

Part IV: Policies to Promote Inclusive Agrifood System Growth

For growth to be inclusive, carefully designed group action, more effective private-public partnerships and increased policy coordination among countries and stakeholders are crucial.



CHAPTER 12

Linking Smallholders to Profitable Markets in West Africa: Case Study Synthesis

Relier les petits exploitants aux marchés rentables en Afrique de l'Ouest : Synthèse des études de cas

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Abstract

This chapter synthesizes results from seven sets of case studies that examined differing arrangements for linking West African small farmers to growing markets for valued-added agricultural products. The studies focused on farmers in eight countries producing cereals, cassava, and mangoes for agro-processing and high-value exports. The arrangements, termed *partnership models*, involved various forms of contracting with farmers, either through farmer organizations or directly with individuals. Using concepts from transaction-cost economics, the analysis identifies factors that contribute to the inclusion of smallholders and economic sustainability of the approaches used. The partnership models studied fell into five broad categories, varying with respect to which group (farmers, large-scale buyers, or service providers) initiated the agreements and the complexity of the contractual arrangements. The attractiveness of the models to farmers depended on the degree to which they helped to fill missing markets for key inputs, such as improved technology (as embodied in modern inputs), credit, and advisory services, and the degree to which they provided price premiums and assured markets (the latter particularly important for more perishable products). The value to buyers lay in the partnership models' potential for ensuring adequate volumes and qualities of raw product to operate their facilities near capacity, driving down per-unit costs. Government policies, such as tax laws, also affect the value of the partnership models to buyers, as illustrated in case studies from Ghana and Senegal. The models varied widely in their ability to provide value to the different parties, thus affecting their success. Key design lessons that emerge include the need to: (a) identify carefully sources of value for the different parties from any proposed partnership model; (b) pay careful attention to factors that can undermine contract success, such as side-selling, and the costs needed to limit them; (c) take advantage of the role that intermediaries, including private individuals, can play as aggregators of raw product from farmers; and (d) avoid designing overly complex partnership models for storable commodities, such as cereals, destined for the mass market. In situations where no single firm dominates an entire value chain, there is also need to go beyond such partnership models to develop value-

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chain-wide organizations that address system-wide constraints limiting the expansion of contracting with smallholders.

Résumé

Ce chapitre fait la synthèse des résultats de sept séries d'études de cas de divers dispositifs reliant les petits exploitants d'Afrique de l'Ouest à des marchés en expansion pour certains produits agricoles à valeur ajoutée. Ces études portent sur des agriculteurs de huit pays producteurs de céréales, de manioc et de mangues pour le secteur agroalimentaire et les exportations à forte valeur ajoutée. Ces dispositifs, désignés sous le terme de *modèles de partenariat*, comprennent divers types de contractualisation avec les agriculteurs, soit via des organisations d'agriculteurs, soit directement avec des particuliers. À partir des concepts de l'économie des coûts de transactions, l'analyse dégage les facteurs qui contribuent à l'inclusion des petits agriculteurs et à la pérennité économique des approches utilisées. Les modèles de partenariat tombent dans cinq grandes catégories, qui varient en fonction du groupe (agriculteurs, acheteurs à grande échelle ou prestataires de service) qui a initié l'accord et de la complexité de l'accord contractuel. L'attractivité des modèles pour les agriculteurs varie selon qu'ils contribuent à combler des marchés manquants pour les intrants-clés, par exemple des technologies améliorées (pour les intrants modernes), des crédits et des services de vulgarisation/conseils ou selon qu'ils offrent des primes sur les prix et des marchés garantis (particulièrement important pour des produits périssables). Pour les acheteurs, l'attractivité réside dans le fait que le modèle de partenariat a le potentiel d'assurer des volumes et des qualités de matières premières suffisantes pour exploiter leurs installations d'usinage à leur quasi pleine capacité, ce qui baissera les coûts à l'unité. Les politiques gouvernementales telles que les taxes fiscales affectent aussi la valeur des modèles de partenariats pour les acheteurs, comme on l'a constaté dans les études de cas du Ghana et du Sénégal. Les modèles varient beaucoup quant à leur aptitude à offrir de la valeur aux différentes parties, ce qui assure donc leur réussite. Les principales leçons qui découlent de la conception des modèles, comprennent le besoin de: (a) repérer avec soin les sources de valeur pour les différentes parties dans le modèle de partenariat proposé; (b) faire très attention aux facteurs qui sont susceptibles d'entacher la réussite du contrat, par exemple les ventes parallèles, et les coûts requis pour les limiter; (c) prendre en compte le rôle que jouent les intermédiaires, y compris les personnes privées, dans l'agrégation et le regroupement des matières premières collectées auprès des agriculteurs; et (d) éviter de concevoir des modèles de partenariat trop complexes pour les produits alimentaires stockables (comme les céréales) destinées aux marchés de masse. Dans les situations où aucune entreprise ne domine une chaîne de valeur entière, il est aussi nécessaire de dépasser ces modèles de partenariat et mettre sur pied des organisations de toute la chaîne de valeur afin de remédier aux contraintes de l'ensemble du système qui limitent l'expansion de la contractualisation avec les petits agriculteurs.

12.1. Introduction

This chapter synthesizes results from seven sets of case studies carried out in 2014-16 under the SRAI program that examined differing models of linking West African small farmers (hereafter termed *smallholders*) to growing markets for valued-added agricultural products. The studies focused on farmers producing crops for agro-processing and high-value exports.

The models, termed *partnership models* here, involved various forms of contracting arrangements with farmers, either through farmer organizations or directly with private firms. The studies aimed at identifying factors that contribute to the inclusion of smallholders and the economic sustainability of the approaches used.

Contract farming with smallholders has a long history in West Africa. It was a central element of colonial and post-colonial strategies to promote export-crop production, typically through state-run single-channel marketing systems for crops like cotton, groundnuts, cocoa, and palm oil. These systems provided farmers with technical support and inputs on credit, which was recovered through monopsonistic output marketing arrangements. The systems succeeded in providing West African smallholders access to remunerative new markets, most spectacularly for cocoa and cotton. Yet in the post-colonial period, the marketing boards and parastatals that operated these schemes frequently accumulated large financial deficits due to a combination of poor management, expansion beyond the initial low-cost areas of production, sagging world prices, and insufficient incentives for farmers to improve quality (Hollinger and Staatz 2015). Governments sometimes attempted similar approaches for staple food crops. However, the greater complexity of the food system, involving millions of farmers and thousands of markets, compared with export crops, which are channeled through a few export points, resulted in these marketing organizations never succeeding in handling more than a small share of total production (Berg 1975).

The growing deficits of the government-backed marketing organizations and the resulting pressure on government budgets were among the forces that led to structural adjustment programs in the 1980s and 1990s. The initial phases of these programs often revealed that the private sector did not automatically rush in to fill the void left by retreating state enterprises. The structural problems that gave rise to these organizations in the first place, such as weak or missing markets for key inputs and information, often persisted, leaving smallholders to face high marketing costs and weak incentives to expand production. Therefore, since the 1990s farmers and their organizations, West African governments, and development partners have all shown growing interest in developing new arrangements to link smallholders to markets. Rather than purely state-run efforts, these arrangements are often conceptualized as public-private partnerships (PPPs) involving farmer organizations, domestic and international private-sector firms, development partners such as non-governmental organizations (NGOs), and government. The focus has been on both export crops and on food crops for the growing domestic and regional markets.

Since the mid-2000s, two factors have accelerated experimentation with models for linking smallholders to profitable agro-processing and export markets. First, the spike in world food prices (particularly for rice) in 2007-2008 exposed the vulnerability of West African countries—which are major importers of rice and wheat—to disruptions in import markets for basic staples. This, in turn, led governments and the private sector to expand investment in local production, often in various forms of PPPs (see Chapters 2 and 13 in this volume). These partnerships aimed at overcoming weaknesses in infrastructure and in markets for inputs, credit, and information that typically constrain smallholder production.

Second, demand for agricultural products throughout the world has been evolving rapidly from undifferentiated bulk products towards specific attributes sought by consumers, such as ease of preparation, healthfulness, and environmental sustainability. In West Africa, this evolution

has led to the rapid growth in demand for processed food products, cleaner and more healthful foods (particularly by the growing middle class), and traceable, high-quality agricultural exports. Technological change is further boosting demand for large volumes of consistent-quality agricultural products as industrialists develop innovative uses for traditional staples, such as the manufacture of polymers and high-quality starches from cassava (Hollinger and Staatz 2015).

In order to respond to these growing demands, processors and exporters require a reliable, timely supply of agricultural products of consistent quality and quantity. Such supplies are critical for large-scale processors and exporters to operate their facilities near capacity, holding down unit costs of production. Yet the supply of raw materials from smallholders is often dispersed and irregular. The high transaction costs of dealing with numerous scattered smallholders, many of whom lack appropriate technology and management skills to serve the new markets, may create incentives for downstream actors to source their raw material from large farmers, or import markets. If they follow this path, the result is the exclusion of smallholders from lucrative new markets.²

12.2. Literature Review, Conceptual Framework, and Knowledge Gap

Effectively linking smallholders to profitable markets is a question of vertical coordination, defined as the process of harmonizing activities across the vertical stages in a value chain, such as farm-level production, assembly, processing, and marketing (Mighell and Jones 1963). Vertical coordination involves creating incentives for actors throughout the value chain to produce the quantities and qualities of products demanded by final consumers at the time they need them. This coordination can take place through an array of exchange arrangements, from spot markets to vertical integration.

Transaction-cost economics (TCE) views all exchange arrangements as involving some type of explicit or implicit contract. Indeed Williamson (1989, p. 136) defines TCE as “a contractual approach to the study of economic organization.” This approach posits that different exchange arrangements (dubbed “governance structures” by Williamson), each incorporating different contractual terms, arise and tend to dominate in different types of transactions, depending on the underlying characteristics of the transaction (see below). This study adopts TCE’s broad view of contracting, while recognizing that much of the literature on contract farming defines contracting more narrowly. For example, Minot (2011) defines contract farming “as agricultural production carried out according to a prior agreement in which the farmer commits to producing a given product in a given manner and the buyer commits to purchasing it.”

The TCE literature (e.g., Williamson 1981, 1985; Joskow 2005; Kirsten et al. 2009), pays particular attention to the influence of four factors in influencing the partnership models that evolve between buyers and sellers. The more these four factors are present in a transaction, the

² Economic theory is ambiguous as to whether the higher transaction costs of dealing with small farmers leads inexorably to their exclusion from these new markets. The higher transaction costs may be offset by lower labor costs for small farmers and a lower tendency of small farmers to default on contractual agreements if they have fewer market options than larger farmers. Empirical results also show mixed results (e.g., Reardon et al. 2009; Barrett et al. 2011; DaSilva and Rankin 2013).

more likely the exchange is likely to move away from the spot market towards tighter forms of contractual control. The four factors include:

- The degree to which each party has invested in assets that are specific to the transaction, locking the participant into a trading relationship with a specific supplier or buyer. This asset specificity criterion includes a number of factors highlighted in some of the contract-farming literature (e.g., Tschirley, Minde, and Boughton 2009; Minten, Randrianarison, and Swinnen 2009):
 - The degree of competition among potential buyers of the output. In the TCE literature, asset specificity refers to investments in assets that are specific to a particular *transaction*, not to the production of the good. Thus, the more potential buyers there are for the product, the less the asset is specific to a transaction with a particular buyer.
 - Investment in human capital by the farmer to meet product standards that are specific to the buyer.
 - The perishability of the product, which the TCE literature (e.g., Masten 2000) refers to as *temporal specificity* and which can subject the farmer to hold-up by the buyer (Klein, Crawford, and Alchian 1978).
- The frequency of transaction due, for example, to the perishability of the product and asymmetry between the scale of operations of the farmer and the buyer. Frequency influences whether it is worthwhile to develop more complex, non-spot-market trading arrangements.
- The degree of uncertainty surrounding the transaction (for example, due to unpredictable weather or changes in government policies), which influences the scope for opportunistic behavior by the trading partners.
- The degree to which one trading partner can impose positive or negative externalities on the other (for example, through debasing product quality by careless handling), thereby creating incentives for vertical integration.

The literature on various models of linking smallholders to markets falls into three broad streams: (a) one on collective action by farmers (covering, for example, various models of farmer cooperatives); (b) one on trader networks; and (c) one on contract farming, along the lines defined by Minot (2011). In a TCE sense, all three streams deal with various forms of contracting and the evolution of market structures. For example, farmers' motivations to undertake various forms of collective action can be seen as attempts to contract with each other and others in the agrifood system to mitigate the effects of transaction costs. These costs emerge from imperfect or missing markets for key inputs, outputs, and information; large differences in scale between farm-level production and processing and marketing; and imbalances in market power (Staatz 1987; Sexton 1989; Grosh 1994; Sindi 2013). The TCE approach has been widely adopted and extended by many other authors analyzing contract farming and trader networks, with a particular emphasis on how it attempts to deal with incomplete or missing markets for critical inputs (e.g., fertilizer, technical information, and credit) and with problems of asymmetric information and power (e.g., Grosh 1994; Jaffee and Morton 1995; Reardon et al. 2009; Tschirley, Minde, and Boughton 2009; Minten, Randrianarison, and Swinnen 2009; Minot 2011; Barrett et al. 2011; Bellemare 2012; Prowse 2012; DaSilva and Rankin 2013; Otsuka, Nakano, and Takahashi 2016).

In this literature, analyses of various partnership models have largely focused on four issues. First, they have investigated which farmers are most likely to participate in contract farming (as defined by Minot) and why. Second, they have examined the impact of such participation on farm household welfare, particularly participants' incomes, but also more recently household food security (Bellemare and Novak 2016). Third, they have tried to explain the presence of different partnership models in particular settings, based on factors such as farmers' and processors' ownership of specific assets and the degree of information asymmetry among market participants. Fourth, they have sought to identify organizational characteristics and management practices that contribute to the economic sustainability of farmer organizations involved in such partnership models.

A large body of research has provided important insights on the first and second issues. With respect to inclusivity, the key conclusion seems to be that it depends on the product involved (e.g., its degree of labor intensity), geographic setting (which conditions farmers' alternatives to contracting), access of smallholders to non-land assets (e.g., irrigation, human capital), and the social and political setting. Particularly important in the latter is the degree to which land distribution in the country is unimodal, in which case smallholders are predominant and, thus, tend to be included in partnerships with agro-processors, versus bimodal distribution, in which case they must compete with many large farms (Hazell et al. 2010). With respect to welfare impacts, older sociological literature emphasized the possible exploitative nature of contract farming, particularly when the buyer had monopsonistic powers, as in many of the state-run cash-crop schemes.³ While concerns about the possible harmful impacts on smallholders of poorly designed contracting systems persist (see United Nations General Assembly 2011), recent literature indicates positive economic impacts on farmers' incomes from participating in such schemes (Barrett et al. 2011; DaSilva and Rankin 2013; Bellemare 2015).

With respect to third and fourth issues, there is a growing consensus in the literature that future research should identify key design features that contribute to positive impacts, both in terms of income and on a broader set of welfare measures, such as inclusiveness and model durability. Consistent with a TCE approach, this includes analysis of factors affecting transaction characteristics, such as product characteristics (e.g., perishability and input requirements), market structure (e.g., the existence of alternative markets), and the broader economic environment (e.g., road conditions, credit systems, and contract enforcement mechanisms). There is also a need for broadening the analysis of contributing factors to take into account aspects such as social networks and the links between contracting and other elements of the local economy (see, for example, Jia and Bijman 2013; and Bellemare 2015).

This chapter addresses these gaps in the literature. It makes three contributions. First, while having its roots in the transaction-cost approach, it broadens the analysis, as suggested by Jia and Bijman (2013), to consider the effects of a broader array of geographic, institutional, and sociological factors (referred to hereafter as *environmental factors*) that affect the degree to which smallholders participate in and benefit from different partnership models. Second, it goes beyond the question of whether various models of linking smallholders to high-value markets have an impact on the farmers' welfare, to ask how and why the models do so, and how the models could be modified to have stronger and sustained positive effects. Third, in contrast to the bulk of the literature, which has focused on Asia, Latin America, and East and

³See Grosh 1994, for a summary of this literature.

Southern Africa, the focus of these studies is on West Africa and is carried out across a range of institutional, commodity, and geographical settings to seek cross-cutting lessons.

12.3. Methods and Data

The case studies summarized in this paper took place in eight countries: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Nigeria, Senegal, and Togo. The focus and unit of analysis was the partnership models that linked smallholders to higher-value product markets rather than local spot markets. Most of the studies examined cereal crops (particularly rice), as developing new marketing and contracting arrangements for these crops in West Africa has been a major policy focus and challenge since the 2007-2008 food price crisis (ECOWAS 2015). The studies also covered semi-perishable and perishable crops (cassava and mangoes) destined for domestic and international markets.⁴ In some cases, an agro-processing or exporting firm combined production from its own nucleus estate with that obtained under contract from smallholders.⁵

A criterion sampling approach was used to investigate partnership models that involved smallholders and that covered a range of product types, destination markets, and environmental factors. This purposive sampling procedure allowed us, in the context of multiple-observation case studies, to generate a wide enough set of observations to begin to disentangle the effects of the various factors affecting the structure of partnership models (Teddlie and Yu 2007; Yin 2014). The cases included models that appeared to be succeeding well (e.g., contracting between smallholders and a mango exporter in Mali, described by Coulibaly and Diarisso 2015) and a few that were foundering or had failed after having initially received acclaim in the popular press as innovative and promising (e.g., contracting between Ghanaian cassava smallholders and a Dutch firm that processed high-quality cassava cake for a major brewery in Accra, described by Asuming-Brempong et al. 2016a).

The studies followed a multiple-case design, in which a common theoretical framework (based on the transaction-cost approach) generated similar theoretical propositions and interview protocols, thereby contributing to broader generalizability of results (Yin 2014; Sterns, Schweikhardt, and Peterson 1998). Researchers interviewed actors on both sides of the major transactions and gathered copies of written contracts and other documents, where available, in order to triangulate findings. Case studies are particularly appropriate when the focus of inquiry is not *whether* a particular partnership model has an effect but rather *how and why* it does (Yin 2014). Such an approach also helps to refine and extend theory, particularly where, as in these studies, a broader range of variables is considered than in typical transaction-cost analyses (Sterns, Schweikhardt, and Peterson 1998; Yin 2014). Case studies delve into the details of institutional arrangements in order to understand how they shape the incentives for individuals' and organizations' actions. They are particularly appropriate when the context for the

⁴ Key characteristics of the studies are summarized in Table 12.1 in section 12.4 below. Staatz et al. (2016) and the individual study reports themselves (see the citations listed in Table 12.1) provide detailed descriptions of the studies and their samples.

⁵ A nucleus estate is a farm operated by an agro-processor or exporter to produce raw product to complement that purchased under contract from surrounding local farmers (*outgrowers*). The nucleus estate's output helps to ensure an adequate volume to operate the processing plant near capacity. Typically nucleus estates are many times larger than the farms of outgrowers, who produce crops under contract on their own land for sale to the agro-processor or exporter.

phenomenon under study is difficult to disentangle from the phenomenon under study (Yin 2014). In the case studies summarized here, the environmental factors and market opportunities (the context) are deeply interwoven with partnership models under study. A case-study approach is also well suited to agribusiness research because stringent case selection criteria or information inaccessibility often limits sample size (Sterns, Schweikhardt, and Peterson 1998).

Because the case studies covered a range of products and environmental conditions, comparing across studies allows identification of the impacts of a broader range of factors influencing the design of partnership models with farmers, as suggested by Jia and Bijman (2013). In addition to the TCE factors described above, these other factors include the institutional environment (including policy and sociological factors), the state of market infrastructure, and issues of territorial development, which take into account the structure of the local economy and agro-climatic factors.

12.4. Results

Categories of Partnerships

Table 12.1 summarizes key characteristics and findings of the case studies. The partnership models examined in the case studies fall into five broad categories, with substantial variation within each category.⁶

1. *Farmer-driven partnerships with structured market linkages.* In this model, farmer organizations aggregate output produced by their members and sell it to specific buyers through contracts signed in advance of production or in response to opportunities to make bulk sales to major buyers, such as a grain board. Often the buyer requires that the product meet standards that are higher than those prevailing in the spot market, so these partnerships help farmer organizations learn how to serve more demanding markets that offer premiums for quality, as well as for volume sales. Several of the case studies of cereals partnerships in Mali described by Vroegindewey (2014, 2015) as well as the *voluntary sales* model of rice contracting described by Soulé (2016) for Burkina Faso and Mali fit this model. The farmer organization may also arrange bulk purchases of inputs for its members. The main sources of value to farmers of this partnership are the scale economies in input and output marketing, possible quality premiums earned on the outputs, and the gaining of access to improved inputs through the farmer organization. Buyers gain value through the scale economies of purchase and role of the farmer organization in ensuring that quality standards are met.

2. *Service-provider driven partnerships.* This model involves a provider of services to farmers such as inputs, credit, or training helping to aggregate and sell their products to buyers. Examples of this model occurred in the Malian cereals marketing case studies. The service provider's motivation is to provide farmers with a remunerative income stream so that they can afford to pay the service provider for its services. The sales can either be to the spot market or,

⁶ The following classification draws heavily upon and modifies models of *product aggregation* described by Berlin et al. (2016). In this classification system, *structured market linkages* refers to exchange arrangements other than sales in the spot market. In the discussion that follows, the term *buyer* refers to the agro-processor, exporter, large-scale wholesaler or other large entity (such as a national grain board or the World Food Programme) that seeks to purchase large quantities of the output from farmers or their organizations. It does not refer to small-scale intermediaries who may purchase from the farmers to resell to these larger buyers.

more typically, to a specific buyer, as described in model 1 above. The sources of value from this partnership to farmers include the services provided, scale economies in output marketing and possible quality premiums, while buyers benefit from the aggregation of product (typically through a farmers' organization) and some degree of quality control.

3. *Buyer-driven partnerships with loosely structured market linkages.* In this model, a buyer acquires product at the time he/she needs it from individual farmers. This is typically done through purchases from preferred suppliers who can usually be relied upon to produce the quantities and qualities of product the buyer needs. The buyer often sources additional supplies from the spot market. Typically, in this model, the exchange is limited to the output market, with the buyer not providing the farmer with inputs. This is the least complex of the partnerships, with the main source of value to the farmers being the assurance of a market for their output (possibly with a quality premium paid) and to the buyer being a more dependable source of supply than relying entirely on the spot market. This was the most prevalent model used in the case study of maize supply to the Nigerian poultry-feed industry (Elegbede 2016).

4. *Buyer-driven partnerships with tightly structured market linkages.* This is the model most typically described in the contract-farming literature, in which a buyer contracts for future delivery of products with either individual farmers or, more typically, farmer organizations. This model was used in all the cases of perishable (mangoes) and semi-perishable (cassava) products studied (Coulibaly and Diarisso 2015; Asuming-Brempong et al. 2016b). Several of the partnerships studied in the rice value chains in Ghana (Asuming-Brempong, et al. 2016a), Nigeria (Onyekwena 2016), Senegal, and Côte-d'Ivoire (Soulé 2016) were variants of this model; all aimed at higher-end segments of the rice market. This type of partnership can involve one of two types of contracts: (a) market specification contracts, in which product quantities, qualities, and delivery times are specified; and (b) resource-providing contracts, which, in addition to market specifications, provide inputs on credit and frequently technical assistance and supervision, recovering the credit at the time that farmers deliver the output (Mighell and Jones 1963). Sources of value to farmers in this partnership are access to better technology through technical assistance and improved inputs from the buyer and a more assured market for the output (particularly important for perishable products). For buyers, the value derives from ensuring a reliable source of supply of raw product that meets their quality standards, thereby allowing them to operate their facilities close to capacity. In cases where a farmer organization is involved, it benefits both farmers and buyers through its ability to act as an intermediary between the two parties.

5. *Joint management partnerships.* This model resembles relation-based or equity-based alliances (Peterson, Wysocki, and Harsh 2001) in which both parties, typically a farmer organization and a buyer, invest in joint marketing or processing facilities and share management responsibilities. This model also typically includes contracts with farmers through their organizations similar to the model of buyer-driven partnerships with tightly structured market linkages. The *co-managed models* in the rice value chains of Benin and Togo described by Soulé (2016) are examples of this type of partnership.

Table 12.1. Summary of Case Studies

Study Reports and Country(ies)/Regions Covered	Product(s) & Key Actors Involved in Partnerships	Study Focus & Types of Partnerships Examined	Main Strengths of Partnership Models	Constraints to Model Expansion
<p>Soulé, 2016</p> <p>Benin (south and central), Burkina Faso (southwest), Côte d'Ivoire (nation-wide), Mali (Office du Niger), Senegal (Senegal River Valley), Togo (south and central)</p>	<p>Rice</p> <p>Rice farmers, farmer organizations, commercial millers, rice distributors, state agencies, financial institutions</p>	<p>Compares four archetypical contracting systems: (1) Buyer-driven partnership in Senegal with tightly structured market linkages and heavy state role (dubbed "Integrated model"); (2) Farmer-driven partnerships with structured market linkages, involving sales to state grain boards in Burkina Faso and Mali, with strong "coaching" from the boards (dubbed "Voluntary sales model"); (3) Buyer-driven partnership in Côte d'Ivoire in which the state has granted industrial-scale firms exclusive concessions in different areas of the country (dubbed "Exclusive model"); and (4) Joint management partnerships in Benin and Togo (dubbed a "Co-managed model")</p>	<p>(1) Integrated model: Strong coordination of system through state-supported technical assistance, input provision, finance agencies and trade policies/pricing. (2) Voluntary sales model: Provides experience to farmer organizations in meeting standards of commercial contracting. (3) Exclusive model: Strong coordination and provision of services by firms. (4) Co-managed model: Strong farmer involvement and ownership of system for producing value-added rice products.</p>	<p>(1) Integrated model: Not clear that Senegalese state has resources to extend the model to cover numerous smallholders. (2) Voluntary sales model: Only addresses output market access for farmers, not access to productivity-enhancing inputs; purchases by grain boards well below targets and of variable quality. (3) Exclusive model: Rice farmers constrained to deal with single large buyer in their area, which dictates production procedures, leading to charges that system undermines family farming. (4) Co-managed model: Heavily dependent on external technical assistance, raising questions about its economic sustainability.</p>
<p>Onyekwena, 2016</p> <p>Nasarawa State, Nigeria</p>	<p>Rice</p> <p>Industrial rice processor/marketer, Local Buying Agents (intermediaries), rice farmers in Nasarawa State, Nigeria</p>	<p>Evolution and implementation of a buyer-driven partnership with tightly structured market linkages -- the outgrower model of one of the largest rice processors in Nigeria (OLAM)</p>	<p>OLAM still struggles to attract and hold outgrowers and, consequently, only operates mill at 50% of capacity. Private Local Buying Agents (LBAs) play a key role as intermediaries between firm and farmers.</p>	<p>Farmers' weak access to inputs other than improved seeds limits productivity growth and raises transaction costs to firm, as does geographic dispersion of outgrowers. LBAs play critical role in paddy aggregation for firm but raise costs beyond levels originally anticipated. Farmers' lack of access to mechanization services and poor roads further increase costs, and poor access to credit leads to side-selling. Federal Government's failure to follow through on commitments to supply inputs and technical assistance to farmers is weakening the system.</p>

Table 12.1 (cont'd.). Summary of Case Studies

Study Reports and Country(ies)/Regions Covered	Product(s) & Key Actors Involved in Partnerships	Study Focus & Types of Partnerships Examined	Main Strengths of Partnership Models	Constraints to Model Expansion
Asuming-Brempong et al., 2016b Greater Accra Region and Volta Region, Ghana	Rice Rice farmers, farmer cooperative, processor, state irrigation and extension agencies	Comparison of two variants of buyer-driven partnerships with tightly structured market linkages (contract farming initiated by processors), one large-scale (WIENCO/GADCO) and the other small-scale (MCRPMS)	Case study identifies reasons why WIENCO's implementation of the contracting model developed earlier by GADCO seems to be succeeding while GADCO's implementation of it failed. Key elements include strict monitoring of farm-level practices by WIENCO staff and development of PPP with government-run irrigation scheme. MCRPMS's smaller-scale model is based on close personal ties between processor and farmers and ability to offer above-market prices to farmers for their paddy due to firm's value-added activities.	WIENCO: Need for strong field supervision to ensure recommended farm practices are followed. Farmers' poor access to credit for farm labor and harvest operations leads to side-selling. Weak farmer access to mechanization services for land preparation and harvesting. MCRPMS: Reliance on social networks and personal relations with farmers for contract enforcement limits scope for expansion. Farmers also have weak access to mechanization services.
Vroegindeweij, 2014; Vroegindeweij, 2015 Sikasso, Koulikoro and Segou Regions, Mali	Rice, millet, sorghum, maize Grain farmers, village associations and cooperatives, regional farm organizations, grain processors, institutional buyers, service providers and state agencies	Examines 15 separate partnership models involving all forms (except joint management partnership model) involved in the marketing of cereals, which are categorized into one of three types: farmer-led, processor-led and service-provider led.	Farmer-led (predominates): farmer-governed organizations can potentially serve many farmers on an ongoing basis; government and donor policies favor this model. Buyer-driven: builds flexible and dedicated network of suppliers that meets a buyer's specific needs, while facilitating farmers' access to input and output markets. Service-provider driven: Farmers have access to integrated package of high quality inputs and technical assistance.	Farmer-driven: Dependent on substantial and often long-term technical assistance from development partners to build the capacity of the farmer organizations to raise capital and manage contracting for inputs and outputs. Buyer-driven: Involved relatively few farmers; limited resources and reliance on social ties for contract enforcement limits expansion. Service-provider driven: Often have high costs per farmer served, raising questions about model's financial sustainability.
Elegbede, 2016 Kaduna and Ogun States, Nigeria	Maize Small and medium-sized maize farmers in North Middle Belt, Large farmer-dealers, maize wholesalers, feed processors, large-scale poultry farmers	Examines how poultry feed value chain is coordinated, between large egg producers and feed manufacturers in Southwestern Nigeria, and with their primary source of maize farmers 800 km to the north. Predominant model is buyer-driven with unstructured market linkages, with buyers being large grain wholesalers.	No successes to note, since small maize farmers sell mainly in the spot market and are largely excluded as suppliers to poultry feed value chain. The study documents the role of private grain wholesalers and northern-based large farmers in aggregating maize and delivering it to buyers in the Southwest.	Small farmers' limited access to productivity-enhancing inputs and weak/missing cooperative structures in Kaduna region raise transaction costs of dealing with smallholders. As a result, large-farmers, who serve as main aggregators, mostly contract with other medium and large-scale farmers.

Table 12.1 (cont'd.) Summary of Case Studies

<p>Asuming-Brempong et al., 2016a Central Region and Volta Region, Ghana</p>	<p>Cassava Cassava farmers, assemblers, processors, and two breweries</p>	<p>Compares three variants of buyer-driven partnerships with tightly structured market linkages established to produce cassava as an input into beer production, linking farmers, cassava processors and two different breweries, Accra Brewery Ltd. (ABL) and Guinness Ghana Brewery Ltd. (GGBL).</p>	<p>ABL-DADTCO-farmers: DADTCO's innovative in-field cassava processing technology. ABL-Caltech-farmers: Caltech produced a more refined cassava flour that was more suitable to ABL. Caltech has fewer problems with side-selling and following technical advice with block farmers who grow cassava on Caltech's own land than with outgrowers. Caltech and ABL were exploring establishing a fixed contract with one another to stabilize their relationship. GGBL-ASCO-MAXPO-Farmers: key role of GGBL in financing value chain.</p>	<p>ABL-DADTCO-farmers: ABL abrogated contract with DADTCO because it judged DADTCO's high-quality cassava cake too fibrous for use in its brewing operation, and because it had access to another supplier (Caltech). This led to DADTCO defaulting on contracts with cassava farmers. GGBL-ASCO-MAXPO-Farmers: Weak financial position of ASCO, a state-owned enterprise, forces GGBL to pre-finance many of the operations of ASCO and its aggregator, MAXPO. Frequent plant breakdowns at ASCO limit the ability of GGBL to produce cassava-based beer. ABL-Caltech-Farmers: Caltech has some problems with side-selling by outgrowers. Caltech's lack of firm contracts with buyers of cassava flour occasionally leads to disputes with buyers over price.</p>
<p>Coulibaly and Diarrioso, 2015; Diallo et al., 2016; Diakité and Goro, 2016 Areas around Bamako and Sikasso, Mali</p>	<p>Mangoes for export market Export firm, European importers, mango farmers, custom harvesters (pisteurs), mango interprofessional organization</p>	<p>Examines a buyer-driven partnership with tightly structured market linkages between one of Mali's largest exporters of fresh mangoes to the European Union, SCS International, and small- to medium scale orchard owners. The study emphasized how the partnership works with farmers to meet stringent product certification standards</p>	<p>Exporting firm invests heavily in training of its contract growers so that they become GlobalGap and Organic certified producers. It is also working to help some of them also become harvesters that contract to pick other growers' fruit. Export firm also works closely with its overseas partners to enforce quality control standards. Firm also makes "social investments" to help build grower loyalty.</p>	<p>System-wide constraints, including low literacy rate among growers; capital needs to finance widespread replanting of orchards; no certification of nurseries producing young trees; weak public investment in R&D and in training professional arborists; potential for product debasement by custom harvesters; and poor financial status of export packing facilities. Lack of dynamism in an interprofessional organization that, in principle, could address many of these problems.</p>

Cross-Cutting Observations

From the seven sets of case studies, four cross-cutting observations emerge:

I. Potential partners need to identify carefully the sources of value generated by different partnership models.

Partnership models must create enough value for each party to warrant its investment in the arrangement. This observation seems obvious, but it focuses attention on identifying the sources of value in the partnership for each party relative to the level of resources needed to sustain it. More complex partnerships, such as farmer-, buyer-, and service-driven models with tightly structured market linkages and joint-management partnerships require more resources to sustain, especially if they provide inputs on credit. They are likely to be sustainable only if they involve products earning substantial quality premiums over alternative uses (e.g., export-grade perishables or products having quality standards different from those in the mass market) or if they generate substantial productivity gains for each partner.

Several of the partnerships created value by filling missing markets. Providing access to improved technology (e.g., improved seeds, cassava cuttings, fertilizer, and advisory services) is not only a major inducement to smallholders' participation in contracting, but is also critical to holding down the costs of such partnerships for the buyer. Buyers across the case studies faced a major challenge of increasing the volume of raw product to feed into their agro-processing plants or export enterprises. Two options exist for sourcing increased volumes: increase the number of smallholders with whom the firm contracts or increase the production per smallholder. Holding other factors constant, the first option implies raising transaction costs for the firm, especially when farmers require significant training and monitoring to meet quality standards. This is why firms as diverse as MCOMPMS in the rice value chain in Ghana (Asuming-Brempong et al. 2016b) and SCS International in the mango export value chain in Mali (Coulibaly and Diarisso 2015) sought to improve the productivity of their contract growers. Markets for information (e.g., advisory services) and transportation are also often weak, making partnerships that improved access to these (e.g., through buyer-provided extension services and subsidized transport from farmers' fields to buying stations) particularly attractive to smallholders. At the same time, failure to address important missing markets can weaken partnerships. In several instances, (e.g., the cassava and rice case studies in Ghana), lack of credit for hiring labor led some farmers to incur debts with local traders and then engage in side-selling to repay the debts.

The models reviewed in the case studies varied widely in the degree to which they addressed such missing markets in a comprehensive manner. Soulé's (2016) study of various approaches to contracting in rice value chains in different West African countries illustrates this point. Some, such as the purchase agreements of the Malian and Burkinabé grain boards with farmer organizations, focused solely on the output markets, counting on other public and private programs to improve access to key inputs like fertilizers and improved seeds. The *integrated model* of rice contracting being promoted in the Senegal River Valley had the most unified approach to linking financing (for rice distributors and millers as well as farmers), technical assistance, and inputs to the output market contracts, but it is unclear whether the Senegalese government can and will devote the resources needed to scale up this model widely. Overall, the case studies suggest that simply contracting on the output side without addressing other

missing markets is unlikely to boost farmers' incomes significantly and may threaten the durability of the partnership.⁷

Offering flexibility in pricing and delivery obligations creates value for farmers, but to be economically sustainable requires the buyer to earn correspondingly higher margins. Some buyers, such as the Ghanaian rice processor MRCMPS and all the millet and sorghum buyers studied in Mali, consistently paid a premium over market prices to help ensure delivery and quality. Several rice and cassava processors specified that after farmers had delivered enough product to repay in-kind the inputs they had received on credit, they were free to sell to any buyer. Farmers appreciate both clauses, but they are not cost-free to the buyer. They must be offset either through their effect in ensuring the buyer a supply of adequate quantity and quality to operate facilities near capacity (by reducing the farmers' incentive for side-selling) and/or the ability to sell into higher-margin markets. For example, MRCMPS's ability to offer above-market prices for paddy was due in part to the margins it earned in the production of value-added rice-based products like cookies and rice flour. The millet and sorghum buyers who paid premiums in Mali were largely either institutional buyers or a processor serving higher-end segments of the market. In contrast, the firm WIENCO, which contracts with small paddy producers in Ghana and just markets milled rice, rarely adjusts previously agreed-to prices for paddy.

Contract breaches are a major threat to the value created by the partnerships'; limiting them can involve substantial costs. Contract breaches such as farmers' side-selling leading to non-repayment of credit and buyers not honoring advance purchase agreements are common when one party has more specific assets at risk than the other. For example, if a processor with heavy fixed investment in processing equipment contracts with farmers who are producing a storable annual crop that has several potential buyers, the risk of contract breach through side-selling is high. Buyers also occasionally breach contracts, particularly when multiple sources of supply (including imports) are available and the buying price in the contract exceeds the prevailing market price. Such breach is most harmful to farmers when they have invested in meeting the buyer's quality specifications and alternative buyers are either unavailable or unwilling to pay a premium for the product.

Measures exist to limit contract breaching, but these add costs. Common measures include contract clauses such as profit sharing, adjusting prices based on current market conditions, and making contract renewal each season contingent on past performance; reliance on social capital to build loyalty; and strict monitoring of partner performance. In the case studies, some buyers reinforced their social capital with smallholders and their communities by making contributions for schools, health clinics, or to those facing household emergencies. Frequently, these informal investments substituted for more formal contract monitoring. However, reliance on such tools becomes impractical when the number of contracting farmers becomes large, as illustrated by the Malian cereals cooperatives that have developed more formal contracts with their members as the organizations have expanded their membership. The case of the Ghanaian rice processing firm MCRPMS illustrates the limits of reliance on reputation (Assuming-

⁷ Exceptions occur when: (a) farmers are facing very few buyers and the presence of contracts increases market competition for the output (which was one of the stated purposes of the buying schemes of the Malian and Burkinabé grain boards), and (b) the contract leads producers to increase the quality of their output, giving them future access to higher-value markets. For this latter condition to occur, however, the contract likely needs to be coupled with technical assistance to farmers on improving product quality.

Brempong et al. 2016a). The proprietor of this firm, after a bad experience with a widespread contract breach when contracting with many farmers, restricted her contracts to seven farmers whom she knows well and with whom she has strong social ties. She operates largely on the basis of verbal agreements and reports no problems with contract breaching, although this approach likely limits future expansion of her firm. Similarly, the large maize producer/aggregator studied by Elegbede (2016) in north-central Nigeria extended credit to a relatively small number of medium-sized farmers and relied on his strong social ties in the community to ensure enforcement of the agreements. In contrast, in Ghana, the rice processing and marketing firm WIENCO/Copa-Connect operates through formal written contracts with hundreds of farmers but expends a large amount of resources to monitor compliance.

II. Tailoring the design of the partnership to local conditions is critical.

The five broad categories of partnership models described above are just that: broad categories. Within each, partnerships require careful tailoring to local conditions. The mediocre performance and even failure of some partnerships such as those of Olam-Nigeria and GADCO (in Ghana) for rice and of DADTCO-Ghana for cassava—which had received acclaim in the popular press as “A Holistic Approach to Tackling Low Agricultural Incomes” (Osei 2012),—demonstrate that the design and implementation of such approaches is neither easy nor automatic. There is also evidence that in certain environments, transaction costs and lack of appropriate supporting organizations such as cooperatives may exclude smallholders from growing markets, as in the case of the maize-poultry feed value chain linking southwest and north-central Nigeria (Elegbede 2016). On the other hand, in certain environments, consistent with the theoretical literature, disadvantaged groups may benefit from contracting arrangements given their meager alternatives elsewhere. For example, the Ghanaian firm Caltech produces cassava starch as an input for cassava-based beer. It found that women who received plots of land, improved planting materials and technical support to grow cassava on the firm’s large nucleus estate were exceptionally conscientious in meeting their contractual obligations—in part because this was one of the few opportunities for women in the region to gain access to such resources.

One of the critical elements in the tailoring of the design of the partnerships to local conditions is *the buyer’s knowledge of the entire value chain*, not just of the level at which it is most immediately present. This was vividly illustrated by the case of DADTCO, a Dutch firm that had a technological solution to a major aggregation problem in the Ghanaian cassava value chain (reducing the bulkiness and perishability of the roots through use of its mobile processing unit). The company had successfully deployed this technology in Mozambique to help cassava farmers market a processed cassava product—high-quality cassava cake—to breweries as a feedstock for making beer. However, DADTCO did not seem to understand that its sole customer in Ghana, the Accra Brewery Limited, employed a different brewing technology than that used in Mozambique. Accra Brewery experienced difficulties handling the cassava cake that DADTCO produced and had an alternative source of high-quality processed cassava product from the company Caltech. This allowed the brewery to impose tighter quality specifications on DADTCO, leading to the collapse of its program. On the positive side, one reason for SCS International’s success with fresh mangoes exports from Mali has been its strong understanding of the strict and frequently changing quality standards of its European clients, and its ability to communicate those standards to its growers.

Another critical element of buyers' knowledge of the value chain is their understanding of farmers' output potential and capacity to meet quality standards, input needs, aggregation and transport challenges, and their general aspirations. The Mali cereals case studies (Vroegindewey 2015) provided some examples of how contractors identified and responded to such challenges. These included a rice processor who provided access to irrigated land to many farmers, a food processor who mentored a farmer organization on improving the quality of its cereals, a maize processor who provided access to a threshing machine and transport at the village level, and service providers who moved increasingly into facilitating output marketing.

Design of partnership models also needs to consider *the positive role that intermediary aggregators can play* in promoting success of agreements, particularly when many farmers are involved. Monitoring farmer compliance with contractual agreements is costly in part because of information asymmetry between the buyer and the seller, particularly with respect to farmers' creditworthiness and dependability to follow recommended practices. Buyers' distance from farmers (either geographically or socially) creates a market opportunity for intermediaries who know the farmers better and who may have specialized logistical skills and capacities to act as product aggregators for the agro-processor or exporter. Frequently these aggregators are farmer organizations (as in many of the Mali cereals cases), often supported by development partners to strengthen their capacity to play this role. However, sometimes they are private entities, either engaged directly by the buyer, as occurred in one of the cassava processing cases; or arising on their own to seize a profit opportunity, as did Local Buying Agents who aggregate and sell paddy to Olam in Nigeria. Structuring intermediaries' incentives so that they are consistent with the interests of the other parties is critical, as illustrated by the Malian mango exporter's attempts to move from a system of independent harvesters/aggregators (who sometimes comingled fruit from non-certified growers with that of certified growers) to certified grower-aggregators, who have a strong financial interest in maintaining product quality.

III. The public sector has a critical role in structuring public-private partnerships.

Partnership models are often described by their advocates as PPPs. In the partnership models studied, the roles of the public sector varied widely, involving one or more of the following activities: (a) establishing and enforcing policies that affected the partnerships (e.g., price, tax and sectoral policies, laws of contract, land tenure regulations, and rules governing the establishment and roles of farmer organizations); (b) provision of infrastructure; (c) direct market involvement of state-run agencies (e.g., grain boards and state-owned firms); and (d) provision of services such as credit and extension to value-chain actors. The public sector's role in the case studies varied from helpful to detrimental, the nature of which changed over time.

Policies affecting the partnership models cover a wide range of areas. One of the most fundamental is *land-tenure policy*, which affects the conditions under which agro-processors and exporters can gain access to land for their facilities, including nucleus estates. The question of land tenure in West Africa is politically very sensitive, with farmer and civil-society groups often voicing strong concerns about *land grabs* and the domination of family farms by large agribusinesses.⁸ National and local governments can help equilibrate bargaining power

⁸ See, for example, Hollinger and Staatz (2015), Focus Section B, pp. 311-14.

between farmers and large processing firms, as occurred in the cases of rice contracting in Senegal studied by Soulé (2016). Alternatively, they can favor one party over the other, as when they grant large firms user rights to great swathes of land without offering compensation to those who previously cultivated it (which appears to have occurred in some of the Ghana cassava case studies). Most of the partnership models involving nucleus estates have used long-term leases from local communities or their customary leaders rather than outright land purchases, but this has not obviated land-tenure concerns because such leases frequently displace farmers who were previously cultivating that land. The Ghanaian firm Caltech's strategy of engaging those farmers not as hired laborers but as block farmers on its nucleus estate, granting them free use of a block of land on the company's estate along with technical support and inputs, is one way of reducing tensions over land acquisitions while at the same time reducing the incentives for shirking that frequently accompany a hired agricultural labor force.

Land tenure policies were closely linked in the case studies to *policies that affect the degree to which farmers are involved in their production decisions and daily operations*. At one extreme was the rice development approach of Côte d'Ivoire described by Soulé (2016), where a single firm directs all irrigated production in its specified zone. While farmers retain use-rights to their land, their options if they want to produce paddy are severely restricted by the dictates of the company. This leads critics to charge that farmers are being converted into a proletariat working for a local monopolist, even as rice production and farmers' incomes rise. In contrast, the co-managed rice contracting systems in Benin and Togo (Soulé 2016) involve farmer organizations as co-owners of the buyers' business enterprises, yet these models seem to be heavily dependent on external support for their continuity.

The cases also provided examples of how *tax and trade policies* can help foster buyer-led partnership models. Changes in Ghana's tax code to favor firms that increased local content in their manufactured items were critical in inducing two major breweries in Accra to begin producing cassava-based beer and developing contracting links with farmers to supply the feedstock (Asuming-Brempong et al. 2016a). Senegalese policy to make the granting of rice import licenses conditional on a firm's also purchasing locally processed rice has helped to foster buyer-led partnerships in the Senegal River Valley (Soulé 2016). The cases also include instances where the absence of appropriate policies can hinder the development of successful partnership models. Examples include the absence of strong *policies to support farmer cooperatives* in northern Nigeria, which limited small maize farmers' ability to sell into the growing poultry feed market (Elegbede 2016) and the absence of appropriate *sectoral policies* for horticulture in Mali, which presents major obstacles to the success and growth of contracting arrangements with small- and medium-scale mango producers (Coulibaly and Diarisso 2015; Diakité and Goro 2016).

Infrastructure. In the cases involving irrigated rice production (in Ghana, Mali, and Senegal), the most common public-sector contributions were investment in the basic irrigation infrastructure (a very large fixed investment), establishment of a public-sector entity to manage it, and granting the buying firm permission to contract with farmers who had plots within the publicly operated irrigation systems. In some cases (e.g., in Mali and Ghana), the public sector also granted the agro-processor a lease for a nucleus estate. A second critical public-sector investment is road infrastructure, as indicated by farmers' complaints in several of the cases about how the poor state of rural feeder roads made delivering product to contractors' buying

points less attractive than selling locally. A critical issue in all infrastructure investments is coupling these with plans for maintenance and, where appropriate, eventual transfer to private operators. A positive example comes from Ghana, where the large rice agro-processor WIENCO, as part of a PPP, provided advance cash payments to the irrigation management agency to allow it to clean its canals in a timely way. A less positive example comes from Mali, where public investments in export packing facilities played an important role in stimulating mango exports, but the transfer of these facilities to the private sector and their future financial sustainability is proving problematic.

Role of state enterprises. The role of state-owned enterprises can be either positive or negative in fostering PPPs. State-run firms often have a reputation for inefficiency and lack of innovation, which can hinder the development of new markets. This was exemplified by the managerial and financial problems that a government-owned starch-producing company (ASCo) created for the expansion of cassava-based beer production in Ghana, and the apparent reluctance of the government to privatize the firm (Asuming-Brempong et al. 2016a). In other instances, state enterprises can play a more positive role, as illustrated by the case of the Malian grain board that began contracting with farmer organizations to supply rice to a national grain reserve stock. The resulting partnership model served as an apprenticeship program that helped farmer organizations learn the skills needed to aggregate and sell to other large buyers while meeting strict quality standards. The difference between these contrasting examples lies in how the roles of the public-sector entities were conceived. The starch company was originally created to help build a market for cassava farmers, but had no strategy to turn over the operation eventually to the private sector. The result was that the company's operations likely crowded out private investment. In contrast, the grain board saw its mandate, in addition to the public-good role of maintaining an emergency grain reserve, as fostering the growth of the private-sector, including farmer-organizations, by helping train them in how to meet commercial contracting conditions. In doing so, the board likely helped crowd in private investment.

Provision of supporting services. In some cases, state agencies provided supporting services to various value-chain members that were critical to the success of partnerships. These included extension services, credit, and assistance in price setting—e.g., through provision of objective crop budgets to serve as a basis for price negotiation and, in some cases, involvement of public officials in those negotiations. Often, these services were done in partnership with private firms, such as joint sharing of extension responsibilities. In an era of budget austerity, however, the financial capacity of the state to sustain such services may limit their expansion into new areas. For example, in the Senegal rice-contracting cases described by Soulé (2016), public financing agencies played a critical role in extending credit to make the contracting system viable, but the ability to expand and sustain such expenditures remains an open question. In the case study of Olam's outgrower scheme, the failure of government agencies to follow through on previous commitments to ensure input supply to farmers was a major contributor to the mediocre performance of that partnership. Thus, in future efforts to develop effective PPPs, developing sustainable models for providing such supporting services remains a high priority (see, for example, Zhou and Babu 2015).

IV. Collective action among participants is critical but takes time to develop.

The various partnership models all require value-chain participants to work together more closely than they have in the past. For models that involve farmer organizations, this means

building the capacity to develop and implement contracting, quality control and contract compliance arrangements. As the Mali cereals and Benin-Togo rice case studies illustrate, building such capacity is a long-term process, typically longer than the three-to-five-year project cycles of most development partners. It often involves iterative training and capacity building, and assistance accessing both operating capital and capital for long-term investments. However, as the mango export case study illustrated, when a value chain is not dominated by a single firm, there are also frequently system-wide vertical coordination challenges beyond the scope of a single entity to address. In such cases, collective action along the entire value chain becomes essential, for example, through the development of an effective interprofessional organization.⁹ Experience has shown that developing such organizations is a long-term process that requires both supportive government policies and the development of a vision and attitude of *co-opetition* among the value chain participants (Brandenburger and Nalebuff 1996)—one in which they may be rivals at a certain level within the value chain but where they can come together and work collectively to address system-wide problems. As with the case of developing effective farmer organizations, developing such value-chain-wide organizations takes considerable time and effort.

12.5. Conclusions and Policy Implications

The types of partnership models with farmers discussed in this chapter will need to replicate over time if these farmers are to be linked effectively to the growing value-added markets for West African agricultural products. However, the case studies reveal that there is no single dominant model that works in all situations. Rather, partnership models need to be tailored closely to the product, its production system, and the environment. Consistent with transaction-cost theory, the case studies examined here revealed that tighter forms of contractual agreements were more predominant where both parties had specific assets at risk (cf. mangoes vs. rainfed cereals). Therefore, they faced fewer buyers or suppliers for their goods, and were, more locked in to a given trading relationship. However, models for the same crop also varied depending on the approaches historically favored by political leadership in different countries. For example, although most countries rely on some form of PPP to develop contracting in their irrigated rice sectors, Senegal's strategy relies on state agencies to play a stronger role in coordinating the value chain than does that of Togo, Benin, and Mali, which is more farmer-led, or that of Côte d'Ivoire, which places a greater reliance on large agribusiness firms to coordinate the system. The degree to which different countries develop processes to deal with sensitive land-tenure issues surrounding the leasing of large areas for nucleus farms or develop arrangements such as Caltech's block-farmer strategy to dampen those tensions will also condition the types of partnerships that evolve.

A key message coming out of the case studies is that to be economically sustainable, a partnership model needs to generate enough value to both buyer and seller to warrant their investment in it. One should not promote complex partnership models where the scope for creating additional value is very limited. A principal first step in designing such partnership

⁹ Interprofessional organizations are voluntary organizations, widely promoted in Francophone West Africa, that include representatives from throughout a value chain (farmers, service providers, processors, distributors, exporters, government, etc.). The organizations attempt to improve vertical coordination by addressing value-chain wide challenges that are beyond the capacity of any one actor to resolve. For details, see Duteurtre and Dieye (2008); Shepherd, Cadilhon, and Galvez (2009); and Staatz and Ricks (2010).

models is therefore identifying their possible sources of value for each party. One of the key values for farmers of the partnerships studied was their ability to fill gaps left by weak or missing markets, typically for inputs such as credit, improved technology embodied in improved seeds and fertilizer, mechanization and advisory services and insurance. Improving farmers' productivity is also crucial to buyers' success, as it expands supplies available to the buyer without a proportionate increase in transaction costs. Those designing potential partnerships should, therefore, first carefully analyze: (a) which are the most important missing-market constraints facing farmers and other value chain participants; (b) how these are likely to evolve in the future (e.g., growing demand for mechanization services as local wage-rates rise); (c) which party or parties should take the lead in helping fill those gaps; and (d) the arrangements best suited to deliver the goods and services. For example, a range of options for technology dissemination needs to be considered, including private extension efforts by the buyer, use of nucleus farms as experimental and training centers for farmers as well as sources of additional output for the processing or exporting firm, and joint research and extension efforts by the buying firm with the public sector and/or NGOs.¹⁰

The case studies also reveal that government policies can either crowd-in private investment in ways that favor contracting with farmers (as in the case of Ghana's modification of its tax laws to favor greater local content in food manufacturing) or crowd it out (as exemplified by the poor performance of the government-managed ASCo, which limited expansion of the market for cassava). One area where farmer groups and some agro-processors have pressured West African governments to modify their policies has been in the area of trade, in which they have argued for protection in the form of import restrictions, especially for rice (Hollinger and Staatz 2015). Senegal has taken some steps in this direction by tying import licenses for rice to distributors' having purchased a certain amount of domestic production. However, the scope for such protection in the future is likely to be very limited for two reasons: (a) growing urban consumers increasingly pressure governments to hold down the prices of basic necessities, and (b) the 2015 adoption by ECOWAS countries of a common external tariff that limits member countries from acting unilaterally on trade (ibid.).¹¹ Therefore, policies to promote more contracting with smallholders will need to focus on measures other than trade restrictions, such as encouraging private investments that boost system-wide productivity and reduce transaction costs.

The cases also reveal that only a few successful large-scale partnership models involve the buying firm contracting directly with individual farmers. Typically, larger firms rely on some intermediary to act as a contracting interface with farmers. Often these are farmer organizations, but others are private individuals or firms. While many projects have focused on strengthening farmer organizations to improve market linkages, greater attention should be given to the potential contributions of private aggregators, including how to increase their productivity and strengthen their incentives so that they do not conflict with those of the farmers or the contracting firm. However, even when private aggregators are relied upon to accumulate product, strong farmer organizations are needed to facilitate monitoring and information flows and to represent farmers' interests, particularly in situations where, as in the Ivorian irrigated rice system, they are likely to face local monopsonists.

¹⁰ For case studies of different approaches to private and PPP-led extension services, see Zhou and Babu (2015).

¹¹ See Chapter 13 in this volume.

In situations where no single firm dominates the entire value chain, there is a need to strengthen value-chain-wide organizations, such as interprofessions, to address system-wide constraints that limit expansion of contracting with smallholders. These organizations could help develop and share information on industry structure, the evolving nature of final consumer demand, farmers' alternative market channels, and buyers' alternative sources of supply. Such information would be extremely helpful in communicating to farmers the product attributes, quality levels, and delivery conditions that attract buyers. Building such organizations is likely to require a long-term commitment from governments, development partners, and the private sector, as these organizations require both technical skills and a fundamental change in the vision of many value-chain actors.

Finally, implementation of the partnership models is at least as important as their original design, as illustrated by several cases of partnerships that foundered. Effective implementation requires strong technical knowledge of the value chain and of the social environment in which it is embedded, and a willingness to evolve the partnership as the environment changes over time. Many of the most effective partnership models studied relied on strong social ties (usually built up through a history of exchange and often bolstered by the buyer contributing to the local community or farmers in their times of need) to induce respect of the agreements' terms. Flexibility in adjusting previously negotiated prices to meet local competition and in renegotiating input loans also builds farmer loyalty, but requires large enough margins and cash flow on the part of the buyer to sustain. Thus, such flexibility is most likely in products linked to higher value-added markets that can generate those margins, as compared to bulk commodities like rainfed cereals. However, beyond social ties, enforcement of standards required by the final buyer is critical. In the words of the director of the Malian mango-exporting firm studied, "in this business, there is no room for doing things 'approximately.'"

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CHAPTER 13

Policy Responses to West Africa's Agricultural Development Challenges¹

Réponses politiques aux enjeux de développement agricole en Afrique de l'Ouest

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Abstract

Chapter 2 discussed the initial reactions of West African governments and regional organizations to the high price crisis of 2007-2008. That crisis, however, was part of a longer-term environment that continues to shape agricultural development challenges in the region. Since 2005, the policies of both national governments and regional organizations have evolved substantially to address those challenges, particularly in the context of the ECOWAP/CAADP process. This chapter analyzes the nature of those challenges, the policy responses to them over the period 2005-2016, and remaining issues that West Africans and their development partners need to address to foster inclusive agricultural growth, greater regional agricultural integration, and food security in the coming decades. There is a particularly critical need to: (a) broaden the focus of programs from attention primarily on farm-level production to improving the performance of the entire agrifood system, including input provision and agro-processing; (b) improve incentives for the private sector beyond just small farmers to participate in the programs; (c) increase the attention paid to perishable commodities, such as livestock products, fruits, and vegetables, for which demand is rapidly increasing; and (d) strengthen the capacity at all levels, from local stakeholder groups to regional organizations, for effective program implementation, monitoring, and evaluation.

Résumé

Le chapitre 2 a décrit les réactions initiales des gouvernements ouest-africains et des organisations régionales à la flambée des prix et à la crise de 2007-2008. Cette crise, toutefois, s'inscrivait dans un contexte à plus long terme qui continue à façonner les enjeux du développement agricole de la région. Depuis 2005, les politiques des gouvernements nationaux et des organisations régionales ont fortement évolué pour relever ces défis, particulièrement dans le contexte du processus ECOWAP/PDDAA (Politique régionale agricole de l'Afrique de l'Ouest/Programme détaillé pour le développement de l'agriculture). Le présent chapitre analyse la nature de ces enjeux, les réponses politiques de la période 2005-2016 et le reste des problématiques que les Africains de l'Ouest et les partenaires au développement doivent

¹ This chapter draws heavily on Hollinger and Staatz (2015), Chapters 11 and 12, and ECOWAS (2016).

résoudre pour promouvoir une croissance agricole inclusive, une plus grande intégration agricole régionale et la sécurité alimentaire dans les décennies à venir. Il est particulièrement essentiel: (a) d'élargir la portée des programmes, initialement focalisés sur la production au niveau de l'exploitation, vers le système agroalimentaire dans son ensemble, afin d'améliorer sa performance notamment au niveau de l'offre d'intrants et de la transformation agroalimentaire; (b) d'améliorer les incitations du secteur privé à participer aux programmes, au-delà de celles des simples petits agriculteurs; (c) d'accroître l'attention portée aux denrées périssables, telles que les produits animaux, les fruits et les légumes, pour lesquels la demande augmente rapidement et (d) de renforcer les capacités à tous les niveaux, allant des acteurs et groupes d'acteurs locaux aux organisations régionales, pour la mise en œuvre, le suivi et l'évaluation efficaces des programmes.

13.1. Introduction

West Africa faces a more conducive environment for rapid agricultural growth than it has in several decades. Demand for the region's agricultural products is growing rapidly, both at home and abroad, and prices for farmers' products are more favorable than they were in the 1990s and early 2000s. New biotechnologies and the information revolution offer the potential for putting powerful tools in the hands of West African farmers and agribusinesses. In addition, after years of relative neglect during the 1980s and 1990s by African governments and their development partners, agricultural has become a high policy priority for most countries in the region.

At the same time, challenges abound. Rapid population growth and urbanization are putting enormous pressure on land resources and the post-harvest parts of the agrifood system, especially as the demand for perishable, more healthful and value-added products grow (see Part II of this volume). The youth bulge in the population is creating a huge demand for new, rewarding jobs, resulting in calls for the agrifood system to create employment opportunities that are more attractive to young people than spending a day under the hot sun with a hand hoe. Insecure land tenure is leading to increasing conflicts (e.g., between crop farmers and herders), and lack of secure access to land by potential agri-investors is discouraging investment in land improvements and agro-processing. New technologies and new markets bring with them new risks for farmers, marketers, and agro-processors, creating demands for more effective tools for risk management.

The policy responses of West African governments, regional organizations, and their development partners to these opportunities and challenges have been more coordinated in recent years than in the project-led development approaches of the past. While independent and at times ad-hoc national initiatives to address specific issues, such as agricultural mechanization, still continue, national policy responses since 2008 have increasingly been designed within the framework of the Comprehensive Africa Agriculture Development Programme (CAADP) of the African Union (AU). The CAADP approach has three distinguishing characteristics:

- A pledge by national governments to move towards devoting at least 10% of national budgets to agricultural development and a pledge by development partners to devote more of their resources to this effort.

- A movement away from project-led development to a sector-wide approach. Under this approach, all major stakeholders (farmer organizations, national governments, civil society organizations, the private sector, and development partners) agree on an overall development strategy and investment plan, sign a pledge (known as a *CAADP Compact*) to support that plan and build their activities around it rather than undertake completely independent projects.
- Recognition of the importance of regional complementarities as critical elements of national agricultural development programs. This recognition was manifested in West Africa in calls by regional organizations, such as ECOWAS, the West African Economic and Monetary Union (WAEMU) and the Permanent Interstate Committee for Drought Control in the Sahel (CILSS), for open agricultural trade within the region. In addition, both ECOWAS and WAEMU have designed regional agricultural policies and investments to complement national programs and policies. The regional programs aim to deal with regional spillovers and scale economies that cannot be addressed adequately by purely national approaches—for example, the management of resources such as river basins and transhumance routes that transcend national boundaries.

In West Africa, the AU's CAADP initiative was merged with ECOWAS's initiative, launched in 2005, to develop a regional agricultural policy covering its 15 member states. This initiative is known as the ECOWAS Agricultural Policy, or ECOWAP. Parallel to, and complementary with, the development of ECOWAP, the regional organization continued throughout the period 2005-2015 to negotiate among its member states to create a common external tariff (CET) for imports from outside the region. The CET is part of ECOWAS's ongoing efforts to transform the region into a functional customs union, with free trade among member countries and common trade regulations for imports coming into the region. The bulk of the debate regarding tariff levels and accompanying safeguard measures concerned agricultural products; hence, the CET discussions were tightly linked to the development of the overall regional ECOWAP/CAADP program.²

This chapter describes the evolving policy response in West Africa to the challenges of agricultural growth and regional agricultural integration. The remaining sections of this chapter are organized as follows. Section 13.2 summarizes the main elements of the first phase of the CAADP/ECOWAP process, covering the period 2005-2015. In 2015, ECOWAS launched a year-long review of the program, involving input from a wide range of stakeholders. This led to proposals for modifications for the next 10-year phase of the program, known as ECOWAP + 10, covering the period 2016-2025. Section 13.3 discusses the main proposed modifications in the program and concludes with a discussion of remaining opportunities and challenges in implementing more effective regional agricultural growth and integration policies in West Africa.

13.2. The First Phase of ECOWAP/CAADP: 2005-15

The African Union launched the CAADP initiative in 2003, and ECOWAS began designing its regional agricultural policy in 2005. CAADP is a continent-wide initiative. The intent is that

² For details, see Chapter 9 in this volume and Hollinger and Staatz (2015), Chapters 11 and 12.

every member state of the AU design and implement its own CAADP agricultural development program, but that all countries follow similar design and implementation processes. The AU called upon Africa's Regional Economic Communities, such as ECOWAS in West Africa, to help guide their member states in developing the plans, using a common framework, and to develop regional plans that complemented the national ones by addressing issues that transcended national borders. Rather than create a separate initiative, ECOWAS decided to merge the CAADP process with its regional policy initiative, thereby creating ECOWAP/CAADP. Although the CAADP and ECOWAP initiatives existed on paper prior to the 2007-2008 food crisis, that crisis was instrumental in leading to the design, in earnest, of the national and regional CAADP plans beginning in 2008.

The Challenges Addressed

ECOWAP's objective was to address fundamental challenges facing the agricultural sector in West Africa, which policy makers increasingly recognized could not continue on its previous growth path. Although agriculture generates approximately 35% of the region's GDP, 16% of its exports and nearly 60% of its employment, it has increasingly been unable to keep up with growing food demand in the region, resulting in burgeoning imports (ECOWAS 2015d). Production growth in the region has depended primarily on area expansion rather than yield increases, and population pressures and a 25% decline in rainfall over the past 50 years has increasingly made that model of growth environmentally and economically unsustainable. The 2007-2008 world price spike and continued volatility in international markets in subsequent years served as a wake-up call to leaders in the region that West African countries could not continue to rely on what had previously been inexpensive food imports to feed a burgeoning urban population. Rather, policies needed to spur agricultural intensification to increase the region's food sovereignty, but do so primarily on the basis of family farming in order to help generate the badly needed jobs for the rapidly growing labor force (ECOWAS 2016).³ At the same time, recognizing the widespread poverty and malnutrition in West Africa and the vulnerability of the region to natural and human-made crises, the policies also needed to include a strong social protection and crisis prevention component.

The ECOWAP/CAADP Design Process

ECOWAS provided financial support and the International Food Policy Research Institute (IFPRI) provided technical support for the design of the CAADP National Agricultural Investment Plans (NAIPs), which all followed a similar process. Each country assembled a CAADP design team, drawn primarily from the ministries of agriculture, rural development, and regional integration, and sometimes with participation from representatives of farmer organizations and the private sector. Each team carried out a diagnostic study to analyze the country's previous agricultural development efforts and identify future priorities. This study was complemented by a modeling exercise that aimed to quantify the impacts on agricultural

³ *Food sovereignty* is a key objective of ECOWAP, although nowhere in the main documents describing the program (e.g., ECOWAS 2015a) is the term explicitly defined. It is generally understood to mean the ability of a region or a country to define its food policies independently of others, while ensuring that a substantial proportion of its food supply comes from national or regional supplies. In practice, debates about achieving food sovereignty revolve around whether and how much a country or region should enter into international trade agreements, which implicitly involve giving up some degree of sovereignty for the benefits of freer trade, and what level of protection the countries should offer local producers against competing imports.

and economic growth rates and on poverty alleviation of different investment options. These background studies fed into the design of the draft CAADP Compact document, which set out the priorities for the country's agricultural development strategy for the coming 5 to 10 years. The draft Compact in each country was reviewed and debated by a wide range of stakeholders, amended, and eventually signed by them. Once signed, the Compacts served as the basis for the design by the national CAADP teams of the draft NAIPs, which underwent a similar review process by national stakeholders as well as ECOWAS review teams.

Parallel to the development of the NAIPs, an ECOWAS-commissioned team developed a draft Regional Compact, Regional Agricultural Investment Plan (RAIP) and associated regional policies. These drew inspiration from an earlier regional agricultural policy developed by WAEMU, which covers the eight ECOWAS member states that share the CFA franc as a common currency.⁴ Between July 2009 and January 2011, all 15 ECOWAS countries signed their national compacts, and the regional compact was signed in November, 2009. Over the next few years, the countries and the region developed their investment plans and related policies.

Characteristics of the First Generation of ECOWAP/CAADP Plans

The national and regional plans that emerged from this process were heavily influenced by the food price crisis that began in 2007-2008. On the positive side, the crisis focused the attention of West African policy makers and their development partners on the importance of boosting the region's agricultural growth. Although all had endorsed CAADP's objectives in 2003, the 2007-2008 crisis focused attention on the urgency of putting them into practice. On the negative side, the urgency of the crisis led many governments to launch emergency food production programs in 2008 and 2009, such as Senegal's *Grande offensive agricole pour la nourriture et l'abondance* (GOANA) and Mali's *Initiative Riz*. These programs, launched prior to the design of the NAIPs, aimed to boost domestic production of basic staples—mainly cereals—very rapidly, in part through heavy subsidies on agricultural inputs such as fertilizer and seeds. Because these crash food production programs absorbed a large portion of the governments' rural development budgets, they had to be retrofitted into the overall CAADP investment plans. The CAADP plans, which in principle aimed to address long-run structural constraints to sustainable agricultural growth, often ended up instead having a very ambitious short-term focus.

The short-term focus was in part driven by CAADP's explicit link to the Millennium Development Goal objective of halving the poverty rate between 2000 and 2015. In order to achieve this ambitious goal, modeling suggested that most countries needed to achieve a

⁴ The WAEMU countries have a much longer history of regional collaboration than does ECOWAS, as they have been members of a monetary union that has existed since their Independence, with their currency initially tied at a fixed parity to the French franc and subsequently to the Euro. Maintaining a common currency has required tight collaboration on macroeconomic policies. In 1994, following the devaluation of the CFA franc, the monetary union broadened its mandate to include creation of a free-trade zone, leading to the development of WAEMU's regional agricultural policy, PAU (*Politique Agricole de l'UEMOA*). For discussion of the similarities and the differences between the PAU and ECOWAP, see Hollinger and Staats (2015), pp. 276-86. In developing ECOWAP, ECOWAS coordinated its efforts with other regional organizations, such as WAEMU and CILSS, often delegating to them specific components of the ECOWAP program. As noted below, such coordination in recent years has not been perfect, as the latter organizations have sometimes developed programs independently of ECOWAS (see Oxfam (2015) for details).

sustained annual agricultural growth rate of at least 6% per year, which was substantially above the historical and fluctuating rates achieved in the past.

In addition to the heavy short-run production focus of the plans, the NAIPs often had the following characteristics:⁵

- A strong emphasis on production of staples, particularly rice, for which the region is heavily dependent on imports. Much of the infrastructure investment called for in the NAIPs focused on expanding irrigation facilities for rice production. Most plans allocated a relatively small proportion of their budgets to livestock products and other perishables, such as fruits and vegetables, for which demand is growing rapidly.⁶
- A primary focus on farm-level production as opposed to the off-farm elements of the agrifood system, such as wholesaling, agro-processing, and retailing.
- Although the overall CAADP program had a major stated focus on increasing agricultural productivity, in practice, many of the NAIPs placed more of an emphasis on raising *production*, e.g., through the use of input subsidies, than on increasing *productivity* per se. While production can be raised by increased use of various inputs, this does not necessarily result in lower-cost food if the inputs are costly to society. Productivity increases, on the other hand, involve adopting new technologies, organizational methods and production practices that lower per-unit costs of production, thereby allowing production to expand without prices necessarily having to increase.⁷ The *productionist* approach was manifested in the heavy emphasis on input subsidies relative to investments in research, development, and extension that could generate productivity-enhancing innovations.
- A concentration of the investments devoted to institutional capacity building on farmer organizations, with many fewer funds devoted to agricultural higher education and research organizations and to units charged with policy implementation, monitoring, and evaluation.
- A heavy reliance on external funding. The 12 NAIPs for which detailed budget data are available called for an average of 68% of their total costs to be covered by sources other than the national governments (i.e., development partners and the private sector). The figures ranged from 31% for Niger to 90% for The Gambia (Hollinger and Staatz 2015, p. 284). This heavy reliance on external funding was largely due to the very ambitious production targets of the plans, a function, as explained above, of the desire (pushed heavily by the development partners) to meet the Millennium Development Goal of halving the rate of poverty between 2000 and 2015.
- Relatively little emphasis on mobilizing private investments, beyond those of small-scale farmers and their associations, to achieve the goals of the plans. The plans put heavy emphasis on public and donor investments, but paid relatively little attention on how to create incentives for larger domestic and international private-sector actors to invest in both farm-level production and agro-processing.

⁵ For details, see Hollinger and Staatz (2015), pp. 280-310.

⁶ See Chapter 7 in this volume.

⁷ In the jargon of the economist, a productivity increase represents an outward shift in the supply curve, allowing greater output for a given expenditure on inputs. This is contrasted with increasing production by simply moving along a static supply curve, expanding output at increasingly higher marginal costs of production.

- Inclusion of components addressing crisis prevention and social safety nets. Seven of the 12 NAIPs for which detailed budget information is available included programs to improve food crisis prevention and management, improved nutrition, and social safety nets. These NAIPs, thus, recognized that given the climatic and social risks facing the region, such programs need to be part of an agricultural growth agenda.

A few figures from Senegal's NAIP budget for its first five years illustrate these issues. The budget allocated 59% of its resources to improving production at the farm level, compared with 5% allocated to improving market access, 1% to strengthening the capacity of various stakeholders such as farmer groups and inter-professional organizations, and 0.6% each for improving agro-processing and financing agricultural research. Because of the emphasis on increasing farm-level production rapidly, the budget allocated only 31% to investment costs, with the rest going to recurrent costs, of which more than two-thirds went to input subsidies (Staatz and Hollinger 2016).

The regional investment plan and associated policy measures aimed to complement the NAIPs. The first phase of the regional program included three components:

1. Three mobilizing and federating programs.
 - The first focused on investments to promote production, marketing and processing of products deemed to be strategic in improving the region's food sovereignty. These included rice, cassava, maize, livestock, meat, and fish.
 - The second program aimed to help create an environment conducive to regional agricultural development, including more fluid regional trade. Among the key components of this second program was support to ECOWAS's ongoing efforts to ensure mutual recognition across member states of standards for fertilizers, and improved seeds and pesticides. This mutual recognition would allow inputs approved in one member state following regional protocols to be sold in all member states. Such a provision is critical to attracting foreign investment in these input industries, as it frees companies from having to go through separate approval processes in each of the 15 ECOWAS countries.
 - The third program focused on reducing food insecurity and promoting sustainable access to food, including developing a regional food reserve and experimenting with various models of social safety nets.
2. A set of policy measures, including those fostering free trade within the region, aimed at promoting adoption of the mobilizing programs.
3. An institutional implementation framework within ECOWAS, including a regional agricultural development fund, a regional agency for agriculture and food to help steer the implementation of the regional development programs, a consultative group of stakeholders, an interdepartmental Committee for Food and Agriculture within the ECOWAS Commission, and a monitoring and evaluation system.

Unlike the NAIPs, the RAIP did not set explicit production targets, as ECOWAS intended the RAIP to complement the production activities included in the national plans. Like the NAIPs, the regional program was heavily dependent on external financing. The proposed budget for the NAIP was US \$900 million over five years, of which ECOWAS pledged to provide US\$150 million (17%). As Allen, Heinrigs, and Sibiri (2015) point out, the heavy reliance of both the

national and the regional investment plans on outside funding raises serious questions about whether such programs could really promote food sovereignty. It is difficult to be sovereign if someone else is paying most of the bills.

Parallel to the development of the ECOWAP/CAADP program, negotiations continued among member states over the structure of the Common External Tariff and related trade safeguard measures (Hollinger and Staatz 2015 Chapter 12). In 2006, the ECOWAS Heads of State had authorized the extension to all member states of the CET that had previously been adopted by the eight WAEMU countries. The WAEMU CET included 4 tariff bands, with duties ranging from 0% in the lowest band to 20% in the highest. Within ECOWAS, several countries, including Nigeria, called for the creation of a fifth band with a higher rate (up to 50%) to provide protection to sectors, such as rice, sugar and palm oil, that these countries felt were threatened by imports. Over the period 2006 and 2014, debate continued over the creation of the fifth band, the level of import duty to be associated with it, and which products it would include.

The long and contentious negotiations reflected differing interests among ECOWAS member states with respect to desired levels of import protection. Countries with large urban populations heavily dependent on imported products such as rice opposed high tariff rates on these items, while those with less competitive sectors and stronger farm lobbies favored both a higher rate for the fifth band and a broad range of products to be included in it. When agreement was finally reached, the fifth band rate was set at 35% and was applied to only 2.2% of the total tariff lines (products) in the ECOWAS import schedule. Products falling under the fifth band included mainly animal-based products, selected vegetable products (e.g., potatoes, onions, and shallots), and certain processed products, such as oils, soap, cocoa powder, chocolate products, and fabrics. In addition, safeguard measures were adopted that either raised or lowered import taxes temporarily in response to import surges or shortages (see Chapter 9 in this volume for details). The CET regime entered into force in 2015.

Despite various shortcomings, the ECOWAP/CAADP program demonstrated several strengths relative to previous agricultural development policies in the region. The move towards a sector-wide approach to agricultural development planning represented a more coordinated and potentially less duplicative process than the previous project-led approach. In many of the countries and at the regional level, the setting of objectives and strategies was more participative than previously, although farmer groups expressed the view that it could have been more so (van Seters, Afun-Ogidan, and Rampa 2012; Hollinger and Staatz 2015 Focus Section B). The linking of national strategies to a regional strategy was done in a thoughtful manner, with clear criteria about which activities should be undertaken at each level and with a recognition of regional spillovers, potential scale economies (e.g., in agricultural research and emergency preparedness) and the importance of maintaining fluid regional agricultural trade. The incorporation in many of the NAIPs and in the RAIP of a component focused on social safety nets and food crisis mitigation and management revealed recognition that agricultural development strategies in the region need to address protection of poor consumers from natural and human-made crises if the strategies are to be inclusive and politically acceptable. The development of the NAIPs, under ECOWAS leadership, using a common approach and supported by workshops that brought all the national design teams together, created a process of mutual learning and peer review. And the development of the CET and associated safeguard measures as a complement to the ECOWAP/CAADP agricultural policies offers the prospect

of a more unified trade response across the region to soaring or collapsing international agricultural prices than has happened in the past.

Initial Implementation and Impacts of the Programs

Even though ECOWAP was officially launched in 2005, its design in earnest began in 2008, and most of the NAIPs and the RAIP, which are the instruments that guide the investments, were only validated and approved by stakeholders between 2010 and 2013 (Covic and Hendriks 2016). Therefore, the programs, both at the national and regional levels, have only been officially underway for a few years, making it early to measure their impacts. In particular, between 2010 and 2015 the regional program focused mainly on setting up the new organizations, such as the Regional Agency for Agriculture and Food, which were charged with implementing the program, providing limited support to a regional rice production initiative (which was implemented largely through national programs), and the launching of the regional food reserve (Allen, Heinrichs, and Sibiri 2015; Oxfam 2105; ECOWAS 2016). The national programs initially concentrated most of their efforts on extending the production initiatives that had been launched in the immediate aftermath of the food crisis. In 2008 and 2009, these efforts concentrated heavily on expanding rice production, with a strong emphasis on input subsidies and extension efforts. In more recent years, the efforts have expanded to other crops, such as maize and cassava, and, in some instances, to livestock and fisheries.

Measuring the initial impacts of the programs is difficult because many have been under way only for a short time, and some of the investments, such as in irrigation infrastructure, take time to make their impact felt. In addition, factors other than the ECOWAP/CAADP programs have affected production, ranging from weather conditions to the Ebola epidemic that swept several coastal countries in 2014-2016 and the terrorist attacks that have occurred across the Sahel beginning in 2011. Nonetheless, some early indicators suggest the effects of the region's renewed policy emphasis on agricultural investment and growth.

In terms of public investments, West African governments and their development partners have given greater priority to expenditures on the agricultural sector since 2008. While average annual real government expenditures of the ECOWAS countries on agriculture (measured in 2010 US dollars) remained essentially static between 2003-2008 and 2008-2013 (at US\$1.3 billion), the share of total government budgets going to agriculture increased modestly, from 3.8% in 2003-2008 to 4.1% in 2008-2013 (Covic and Hendriks 2016). This regional average was well below the CAADP target of 10%, but there was considerable variation among the 15 ECOWAS countries. Seven countries actually reduced the share of public spending allocated to agriculture, six increased it but failed to reach the 10% threshold, and two (Burkina Faso and Mali) exceeded it (Covic and Hendriks 2016; ECOWAS 2016).⁸

Development partners' commitment, as measured by the percentage of Official Development Assistance (ODA) going to agriculture in the ECOWAS zone, grew more strongly, from an average of 4% in the 2003-2008 period to 7% in 2008-2014, and increasing further to 8.8% in

⁸ There is debate over the usefulness of the percentage of the budget allocated to the agricultural sector as an indicator of government support of agricultural and agrifood system development. In an increasingly commercialized agricultural sector, agrifood system development also depends on expenditures on items such as transportation, education, and electricity supply. For a discussion of this issue, see Hollinger and Staatz (2015), pp. 288-89.

2015. Disbursements of agricultural ODA as a percentage of total commitments fell slightly over the period, however (from 73.9% in 2003-2008 to 71.9% in 2008-2014), reflecting perhaps problems in program implementation (Covic and Hendriks 2016). Strong funding gaps persisted in the NAIPs and the RAIP. For example, in late 2015, ECOWAS had succeeded in mobilizing only 10% of its already meager contribution to financing of the RAIP; and in early 2017 the regional farmers' organization ROPPA complained that ECOWAS had not contributed any of its own funds to either the regional food reserve or the various structures established under ECOWAP to help finance the agricultural sector.⁹ Although donor funds had flowed into the regional ECOWAP program, most of those were focused on establishing the regional food reserve and building monitoring and evaluation capacity (Staatz and Hollinger 2016; Niang 2017).

In terms of the evolution of agricultural production, the annual growth rate of value added in West African agriculture actually fell from the 2003-2007 period, when it averaged 5.5%, to the 2010-2014 period, when it averaged 4.0%. This downturn in the average rate of growth for the region as a whole masked considerable variation across countries, however, with three countries coming close to or meeting the CAADP 6% annual growth rate target (ECOWAS, 2016). In terms of specific commodities, Table 13.1 compares average annual growth rates of selected products over the period 2009-2013 (which represents the initial five years of the implementation of many of the NAIPs and their predecessor crash production programs) with the preceding five-year period (2004-2008). Because Nigeria accounts for about 50% of the zone's production of many agricultural products and hence strongly influences regional averages, the table shows production growth rates for Nigeria and the rest of the ECOWAS zone separately as well as for the region as a whole.

Table 13.1. Annual Growth Rates of Production, ECOWAS Region: 2004-08 vs. 2009-13

Commodity	ECOWAS		Nigeria		ECOWAS excluding Nigeria	
	2004-2008	2009-2013	2004-2008	2009-2013	2004-2008	2009-2013
Rice	6.1%	7.9%	3.4%	7.9%	8.1%	7.9%
Cassava	3.6%	7.6%	3.2%	9.5%	4.3%	4.4%
Maize	6.0%	6.6%	7.5%	8.5%	4.2%	4.6%
Fruits and vegetables	0.2%	3.2%	-0.9%	2.6%	1.9%	4.1%
Milk	9.1%	-0.6%	0.5%	5.2%	10.6%	-1.5%
Vegetable oils	3.0%	-0.8%	3.9%	-2.6%	1.3%	1.8%
Meat	3.4%	-2.6%	2.4%	-7.3%	4.2%	1.9%

Source: Calculated from FAOSTAT (2016) data.

Bearing in mind all the caveats mentioned above about possible confounding factors that could have affected these growth rates, the table suggests that the initial impact of the ECOWAP/CAADP programs has been modest and mixed. For the three starchy staples (rice,

⁹ ROPPA = Réseau des Organisations Paysannes et de Producteurs de l'Afrique de l'Ouest (Network of Peasant Organizations and Producers of West Africa)

cassava, and maize) that were the focus of the regional ECOWAP/CAADP plan as well as many of the NAIPs, growth rates for the region as a whole accelerated and exceeded 6% per year in the 2009-2013 period. However, according to the FAOSTAT data, the increase in the regional growth rate was entirely due to increases in the growth rate for these three commodities in Nigeria. The table suggests that the rapid growth of the three crops in the non-Nigerian portion of ECOWAS began before the implementation of the NAIPs and RAIP.

The table indicates that the rate of growth of fruit and vegetable production increased modestly throughout the region in the 2009-2013 period, even though fruits and vegetables were not the main focus of the first phase of the ECOWAP/CAADP program. This increase may simply represent a private-sector response to the growing demand for fruits and vegetables in the region (see Part II of this volume) as well as in export markets.

In contrast, production of meat, milk and vegetable oils, for which demand is also growing rapidly, showed sharp drops in their rates of growth (with the rates turning negative in some instances), but with substantial variation between Nigeria and the rest of the ECOWAS zone. The declines in the growth rate for meat production may reflect in part disruption in the northern parts of West Africa due to Boko Haram and other jihadist attacks (e.g., in Mali).

With the entering into force of its CET in 2015, ECOWAS gained a major tool for the realization of its plan to create effective common market for West Africa. Creating such a market for the 350 million West Africans is critical to improving access of agro-processors to raw materials from throughout the region and attracting foreign investment in agribusinesses, including the fertilizer and seed industries (Hollinger and Staatz 2015). In reality, however, in spite of the creation of the CET and the establishment years earlier of the ECOWAS Trade Liberalization Scheme, numerous barriers to free trade within the region persist. The security and health crises that have afflicted many countries in the region have in recent years have led to understandable efforts to restrict movements of people and to inspect goods shipments along highways, which have compounded the difficulties of trying to make the ECOWAS vision of a West African common market a reality (ECOWAS 2016).

13.3. Looking to the Future: ECOWAP + 10 and Beyond

The ECOWAP + 10 Process

In 2015, ECOWAS launched a yearlong consultation process with a broad array of stakeholders to evaluate the performance of the first 10 years (2005-2014) years of ECOWAP and to propose modifications for the next 10-year period from 2016 through 2025. This process was known as ECOWAP + 10 and culminated in an international conference of stakeholders in Dakar at which major conclusions from the review were debated and proposals for modifications were presented (ECOWAS 2015a, 2015b).

The review highlighted many of the shortcomings of the program discussed above and called for the following modifications over the coming 10 years (ECOWAS 2015b; ECOWAS 2015c; Staatz and Hollinger 2016; ECOWAS 2016):

- Placing a greater emphasis on the off-farm components of the food system, with a particular focus on improving vertical coordination throughout the system—for

example, through a greater use of contracting among value-chain participants and the creation and strengthening of regional inter-professional organizations.¹⁰

- Focusing more on value chains dealing with perishable products, particularly fruits, vegetables, milk, meat and fish, for which demand is expanding rapidly.
- More strongly incorporating nutritional and food safety components into the program.
- Mainstreaming gender considerations into the design and implementation of the programs, particularly regarding technology development and extension, and taking account of how increasing commercialization of agriculture affects the division of labor within farm households.
- In light of the large number of young people entering the labor market, promoting job creation throughout the food system. This should be done by focusing on structural problems such as improving training in the skills needed in a modernizing agrifood system, strengthening access to better technologies through research and outreach, and addressing problems of land tenure and access to financing that limit entry into farming and agro-processing.
- Increasing the emphasis on creating incentives for private-sector actors other than small family farmers to participate in the programs and broaden their investment in the agrifood system.
- Reallocating efforts from program design to program implementation, monitoring, and evaluation. In the words of one delegate from Sierra Leone, it is time for ECOWAP “to move from talk, talk, talk to work, work, work.”

In addition to the joint review organized by ECOWAS, other organizations such as OECD (Allen, Heinrigs, and Sibiri 2015) and Oxfam (2015) conducted their own assessments of ECOWAP. These highlighted ECOWAS's failure to fund its proportion of the regional program (due in part to its need to divert funds to address pressing security and health crises—such as the Ebola epidemic—in the period following 2010) and the lack of coordination between several new donor-driven initiatives and the ECOWAP regional program.¹¹ Oxfam (2015) attributed this lack of coordination to donors' need to respond to the timing schedules of their own funding and project management cycles and to their domestic clientele, as well as their concerns about the implementation capacity of ECOWAS, particularly the newly created and still understaffed Regional Agency for Agriculture and Food. Increasingly, Oxfam argued, external funders were choosing to work with other regional organizations, such as CILSS and WAEMU, rather than ECOWAS, doubting ECOWAS's implementation capacity. While in principle these other regional organizations worked in concert with ECOWAS, in practice, they sometimes designed the new programs jointly with the donors, and ECOWAP then was obliged to adapt its program to them.

The hope of the organizers of the Dakar conference was to reach enough agreement on the objectives and approaches to be followed in the regional program for the next 10 years to be able to sign a new regional compact covering ECOWAP + 10. Disagreements, especially among some of the technical and financial partners and ECOWAS on modalities for implementation, including monitoring and evaluation, prevented agreement, and discussions

¹⁰ See Chapter 12 in this volume.

¹¹ Hollinger and Staatz (2015) also had earlier raised concerns about new donor-driven activities, sometimes being initiated outside of, or with little coordination with, the CAADP framework.

continued throughout 2016. Although a revised investment program for the period 2016-2025 was approved by ECOWAS in December, 2016, as of February, 2017, the donors had not yet signed off on either that program or the new regional Compact.

Policy Challenges Moving Forward

West African policy responses to the challenges of agricultural development and agricultural regional integration have definitely improved since the mid-2000s. In almost all countries in the region, agricultural development now enjoys a higher priority in policy discussions and statements than in previous decades. In several countries the budget allocations to agriculture, both by national governments and their development partners, have increased. Thanks to the efforts of WAEMU and ECOWAS, most countries' policies incorporate regional cooperation and trade as components of their agricultural development strategies, even though the experience of the 2007-2008 crisis showed that this element can be fragile when faced with spiking food prices.

Strong challenges remain, both for the individual countries (where most of the investments and reforms need to take place) and for the region as a whole. These include, among others:

- Shifting the level and mix of food production to respond to West Africa's rapidly evolving demand in order to compete effectively with food imports.
- Addressing the potentially explosive issue of providing more secure land tenure in an environment where the demand for good agricultural land is rising sharply because of higher agricultural prices and rising population pressure.
- Creating attractive jobs for the millions of young people entering the labor force over the coming decade.

In addressing these challenges, three policy issues need to be addressed:

The Mix vs. the Level of Funding: While increased funding for agricultural development is important, the mix of funding is at least as equally important. As discussed above, much of the design of the first phase of the ECOWAP/CAADP program, both at the national and the regional levels, appears to have been crisis-driven. It therefore aimed at pouring resources, often in the form of input subsidies, into rapidly boosting production in the short run. This approach resulted in fewer resources being available to address longer-term structural issues, such as support of agricultural research systems and reform of educational systems to provide the personnel needed for a 21st Century agrifood system. The short-term focus is also reflected in crash programs to promote agricultural mechanization in some countries, which have been characterized by distribution of subsidized tractors. While such ad hoc efforts may help deliver a message of political support to the agricultural sector, they are often undertaken with no long-term strategy of targeting equipment to the needs of different classes of farmers.¹² In West Africa's democracies, it is inevitable that important groups of voters, such as farmers, will benefit from certain targeted programs, such as these. The challenge for policy makers is to design such programs so that they can address not only short-run needs but also underlying structural problems. For example, can programs that provide subsidized tractors be designed

¹² For a discussion of this issue in the context of Mali, see Sanogo and Diallo 2017.

in a way that helps young people launch custom tractor hire services, thereby creating jobs for the youth while at the same time providing needed mechanization services to small farmers?

Another key dimension in the mix of funding is the mix between public and private funding. Experiences from many countries around the world suggest that if agricultural programs and more general economic policies create an attractive environment for national, regional and international private investors—for example, through clearer rules on land acquisition for both farm-level production and agro-processing and transparent commercial courts to adjudicate business disputes—private funds and technical expertise will flow into production. This will help free public resources to concentrate on key public goods, such as agricultural education, research, and infrastructure that are critical to catalyzing and ensuring broad benefits from private-sector-led growth.

Policy Coordination: In an increasingly modern agrifood system open to international trade, policy issues frequently transcend the traditional mandates of ministries of agriculture. They include, for example, questions related to health and nutrition, transportation, regional trade, energy, and emergency relief. Addressing these questions requires policy coordination among (i) sectors (agriculture, health, trade, energy, industry, transport); (ii) actors (farmers, consumers, traders, processors); (iii) different levels of government, from supra-national to local levels; and (iv) governments and their development partners. The CAADP/ECOWAP process created procedures that try to foster coordination among many different stakeholders, but as Oxfam's review (2015) suggests, this coordination is far from perfect. To foster intersectoral coordination in the implementation its regional investment program, the ECOWAS Commission created the ECOWAS Inter-departmental Committee on Food and Agriculture, which includes representatives from ECOWAS departments outside of agriculture (such as trade and industry, infrastructure, and energy) that supervise the regional programs critical to the development of the agrifood system. As of the end of 2015, however, the Committee had yet to meet, let alone try to foster and coordinate with similar units in the ECOWAS member states. Similar units exist in a few countries, such as Ghana, but much remains to be done.

Policy Implementation: A principal message that emerges from the review of the first ten years of ECOWAP/CAADP is that its main shortcoming is not its conceptual design but its weak implementation. The program identifies many of the key constraints limiting agrifood system growth and integration in West Africa, but the initial years of the effort have revealed a weak capacity to implement many of the proposed solutions. For example, while progress has been made in harmonizing seed policies across ECOWAS countries, as of early 2017 no member state had yet registered a new variety using the ECOWAS procedure that would allow it to be sold across the region (Barker 2017). In one sense, the very ambitiousness of the ECOWAP/CAADP production goals could be considered a design flaw. While setting ambitious goals may sometimes be helpful in mobilizing support for an effort, there is a danger that the very ambitious ECOWAP/CAADP goals, if not met, may lead governments and their development partners to become disillusioned with agricultural development and turn to a new development fad that ignores the fundamental importance of the agricultural sector.

Strengthening policy implementation will require three things (Hollinger and Staatz 2015, pp. 33-35): strengthened implementation capacity, improved data, and alignment of incentives.

Strengthened Capacity: including monitoring and evaluation capacity will require improved training and information at several levels. At the regional level, both the new Regional Agency for Agriculture and Food and the ECOWAS Monitoring and Evaluation (M&E) unit are understaffed, yet there has been little effort to mobilize the expertise in West African universities and private consulting firms to help reinforce their capacity, or that of national M&E units. At the national level, enforcement of regional free-trade rules is frequently in the hands of customs agents at the border, some of whom lack information on the regional agreements. As many governments within the region pursue policies of decentralization, implementation of important measures concerning issues such as land tenure and agricultural support services are increasingly allocated to local units of governments, farmer organizations, and other civil society groups. Yet the level of training of those charged with such responsibilities and the technical and policy information available to them is often woefully weak. Similarly, the ECOWAP/CAADP program calls for stakeholder groups to be involved not only in their implementation but also in their monitoring and evaluation. This will require strengthening their M&E skills.

It is impossible to implement effective policy if one does not know how situations are evolving on the ground. Lack of *reliable and timely data*, particularly on the off-farm elements of the agrifood system (such as agro-processing, wholesaling and retailing), severely limits the development of empirical food policies. While the World Bank and the Bill and Melinda Gates Foundation have invested considerable resources in recent years to improve the quality of farm-level production data, a similar effort is needed for the post-harvest segments of the agrifood system if food policies in West Africa are to be effective.

Finally, *aligning incentives* among the various actors involved in policy enforcement is critical to its effective implementation. In the ECOWAS region, this involves aligning incentives at two levels: (a) among member states versus the region as a whole and (b) among the individual agents charged with enforcing regional or national policies. In terms of national and regional alignment, this will likely require a *carrot-and-stick* approach. The ECOWAP program proposes, for example, withholding some regional funding from member states that do not respect their commitment to open regional trade. This stick provision may need to be complemented, however, with the carrot of some regional funding for social safety net programs in the poorer countries to help them deal with the potential risk of their richer neighbors bidding away food from them during periods of high prices. The alignment of individual and group incentives linked to policy implementation involves dealing with problems of bureaucratic red tape and rent-seeking by those charged with policy implementation. While improving salaries for government agents such as customs and police officers may help reduce such behavior, so might linking the funding of their agencies to performance on independently monitored indicators of ease of doing business.

Perhaps the best incentive for more effective policy implementation will come from encouraging strong private sector and civil-society organizations and a free press to act as counterweights to inefficient or corrupt policy implementation. The creation of strong stakeholder organizations is critical to maintaining an ongoing policy commitment to agricultural and agrifood system development when political leadership in a country changes. Without pressure from well-organized interest groups to keep a focus on agriculture, there is a risk that new leaders will appeal to other constituents (including the increasingly numerous

urban population) to pursue programs that turn attention away from the need for building a 21st Century agrifood system.

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