INTERNATIONAL FOOD POLICY
RESEARCH INSTITUTE
sustainable solutions for ending hunger and poverty
A member of the CGIAR consortium

IFPRI Discussion Paper 01238

December 2012

The Comprehensive Africa Agriculture Program as a Collective Institution

Shashidhara Kolavalli

Regina Birner

Kathleen Flaherty

Development Strategy and Governance Division

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

The International Food Policy Research Institute (IFPRI) was established in 1975 to identify and analyze national and international strategies and policies for meeting the food needs of the developing world on a sustainable basis, with particular emphasis on low-income countries and on the poorer groups in those countries. IFPRI is a member of the CGIAR Consortium.

PARTNERS AND CONTRIBUTORS

IFPRI gratefully acknowledges the generous unrestricted funding from Australia, Canada, China, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, the Netherlands, Norway, the Philippines, South Africa, Sweden, Switzerland, the United Kingdom, the United States, and the World Bank.

AUTHORS

Shashidhara Kolavalli, International Food Policy Research Institute

Senior Research Fellow/Program Leader, Development Strategy Support Program - GSSP

S.Kolavalli@cgiar.org

Regina Birner, University of Hohenheim

Chair, Social and Institutional Change in Agricultural Development

Kathleen Flaherty

Senior Research Analyst, Environment and Production Technology Division

Notices

IFPRI Discussion Papers contain preliminary material and research results. They have been peer reviewed, but have not been subject to a formal external review via IFPRI's Publications Review Committee. They are circulated in order to stimulate discussion and critical comment; any opinions expressed are those of the author(s) and do not necessarily reflect the policies or opinions of IFPRI.

Copyright 2012 International Food Policy Research Institute. All rights reserved. Sections of this material may be reproduced for personal and not-for-profit use without the express written permission of but with acknowledgment to IFPRI. To reproduce the material contained herein for profit or commercial use requires express written permission. To obtain permission, contact the Communications Division at ifpri-copyright@cgiar.org.

Contents

Abstract	v
Acknowledgements	vi
Abbreviations and Acronyms	vii
1. Introduction	1
2. Evolution and Institutional Setup of CAADP	3
3. Objectives and Design of CAADP	7
4. Conceptual Considerations	8
5. Compliance Institutions: Addressing the Free-Riding Problem	13
6. The Ghana Experience	17
7. Concluding Remarks	20
References	21

Table

6.1—Estimated costs of implementing Medium Term Agriculture Sector Investment Plan in 2010
prices (million Ghanaian cedis)

18

ABSTRACT

The Comprehensive Africa Agriculture Development Program (CAADP), an initiative of the New Partnership for Africa's Development (NEPAD), was developed in response to the neglect of the agricultural sector by African governments as well as donors. The program is also a response to concerns about the ineffectiveness of development aid due to absence of ownership and fragmented development interventions. Similarly to other NEPAD initiatives, especially the African Peer Review Mechanism, CAADP can be understood as an institution by which African countries aim to build a collective reputation regarding their commitment to improve governance and to develop agriculture. Most member states expect improved reputation to be rewarded by increased and superior forms of aid. A number of factors favor a collective strategy for African countries to build their reputation regarding improved governance and commitment to agriculture. These include negative spillover effects of poor governance (for example, obstacles to developing regional markets), improved bargaining power of African governments vis-à-vis the donor community, long-standing political efforts to build a positive African identity, and a donor interest in reducing transaction costs by interacting with African countries through regional organizations rather than individually. While realizing these potentials, the CAADP effort to build collective rather than individual reputation involves the classical free-rider problem of collective action: Countries may not honor their commitments after having received increased aid—a strategy that will harm all member countries since it undermines the collective reputation. Since CAADP involves a collective commitment by the donor community as well, donors face similar problems of collective action. They, too, may fail to honor their commitments or revert to individual rather than harmonized approaches to support African agriculture. The paper discusses the strategies that CAADP can use to overcome these collective action challenges.

Keywords: CAADP, NEPAD, collective action, reputation, agriculture, Africa, Ghana

ACKNOWLEDGEMENTS

The authors would like to acknowledge the German Development Institute (DIE), and the Federal Ministry for Economic Cooperation and Development (BMZ) for their financial support of the project: “Agricultural Policies in Sub-Saharan Africa: Understanding and Improving Participatory Policy Processes in APRM and CAADP” which contributed to the development of this paper. The authors would like to thank Roukayatou Zimmermann, Michael Bruntrup, Ramatu al Hassan, and Kwaku Owusu-Baah for their valuable inputs to the project. Finally, the authors appreciate the comments made by colleagues at an IFPRI seminar presentation of the study.

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
APRM	African Peer Review Mechanism
AU	African Union
BIPP	Bankable investment project profile
CAADP	Comprehensive Africa Agriculture Development Program
CAAP	Common African Agricultural Programme
CILSS	Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel (Permanent Interstate Committee for Drought Control in the Sahel)
COMESA	Common Market for Eastern and Southern Africa
ECOWAS	Economic Community of West African States
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross domestic product
GHC	Ghanaian cedi
HSGIC	Heads of State and Government Implementation Committee
IFPRI	International Food Policy Research Institute
METASIP	Medium Term Agriculture Sector Investment Plan
MoFA	Ministry of Food and Agriculture
NEPAD	New Partnership for Africa's Development
NMTIP	National medium-term investment program
OAU	Organization of African Unity
ODA	official development assistance
REC	Regional economic community
ReSAKSS	Regional Strategic Analysis and Knowledge Support Systems
SADC	Southern African Development Community
SAKSS	Strategic Analysis and Knowledge Support System
UNECA	United Nations Economic Commission for Africa

1. INTRODUCTION

“I say this to emphasize the point that necessarily the African Renaissance, in all its parts, can only succeed if its aims and objectives are defined by the Africans themselves, if its programs are designed by ourselves and if we take responsibility for the success or failure of our policies.

“Such are the political imperatives of the African Renaissance which are inspired both by our painful history of recent decades and the recognition of the fact that none of our countries is an island which can isolate itself from the rest, and none of us truly succeed if the rest fail.”

Thabo Mbeki in a speech delivered at the United Nations University in 1998

Agriculture in Africa has shown encouraging signs of growth recently after several decades of poor performance. Agriculture is also back on the development agenda in Africa. The World Bank’s *World Development Report 2008: Agriculture for Development* (World Bank 2007) called for increased investments in this sector. It also highlighted the need for an agricultural productivity revolution in Africa. The food price crisis that occurred in 2008 brought more attention on this sector. The G8 Summit in L’Aquila, Italy, and the G20 Summit in Pittsburgh pledged additional support to agriculture and food security. As a financial mechanism to implement these commitments, the Global Agriculture and Food Security Program (GAFSP) was set up.¹

There are signs that both government expenditures and foreign aid to agriculture are indeed increasing (Fan and Saurkar 2008; Benin 2012), even though reliable data on this topic only become available with a time lag of several years.² One of the most remarkable initiatives in the context of the renewed attention to agriculture is the Comprehensive Africa Agriculture Development Program (CAADP), which was adopted in 2003 by the African Union (AU) Assembly as part of the New Partnership for Africa’s Development (NEPAD).

Under the CAADP framework for transforming agriculture, African countries have committed to seek development through agriculture-led growth by targeting at least 6 percent growth and by allocating about 10 percent of their government budgets to the sector (NEPAD 2003). In return, the donor community has implicitly committed to increasing its support to agriculture using the CAADP mechanism, while at the same time coordinating its activities in this sector and aligning them with the CAADP priorities set by the African countries themselves. The ownership of agriculture-based growth strategies by African countries is expected to make investments in agriculture under the CAADP more effective than the aid to the sector has been in the past. Many donors (the term is used here to include bilateral and multilateral donors as well as international financial institutions) are already supporting countries and regional organizations under the framework of CAADP implementation.

CAADP has significantly contributed to the enthusiasm around the prospects for developing agriculture and an African Green Revolution. Considering that the policy discourse in many African countries had focused on industrial rather agricultural development, and considering that African countries had spent considerably lower shares of their budgets on agriculture than had Asian countries (Fan and Saurkar 2008), the CAADP commitment is in fact remarkable, especially since CAADP has achieved the image of being a truly “African-owned” initiative. NEPAD (2008) noted that the value added by CAADP lies in the conviction that Africa’s development problems can be sustainably addressed only through Africa’s own commitment and concerted action. More than any other initiative, CAADP has received political endorsement as well as continent-wide attention and the commitment of countries’ own resources. In fact, CAADP has been acknowledged as a major departure for African countries in

¹ See www.gafspfund.org/gafsp/content/about-gafsp.

² The average budget allocation to agriculture in Africa increased from 4.5 percent in 2002 to 6 percent in 2005. Five countries had achieved the 10 percent goal by 2005: Burkina Faso, Ethiopia, Malawi, Mali, and Guinea. Mozambique, Chad, and the Gambia are close to 10 percent. As further discussed below, it is unclear whether this increase can be attributed directly to CAADP. For more recent data, see Benin et al., (2012).

accepting ownership of measures needed for rapid growth and poverty reduction. CAADP is also remarkable from an institutional perspective. As will be shown in this paper, CAADP involves a level of collective action both among the African countries and among donor countries that has never before been experienced in the history of Africa's post-independence development.

However, NEPAD/CAADP is not without its critics. Some AU countries have been reluctant to fully subscribe to NEPAD, seeing it as driven by former South African President Thabo Mbeki and interfering with their own plans. At the same time, Mbeki himself seemed to have been unwilling to move NEPAD closer to the AU, fearing that it would be slowed down by the AU bureaucracy (Mashele 2006) or co-opted by others (De Waal 2002). Civil society organizations have been the most open in their criticism of NEPAD, stating that its process of creation was top-down and not participatory, and that it represents a continuation of the neoliberal policies of the 1990s (Abraham 2003). Some governments, such as those of Ghana, Kenya, and Rwanda, embraced NEPAD by quickly setting up national focal points and by signing up for and beginning the African Peer Review Mechanism process. Kenya, in addition, hosts a regional NEPAD secretariat. However, other governments were less enthusiastic, as demonstrated by the former leaders of both Libya and Senegal, who have been quoted as describing NEPAD as a talk shop.

Against this background, this paper aims to analyze the potentials and challenges of CAADP and to draw conclusions for the future of this program. In particular, the paper examines whether CAADP can be expected to increase investments in agriculture, and the conditions under which such an increase may be expected to take place. The paper uses the theory of collective reputation (Tirole 1996; Winfree and McCluskey 2005) and the theory of common-pool resources and collective action (Olson 1965; Ostrom 1990) to examine the incentives of countries in this collective effort.

The paper is based largely on a review of secondary information from both published and unpublished sources. It is structured as follows: The next section describes the evolution of CAADP. Section 3 describes the design and objectives of the initiative. Section 4 presents conceptual considerations, focusing on the rationale for the collective action that led to the specific institutional setup of CAADP and on opportunities and challenges that can be derived from a theoretical perspective. Section 5 deals with compliance institutions, and Section 6 illustrates the points made in the paper by analyzing the experience of Ghana.

2. EVOLUTION AND INSTITUTIONAL SETUP OF CAADP

Since CAADP is an initiative of NEPAD, which falls under AU, it is useful to briefly review the emergence of these institutions as well.

Emergence of the African Union

In 1999, the Organization of African Unity (OAU) chose to reinvent itself as the AU. As conceptualized in the Sirte (Libya) Declaration (OAU 1999), this new Pan-African entity was expected to advance the formation of the African Economic Community and to be more responsive and effective in addressing continental issues, such as conflicts and debt. The AU arose out of a convergence of influences and interests, including those of its major supporters, such as South African President Thabo Mbeki's vision of an "African Renaissance" (Mbeki 1998), Libyan leader Colonel Muammar Gaddafi's push for a "United States of Africa," and former President of Nigeria Olusegun Obasanjo's Conference on Security, Stability, Development, and Cooperation in Africa (Tieku 2004).

With 53 countries on board,³ the OAU ratified its Constitutive Act in 2000 (OAU 2000), and the AU was officially launched at its first assembly summit in Durban, South Africa, in 2002. While the AU Constitutive Act (OAU 2000) reaffirms the emphasis on cooperation and respect for national sovereignty that was found in the OAU charter, it also includes in its principles support for democracy, social justice, good governance, popular participation, and gender equality. In addition, in a significant change from past policy, it asserts "the right of the Union to intervene in a Member State pursuant to a decision of the Assembly in respect of grave circumstances, namely: war crimes, genocide and crimes against humanity" (AU 2003a, 2). Both the AU and NEPAD were created out of fresh resolve by African leaders to "own" their problems (*Economist* 2005).

NEPAD and Its Precursors

The origins of NEPAD can be found in the same Fourth Extraordinary Summit of the OAU, in Sirte in 1999, that initiated the AU. In this year, Algerian President Abdelaziz Bouteflika, as chair of the OAU, and President Mbeki were given the mandate to represent the AU on the issue of debt relief. The following year, President Mbeki, as secretary-general of the Non-aligned Movement, and Nigeria's President Obasanjo, as chair of the G77, were given a similar mandate at the South Summit in Havana. The three presidents devised the Millennium Partnership for the African Recovery Programme, which went beyond debt to address the full scope of development issues facing the continent, along with a restructuring of aid relationships. In the meantime, the president of Senegal, Abdoulaye Wade, proposed the Omega Plan for Africa, and the UN Economic Commission for Africa (UNECA) also issued a plan, called the Compact for African Recovery (hereafter referred to as "the compact"). South Africa, Algeria, Nigeria, and Senegal were joined by Egypt to form a steering committee that oversaw the integration of these three plans into the New African Initiative, which was accepted by the OAU in July 2001 at its Lusaka (Zambia) Summit. It was subsequently renamed the New Partnership for Africa's Development at the first meeting of the Heads of State and Government Implementation Committee (HSGIC) in October of that year (Mashele 2006).

The objectives of NEPAD appear to embody more of the spirit of the compact than of its other precursors. The key objective is to transform aid relationships by offering improved governance in exchange for increased aid. The compact originally proposed by UNECA called for developed countries to assist African development through aid, debt relief, and market access, in return for which the African countries would put in place the political reforms necessary to ensure that the economies would grow (ECA 2001).

³ Morocco refused to join, in protest of the decision to accept the Sahrawi Arab Democratic Republic (which claims the territory of Western Sahara) as a member.

Owusu (2003) noted that NEPAD was not the first development plan that the African governments had put forward. According to his analysis, it was more accepted than previous plans for two reasons. On the one hand, with NEPAD, African governments had moved closer to the neoliberal reform agenda promoted by Western donors. On the other hand, donor organizations and international financial institutions, most notably the World Bank, had come to place more emphasis on country ownership. Moreover, the compact, which appears to have had considerable influence in the development of NEPAD, recognized that good governance is essential for poverty reduction and that poor governance manifests itself in corruption, conflict, and high expenditures in unproductive sectors. These principles resonated well with the increased emphasis on good governance that emerged among donor organizations beginning in the 1990s. NEPAD also instituted the African Peer Review Mechanism, which can be seen as an effort on the part of African countries to deliver better governance in exchange for increased aid to the continent (Owusu 2003). The significance of this commitment to improve governance in anticipation of increased external assistance lies in the notion of ownership of development strategies, which is expected to increase aid effectiveness as articulated in the 2005 Paris Declaration on Aid Effectiveness and the 2008 Accra (Ghana) Agenda for Action (OECD).

The compact proposed four principles that encompass African commitment and relations with donors as a solution: African ownership of visions and goals, stable long-term support to Africa and predictability of donor support, transformed partnership based on mutual accountability, and recognition of Africa's diversity. To accommodate for this diversity, the compact recommended three modalities of partnership between donors and countries: enhanced partnership, limited partnership, and post-conflict partnership. The countries that meet certain standards of governance, economic performance, and commitment to reduce poverty were expected to benefit from enhanced partnership with donors, which implied increased quantity and quality of resource flows, including direct budgetary support.

NEPAD, however, was declared as a *program* of the AU, despite their parallel processes of creation, and is therefore not governed as broadly as its parent organization. Critics note that NEPAD is not a product of national or regional deliberations but rather a *homegrown version* of the stabilization and conditionality policies of the World Bank and the International Monetary Fund. Moreover, as a program, rather than a pact, convention, or protocol, it was not ratified by the member countries, beyond its original acceptance in Lusaka in 2001. Therefore, there are no formal means by which countries can accede to or withdraw from NEPAD, except by nonparticipation in the NEPAD bodies.

NEPAD is governed by the HSGIC, which is made up of representatives of four states per region and reports to the AU Assembly. The NEPAD Steering Committee, which reports to the HSGIC, develops the implementation plans for the programs that HSGIC needs to approve. The location of the NEPAD Secretariat in Midrand, South Africa, rather than Addis Ababa, Ethiopia (the seat of the AU), is seen as symbolic of its distance from the control and organizational structure of the AU, and of its close association with President Mbeki (Mashele 2006).

The organizational links between the AU and NEPAD occur in three areas: (1) The leaders who participate in the HSGIC are also part of the AU Assembly, (2) the AU chairperson participates in HSGIC meetings, and (3) the AU commissioners are ex officio members of the NEPAD Steering Committee (AU 2002). NEPAD's integration into the AU was expected to happen by mid-2006, but the HSGIC was not able to come to an agreement on how this should be achieved. At the January 2007 summit of the HSGIC, the decision was deferred to an ad hoc meeting held in March. At this meeting, yet another transitional period was established, this time for one year, during which a NEPAD planning and coordinating authority would be set up (NEPAD 2007). Finally in February 2010, the 14th AU Assembly established the NEPAD Planning and Coordinating Agency as a technical body of the AU to replace the NEPAD Secretariat. This is a key step in the integration of NEPAD into the AU.⁴

One remarkable feature of NEPAD is the strong element of South African leadership in the program. As Mbeki (1998) noted, the country's emancipation from apartheid came because of the solidarity extended by the rest of Africa. Hence, South Africa feels obligated to use the *gift of freedom* to

⁴ See www.nepad.org.

advance the cause of the continent. In line with Olson's (1965) suggestion that some may find their individual benefits from collective action to exceed the total cost of collective action, South Africa appears to have absorbed considerable organizational costs of furthering NEPAD. Political analysts have, however, also interpreted NEPAD as an initiative of some African leaders to challenge the traditional authority of Libya that had long dominated the OAU (see Morais and Naidu 2002).

Evolution of CAADP

A continental program on agriculture with a name uncannily similar to CAADP was proposed a decade before NEPAD came into existence. Following the Abuja (Nigeria) Treaty of 1992 that instituted the African Economic Community, the 18th FAO (Food and Agriculture Organization of the United Nations) Regional Conference for Africa proposed a Common African Agricultural Programme (CAAP). The program envisioned cooperation in and integration of agriculture across the continent through considerable collective activities, such as production of agricultural inputs and harmonization of food security policies.⁵ The plans for this program evolved rather slowly, probably because the FAO was the main driving force, and support from African leaders remained limited in the first years. Still, the FAO continued to push for the program and used the opportunity to link it to NEPAD, as further detailed below (see also FAO 2012, Annex 4).

In 2001, after reviewing a report issued by the African ministers of agriculture at their First Extraordinary Conference of Ministers of Agriculture, held in Lomé, Togo, in April 2001, the OAU Council of Ministers requested that the secretary-general convene an urgent meeting of the Committee on Rural Economy and Agriculture as provided for in Article 25(1)(a) of the Treaty Establishing the African Economic Community and Article 14 of the Constitutive Act of the African Union. The Council requested that the secretary-general (1) prepare a comprehensive program, including a definite timetable for the establishment of an African common market of basic food commodities, and (2) prepare a methodology for implementing the recommendations of the conference held in Lomé in order to address the problem of food security on the continent as a priority. It also requested that the FAO provide technical assistance to the OAU General Secretariat, its member states, and the regional economic communities in the implementation of strategies and programs aimed at improving food security in Africa (AU 2001).

At the end of 2001, the FAO organized a brainstorming workshop for representatives from the NEPAD Implementation Committee to discuss investments needed in agriculture and water. This was followed by a "work-in-progress" workshop held in January 2002 by the NEPAD Steering Committee to discuss actions and programs for all priority sectors, including agriculture (FAO 2004). The 22nd Regional Conference for Africa convened by the FAO in February 2002 made no mention of the former CAAP but instead discussed supporting NEPAD and increasing agricultural investment (FAO 2002a). At the 2nd meeting of NEPAD's HSGIC (see above) in Abuja one month later, FAO's director general (DG) presented potential CAADP themes. A CAADP draft was then discussed at the NEPAD Steering Committee meeting in Maputo, Mozambique, in May 2002. In June of the same year, the ministers of agriculture present at a follow-up meeting to the FAO regional conference held in Rome endorsed CAADP (FAO 2002b). The DG of the FAO also addressed the 3rd meeting of NEPAD's HSGIC, which was held in connection with the World Food Summit in Rome in June 2002 (NEPAD 2002a). The role of the regional economic communities/organizations in the implementation of CAADP was first discussed at

⁵ The full list includes the following items: production of agricultural inputs, fertilizers, pesticides, selected seeds, agricultural machinery and equipment, and veterinary products; development of river and lake basins; development and protection of marine and fishery resources; plant and animal protection; harmonization of agricultural development strategies and policies at regional and community levels, in particular those related to the production, trade, and marketing of major agricultural products and inputs; and harmonization of food security policies in order to ensure the following: reduction of losses in food production; strengthening of existing institutions for the management of natural calamities, agricultural diseases, and pests; conclusion of agreements on food security at the regional and continental levels; provision of food aid to member states in the event of serious food shortage; and protection of regional and continental markets primarily for the benefit of African agricultural products (FAO 2000).

a joint expert meeting of the FAO and the African Development Bank (AfDB) held in Ghana in November 2002, and then at a high-level meeting held in Abuja in December 2002, involving the chairman of the NEPAD Steering Committee, the president of the AfDB, and the DG of the FAO (NEPAD 2002b).

The Second Ordinary Session of the African Union held in Maputo in July 2003 finally approved CAADP and adopted the Maputo Declaration on Agriculture and Food Security in Africa (AU 2003b). According to this declaration, the heads of state and government of the AU stated their commitment to “implement, as a matter of urgency, the Comprehensive Africa Agriculture Development Programme (CAADP)” (AU 2003, 1).

This account shows that the FAO played an important role in the creation of CAADP. According to a recent evaluation of the FAO’s policy work (FAO 2012, Annex 4), there was, however, an increasing concern among African leaders that the FAO apparently had difficulty leaving the *driver’s seat* for the development of CAADP to NEPAD and engaging in a process that was less Rome-centered. Therefore, the FAO lost influence in the process and other actors came to play a more important role in supporting the initiative. One of them is the International Food Policy Research Institute (IFPRI), which was able to raise donor funds to post a senior staff member (a national of one of the AU member countries) to the NEPAD Planning and Coordination Agency to assist with the development of CAADP (FAO 2012, Annex 4:3).

3. OBJECTIVES AND DESIGN OF CAADP

The objective of CAADP is to help African countries achieve higher levels of economic growth through agricultural development, thus eliminating hunger, reducing poverty and food insecurity, enabling expansion of exports, and supporting environmental resilience (NEPAD 2008). The program seeks to guide country strategies and investments, encourage regional peer learning and review, and facilitate greater alignment and harmonization.

CAADP recommends four *pillars*, continent-wide entry points for investment and action, around which agricultural strategies should be developed: (1) sustainable land and water management; (2) improving market access through rural infrastructure and trade-related interventions; (3) increasing food supply, reducing hunger by increasing smallholder productivity, and improving response to food emergencies; and (4) improving agricultural research and systems to disseminate appropriate new technologies, and supporting farmers in adopting them.

The framework of CAADP also has a key set of principles. The principles encourage or require countries to commit to developing agriculture for food security and poverty reduction, to benefit from regional complementarities, to apply principles such as dialogue and efficiency in the development of policies and their implementation, and to benefit from shared responsibilities among African institutions (NEPAD 2008). Two indicators that have been identified to monitor countries' progress in implementing the program are the rate of growth in agriculture that is sought in agricultural plans and achieved, and the share of budget that goes into the agriculture sector.

After the Maputo Summit in 2003, the AU subsequently held several summits on various agriculture-related concerns, issuing declarations at each. These declarations include the Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development on Agriculture and Water in Africa in 2004, the Abuja Declaration on Fertilizer for the African Green Revolution in June 2006, and the Abuja Declaration on Food Security in December 2006 (AU 2004, 2006a, 2006b, respectively). The declarations reiterate support for CAADP but add on new directives requiring member country compliance. The Sirte Declaration, for instance, called for the establishment of a common market, while the Declaration on Fertilizer set a target of increasing fertilizer use from an average of 8 kg/ha to 50 kg/ha by 2015. The Food Security Declaration designated specific crops as strategic commodities needing special attention, including rice, maize, legumes, cotton, oil palm, beef, dairy, poultry, and fisheries products at the continental level and cassava, sorghum, and millet at the subregional level. These commodities are meant to form the basis of a continental free trade area. The agricultural program in the form of CAADP that emerged has fewer collective activities than the program floated earlier or various declarations have called for. The CAADP expects individual action to live up to a collective commitment rather than collective action in activities themselves, although benefitting from complementarities appears as one of the key objectives. CAADP also left out the common market issue, which was clearly important to African leaders (at least in their discourse), being the major focus of the Sirte Declaration and the Abuja Declaration on Food Security.

4. CONCEPTUAL CONSIDERATIONS

Collective Reputation

Just as with NEPAD and its African Peer Review Mechanism (APRM), CAADP can be seen as an effort to build collective reputation. In economic theory, reputation can be seen as the overall estimation of the quality of a firm or an agent held by all those who know it. Reputation is important for decisions about the consumption of so-called experience goods, a concept developed in consumer economics (Nelson 1970). These are goods whose quality becomes known fully only after they are consumed. Food products and services are usually categorized as experience goods. More generally, reputation is relevant wherever consumers/agents have inadequate information to observe all the relevant attributes of the product/principal's behavior before purchase or transaction (Castriota and Delmastro 2008). Hence, reputation is equally relevant in so-called principal-agent relationships, in which one party, referred to as the principal, contracts another party, referred to as the agent, to perform a task. The characteristic feature of the principal-agent relationship is that the principal does not have complete information that would allow him or her to fully assess the performance of the agent. A classical answer to the market failure that arises from incomplete information is the development of reputation. Individual firms can develop a reputation for their products if there is traceability or if consumers are able to distinguish between products and services of various firms. However, if consumers cannot trace the product to a particular firm, as in case of, for example, apples produced in a region, a collective reputation may develop for the region of origin.

The collective reputation is shared by all those who are part of the group defined by either a location or some other attribute. Many food products are marketed with a designation of origin on the basis of a collective reputation that signals quality to consumers. The producers that benefit from reputation may also build individual reputations; in other words, a single firm may have both a collective and an individual reputation. Some of the Washington State apple producers, for example, place their own logo in addition to the "Washington apple" identification placed on all the produce from the region to differentiate their apples from the rest because the collective logo signifies only the origin and its quality (Winfree and McCluskey 2008). Individuals who build their own reputation do not compromise collective reputation: A member's incentive to maintain individual reputation is stronger the better the group's reputation (Tirole 1996).

Collective reputation is a product of individual reputations, and individual and collective reputations influence each other (Tirole 1996). Collective reputation may be viewed as an average individual reputation of group members. However, Gergaud and Livat (2004), studying the individual and collective reputation of Bordeaux wines, showed that group reputation is a product of the reputations of the group's most famous members. Collective reputation evolves as a product of past average and current levels of quality.

The premium that often goes with reputation makes developing or maintaining a collective reputation challenging because it creates incentives to free ride. Collective reputation may have dynamics of extraction similar to those of a common-pool natural resource (see Ostrom 1990). Reputation for quality is *extracted* when low-quality products are sold at higher prices determined by reputation or by higher levels of quality in the past (Winfree and McCluskey 2008). The interests of individuals can indeed diverge from those of the group. For example, the efforts of Washington apple producers to ban the sale of cold-stored apples, which are of lower quality, were challenged by some producers (Winfree and McCluskey 2005). Winfree and McCluskey (2005) showed that strong systems of self-regulation and quality standards are necessary to maintain reputation when there is no traceability.

The benefits from reputation are such that there may be a tendency even for individual firms to extract their reputations. After all, a reputation is an asset individuals or firms invest in by trading off short-term benefits for long-term benefits (Wilson 1985). Firms that produce experience goods build reputations and eventually extract their reputation and produce low-quality goods (Gale and Rosenthal

1994). More generally, when consumers have imperfect information, firms may have incentive to supply quality that is lower than what they would if their consumers had better information (Shapiro 1983).

These considerations can be applied to the provision of development aid, since supplying aid to countries is akin to buying an experience good or entering into a principal–agent relationship. Whether the aid leads to the intended outcomes depends on how the aid is utilized; it may not be possible to measure the impact even after aid is utilized due to information and methodological problems. Hence, donors tend to support countries that have a reputation for making effective use of funds. Accordingly, there are rewards associated with good reputation. A reputation for good governance, for example, is often stated to be an important consideration in aid decisions. American assistance through the Millennium Challenge Corporation, in particular, is strictly offered only to countries that are deemed to be governed well.⁶

Against this background, the CAADP initiative can be interpreted as an attempt by the AU and NEPAD to enhance collective reputation or external perception of African countries relating to their commitment to develop agriculture. In a related program, APRM, which countries enter into voluntarily, they attempt to improve reputation relating to governance.⁷ Countries can and do develop individual reputations—that is, there is traceability. However, CAADP (as well as NEPAD) decided to use a collective approach for the important reason that African countries cannot escape a collective reputation. Some of the better-governed countries that were behind the NEPAD initiative might have thought they were negatively affected by the overall image of Africa and may be expecting to leverage greater private-sector investment by improving the overall image of the continent.

African countries are often lumped together, even though they are extremely diverse. Africa may be a victim of stereotyping: When there is not enough information about a group, observed behavior of any one of the members may be attributed to the entire group (Tirole 1996). Reputation in this sense also becomes a public good or a common-pool resource (Besley and Kandori 1992). Interestingly, this phenomenon may not be experienced to the same extent by countries on other continents of the developing world, such as Asia or Latin America.

The historical context may help to explain the decision to work collectively. The reformulation of the Organization of African Unity as the AU and the emergence of programs such as NEPAD took place when African countries were in dire conditions and there was also disillusionment with the effectiveness of aid. By the late 1990s, African countries had become severely burdened by decades of accumulated debt, and debt payments and structural adjustment policies were severely curtailing spending on social services. As a share of gross domestic product (GDP), Sub-Saharan African countries owed more debt than any other region in the world, increasing from 12 percent of total GDP in 1970 to 75 percent by 1998 (Pettifor and Greenhill 2002). Pressure for debt relief led to the Highly Indebted Poor Countries Initiative of the International Monetary Fund and World Bank, which granted relief in exchange for a commitment to use the funds for reducing poverty through the development of poverty reduction strategy papers or national poverty-focused growth strategies.

Concerns also grew during this time about aid ineffectiveness that had led to so much debt. The Organisation for Economic Co-operation and Development's (OECD's) 2003 Rome Declaration on Harmonisation and 2005 Paris Declaration on Aid Effectiveness committed donors to enhancing coordination, accountability, and delivery of aid (OECD 2003 & 2005). Both African countries and donors were seeking improved mechanisms for aid, including sectorwide approaches, multidonor budget support, and partnership forums such as the Global Donor Platform for Rural Development. African countries chose to address these issues collectively, possibly for greater leverage.

Trying to develop a collective reputation is, however, a challenging task because of the free-riding problem involved. Since collective reputation may be overly influenced by the reputations of more

⁶ See www.mcc.gov/pages/selection.

⁷ APRM works somewhat differently from CAADP. It is not as collective as CAADP is. What is expected to work is the peer pressure and aid flows in response to improved governance. The key here again is that improvements in governance guide aid flows.

famous or infamous members, the abuse of aid by a few may receive greater attention than the reputation of the countries that use aid effectively. The threat of being lumped together and the phenomenon of bad news receiving more attention than good news may make collective reputation all the more important for African countries.

In view of these challenges, would some countries that already have higher levels of reputation contribute to building collective reputation? It would depend on costs and benefits. A firm, for example, may participate in generic advertising if the benefits from generic advertising outweigh the costs of lower product differentiation by building individual reputation (Crespi and Marette 2002). Therefore, countries with reputations good enough not to be tarnished by an inferior collective reputation may not be enthusiastic about building the collective reputation, but to the extent that a poor collective reputation tarnishes the individual image of countries on the continent, they all may be enthusiastic about CAADP.

Theories of political science also suggest whether countries will follow up on their commitments, particularly given their dependence on aid. In Africa, however, this problem is aggravated by the much larger role that foreign donors play than elsewhere. As pointed out in *World Development Report 2008* (World Bank 2007, 257), for 24 Sub-Saharan countries, official development assistance (ODA) averaged 28 percent of total agricultural spending. For Mozambique, Niger, and Rwanda, ODA to agriculture was even more than 80 percent.

Van de Walle's (2001) theory about the neopatrimonial state can also be considered in the context of CAADP. The author argued that to extract the donor resources required to maintain the clientelistic networks that are important for political leaders to stay in power, countries have to portray themselves to be in a situation of crisis that they are willing to overcome through reforms. In practice, these reforms are never fully implemented, so that the donor funds continue to flow. Van de Walle's (2001) argument was not specific to agriculture, even though he gave important examples from this sector. In the literature that is specific to agricultural policy, similar arguments can be found. An example is a paper by Jayne et al. (2002), who presented ample evidence of agricultural policy changes, such as the abolition of marketing boards, that African governments started under the pressure of structural adjustment but later reversed. Similarly, Harrigan (2003) showed that fertilizer subsidy policies in Malawi were often reversed when domestic political pressure was higher than donor pressure.

While this literature refers to a situation of crisis, one can make similar arguments for opportunities that may arise to access donor funding, without necessarily confronting a crisis. Owusu (2003) interpreted the creation of NEPAD in this regard. He argued that after decades of confrontation, African leaders recognized the opportunity to access funding by subscribing to Western ideas, a move he described as pragmatism. A similar argument may be made for CAADP, even though joining CAADP requires mainly a commitment to the agricultural sector as such, and not so much a commitment to specific neoliberal agricultural policies.

It is also useful to recognize that those in the business of supplying aid and of justifying the need for aid may also have incentives to exaggerate the need for aid. Development organizations, in their constant jockeying for leadership, may have a tendency to see crises where there are none. For example, Swinnen (2010) suggested that many development organizations have taken positions following the dramatic increases in food prices in 2006–08 that are fundamentally different from their earlier views that low food prices were a curse to developing countries and the poor.

Lal (2006) developed a *two-audience* model that offers insights on whether countries will indeed be able to reform. Analyzing what he called the “rhetoric–implementation gap,” Lal argued that politicians have to speak simultaneously to two audiences, which “are positioned back to back and rarely see or hear each other” (Lal 2006, 4). One audience is international investors and donors, as well as a domestic-policy and financial elite. To please this audience and keep funds flowing, politicians have to portray themselves as reformers. The other audience is the local constituency that the politician must protect and nurture to be re-elected. Unlike van de Walle (2001), Lal acknowledged that efforts to care for this constituency include not only populist approaches but also the need to address legitimate grassroots concerns. The fact that Lal introduced this concept for India rather than Africa indicates that the problems discussed here are not at all specific to the African continent.

One could take Lal's point a step further and distinguish *two worlds* in which African politicians have to succeed. One may be called the *donor world* and the other the *real world*. Both worlds have their own logic and their own discourse. The donor world is dominated by procedures developed in Western countries, and accordingly the discourse in this world is dominated by concepts such as good governance, transparency, accountability, stakeholder representation, alignment, and so on. The real world of the policymaker in a typical developing country, however, is—depending on the political system—dominated by challenges such as ensuring political support from constituents who want to see tangible benefits, managing ethnic tensions, raising funds for electoral campaigns, or controlling the threat of an overthrow of the regime by the military or violent groups. The incentives for spending resources created in the real world are often quite different from those prevailing in the donor world. For example, in the real world, there are strong incentives to spend funding for private goods, such as agricultural subsidies that can be distributed to specific groups of political supporters, whereas the donor world prefers public goods such as road infrastructure and investments in agricultural research.

One indication of this two-world problem is that countries develop elaborate agricultural strategies and plans, using the type of participatory processes expected by the donor community. However, these strategies and plans are subsequently never implemented, as shown in the case of West Africa by Resnick and Birner (2009).

Obviously, the strong dependence on donor aid, which has been discussed above, can be seen as a major reason for this propensity of countries to promise one thing and then do another. In this framework, CAADP can be seen as a collective effort of African countries to improve their bargaining position in the donor world, with the hope of generating more resources that they need to succeed in their real worlds. What makes CAADP perhaps particularly attractive to African policymakers is the fact that, as mentioned above, CAADP principally requires a commitment to spend more resources on agriculture, not necessarily to implement neoliberal agricultural policies.

Ghana is an interesting example. None of the four major agricultural programs—the agricultural mechanization program, the fertilizer subsidy program, the block farming program, and the buffer stock program—is in line with neoliberal policy prescriptions (see Benin 2012). All of them offer considerable scope for patronage or, phrased differently, for meeting commitments in the politicians' real world. More generally, CAADP is quite attractive for politicians because it generates resources that help them to develop a much stronger rural base. The APRM is a somewhat different case, since it is more in line with neoliberal ideas. Still, the available evidence suggests that the APRM did not prevent policymakers from using CAADP to follow their own policy preferences with regard to agricultural policy choices.

The Collective Action Problem on the Donor Side

CAADP involves collective action challenges for the donors as well. For bilateral donors, a collective action problem arises in CAADP because they have a strong incentive to support individual projects. Such projects make it easier for them to show to their home constituencies how their taxpayers' money is spent. Another reason for the collective action problem on the donors' side is that they may not have a shared vision of development priorities or the strategies resulting in a lack of consensus about development objectives. This leads to a considerable coordination problem. In Ethiopia, for example, almost 20 donors were supporting more than 100 agricultural projects in 2005 (World Bank 2007, 257). Donor agencies also have strong incentives to implement projects according to their own procedures and through implementation bodies that they set up particularly for this purpose. This practice, however, undermines the efforts of strengthening the respective country's own procedures and institutions. These problems have long been acknowledged and have led to a number of resolutions and commitments among donors to coordinate their aid and align it with country-owned processes and priorities. The Paris Declaration on Aid Effectiveness and the Accra (Ghana) Accord on Action are the most prominent resolutions in this regard (OECD 2005). CAADP also follows the same logic. In view of the governance challenges faced by many African countries, donor agencies have strong incentives to free ride on such commitments, and still continue to use their own criteria and bilateral relations to determine how much

they support and in what form. Moreover, although donors acknowledge that governance and practices of democracy should be an important consideration in giving aid, authoritarian regimes continue to receive aid (Easterly 2010). Likewise, in view of their own budget constraints, donors have incentives to reallocate funding to CAADP rather than mobilizing new resources.

The conceptual considerations presented in this chapter show that CAADP needs strong compliance mechanisms, both on the side of the African countries and on the side of the donors, to ensure that the collective action problems inherent on both sides can be overcome. Such compliance mechanisms that aim to hold each other mutually accountable may exist at two levels: at the country level and at higher, that is, supranational levels.

5. COMPLIANCE INSTITUTIONS: ADDRESSING THE FREE-RIDING PROBLEM

This section reviews the challenges in overcoming incentives to free ride under CAADP. It will also assess the available evidence on the effectiveness of such mechanisms. As mentioned in the introduction, Ghana will be used as a case study for illustration (Section 6).

Participating countries are expected to contribute to reputation building by committing to development of agriculture in the following ways:

1. Seeking at least 6 percent growth in the agriculture sector and increasing the share of agriculture expenditure to 10 percent of the national budget—the two key indicators of commitment to CAADP
2. Implementing CAADP with attention to evidence-based policymaking, participatory processes, and partnership building

The first expectation relates to commitment of resources while the second relates to how the resources are utilized. The latter is critical because it is expected to lead to fundamental changes in the way policies are developed and implemented, thus leading to improved aid effectiveness (Kolavalli et al. 2010).

A country free rides by not doing the above while benefiting from increased funding that might become available because of improved collective reputation.⁸ There is little to benefit from, so far, because there is no pot of funds that has been made available except for the GAFSP, managed by the World Bank. Still, going through the motions of CAADP implementation—without engaging fundamental changes in the way policies are developed and implemented—can place a country in a favorable position to benefit from enhanced bilateral support. Four types of mechanisms are discussed in the following, which can—in principle—address the free-rider problem: exclusion, persuasion, support, and monitoring / peer pressure.

Exclusion

What can NEPAD do to ensure compliance by member countries? In principle, it may consider exclusion. However, this strategy does not seem promising, because the underlying rationale in CAADP is to build a collective reputation for Africa. Excluding some countries from the group that is building a collective reputation would undermine the value of this collective reputation. A subset of countries that perform well does not speak for Africa as a whole, especially since, as discussed above, African countries are more likely to be lumped together than the countries of any other continent.

Apart from membership in the AU, it is also difficult to envisage what it is that noncompliant countries can be excluded from. NEPAD, as explained above, is a program of the AU, and AU members are automatically a part of it. They could be excluded from receiving funding under CAADP, but that would require collective action from the donor side, so that all donors refuse to support the excluded countries. Aid flows are a function of historical relationships and influenced by geostrategic and political considerations; although there might be harmonization and creation of certain pool funds such as GAFSP, which is now available for CAADP countries, that mechanism does not prevent donors from providing direct support to countries independent of their performance as CAADP members.

Also, it may not be in the interest of those countries that are trying to build the reputation to create subgroups with different levels of ownership or commitment. The literature on the quality of commodities and associated regulation suggests that there may be externalities to the behavior of subgroups within an industry. Observing quality in one group might suggest to consumers the likely quality that another group may offer (Evans and Guinnane 2007). Additionally, the Compact for African Recovery in fact recognizes that countries are in different stages of governance, that all countries will

⁸ The role that countries need to play to improve collective reputation relating to governance is clearer. They need to subject themselves to a peer review and then make efforts to improve governance.

make an effort to improve governance, and that aid should indeed help them graduate to higher levels. The African Peer Review Mechanism (APRM) is structured accordingly: The reviews are not necessarily to see if the countries have clean government, democracy, and human rights, but whether they are moving in that direction (*Economist* 2004).

Because exclusion cannot be used as a credible threat, a number of regional, continental, and international organizations encourage and assist countries in implementing CAADP.⁹ NEPAD also has set up peer review mechanisms to encourage countries to learn from each other and live up their commitments.

Persuasion

NEPAD's strategy has been to persuade, or encourage, countries to follow a specified process of implementation, based on the development of strategic documents. Following the FAO's active role in the creation of CAADP (see above), NEPAD first attempted to implement the program through the FAO. By 2006, the FAO supported more than 50 countries—that is, almost all member countries of the AU—in developing national medium-term investment programs (NMTIPs), which reviewed the constraints and opportunities, and set out priorities for investment. Together with the NMTIPs, the FAO also developed so-called bankable investment project profiles (BIPPs) for implementation (Zimmerman et al. 2009, 50). However, the BIPPs did not receive the expected donor funding, and the plans were not implemented, which led to a considerable disillusionment on the part of African governments with the FAO's role in CAADP. As the evaluation of the FAO's policy work quoted above shows, two factors contributed to the lack of implementation (FAO 2012, Annex 4:4ff). One was the assumption by FAO that African governments would be willing to invest their own budgetary resources into the NMTIPs, following their CAADP commitments. This, however, was not the case. African governments saw CAADP primarily as a mechanism to leverage donor resources. The other factor was related to the process of drafting the NMTIPs and the BIPPs. Although the development of these strategies involved the usual level of consultations with various stakeholders in each country, the processes appear to have been largely led by the FAO. Donors were also concerned about the hasty development and lack of a strong analytical foundation for the plans. In view of these constraints and the lack of ownership by governments, donors appeared to have shied away from funding the projects.

These efforts are not, however, perceived to be wasted, since NMTIPs and BIPPs can be used in subsequent phases of implementation. For example, at the Rwanda CAADP roundtable, an AU commissioner stated that the two phases of CAADP implementation were not mutually exclusive because the NMTIPs and BIPPs should be considered as part of stocktaking that countries were expected to conduct under the revised implementation strategy (Kurwijila 2007, 5).

NEPAD revived CAADP implementation with a document called *The Roadmap* (NEPAD 2005a), presented to the Africa Partnership Forum at the end of 2004, which set out a process that emphasized the implementing regional economic communities (RECs) and the need to align national strategies with the CAADP pillars. In a concept note developed at the implementation retreat held in Pretoria, South Africa, at the end of October 2005, NEPAD set out the processes that the countries should follow, beginning with a "stocktaking" (NEPAD 2005b). The stocktaking is a review of the countries' past agricultural situation, current trends, and future outlook, including tools such as macroeconomic models wherever feasible to examine the effectiveness of different strategies in achieving growth and poverty reduction targets. The stocktaking was also expected to include a review of institutional and capacity needs of the countries. As compared with the earlier efforts, the stocktaking was expected to provide a strong analytical basis for the planned investments. Stocktaking was designed to be undertaken by consultants hired nationally by the ministries of agriculture with technical assistance from international

⁹ APRM, on the other hand, is voluntary, with countries in fact signing up for peer review by paying a fee of nearly US\$200,000.

organizations such as the International Food Policy Research Institute (IFPRI) or universities such as Michigan State University.

Following the stocktaking, the revised implementation strategy recommended that each country organize a roundtable to bring together all CAADP stakeholders, including representatives of the AU, NEPAD, the RECs, the ministry of agriculture, the ministry of finance, and development partners to complete the following tasks: assess the extent to which a country's policies, strategies, and investments are conducive to achieving sector targets; assess the extent to which development assistance to the country is aligned with the country's targets; have an evidence-based policy discussion on country and regional priorities supported by inputs from the four CAADP pillars; and develop a compact that includes defined actions, commitments, partnerships, and alliances (NEPAD 2008). The signing of the country compact was to affirm the commitment of the government and the development partners to address the gaps in policies and financing identified in the stocktaking, thereby building partnerships and mutual accountability among various stakeholders.

Although the NEPAD concept note recommended a detailed plan for an implementation process, it also stated that CAADP was not meant to replace existing national agricultural strategies; rather, the country's development and agricultural strategies should be aligned with the CAADP framework largely in terms of adhering to the four pillars and achieving growth and expenditure commitments (NEPAD 2005b). Also, CAADP processes were to take advantage of national processes already in place rather than repeat them.

Role of Supporting Organizations

In a further strategy to overcome the collective action problem on the side of the African governments, a range of regional organizations were assigned to support the CAADP implementation process. These included the RECs, the so-called pillar lead institutions (organizations identified to oversee the implementation of a particular CAADP pillar),¹⁰ the agricultural unit in the NEPAD Secretariat, and the AU Commission, all of which were positioned to stimulate, facilitate, support, and coordinate CAADP implementation at national and regional levels (NEPAD 2008). At the continental level, the AU Commission led the process with its Department of Rural Economy and Agriculture, supported by the NEPAD Secretariat. The NEPAD Secretariat was expected to facilitate communication, build partnerships, encourage mutual learning, disseminate information, and manage the monitoring and evaluation and the impact assessment.

NEPAD mandated the RECs (the Common Market for Eastern and Southern Africa [COMESA], the Southern African Development Community [SADC], the Economic Community of West African States [ECOWAS], the Economic Community of Central African States, and the Arab Maghreb Union), which are seen as the building blocks of a politically and economically integrated Africa, to assist in the implementation of CAADP by the Abuja Declaration of 2002. In addition to developing a regional plan and taking the lead on regional agricultural development issues, the RECs were charged with supporting their member countries with the stocktaking and with organizing the roundtables. For each CAADP pillar, an expert reference group was tasked with the development of a strategic framework to provide guidance for policies and investments at the regional and national levels.

The donors, both multilateral and regional organizations, were expected to interact regarding CAADP in settings such as the African Partnership Forum, which was established in 2003 at the Evian (France) G8 Summit to provide a high-level political forum for discussing African development issues. Its members included the heads of state and government of the NEPAD member countries, leaders of G8 member countries, multilateral institution leaders, and REC leaders. Another forum, the CAADP

¹⁰ The pillar lead institutions are the following: the University of Zambia and the Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel (Permanent Interstate Committee for Drought Control in the Sahel-CILSS) for Pillar 1, the Conference of Ministers of Agriculture in West and Central Africa for Pillar 2, the University of KwaZulu Natal, School of Agriculture, Earth and Environmental Sciences and CILSS for Pillar 3, and the Forum for Agricultural Research in Africa for Pillar 4.

Partnership Platform, was established in October 2005 at the Pretoria retreat to bring together representatives of NEPAD, the RECs, development partners, and national governments for coordination, mutual review, and dialogue during CAADP implementation.

Additionally, a number of other organizations were tasked with technically assisting countries and regional organizations. The FAO provides technical assistance to the NEPAD Secretariat on Pillar 3, food security. IFPRI has been assisting NEPAD on agricultural issues beginning in 2004 (see above). The work by IFPRI, which was conducted under some of IFPRI's donor-funded country strategy support programs, aimed to build capacity and improve the design and implementation of rural strategies. This work also provided the evidence and analytical tools required for planning under CAADP.¹¹ In addition, IFPRI received substantial donor funding to provide capacity-strengthening support and to pass on funding to the RECs to support country roundtable processes.

Monitoring and Peer Pressure

Apart from supporting countries in their implementation, the overall system is designed to nudge countries through monitoring and peer pressure, two instruments that can play an important role in addressing the free-rider problem. One important instrument for monitoring and peer pressure is the Regional Strategic Analysis and Knowledge Support System (ReSAKSS).¹² This instrument is a regional version of SAKSS (Strategic Analysis and Knowledge Support System), an instrument that was originally developed by IFPRI with funding from the US Agency for International Development to facilitate evidence-based policymaking and monitoring at the country level (Johnson and Flaherty 2011). ReSAKSS plays an important role in this process through monitoring of performance. Some forums are also expected to be developed at the regional level for peer reviews, including one for permanent secretaries and directors of planning from the countries to collectively review implementation performance and promote regional learning, and another for leaders of economic communities and representatives from the private sector and farmers' organizations to review country implementation. At the country level, country implementation teams, which are likely to include all the signatories to compacts and the national SAKSS nodes, are expected to provide forums for monitoring progress.

¹¹ The Strategic Analysis and Knowledge Support System (SAKSS) concept developed by IFPRI has been extended to regional levels to support RECs. NEPAD endorsed the Regional SAKSS (ReSAKSS) concept in 2004. In 2006, in cooperation with IFPRI and the other CGIAR centers, three ReSAKSS nodes were launched by the RECs—SADC, COMESA, and ECOWAS—with the primary goal of supporting regional CAADP implementation. These ReSAKSS nodes will in turn support the creation of national-level SAKSS nodes to support countries. These networks are also responsible for monitoring implementation and outcomes in countries.

¹² See www.resakss.org.

6. THE GHANA EXPERIENCE

Ghana had to be persuaded to implement CAADP, although the FAO (UN Food and Agriculture Organization) and the local NEPAD liaison office began efforts to create awareness of NEPAD programs a few months before CAADP was approved in July 2003. These entities organized a conference in Accra titled “NEPAD and Agricultural Development in Ghana: Strategy for Sustained Performance in Agricultural Intensification, Processing and Marketing Access,” followed by a series of workshops in regional capitals between July 2003 and August 2004. As elsewhere, the FAO-led process began in 2004, when a team of consultants and staff of the Policy Planning and Monitoring and Evaluation Directorate of the Ministry of Food and Agriculture (MoFA), with the help of the FAO, drafted and presented for discussion an NMTIP for Ghana at a conference. Under the guidance of MoFA, even two BIPPs, one on postharvest management and agroprocessing and the other on small- and microscale irrigation and drainage, were prepared. The FAO presented the proposals to the government and the donors in 2005, but as elsewhere, they were not funded or implemented.

CAADP implementation then stalled until 2007, when the Economic Community of West African States (ECOWAS) arranged a regional meeting in Benin to brief the countries on how it would support them in implementing CAADP, including an offer of financial resources to hire consultants to prepare the documents and organize the roundtable. Ghana representatives committed to holding the roundtable by September 2007 and began the process by organizing the retreat, the first step. The commissioner for agriculture for ECOWAS led a mission to Ghana in August 2007 to urge relevant ministries and organizations to organize the roundtable. NEPAD and ECOWAS organized several regional meetings in 2008 and 2009 to urge countries to organize the roundtables, which Ghana finally did in October 2009. The governments of Ghana, Kenya, and Nigeria delayed implementation because they felt that CAADP did not offer any incremental benefit, particularly since these countries already had fairly well-established processes for policy formulation and their development plans gave prominence to agricultural development (Zimmerman et al. 2009). Although NEPAD suggests that CAADP is only a framework to guide country processes, the countries felt that recasting policy and strategy development processes under the CAADP label is of marginal value (Kolavalli et al. 2010). Donor organizations, too, at the country levels shared the government view that CAADP implementation was an unnecessary step, although organizations at the highest levels had committed to support CAADP.

When ECOWAS initiated implementation in the region, Ghana, with donor support, was well into revising its agricultural policy (known officially as the Food and Agriculture Sector Development Policy). The local donor community, the Agricultural Sector Working Group in particular, was expecting from the ministry an investment plan to accompany the policy, to fashion donors’ own support to the sector. With both development policy and investment plan in place, it was not difficult for Ghana to claim that it was CAADP compliant. Ghana developed an investment plan without support from any of the pillar organizations that were expected to strengthen the content of strategies developed by counties.

Although reluctantly, Ghana implemented CAADP with the expectation that it would result in increased donor support to the sector. The feeling was typified by the statement of the ECOWAS representative at the retreat that the roundtable was an opportunity to present investments plans to donors who had already committed to increasing funding to countries. The donors, on the other hand, were guarded in committing to increasing aid to the sector. They insisted that the compact note “is a civic document and therefore is neither an international treaty nor a legally binding document” and they would work toward scaling up assistance in the medium to longer term (RoG 2009, p.2).

The ministry estimated the incremental costs of implementing its Medium Term Agriculture Sector Investment Plan (METASIP) to be about GHC 1.5 billion (Ghanaian cedis) in 2010 prices over the next few years, averaging annually GHC 300 million (Table 6.1). Assuming that the government would increase its share by 10 percent annually, it estimated that the financing gaps would exceed GHC 200 million annually over the first three years, which could only be filled with near doubling of its annual expenditures.

Table 6.1—Estimated costs of implementing Medium Term Agriculture Sector Investment Plan in 2010 prices (million Ghanaian cedis¹)

Year	Incremental costs	Priority investments	Gaps
2011	284.3	150.5	216
2012	378.5	189.5	288
2013	340.1	181.9	233
2014	319.4	166	196
2015	210.1	98	81.9
Total	1532.4	785.9	1014.9

Source: MoFA 2010, Tables 11, 12, and 13.

Notes: ¹The exchange rate averaged 1.45 GHS per USD in 2010

Incremental costs are public-sector expenditures to be incurred above existing commitment to recurrent costs and investment for ongoing programs.

In Ghana and elsewhere, donors have felt that the investment plans presented at the roundtables were not bankable. A team representing some of the pillar organizations reviewed Ghana's proposal following the roundtable. The US Agency for International Development (USAID) provided the support of a consulting firm to refine it before presenting it at a regional meeting, in which donors committed substantial funds for its implementation. Two proposals from the ministry to GAFSP were not successful. NEPAD itself recognized that in the rush to have compacts signed the rigor of evidence-based assessment had suffered (NEPAD 2008).

There have been a number of developments that might draw greater attention to agriculture. Although it is not clear to what extent farmers are aware of the commitment their leaders have made internationally, the language of CAADP pervades all discussions related to agriculture in government and donor circles. A 10 percent budget share has now become a benchmark for commitment to agriculture. Based on NEPAD's recommendation, an oversight committee comprising all the signatories to the compact has been established to implement the investment plan. The agricultural ministry is expected to become accountable to this committee. The same committee is tasked with advising the local SAKSS as part of CAADP to strengthen evidence-based policymaking.

The investment plan has developed an aura of authenticity over time. Both the government and the donors assert the presence of an investment plan that is owned by government. METASIP is not particularly strategic since it identifies only a range of investments that will contribute to achieving the key objectives set forth in the policy. Still, that has not prevented the key donors to the sector from declaring that their support to the sector is aligned with METASIP.¹³

Ghana's agriculture sector has not been growing at the targeted rate of 6 percent. It grew by less than 1 percent in 2011, largely because of negative growth in forestry and in logging and fishing. The provisional rates suggest that it is growing at 5 percent in 2012. Ghana is one of the few countries that have increased the share of expenditures in the sector to close to the target of 10 percent. The share of the ministry's expenditure in the total expenditure in the sector is about 43 percent. Following the roundtable, the expenditures of the ministry increased from GHC 171.21 million in 2009 to GHC 197.68 million and GHC 231.154 million in 2010 and 2011, respectively. The bulk of this increase has come from the donors; the share of donor funds in the ministry's expenditure has increased from about 48 percent in 2010 to 65 percent in 2011.

¹³ See the strategy documents of the World Bank, USAID, and the Canadian International Development Agency, respectively: http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2012/04/24/000350881_20120424103018/Rendered/PDF/655400PGD0P1220osed0402401200SIMULT.pdf; http://www1.usaid.gov/gh/pdf/Ghana%20Feed%20the%20Future%20Multi-Year%20Strategy_Public_2011-08-03.pdf; and www.acdi-cida.gc.ca/CIDAWEB/cpo.nsf/vWebCSAZEn/1FCC208C07EA613E852574C90037147C.

According to Benin et al. (2011), only a handful of African countries have increased the share of their total spending that is devoted to agriculture. The countries with the 10 largest agricultural sectors on the continent, in fact, have spent less than 5 percent of their total budget. The same study suggests that the productivity growth required to achieve the targets might require expenditures even higher than 10 percent.

7. CONCLUDING REMARKS

Comparing the promise of CAADP with the available evidence on its impact, one may call the result disappointing. Yet, for an assessment, the question arises as to what reference situation to choose. A decade ago, agriculture was utterly neglected both on the international development agenda and in African policies. One has to acknowledge that when compared with 2002, the situation has changed dramatically. Agriculture and food security have taken center stage again. There is an attribution problem, obviously. What was the role of CAADP vis-à-vis other initiatives and events, especially the food price crisis of 2008? What would have happened to agricultural policies in Africa without CAADP? What investments would African governments have made in agriculture without CAADP—the same, or even less? In the end, it is a judgment on whether the glass is half empty or half full. In any case, what this paper has tried to show is that it is important to understand the very nature of CAADP and its underlying incentives, both from the side of African governments and from the side of donors. Whether countries' CAADP implementation will improve aid effectiveness through greater participation, evidence building, partnership building, and ownership to motivate the governments to invest more in agriculture will be critical. Hopefully, a better understanding of CAADP will help both sides to use this instrument as effectively as possible to address what remains one of the major challenges of the continent: achieving food security and using agriculture as an engine of poverty reduction and development.

REFERENCES

- Abraham, G. 2003. “‘Africa, the Tragedy: Africa, the Challenge.’ NEPAD and the New Humanitarian Agenda.” *International Review of the Red Cross* 85 (852): 717–736.
- AU (African Union). 2001. “Decision on the Report of the First Extraordinary Session of the Conference of African Ministers of Agriculture, Lomé, Togo.” Paper presented at Council of Ministers, 74th Ordinary Session / 9th Ordinary Session of the African Economic Community, Lusaka, Zambia, July 5–8.
- _____. 2002. *Towards the Implementation of NEPAD: Progress Report and Initial Action Plan*. Assembly of Heads of State and Government Resolution No. 235(38). Durban, South Africa.
- _____. 2003a. *Protocol on Amendments to the Constitutive Act of the African Union*. Adopted by the 1st Extraordinary Session of the Assembly of the Union in Addis Ababa, Ethiopia on 3 February 2003 and by the 2nd Ordinary Session of the Assembly of the Union in Maputo, Mozambique on 11 July 2003. Addis Ababa, Ethiopia.
- _____. 2003b. *Declaration on Agriculture and Food Security in Africa*. Paper from Second Ordinary Session of the Assembly of the AU, July 10–12, Maputo, Mozambique. Addis Ababa, Ethiopia.
- _____. 2004. *Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development on Agriculture and Water in Africa*. Paper from Second Extraordinary Session of the Assembly of the AU, February 27, Sirte, Libya. Addis Ababa, Ethiopia.
- _____. 2006a. *Abuja Declaration on Fertilizer for the African Green Revolution*. Paper from Africa Fertilizer Summit/AU Special Summit of the Heads of State and Government, June 13, Abuja, Nigeria. Addis Ababa, Ethiopia.
- _____. 2006b. *Declaration of the Abuja Food Security Summit*. Paper from Food Security Summit, December 4–7, Abuja, Nigeria. Addis Ababa, Ethiopia.
- Benin, S. 2012. *Are African Governments Serious about Agriculture? Recent Trends and Pattern of Investments*. GSSP (Ghana Strategy Support Program) Brief. Washington, DC: International Food Policy Research Institute.
- Benin, S., A. N. Pratt, S. Wood, and Z. Guo. 2011. *Trends and Spatial Patterns in Agricultural Productivity in Africa, 1961–2010*. ReSAKSS (Regional Strategic Analysis and Knowledge Support System) Annual Trends and Outlook Report 2011. Washington, DC: International Food Policy Research Institute.
- Besley, T., and M. Kandori. 1992. “Reputation as a Public Good.” Mimeo, Princeton University, Princeton, NJ, US.
- Cagriota, S., and M. Delmastro. 2008. *Individual and Collective Reputation: Lessons from the Wine Market*. AAWE Working Paper No. 45504. New York: American Association of Wine Economists. www.wine-economics.org/workingpapers/AAWE_WP50.pdf.
- Crespi, J.M., and S. Marette. 2002. “Generic Advertising and Product Differentiation.” *American Journal of Agricultural Economics* 84: 691–701 Quoted in Winfree, J. A., and J. J. McCluskey. 2005. “Collective Reputation and Quality.” *American Journal of Agricultural Economics* 87 (1): 206–213
- De Waal, A. 2002. “What’s New in the ‘New Partnership for Africa’s Development’?” *International Affairs* 78 (3): 463–475.
- Easterly, W. 2010. “Foreign Aid for Scoundrels.” *New York Review of Books*, November 25, 37–38.
- ECA (Economic Commission for Africa). 2001. *Compact for African Recovery: Operationalizing the Millennium Partnership for the African Recovery Programme*. Addis Ababa, Ethiopia.
- Economist*. 2004. “A Plan with Teeth, but Not Sharp Ones.” February 19, <http://www.economist.com/node/2447150>
- Economist*. 2005. “Africa Acknowledges It Must Help Itself.” July 7, <http://www.economist.com/node/4157589>
- Evans, R., and T. W. Guinnane. 2007. *Collective Reputation, Professional Regulation and Franchising*. Cowles Foundation Discussion Paper No. 1627. New Haven, CT, US: Yale University.

- Fan, S., and A. Saurkar. 2008. *Tracking Agricultural Spending for Agricultural Growth and Poverty Reduction in Africa*. ReSAKSS (Regional Strategic Analysis and Knowledge Support System) Issue Brief No. 5. Washington, DC: International Food Policy Research Institute.
- FAO (Food and Agriculture Organization of the United Nations). 2000. "Progress Report on the Common African Agricultural Programme (CAAP)." Paper presented at Twenty-First FAO Regional Conference for Africa, Yaounde, Cameroon, February 21–25.
- _____. 2002a. *FAO Support to 'The New Partnership for Africa's Development': Land and Water Resources Issues and Agricultural Development*. Proceedings of FAO 22nd Regional Conference for Africa, Cairo, Egypt, February 4–8. Rome.
- _____. 2002b. *Report of the 22nd FAO Regional Conference for Africa Follow-Up Meeting*. Rome.
- _____. 2004. *Implementation of the Comprehensive Africa Agriculture Development Programme (CAADP) of NEPAD: Progress Review*. Proceedings of FAO 23rd Regional Conference for Africa, Johannesburg, South Africa, March 1-5. Rome.
- _____. 2012. *Evaluation of FAO's Role and Work in Food and Agriculture Policy*. Office of Evaluation, FAO, Rome.
- Gale, D. , and R. Rosenthal. 1994. "Price and Quality Cycles for Experience Goods." *Rand journal of Economics* 25:590-607 Quoted in Winfree, J. A., and J. J. McCluskey. 2005. "Collective Reputation and Quality." *American Journal of Agricultural Economics* 87 (1): 206–213.
- Gergaud, Olivier and Florine Livat, 2004. "Team versus individual reputations: a model of interaction and some empirical evidence." Paris: Cahiers de la Maison des Sciences Economiques, Université Panthéon-Sorbonne.
- Harrigan, J. 2003. "U-Turns and Full Circles: Two Decades of Agricultural Reform in Malawi, 1981–2000." *World Development* 31 (5): 847–863.
- Jayne, T. S., J. Govereh, A. Mwanaumo, J. K. Nyoro, and A. Chapoto. 2002. "False Promise or False Premise? The Experience of Food and Input Market Reform in Eastern and Southern Africa." *World Development* 30 (11): 1967–1985.
- Johnson, M., and K. Flaherty. 2011. *Strategic Analysis and Knowledge Support Systems for Agriculture and Rural Development in Africa: Translating Evidence into Action*. IFPRI Food Security in Practice Series. Washington, DC: International Food Policy Research Institute.
- Kurwijila, R. 2007. "Statement by Mme Rosebud Kurwijila, Commissioner." Delivered at the COMESA (Common Market for Eastern and Southern Africa)–CAADP (Comprehensive Africa Agriculture Development Program) Partnership Meeting and Rwanda CAADP Roundtable, Kigali, Rwanda, March 28–31.
- Kolavalli, S., K. Flaherty, R. Al-Hassan, and K. O. Baah. 2010. *Do Comprehensive Africa Agriculture Development Program (CAADP) Processes Make a Difference to Country Commitments to Develop Agriculture? The Case of Ghana*. IFPRI Discussion Paper 01006. Washington, DC: Development Strategy and Governance Division, International Food Policy Research Institute.
- Lal, S. 2006. *Can Good Economics Ever Be Good Politics? Case Study of India's Power Sector*. World Bank Working Paper No. 83. Washington, DC: World Bank.
- Mashele, P. 2006. *The New Partnership for Africa's Development: Four years of a promising attempt or hollow optimism?* Institute for Security Studies Paper 125. Pretoria, South Africa: ISS.
- Mbeki, T. 1998. "The African Renaissance, South Africa and the World." Speech delivered at United Nations University, Tokyo, April 9.
- Ministry of Food and Agriculture (MoFA). 2010. "Medium Term Agricultural Sector Investment Plan (METASIP) 2011-2015." MoFA, Government of Ghana. Resakss.org. <http://www.resakss.org/>
- Morais, K., and S. Naidu. 2002. "Libya's Africa Policy: What Does It Mean for South Africa and NEPAD?" *South African Journal of International Affairs*. 9 (2): 109–118.

- Nelson, P. 1970. "Information and Consumer Behavior." *Journal of Political Economy* 78: 311–329.
- NEPAD (New Partnership for Africa's Development). 2002a. *Communiqué Issued at the End of the 3rd Meeting of the HSGIC of NEPAD*. Rome.
- _____. 2002b. *Declaration of the Heads of State and Government Chairpersons of Regional Economic Communities on the NEPAD Vision for Agricultural Development and Food Security in Africa*. Abuja, Nigeria.
- _____. 2003. *The Comprehensive Africa Agriculture Programme*. Midrand, South Africa.
- _____. 2005a. *Implementing the Comprehensive Africa Agriculture Development Programme and Restoring Food Security in Africa: The Roadmap*. Midrand, South Africa.
- _____. 2005b. *CAADP Country Level Implementation Process: Concept Note Based on the Outcome of the NEPAD Implementation Retreat Organized on October 24 and 25, 2005 in Pretoria, South Africa*. Midrand, South Africa.
- _____. 2007. "Conclusions and Recommendations of the NEPAD HSGIC Meeting and Brainstorming on NEPAD, 21st March 2007, Algiers, Algeria." *NEPAD Dialogue Online Weekly* 173.
- _____. 2008. *NEPAD Secretariat Agricultural Unit Strategic Plan 2008–2013*. Midrand, South Africa.
- OAU (Organization of African Unity). 1999. *Sirte Declaration*. Fourth Extraordinary Session of the Assembly of Heads of State and Government, 8–9 September, Sirte, Libya.
- _____. 2000. *Constitutive Act of the African Union*. OAU Summit, Lomé, Togo, 11 July.
- OECD. "Paris Declaration and Accra Agenda for Action." OECD.org. <http://www.oecd.org/dac/aideffectiveness/parisdeclarationandaccraagendaforaction.htm>. (12.17.12)
- _____. 2003. "Rome declaration on Harmonization." OECD.org. <http://www.oecd.org/development/aideffectiveness/31451637.pdf>. (12.21.12)
- _____. 2005. "The Paris declaration on Aid Effectiveness and the Accra Agenda for Action." OECD.org. <http://www.oecd.org/development/aideffectiveness/31451637.pdf>.
- Olson, M. 1965. *The Logic of Collective Action*. Cambridge, MA, US: Harvard University Press.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Owusu, F. 2003. "Pragmatism and the Gradual Shift from Dependency to Neoliberalism: The World Bank, African Leaders and Development Policy in Africa." *World Development* 31 (10): 1655–1672.
- Pettifor, A., and R. Greenhill. 2002. *Debt Relief and the Millennium Development Goals*. Occasional Paper: Background Paper for Human Development Report 2003. New York: United Nations Development Program.
- Resnick, D., and R. Birner. 2009. "Agricultural Strategy Development in West Africa: The False Promise of Participation?" *Development Policy Review* 28 (1): 97–115.
- Republic of Ghana (RoG). 2009. "ECOWAS Agricultural Policy (ECOWAP)/Comprehensive African Agriculture Development Programme (CAADP); Compact: To Support the Successful Implementation of the Ghana Food and Agriculture Sector Development Policy (FASDEP II). Resakss.org. <http://www.resakss.org/>. (12.21.12).
- Shapiro, C. 1983. "Premiums for High Quality Products as Returns to Reputation." *The Quarterly Journal of Economics*, 98 (4): 431–456 Quoted in Castriota, S., and M. Delmastro. 2008. *Individual and Collective Reputation: Lessons from the Wine Market*. AAWE Working Paper No. 45504. New York: American Association of Wine Economists. www.wine-economics.org/workingpapers/AAWE_WP50.pdf
- Swinnen, J. F. M. 2010. *The Right Price of Food*. Discussion Paper 259/2010. Leuven, Belgium: LICOS Centre for Institutions and Economic Performance.

- Tieku, T. K. 2004. "Explaining the Clash and Accommodation of Interests of Major Actors in the Creation of the African Union." *African Affairs* 103 (411): 249–267.
- Tirole, J. 1996. "A Theory of Collective Reputations (with Applications to the Persistence of Corruption and to Firm Quality)." *Review of Economic Studies* 63: 1–22.
- van de Walle, N. 2001. *African Economies and the Politics of Permanent Crisis*. New York: Cambridge University Press.
- Wilson, R. (1985). "Reputation in Games and Markets." In A.E. Roth (Ed.), *Game-Theoretic Models of Bargaining*. Pp. 65-85. New York: Cambridge University Press. Quoted in Castriota, S., and M. Delmastro. 2008. *Individual and Collective Reputation: Lessons from the Wine Market*. AAWE Working Paper No. 45504. New York: American Association of Wine Economists. www.wine-economics.org/workingpapers/AAWE_WP50.pdf
- Winfree, J. A., and J. J. McCluskey. 2005. "Collective Reputation and Quality." *American Journal of Agricultural Economics* 87 (1): 206–213.
- World Bank. 2007. *World Development Report 2008: Agriculture for Development*. Washington, DC.
- Zimmermann, Roukayatou, Michael Bruntrup, Shashi Kolavalli and Kathleen Flaherty. 2009. "Agricultural Policies in Sub-Saharan Africa: Understanding CAADP and APRM Policy Processes." Bonn: German Development Institute/Deutsches Institut für Entwicklungspolitik (DIE).

RECENT IFPRI DISCUSSION PAPERS

For earlier discussion papers, please go to www.ifpri.org/pubs/pubs.htm#dp.
All discussion papers can be downloaded free of charge.

1237. *Mechanization in Ghana: Searching for sustainable service supply models*. Xinshen Diao, Frances Cossar, Nazaire Houssou, Shashidhara Kolavalli, Kipo Jimah, and Patrick Aboagye, 2012.
1236. *Differential export taxes along the oilseeds value chain: A partial equilibrium analysis*. Antoine Bouët, Carmen Estrades, and David Laborde, 2012.
1235. *The role of rural producer organizations for agricultural service provision in fragile states*. Catherine Ragasa and Jennifer Golan, 2012.
1234. *Cash, food, or vouchers?: Evidence from a randomized experiment in Northern Ecuador*. Melissa Hidrobo, John Hoddinott, Amber Peterman, Amy Margolies, and Vanessa Moreira, 2012.
1233. *Public expenditures, private incentives, and technology adoption: The economics of hybrid rice in South Asia*. David J. Spielman, Deepthi Kolady, Patrick Ward, Harun-Ar-Rashid, and Kajal Gulati, 2012.
1232. *Malaria and Agriculture: A global review of the literature with a focus on the application of integrated pest and vector management in East Africa and Uganda*. Benjamin Wielgosz, Margaret Mangheni, Daniel Tsegai, and Claudia Ringler, 2012.
1231. *Did using input vouchers improve the distribution of subsidized fertilizer in Nigeria?: The case of Kano and Taraba states*. Lenis Saweda O. Liverpool-Tasie, 2012.
1230. *The supply of inorganic fertilizers to smallholder farmers in Tanzania: Evidence for fertilizer policy development*. Todd Benson, Stephen L. Kirama, and Onesmo Selejio, 2012.
1229. *The supply of inorganic fertilizers to smallholder farmers in Mozambique: Evidence for fertilizer policy development*. Todd Benson, Benedito Cunguara, and Tewodaj Mogues, 2012.
1228. *The supply of inorganic fertilizers to smallholder farmers in Uganda: Evidence for fertilizer policy development*. Todd Benson, Patrick Lubega, Stephen Bayite-Kasule, Tewodaj Mogues, and Julian Nyachwo, 2012.
1227. *Taxation policy and gender employment in the Middle East and north Africa region: A Comparative analysis of Algeria, Egypt, Morocco, and Tunisia*. Ismaël Fofana, Erwin Corong, Rim Chatti, Sami Bibi, and Omar Bouazouni, 2012.
1226. *Policy reform toward gender equality in Ethiopia: Little by little the egg begins to walk*. Neha Kumar and Agnes R. Quisumbing, 2012.
1225. *Improving the Measurement of food security*. Derek Headey and Olivier Ecker, 2012.
1224. *Improved performance of agriculture in Africa south of the Sahara: Taking off or bouncing back*. Alejandro Nin-Pratt, Michael Johnson, and Bingxin Yu, 2012.
1223. *Review of input and output policies for cereals production in Pakistan*. Abdul Salam, 2012.
1222. *Supply and demand for cereals in Pakistan, 2010–2030*. Hina Nazli, Syed Hamza Haider, and Asjad Tariq, 2012.
1221. *The road to specialization in agricultural production: Evidence from Rural China*. Yu Qin and Xiaobo Zhang, 2012.
1220. *Change and diversity in smallholder rice–fish systems: Recent evidence from Bangladesh*. Madan M. Dey, David J. Spielman, A.B.M. Mahfuzul Haque, Md. Saidur Rahman, and Rowena A. Valmonte-Santos, 2012.
1219. *Is MERCOSUR's external agenda pro-poor?: An assessment of the European Union-MERCOSUR free-trade agreement on poverty in Uruguay applying MIRAGE*. Carmen Estrades, 2012.
1218. *Heterogeneous pro-poor targeting in India's Mahatma Gandhi national rural employment guarantee scheme*. Yanyan Liu and Christopher B. Barrett, 2012.
1217. *The impacts of public investment in and for agriculture: Synthesis of the existing evidence*. Tewodaj Mogues, Bingxin Yu, Shenggen Fan, and Linden McBride, 2012.
1216. *What determines public expenditure allocations?: A review of theories, and implications for agricultural public investment*. Tewodaj Mogues, 2012.
1215. *Nonlinear dynamics of livestock assets: Evidence from Ethiopia*. Bjorn Van Campenhout and Stefan Dercon, 2012.

**INTERNATIONAL FOOD POLICY
RESEARCH INSTITUTE**

www.ifpri.org

IFPRI HEADQUARTERS

2033 K Street, NW
Washington, DC 20006-1002 USA
Tel.: +1-202-862-5600
Fax: +1-202-467-4439
Email: ifpri@cgiar.org

IFPRI ACCRA

CSIR Campus
Airport Residential Area, Accra
PMB CT 112 Cantonments,
Accra, Ghana
Tel.: +233 (0) 21 780-716
Fax: +233 (0) 21 784-752