    - Cost-reflective access charges
- Resource mobilization models (dedicated or competitive funds)
    - Road maintenance: fuel levy or road user charges—second-generation funds
    - Telecomm and electricity: levy on profits from private concessionaries or companies (1%–2% of profits)

Best Practice B5: Transport Infrastructure Corridors: PPPs in East and Southern Africa

The corridors in East and Southern Africa have been developed using a variety of PPPs, both to improve the transport infrastructure and to simplify the procedures for cross-border movements. The main experiences, based on a World Bank review, are summarized below.

The Maputo corridor: Concessions were used to develop the Maputo corridor, which connects the port of Maputo with the industrial area around the South African province of Gauteng. The concessions were used to rehabilitate the transport network while providing improved services. The port was converted to private operation through an operating concession that also provided for rehabilitation of its facilities. A build-operate-transfer (BOT) concession was used to rehabilitate 380 kilometers of the highway between Witbank and Maputo and to construct an additional 50 kilometers. The project included a joint inspection facility at the border. A concession to provide rail services in the corridor, which included provisions to upgrade the rail link between Maputo and the border, was awarded to a joint venture that included the South African railway company, Spoornet. This concession was also provided for a one-stop inspection at the border. These arrangements were successful in producing a rapid improvement in service and increase in traffic. However, the emphasis on a purely private initiative meant that insufficient attention was given to improving border procedures.

The Trans-Kalahari corridor: This corridor was established in 1999 through the efforts of the Walvis Bay Corridor Group, a PPP. The corridor connects the port of Walvis Bay with the rest of Namibia, Botswana, and the Gauteng in South Africa. It already had good road connections and required limited capital investment in the gravel road between Mamuno and the South African border. An existing customs union simplified cross-border movements. The Corridor Group, which was established to promote the use of the port, worked with customs departments in the three countries to introduce a single administrative document, a single set of regulations, and a single bond as security for payment. This arrangement provided the industrial area of South Africa with an efficient outlet to the Atlantic. It allowed Walvis Bay to compete against larger rivals in Richards Bay and Durban. Although its traffic levels remain small, its general cargo volumes have tripled since 1999, and the number of vehicles handled has increased eightfold.

The Northern corridor: This corridor offers a number of potential benefits, including the size of the Kenyan economy relative to its neighbors, its proximity to Uganda, and its transport infrastructure, which though poorly maintained provides better access. In order to promote transit, the Northern Corridor Transit Transport Coordination Authority (NCTTCA), which consists of ministers from the four member countries, was formed to enforce transit agreements, harmonize policies, and promote use of the corridor. It established a stakeholders' forum to develop consensus between the public and private sectors, including manufacturers, logistics providers, and financial institutions. It was able to convince customs to simplify clearance procedures and introduce a single administrative document for road transit. It was also able to harmonize and reduce transit charges. A concession for joint operation of the Kenyan and Ugandan railways has been proposed in order to improve their performance.

3. AREA C BEST PRACTICES: VALUE-CHAIN DEVELOPMENT AND ACCESS TO FINANCIAL SERVICES

Best Practice C1: Smallholder-Friendly Export Promotion and Diversification: Côte d'Ivoire's Projet de Promotion et de Diversification des Exportations Agricoles (PPDEA)

PPDEA's objectives were to diversify and expand private agricultural exports in order to support the government's export-led growth strategy and to reduce the country's excessive dependence on traditional crops such as cocoa, coffee, and timber.

The main results achieved during project implementation are as follows:

- *An increase in the volume of exports*: Some 100 producer associations and individuals exported more than 100,000 metric tons in 2002, worth more than US$100 million. This is compared to 78,000 metric tons in 1999; 56,000 metric tons in 1998; and 31,000 metric tons in 1996, before project effectiveness.
- *Diversification of production*: More than 25 potential products have been identified. However, the project focused on four promising subsectors: cashew nut (15,000 metric tons produced in 1996, 100,000 metric tons in 2002), mango (6,000 metric tons in 1995, 12,000 metric tons in 2002), cut flowers (1,100 metric tons in 1995, 1,800 metric tons in 2002), and essential oils (110 metric tons in 1995, 300 metric tons in 2002).

These results have been achieved through the strategy of export promotion and diversification developed by the project, which provided support to Ivorian producers in the following areas:

- Market research, customer identification, meeting quality requirements, trial shipments, packaging assistance, obtaining pre-export finance, and follow-up of sales and export shipments.
- Product development and quality control via export adaptive research.
- Establishment of business relationships for private operators engaging in the production and export of products.
- Export facilities upgrading. The abandoned airport in Yamoussokro was rehabilitated by the project and was opened to freight traffic. Before the coup of 1999, on average 40 charter flights transported products from Yamoussokro to the European markets annually, with a peak of 80 flights in 1999.
- Capacity building for agricultural producers' and exporters' organizations. PROMEXA, an interprofessional association with more than 100 members, was created, along with seven professional associations that were active in their specific subsectors. PROMEXA was active and successful at representing producers' and exporters' interests.
  - PROMEXA lobbied successfully for cargo charter flights to take off from Yamoussokro, reducing the freight cost by 20%–30%.
  - PROMEXA's intervention was instrumental in exempting the added-value tax on inputs, and it played a major role in the drastic reduction of the excise tax (Droit Unique de Sortie [DUS]) from 150 to 10 CFA per kilogram.
  - PROMEXA provided technical assistance to support counterpart operators in Senegal, Mali, Guinea, Burkina Faso, and so on.
  - PROMEXA was entrusted with the implementation of the European Union's Pesticide Initiative Program (PIP) to meet the maximum limit residue (MLR) standards.
- Smallholders' integration: 15,000 smallholders had been directly reached by the time of project closing.

Best Practice C2: Smallholders' Integration into Value Chains through Infrastructure Development: Senegal's Projet de Développement des Marchés Agricoles et Ruraux (PDMAS)

PDMAS is a follow-up project to scale up the very successful Projet de Promotion des Exportations Agricoles (PPEA), which itself was modeled after Côte d'Ivoire's PPDEA. PDMAS includes the following infrastructure development as well as market access interventions:

- At the production level
  - Rehabilitation of plots (drilling, water filtration systems, secondary networks for micro irrigation)
- At the marketing and logistic levels
  - Creation of infrastructure for product assembly and shipping
  - Farm gate infrastructure: charcoal coolers
  - Basic infrastructure for product sorting, grading, and temporary storage
  - Local feeder roads
- At the supply level

- On-farm infrastructure for input storage

4. AREA D BEST PRACTICES: STRENGTHENING THE COMMERCIAL AND TECHNICAL CAPACITIES OF FARMER ORGANIZATIONS AND TRADE ASSOCIATIONS (FO/TAs)

Best Practice D1: National Smallholder Farmers Association of Malawi (NASFAM)

NASFAM is a national farmer membership organization that supports the formation and operation of farm clubs to improve members' access to profitable farming opportunities. Formed in 1997 by 14 farmer associations that emerged from the United States Agency for International Development (USAID)-supported Smallholder Agribusiness Development Program, by 2004 NASFAM had established 20 new associations to include over 100,000 members in more than 5,000 clubs, representing nearly 5% of farming households in Malawi. Local clubs with 10 to 20 members are organized into associations under the national umbrella of NASFAM. NASFAM owns subsidiaries that provide commercial and development support services to associations, clubs, and members. NASFAM has a growing national advocacy role and influence.

Critical elements of NASFAM's success include focusing on motivated farmers and good business opportunities, adequate market and client research when starting new activities, concentrating on developing linkages with a range of service providers rather than trying to provide too many services itself, and a core focus on its own services for developing market linkages, technical support, capacity building (literacy and management training), and governance (with standard membership rules and structures and financial management and auditing services). Club, association, and NASFAM constitutions are carefully crafted to provide overall membership control but also considerable independence for professional managers and commercially experienced leaders. The provision of certain services through subsidiaries also provides some protection from the bureaucratic interference that cooperatives are potentially prone to.

Challenges to FOs	***NASFAM strategy***
Divergent equity, client, and leader interests	Strong business service focus and motivation for members and FOs Strong donor and professional emphasis on business culture Strong structures to separate FOs from business service operations
Collective action	Promotion of strong business culture Focus on business services to individual members
Need for strong leadership (effective but not overbearing)	Strong leadership from professional staff, trustees, and donors FO leadership encouraged within clear rules Strong capacity building in business and governance skills and culture Strong accountability of leaders to members for effective services
Poor business environment Lack of business services Poor infrastructure Rapid change	Careful selection of areas, crops, and businesses with good potential Close relations with range of service partners Direct provision of limited but properly supported critical services by separately managed commercial service (later NASCOMEX) Donor subsidy to FO for professional capacity development and to supporting services separate from FOs Flexible and imaginative management and structures (e.g., NASCOMEX) Staged approach to expand scale and range of services
Political interference Government interference	Clear and enforced rules separating politics from FO leadership Management strongly independent from government but close field-level cooperation with government services

Another critical element of NASFAM's success lies in the ways it addresses the organizational and contextual challenges outlined below, although it does not work directly with food crops nor does it directly serve the interests of the poorest and most marginal sections of the rural population.

NASFAM has benefited from long-term, committed donor support involving financial, technical, and policy assistance. This support is steadily being phased out, with the remaining financial support being concentrated on NASFAM's development rather than on commercial services. Challenges to NASFAM include the difficult conditions for farming and business in Malawi, the need for further diversification, and pressure both to reduce NASFAM's reliance on financial support from donors and to expand the scale and scope of its commercial and development activities. Another challenge relates to difficulties in supporting members' access to financial services outside the concentrated marketing system in the tobacco sector, and the range of political, institutional, and economic difficulties faced by that sector.

Sources: http://www.nasfam.org/; NASFAM annual reports; interviews; and Overseas Development Institute: *Natural Resource Perspectives*, Number 99, November 2005

Best Practice D2: Comité National de Concertation de la Filière Tomate Industrielle (CNCFTI)

Irrigated rice was the single most important crop cultivated in the Senegal River valley following the construction of the Diama and Manantali dams. The diversification of the agricultural production base has quickly become a major challenge for authorities and local populations. The first step was to join forces with a company (SOCAS) that was producing and processing tomatoes in the area, with very little outside supply from surrounding farmers. The farmers created a committee to pool these resources to create a critical mass of supply and raise their capacities to meet the plant's technical and other requirements.

The committee made it possible for smallholders to meet not just the quantities needed but also the technical requirements, enabling them to become reliable suppliers for the company. It also allowed farmers to easily access credit through the formal banking sector. Production and sales to the company rose very quickly to reach 75,000 metric tons of fresh tomatoes, covering 100% of domestic demand.

Key success factors for the project included the following:

Skills and mobilization capacity: Important to CNCFTI's success has been the farmers' option to join the committee and specialize in tomato production, together with the negotiating power resulting from the size of the group—not just with respect to the customer company but also with respect to commercial banks and input suppliers. The committee also enjoys a strong lobbying capacity when dealing with the government on issues related to sector policies and approval of the annual loan program by the agricultural bank (Caisse Nationale de Crédit Agricole du Sénégal [CNCAS]). Other factors include the capacity to improve skills across the group and coordinate the planting, harvesting, assembling, and transport of fresh tomatoes.

Democracy and transparency: The membership is kept well informed of and participates in key technical decisions by the committee. At the end of each season, the committee carries out an open evaluation of the results and draws up plans for the coming season, including tendering input and financing to cover the needs of all members.

Financial capacity: Another important factor is the agreement between the committee and the processing company to contribute jointly to a fund to serve as collateral for bank loans. For every kilogram of tomatoes that is delivered to the company, CFA 1 is allocated to the fund (CFA 0.50 by each party).

Technical and commercial services delivery: CNCFTI is capable of meeting all the technical and commercial services needs of its members. It has established a partnership with the public organization in charge (Societe d'Amenagement et d'Exploitation des Terres du Delta du Fleuve [SAED]) to coordinate development in the delta area of the Senegal River in order to provide institutional support and technical services to its members.

Key Characteristics of CNCFTI

Crop	Participating Company	Number of Farmer Organizations	Number of Producers	Average loan per organization per year (CFA mill.)	Loan Repayment Rate
Tomato	SOCAS	250	15,000	1.8	99%

Sources: Annual reports of SAED, CNCFTI, and CNCAS (year).

THE COMPREHENSIVE AFRICA AGRICULTURE DEVELOPMENT PROGRAM (CAADP)

FRAMEWORK DOCUMENT FOR PILLAR II
INFRASTRUCTURE, AGRIBUSINESS DEVELOPMENT, AND MARKET ACCESS

ANNEX II: BENCHMARKING

1. DEFINING INDICATORS

For each of the subcomponents of the framework, indicators are defined as shown in Tables A1 to A4 below. These indicators will be used for monitoring and evaluating the impact of CAADP Pillar II. Indicators are both intermediate (monitoring) and output (impact evaluation) indicators.

2. EVALUATION METHOD FOR IMPACT AND MONITORING INDICATORS

Define for each indicator what method of evaluation will be used: before-and-after, cross-section, or double-difference analysis. The selection will be made using the following criteria:

- Whether or not it is possible to specifically identify the targeted beneficiaries
- In which case, an analysis of what would have happened to the beneficiaries if the project had not been implemented would be carried out, assuming that the indicator will not have changed, before-and-after analysis is appropriate.
- In the case that the benefits of the project could impact all the members of the community, or when it is not possible to clearly identify the beneficiaries, the selection of a control group must be made outside the community under evaluation. In principle, “similar” communities to the ones participating in the project must be identified. These “similar” communities will be used as control groups.

3. DEVELOPING A BASELINE

The baseline refers to a collection of data regarding the beneficiaries that is gathered before the project interventions start. The baseline database must include all the necessary information to construct the indicators to be evaluated. The development of the baseline will require the identification of different sources of information, which will be required to have an initial size for each of the indicators identified. To be able to develop the baseline, each regional node of the Regional Strategic Analysis and Knowledge Support System (ReSAKSS) will include the data collection for the indicators identified. Because the information will not be available for some of the indicators, we propose to develop a standardized survey that will be implemented across countries to provide the information necessary to measure these indicators.

4. PERMANENT SYSTEM OF INFORMATION

A permanent system of information will be developed through the ReSAKSS and within each country SAKSS. In addition, each country will have its own CGE model and social accounting matrix, from which simulations of impact scenarios will be built.

Table A1: Benchmarking for Area A: Raising Competitiveness and Seizing Opportunities in Domestic, Regional, and International Markets

SUCCESSFUL OUTCOMES	MONITORING INDICATORS	IMPACT INDICATORS	DATA COLLECTION
Change in share volume plus value of regional trade, within and between regional economic communities (RECs)	Positive growth in share of regional trade, within and between RECs	17% of growth in total regional trade in agricultural and food products	Collect data from all customs offices in the country, disaggregated by product and destination or origin
International trade: Capacity to comply with international quality and food safety standards	Establishment of system of information on quality and food safety standards in all countries Increase in growth of high-value exports to the foreign export markets	Increase in volume share and value of exports to international markets	Collect information on available systems of information on quality and food safety Collect data from all customs offices in the country, disaggregated by product and destination or origin
Harmonized trade policy and regulation	Trade policy agreements between RECs	Improved terms of trade for RECs	Information from MAcMap (Market Access Maps) database developed by International Trade Center (ITC) and Centre d'Etudes Prospectives et d'Informations Internationales (CEPII) (http://www.cepii.fr/); MAcMap has data on market access (bilateral applied tariff duties, taking into account regional agreements and trade preferences; information given at HS6 level)
Improved ability to participate in trade negotiations	Number of countries with dedicated teams of qualified experts for negotiations	Improved terms of trade for RECs	Information from MAcMap (Market Access Maps) database developed by ITC and CEPII (http://www.cepii.fr/); MAcMap has data on market access (bilateral applied tariff duties, taking

			into account regional agreements and trade preferences; information given at HS6 level)
Removal of international trade barriers	Percentage reduction of international trade barriers to African products	Improved terms of trade for RECs	Information from MAcMap (Market Access Maps) database developed by ITC and CEPII (http://www.cepii.fr/); MAcMap has data on market access (bilateral applied tariff duties, taking into account regional agreements and trade preferences; information given at HS6 level)
Regional market/trade: Fully liberalized regime markets that facilitate free movement of people, goods, and services	Share of processed goods in volume and value of regional imports and exports Quantify barriers to cross-border trade	Improved terms of trade for cross-border transactions Absolute reduction of barriers to cross-border trade	Information from MAcMap (Market Access Maps) database developed by ITC and CEPII (http://www.cepii.fr/); MAcMap has data on market access (bilateral applied tariff duties taking into account regional agreements and trade preferences; information given at HS6 level)
International trade: Increased volume of processed goods to international trade	Share of value-added processed goods in volume and value of international exports	Increase of 4% per year in share of processed goods in volume of international exports	Collect data from all customs offices in the country, disaggregated by product and destination or origin
Domestic market : Reduced police roadblocks Reduced or eliminated district levies	Number of roadblocks removed Number and level of reductions of internal levies on movement of agricultural goods	Reduction of average transaction costs on domestic markets of more than 10%	Collect data on transaction costs for intracountry trade

Table A2: Benchmarking for Area B: Investment in Commercial and Trade Infrastructure to Lower the Cost of Supplying Domestic, Regional, and International Markets

SUCCESSFUL OUTCOMES	MONITORING INDICATORS	IMPACT INDICATORS	DATA COLLECTION
Increase inter-REC flights	Number and frequency of flights within and between RECs Harmonized quality standards within and between RECs	17% of growth in total regional trade in agricultural and food products	Collect data from all customs offices in the country, disaggregated by product, destination or origin, and means of transportation
Better access to transport by agricultural producers	Lower transport cost for agricultural products Reduction in average distance (km) from farm households to all-weather road	Increase in market accessibility of at least 10%	Measure level of road accessibility, i.e., minutes to main markets and to all-weather roads within countries
Better access to electricity in producing areas	Number of farmers with access to main power grid or to off-grid electricity	Increase in nonfarm activities Increased value added in agroprocessed products	Measure number of rural households with access to on- and off-grid electricity Measure nonfarm production over time
Better access to irrigation infrastructure	Number of hectares irrigated	Increase in share of cultivated land under irrigation	Measure change in number of hectares irrigated Measure change in share of cultivated land
Better access to communication infrastructure (ICT)	Increase in number of certification service providers Increase in number of price information systems available	Reduction of average transaction costs on domestic markets of more than 10%	Measure penetration of cellular and fixed phones Measure number of information systems based on ICT
Degree of penetration into protected markets	Number of protected markets accessed	Increase in share of imports into protected markets	Collect data from all customs offices in the country, disaggregated by

			product, destination or origin, and means of transportation
Better access to marketing/trading infrastructure along supply chain (postharvest infrastructure)	Share of exporters capable of meeting international standards Percentage of producers with access to modern market information system Number of value chains with adequate infrastructure and actors' share of volume using infrastructure	Increase in total factor productivity of farmers	Measure total factor productivity of agricultural sector

Table A3: Benchmarking for Area C: Value-Chain Development and Access to Financial Services

SUCCESSFUL OUTCOMES	MONITORING INDICATORS	IMPACT INDICATORS	DATA COLLECTION
Increase in use of modern and traditional inputs	Increase in use of modern and traditional inputs per hectare Increase in number of farmers using modern inputs	Increase in yields	Measure evolution of yields for major crops over time
Greater integration of smallholder farmers into organized, viable value chains	Percentage of produce in value chains sourced from small-scale farmers Number and percentage of small-scale producers linked to value chains	Increase in income of small farmers Increase in farm-gate prices	Measure evolution of farm-gate prices for major crops Measure household income of the rural areas using standardized Living Standards Measurement Study (LSMS) surveys
Increased access to finance for value-chain development	Volume of loans and range of activities financed Number of actors receiving loans Increase in number of financial products offered	Increase in production of small farmers	Measure number of financial institutions in rural areas Measure increase in credit in rural areas Measure number of financial products offered in rural areas

Increased income of smallholder farmers from commercial agriculture	Number of small farmers and farmer associations linked to dynamic markets	Increase in share of smallholders' income from commercial agriculture	Measure number of small farmers and farmer associations linked to dynamic markets Measure evolution of revenues of farmer associations based on exports of their products

Table A4: Benchmarking for Area D: Strengthening the Commercial and Technical Capacities of Farmer Organizations and Trade Associations

SUCCESSFUL OUTCOMES	MONITORING INDICATORS	IMPACT INDICATORS	DATA COLLECTION
Increased financial viability of FO/TAs	Number of capacity-building seminars on financial management for FOs	Number and percentage of FOs with viable business plans	Collect data on financial indicators of FO/TAs
Enhanced institutional and governance capacities of FOs	Number of capacity-building seminars on institutional governance for FOs	Evidence of functioning management and administrative structures Share of own resources in operational costs of FOs	Collect indicators on operative capacity of FO/TAs
Increase in volume and composition of services offered by FOs	Variety of services offered by FOs	Number of tangible services offered by FOs to members Number of farmers receiving services from FOs	Measure number of services provided by FOs Measure number of farmers benefiting from FOs' services
Enhanced capacity of FO/TAs to participate in and implement programs	Increase in qualifications of management staff of FOs Number of programs implemented by FOs	Number of programs implemented successfully by FOs	Measure number of programs implemented successfully by FOs
Enhanced capacity of FOs to lobby	Number of policy positions articulated formally by FOs and reflected in policy decisions	Number of policy decisions promoted by FOs that are approved	Measure number of policy decisions promoted by FOs that are approved

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