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Regional dimensions of South Africa's CAADP process: Lessons from West Africa

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Abstract

Regional spillovers offer prospects for accelerating Africa's agricultural productivity growth, market development and food security. West Africa has recognised and embraced the importance of regional technology transfers, agricultural commodity trade, food security monitoring and agricultural planning. In order for the Southern African region to follow suit, South Africa's country Comprehensive Africa Agriculture Development Programme (CAADP) plan will need to recognise the country's critical role in enhancing regional agricultural development. An outward-looking country vision from South Africa promises to benefit regional as well as domestic agricultural growth and food security.

Key words: agricultural policy; South Africa; West Africa; CAADP

1. Introduction

Regional spillovers will increasingly drive growth in Africa's agricultural input and output markets. Since 1994, with the advent of majority rule and the demise of externally imposed sanctions, South Africa has become a major regional agribusiness power. Its agribusinesses have invested heavily in fertiliser, feed, sugar and supermarket outlets throughout the region. In West Africa, long-distance trading routes have linked different agro-ecological zones for many centuries. In post-independence years, particularly since the Sahelian drought of the early 1970s, cross-border movements of people, livestock and cereals have underscored the importance of regional interdependencies for ensuring food security and maintaining incentives for agricultural investment in West Africa's many breadbasket zones. Beginning in the 1980s, regional organisations such as CILSS, WAEMU and ECOWAS have increasingly promoted regional trade as a tool for accelerating agricultural growth and improving national and regional food security.[1]

This paper explores regional dimensions of agricultural growth by contrasting the experiences of West and Southern Africa. The two regions enjoy many similarities. Both have inherited political borders defined largely by the colonial scramble for Africa. In part because of these arbitrary political boundaries, large intra-regional agricultural trade flows crisscross both regions. In West Africa, the land-locked Sahelian countries export cattle and small ruminants to rapidly growing cities along the humid coastal belt, while cowpeas move from major surplus zones in Burkina Faso and Niger to deficit markets throughout the region. Cereals, such as maize, flow northward, particularly on a seasonal basis, from coastal countries such as Cote d'Ivoire and Nigeria to their northern neighbours in Mali and Niger. In Southern Africa, surplus maize from the Republic of South Africa (RSA), northern Mozambique and the farms of central Zambia serve intermittently deficit markets in Zimbabwe, Malawi, Southern Mozambique and the DRC Copperbelt. Feed and fertiliser companies in South Africa trade commodities throughout the region, while supermarket chains such as Shoprite and Pick n Pay source products through regional supply platforms. In each region, one clearly dominant, mineral-rich economy exerts outsized economic and political influence. Nigeria, with 160 million people and Africa's largest oil reserves, serves as the economic anchor of West Africa. The RSA, one of the world's largest diamond and gold producers, controls two-thirds of regional GDP in Southern Africa (Table 1). Both countries have established themselves as leading diplomatic players actively engaged in resolving regional conflicts.

Despite these many similarities, striking differences also emerge. Agricultural productivity in the two economic giants differs starkly. South African farms generate value added per farm worker of $2 500 per year compared to $800 in Nigeria (Table 1). Likewise, yields of maize and sorghum on South African farms double those achieved in Nigeria – 3.8 tons/ha compared to 1.9 for maize and 2.7 ton/ha compared to 1.2 for sorghum (FAOSTAT 2015). South Africa, with its highly competitive agricultural sector, remains the largest surplus maize exporter in Eastern and Southern Africa.

[1] CILSS (Comité permanent Inter-états de Lutte contre la Sècherese au Sahel) is an intergovernmental organisation that including nine Sahelian countries stretching from Cape Verde to Chad, plus the four humid-coastal countries of Benin, Cote d'Ivoire, Guinea and Togo. Created in 1973 to coordinate efforts at drought prevention, mitigation and relief, its mandate has subsequently broadened to promote regional food security and natural resource management, and it increasingly stresses the linkages between the Sahelian states and countries of the humid coast. WAEMU (West African Economic and Monetary Union, known as UEMOA in French), founded in 1994, includes the eight countries sharing the common currency of the CFA franc. ECOWAS, founded in 1975, covers 15 states, largely overlapping with the membership of CILSS but excluding Mauritania and Chad (both CILSS members) and including Nigeria, Ghana, Sierra Leone and Liberia (not CILSS members). Its aim is to create a West African free-trade zone and eventually a common monetary union for a region with an estimated population in 2010 of about 300 million people.

Food consumption patterns likewise differ between the two regions. While Southern Africa depends heavily on maize (for 30%) and wheat (for 16%) of food calories, West African farmers and consumers prepare a more balanced basket of staple foods that includes large volumes of rice (13%), millet (10%), sorghum (9%), maize (9%), cassava (9%) and yams (8%) (FAOSTAT 2015).

The history of regional economic integration also differs considerably between the two regions. Since the droughts of the early 1970s, West Africans have recognised their strong regional interdependencies in agricultural and food markets and therefore generally have promoted regional collaboration. In contrast, deep-seated political hostility between the apartheid government in South Africa and the surrounding frontline states in Southern Africa led to a generation-long explicit policy of containment and sanctions against the RSA that continued until the advent of majority rule in 1994. As a result, regional efforts at economic integration have proceeded more forcefully in West Africa (International Food Policy Research Institute [IFPRI] 2005). In Southern Africa, private sector agribusiness firms from the RSA have actively promoted regional investment and trade, while in West Africa, agribusiness firms from Nigeria have engaged less actively in other countries in the sub-region, particularly the Francophone countries. Consequently, the public sector has played a more dominant role in promoting regional integration in West Africa.

This paper addresses three key issues that aim to offer constructive input into the Republic of South Africa's current planning for the Comprehensive Africa Agriculture Development Programme (CAADP). First, the paper reviews evidence of the importance of regional agricultural integration in Africa. Second, it provides an overview of West Africa's experience with regional agricultural planning, from WAEMU's Politique Agricole de l'UEMOA (PAU) to the region-wide Economic Community of West Africa's Agricultural Policy (ECOWAP). The remainder of the paper assesses the regional implications of the RSA's CAADP strategy.

Table 1: Contrasting economies of West and Southern Africa

	a Population (millions)	**b GDP ($ billions)**	**c GDP/capita ($US)**	**d Agricultural value added per farm worker ($US)**	**e Number of full-time public agricultural researchers**
West Africa					
Nigeria	158	229	1 443	819	2 062
Rest of West Africa (ROWA)*	142	114	799	361	1 958
Subtotal	301	342			4 020
Nigeria as percentage of total	53%	67%			51%
Southern Africa					
South Africa	50.1	363.5	7 251	2 499	784
Rest of Southern Africa (ROSA)**	223.6	206.7	924	224	1 673
Subtotal	273.7	570.2			2 457
South Africa as percentage of total	18%	65%			32%

Sources: a, d (FAOSTAT 2015), b, c (World Bank 2013), e (ASTI 2013).

* ROWA includes Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Senegal, Sierra Leone and Togo.

** ROSA includes Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe.

2. Economic importance of regional agricultural integration in Africa[2]

Africa's inherited patchwork of political borders constrains current efforts to accelerate agricultural growth. One-fourth of Africa's 54 countries are landlocked, the highest proportion in the world

[2] This section draws on Haggblade (2013).

(Collier 2007). One-third house populations of fewer than five million, while half hold under ten million people, resulting in small national markets.

A regional perspective helps to accelerate agricultural growth in two key ways: a) by facilitating technology spillovers; and b) by improving market incentives for farmers and agribusinesses to invest in regional breadbasket zones (Haggblade 2013).

2.1. Technology spillovers

Globally, technology spillovers account for roughly half of agricultural productivity gains (Alston 2002). In Africa, the potential for cross-country spillovers becomes even larger. Africa's sub-Saharan millet belt crosses eight countries, from Senegal to Sudan, while the continent's cassava belt ranges across fifteen countries occupying a broad sash that runs from Liberia to Madagascar (Dixon *et al*. 2001; Nweke *et al*. 2002). Empirical estimates from East Africa measure cross-border spillovers from agricultural research in the range of 25% to over 150%, depending on the commodity (Abdulai *et al*. 2006). However, differing phytosanitary controls and seed certification processes inhibit cross-border technology transfer. In order to fully capture technology spillovers, and to stimulate seed industry investment, Africa requires effective regional protocols on varietal release, foundation seed, seed certification and phytosanitary controls (Tripp 2001). Recognising the need to facilitate technology spillovers, both ECOWAS and the Southern African Development Community (SADC) have promoted efforts to harmonise seed regulations more fully.

In agricultural research, education and technology development and regional collaboration offer prospects for significant efficiency gains by exploiting economies of scale through the sharing of lumpy fixed costs of specialised research facilities and staff (Byerlee & Traxler 2001; Maredia *et al*. 2004; World Bank 2008; Beintema & Stads 2011). Nigeria and RSA finance the largest agricultural research systems in Africa, with spending of $404 million and $272 million respectively in 2008 (Beintema & Stads 2011). In addition to their political and economic leadership, these two regional powers are also well placed to anchor regional agricultural research and development programmes.

Agricultural pests and diseases move easily across Africa's borders. Infected wildlife and domesticated animals carry highly contagious livestock diseases across international borders, making the control of animal diseases such as foot and mouth disease difficult in the absence of effective regional collaboration. Plant diseases and pests cross political borders with similar ease. Wind carried the cassava mealybug across the entire middle belt of Africa during the 1970s and 1980s, resulting in localised yield losses of 30% to 80% in the continent's second most important food staple (Norgaard 1988). Effective efforts to raise and sustain farm productivity in Africa therefore require regionally coordinated research and pest and disease control programmes (Gerard 1996; Scott 1996).

2.2. Market incentives and food security

Africa's political borders frequently separate the continent's many food-surplus breadbasket zones from the cross-border deficit markets they would most naturally serve. Political borders separate the food-surplus zones of northern Mozambique from intermittently deficit markets in Malawi, Zimbabwe and eastern Zambia. They separate farms in central Zambia from the chronically maize-deficit markets of Lubumbashi and other mining towns across the border in the Katanga Province of the DRC (Figure 1). In West Africa, cowpeas move from two major surplus production zones in Burkina Faso and Niger to markets throughout the region. Rice, the most heavily traded cereal in West Africa, moves across national borders throughout the region, including large-scale smuggling of imported rice that transits from Benin into Nigeria. Cattle and onions, long produced in the

Sahelian zones, trade across large distances to reach coastal urban markets (Figure 2), and significant cross-border flows of cereals percolate across the region, in both a north-south and an east-west direction.

Figure 1. Cross-border maize market flows in Eastern and Southern Africa
Source: BFAP (2014)

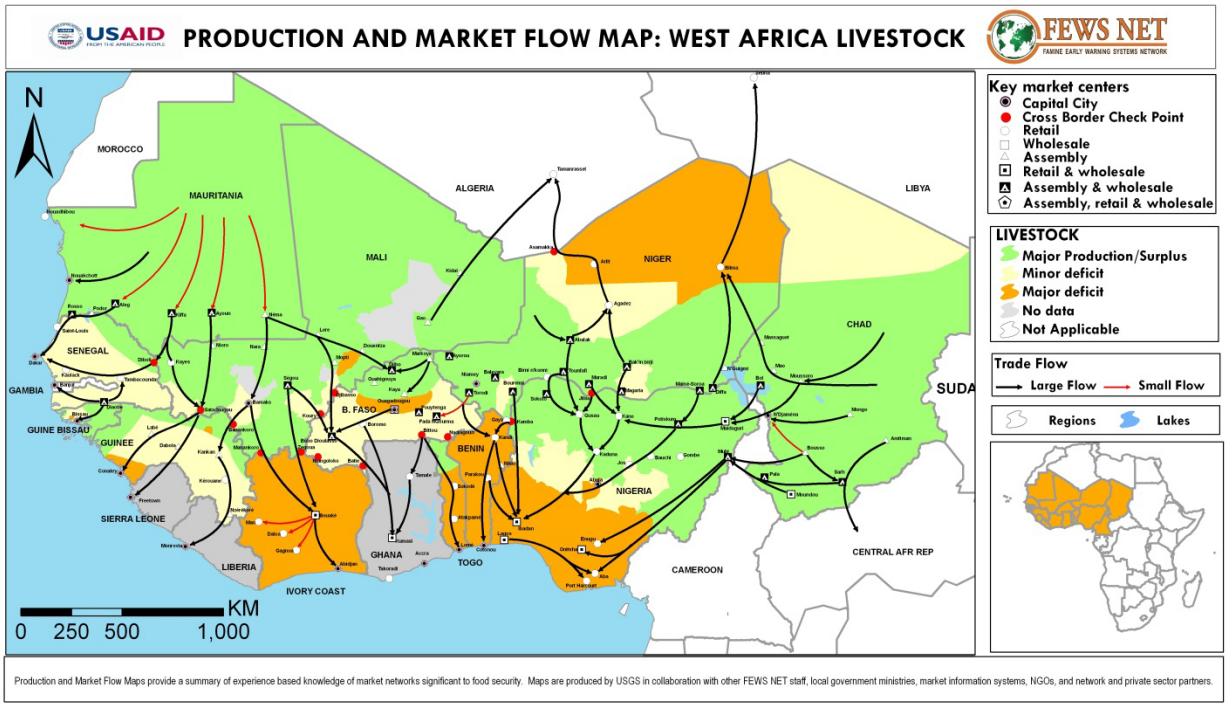

Figure 2. Livestock marketing flows in West Africa
Source: FEWSNET (2015)

Poor infrastructure, frequent border controls and a lack of competition in the transport sector result in exceptionally high transport costs in Africa, roughly four times higher per ton kilometre than in other developing regions (World Bank 2010:5). Intermittent trade restrictions, coupled with frequent road blocks and their associated delays and bribes, disrupt market signals, raise transaction costs and limit market integration. The problem becomes especially acute in Africa's many land-locked countries. In Malawi, intermittent government-imposed trade bans induce maize traders to circumvent border controls by carrying bags of maize across the border from northern Mozambique and Southern Tanzania into Malawi on bicycles and by canoe, raising transport and handling costs by about 25% (Whiteside 2003:33). These border costs vary considerably, depending on the state of road infrastructure, trade policies and the effectiveness of border administration. In an extreme case, the border crossing between Burundi and the DRC imposes financial costs on traders equivalent to pushing the markets 1 824 kilometres (or 41 hours) further apart (World Bank 2012). Traders report that the most frequent difficulties they confront in trading across these borders include bribes, fines, threats of violence and sexual harassment, and confiscation of goods.

From the farmer's perspective, the additional cross-border transaction costs depress farm-gate prices, restrict trade flows and reduce farmer incentives to expand food production in Africa's many breadbasket regions. From the consumers' perspective, the set of policy measures put in place during deficit years often leads to *higher* prices than would have prevailed under free trade, despite the stated intentions of government to keep food affordable (Tschirley & Jayne 2009).

Efforts to facilitate regional trade in food staples and farm inputs serve to stimulate farmer incentives to invest in breadbasket zones and moderate consumer prices in cross-border deficit markets. Africa-based simulations suggest that improved maize productivity, when coupled with improved transport and regional trade, results in 25% higher farmer income and lower consumer prices than when the same new technology is introduced into the current, high-transactions-cost marketing system (Diao *et al*. 2008). Regional trade can also help to lower costs in farm input markets by reducing transaction costs and enabling economies of scale in procurement and distribution. Economies of scale achievable through bulk fertiliser imports, regional logistics platforms and intra-Africa regional trade have the potential to reduce farm-level prices of imported fertiliser by as much as 30% to 50% (Gregory & Bumb 2006; Morris *et al*. 2007).

3. West Africa's regional agricultural efforts[3]

3.1 Historical context

Since pre-colonial days, long-distance, north-south trade in West Africa in products such as livestock and cola nuts has been facilitated by ethnic trading networks that extend across the sub-region. With the imposition of colonial rule, regional trade remained active, particularly within the geographically contiguous French colonies, which were largely governed as a single economic and political space. The absence of a large European settler class in West Africa meant that West Africa never developed the types of powerful grain marketing boards aimed at restricting trade in order to protect large-scale farmers from competition by small-scale African farmers. Although grain parastatals did arise in some of the colonies (and expanded after independence), they aimed at providing cheap food to relatively small, favoured consumer groups, such as urban civil servants and the military. In West Africa, most of the efforts at building large marketing boards focused on export crops such as cocoa and cotton.

With independence, many countries opted for state-led models of economic development. Although the domestic and international grain trade often became an official state monopoly – frequently with

[3] This section draws heavily on Hollinger and Staatz (forthcoming).

pan-territorial official prices – the parastatal structures rarely controlled more than a small proportion of total trade. Their existence, however, raised transaction costs for the technically illegal but dominant private marketing system that served most of the population, as well as for regional trade in basic staples. For some key commodities, such as livestock, the state never tried to monopolise trade, although in many countries it did impose officially administered pricing.

3.2 Moves towards explicit integration policies: CILSS, WAEMU and the ECOWAS Treaty

The situation began to change in the wake of the great Sahelian drought of the late 1960s and early 1970s. The drought induced widespread movement of people and animals across the Sahel, and it became evident that individual national approaches to relief and rebuilding were ineffective. In 1973, OECD donor countries active in the Sahel formed a working group called the Club of the Friends of the Sahel, while eight Sahelian countries formed a counterpart organisation, CILSS, to work with the Club on regional approaches to drought relief, rehabilitation and prevention. With the exception of Cape Verde, all the CILSS members were Francophone and shared a common currency, the CFA franc, whose fixed parity with the French franc was guaranteed by the French treasury.[4] Prior to the drought, the countries thus already had a history of economic collaboration through their coordination on monetary affairs as well as sharing common administrative structures inherited from the French.

Since its creation, the CILSS-Club partnership has taken the lead in promoting analytic and advocacy work focused on the importance of regional trade as a critical element of West African countries' growth and food security strategies. Although this work focused initially on trade among the Sahelian countries, by the mid-1980s it had shifted to the economically more important links between the Sahelian and humid coastal states.[5] The efforts of CILSS, coupled with a general liberalisation of trade beginning in the mid-1980s as part of structural adjustment programmes, proved fundamental in promoting a vision among many of the Francophone West African countries of regional trade as a key element in their national food security strategies rather than as a phenomenon to be repressed.

West African countries expressed their political vision for greater economic and political integration with the creation of ECOWAS in 1975. In practice, the implementation of the vision has been slow and remains a work in progress. Between 1979 and 1990, ECOWAS countries endorsed a number of protocols to the 1975 ECOWAS Treaty that in theory allow the free movement of goods and persons from one member state to another. In practice, as highlighted by numerous studies (e.g. USAID/West Africa Trade Hub and UEMOA 2012), strong barriers remain to regional trade in the form of roadblocks and periodic import and export bans aimed at protecting domestic producers and consumers.

The first concrete effort to develop a multi-country agricultural policy was launched by WAEMU in December 2001 with the adoption of its Union-wide agricultural policy, known by its French acronym PAU. Like ECOWAS, WAEMU aims at creating a free-trade zone within its member states; unlike ECOWAS, WAEMU already functions as a monetary union, which facilitates the harmonisation of a wide range of trade issues, since changes in these cannot be offset by exchange-rate fluctuations among its member states.

[4] Mauritania subsequently left the CFA zone and created its own national currency.

[5] This change was reflected in the Club changing its name in the early 2000s to the Sahel and West Africa Club, and in CILSS's increasing collaboration with countries of the humid coast and the broadening of its membership to include Guinea Bissau, Guinea, Togo, Benin and Cote d'Ivoire.

The PAU focuses on three central issues: (a) strengthening of key agricultural value chains deemed "strategic" to the Union (e.g. cotton, rice, poultry and maize), focused on both technical research and institutional measures to intensify production and improve competitiveness; (b) deepening the common market of the Union within the agricultural sector and the management of shared resources (e.g. trans-border grazing areas and river basins); and (c) integrating agriculture in the WAEMU zone into regional and international markets. This integration involves strengthening export markets for agricultural products from the Union, strengthening the capacity of the member states to participate in WTO negotiations, and reducing the dependency of the member states on food imports, in part through the implementation of a common external tariff.

In spite of the long history of collaboration among the WAEMU states, the implementation of the PAU has been slow, with a programme originally scheduled to be completed in six years still incomplete after 11 years (UEMOA 2011). Nonetheless, the PAU laid the groundwork for many of the approaches subsequently adopted by ECOWAS under its regional CAADP programme, known as ECOWAP. Key common features include an approach that distinguishes which policies and investments most appropriately fall under a regional as opposed to a national mandate (based on a number of principles, the most important of which is subsidiarity), a focus on key value chains of regional importance, and harmonisation of grades and standards and taxation rules with the aim of creating a true regional market capable of capturing scale economies. ECOWAS also initially recommended adoption by member states of the WAEMU Common External Tariff (CET) structure, which, after lengthy negotiations, was modified in 2014 into an ECOWAS-wide CET.

3.3 The ECOWAP/CAADP process

In 2002, ECOWAS initiated the design of its own common agricultural policy, known as ECOWAP (ECOWAS Agricultural Policy). With the launching of CAADP in 2003, ECOWAS decided to merge CAADP into the ECOWAP process, rather than to develop a parallel process – a decision that built ownership at the regional level of the CAADP process. As officially adopted by the ECOWAS Heads of State and Government in 2005, ECOWAP focused on three key issues (ECOWAS 2009):

1. Increasing the productivity and competitiveness of West African agriculture, with a focus on key value chains in order to improve the region's food sovereignty. This orientation gave the regional programme a strong focus on import substitution.[6]
2. Implementing a free-trade area within West Africa, thereby creating a truly regional market for agricultural goods and services within the 15-member state zone;
3. Adopting a common trade regime with countries outside the region through the adoption of a common external tariff and accompanying safeguard measures.

Subsequent design of the programme added a focus on testing alternative designs of social safety nets aimed at protecting the most food-insecure groups. This addition represented the recognition that a sole focus on production incentives (e.g. higher agricultural prices) was unlikely to be politically palatable unless accompanied by measures to protect the vulnerable and increasingly urban low-income population.

[6] At the regional level, the initial commodity focus of ECOWAP is on value chains that (a) demonstrate a significant production potential within the zone, (b) correspond to the changing dietary habits of ECOWAS consumers and (c) are subject to large imports from outside the region that can be substituted by taking advantage of the complementarities of the production basins within the zone and promoting regional trade. Based on these criteria, the initial five-year regional programme focuses on rice, cassava, maize, livestock, meat and related products, and fish.

Although CAADP was officially launched on a continental basis in 2003 and merged with ECOWAP in West Africa in that year, work on national-level CAADP plans only started in earnest in 2008 —following a sharp spike in world food prices. The national and regional CAADP plans that emerged consequently included a strong emphasis on rapidly boosting food production, sometimes at the cost of relative neglect of underlying structural problems, such as a weak human capital base that hampers the development of a 21st century agrifood system.

The ECOWAS Commission for Agriculture, Environment and Water Resources, with technical assistance from the International Food Policy Research Institute (IFPRI) and a group of international consultants, played a key role in driving the development of national CAADP plans. ECOWAS provided US $450 000 to each member state to help finance the development of its plan; brought together the national teams for several regional training seminars, providing them with a common analytic approach and technical support; and insisted on a tight deadline for the completion of draft plans (in part to meet deadlines for external donor support). This strong role by ECOWAS led many on the national teams initially to see the process as top-down, owned more by ECOWAS than by the country teams themselves (Kimenyi *et al*. 2012; Van Seters *et al*. 2012). Nonetheless, the ECOWAP and national CAADP processes mobilised West African technical expertise to a much higher level than many previous agricultural planning efforts (for example the national agricultural mid-term investment plans, which were prepared by FAO for all the African countries), and this use of local expertise eventually led to a greater sense of national ownership (ECOWAS 2013). Thanks to these efforts, 14 of the 15 ECOWAS countries signed their CAADP compacts between July 2009 and July 2010, with the fifteenth agreement (Guinea-Bissau) being signed in January 2011. The ECOWAS regional Compact was signed in November 2009.

It is striking that, despite the economic predominance of Nigeria and, to a lesser extent, Ghana in ECOWAS, the CAADP process at the community level was driven almost entirely by Francophones. A key person in moving the process forward was Yamar Mbodj, a special advisor to the ECOWAS Commissioner for Agriculture. Mbodj had for many years led regional food security and trade efforts at CILSS, and many of the other key players drew on experience with CILSS and WAEMU to help guide the ECOWAP process. Given the much longer history of the Francophone countries in promoting regional integration in the sub-region, this Francophone orientation is not surprising, but it does raise the question of the degree of buy-in to the regional approach from the larger Anglophone countries, particularly Nigeria. While Nigeria did produce a regional CAADP plan in 2010, it was supplanted in 2011 as a guiding document for Nigerian agricultural policy in 2011 by the Agricultural Transformation Agenda (Nigeria Federal Ministry of Agriculture and Rural Development 2011), which is part of President Goodluck Jonathan's broader Transformation Agenda for the entire Nigerian economy (Federal Government of Nigeria 2011). The Agricultural Transformation Agenda, throughout its 89 pages, makes no mention of CAADP or ECOWAP and pays only scant attention to regional integration.

3.4 Strengths and weaknesses of ECOWAP and potential problems of implementation

Among the strengths of the ECOWAP process thus far are the following:

- A well-reasoned analysis of which activities legitimately require regional as opposed to national or local action, based on the principle of subsidiarity and regional spillovers.
- The creation of a community of practice among the 15 national CAADP teams, through the coordinated training and design efforts led by ECOWAP. If sustained, these types of consultations among regional teams offer the potential for countries to learn from each other's experiences and engage in peer review of their programmes.

- A focus on a relatively small number of strategic actions, given the limited human resources ECOWAS has for programme implementation.
- A choice of strategic commodities that correspond to ones for which demand is growing strongly and for which the region has potential comparative advantage.
- The plan's focus on important areas for regional harmonisation (e.g. taxes, subsidy rates, registration of inputs, and accreditation of agrodealers), where harmonised procedures are critical for creating a regional market.
- The plan's creation of regional platforms for the coordination of policies and investments across sectors and for broad stakeholder input into the design of regional agricultural policies.

The weaknesses of the process lie in four areas:

- Over-ambitious short-term production goals set in many of the national programmes, which push the design heavily in the direction of short-term measures, such as input subsidies, to boost production quickly but which may not be financially sustainable and likely crowd out expenditures to address more fundamental structural constraints to increased productivity, such as agricultural research and strengthening of human resources.
- Relatively weak involvement of the private sector in shaping the plans, which were largely put together by government employees in consultation with farmer organisations.
- A heavy reliance on external funding, which may undermine national and regional ownership and control of the programmes. For example, ECOWAS can guarantee to fund only 17% of the regional programme out of its own funds, and no national programme proposes to fund over 40% of its programme through domestic resources.
- Insufficient attention paid to the need to create incentives for greater collaboration across sectors and ministries to address cross-cutting issues such as infrastructure development, food safety and human resource development.

Critical to success, however, is not just policy design but implementation. Historically, implementation has been a major stumbling block to regional integration in West Africa. The fundamental issue is one of incentive alignment, both among ECOWAS member states and among individuals charged with implementing the policies. At the national level, the conflict of interest stems from:

- Differences across countries in comparative advantage in the production of different commodities and in the level of development (and hence lobbying power) of agro-industries. These conflicts were reflected in the protracted negotiations over the structure of the ECOWAS CET. Nigeria and Ghana, for example, eager to protect their domestic rice industries, argued for a 50% tariff on imported rice, while countries such as Sierra Leone and Senegal, which are heavily dependent on imported rice, argued for much lower levels. In the end the latter prevailed, and the import tariff was held at 10%, the level that prevailed under the WAEMU CET. In contrast, while the maximum tariff rate under the WAEMU CET was 20%, the ECOWAS CET created a higher tariff band of 35%, which has been applied mainly to imports of animal products, in part to help protect poultry producers in countries such as Nigeria and Ghana.
- Differences in the scale of the national economies: While the small member states, such as the Gambia and Togo, clearly would benefit from the scale economies resulting from a broader regional market and regional collaboration on agricultural research and higher education, Nigeria is large enough to capture most of the scale economies within its own borders. This difference may explain why, historically, Nigeria has "done its own thing" with respect to agricultural policy, frequently imposing measures such as trade bans that contravene the ECOWAS treaty. Nigeria's seeming low priority given to regional agricultural integration, as

reflected in the Transformation Agenda, in turn raises the question whether regional integration in the sub-region is mainly a question of helping the other countries adapt to Nigeria's domestically determined policies. In the long run, however, given the porosity of borders in West Africa, it seems unrealistic to conceive of a regional policy that does not effectively engage Nigeria as an active partner.

- Conflicts between the short-run and long-run incentives facing national policy makers. One such conflict leads to the periodic imposition of export bans by low-income grain-surplus countries such as Burkina Faso during periods of high prices. National policy makers likely recognise the positive long-term incentives to farmers of the higher prices resulting from regional integration but, lacking effective social safety nets for the urban poor, impose the bans because of the short-run humanitarian and political costs of higher urban food prices. A second such conflict helps explain the persistence of road barriers (check-points), despite decades of research and outreach about their negative effects on regional trade and farmer incomes (e.g. USAID/West Africa Trade Hub *et al*., 2010). Allowing for the extraction of bribes along the major trade routes represents an off-budget subsidy to the security forces, allowing the governments to remain in the good graces of such personnel in spite of budget stringencies that prevent paying them higher salaries.

At an individual level, conflicts of interest arise with respect to regional integration because the lack of integration creates rents that can be appropriated by those who have power to affect trade under current arrangements. For example, the maintenance of diverse product standards for certified seeds across the different member states creates barriers to the flow of such seeds across borders, but also opportunities for rent extraction if such flows are "permitted".

An innovative element in the proposed ECOWAP regional plan is its decision to make regional co-financing of key national investments (e.g. input supply-chain development and fertiliser subsidies) conditional upon regional harmonisation in these areas. Thus, it aims to begin to change the incentives facing national policy makers with respect to regional integration, and ECOWAS's taxing authority on goods imported into the region provides it the revenue to make such conditional regional funding significant. This design element represents an important move away from past efforts to bring about harmonisation primarily through appeals to regional solidarity. It remains to be seen if it will be strong enough to overcome the types of conflicts of interest that historically have restrained regional trade.

4. Regional dimensions of South Africa's agricultural growth strategy

4.1. Regional perspectives on South African agriculture

South African agricultural and agribusinesses growth increasingly depends on regional markets. Since South Africa's return to majority rule, in 1994, and the subsequent removal of outside sanctions, the country's agribusiness investments have spread rapidly throughout the region. South African seed, feed and fertiliser companies have launched regional supply networks, while its major agribusinesses have invested in grain trading, sugar production, poultry operations, breweries, food wholesaling and supermarket chains throughout the region (Weatherspoon & Reardon 1998; Nin-Pratt *et al*. 2007).

In terms of food security, the Republic of South Africa (RSA) plays an outsized role in ensuring staple food supplies to the region. Over the past 20 years the RSA has accounted for roughly half of all maize produced in the SADC region (Figure 3). Although the country typically exported between 1 and 2 million tons of maize to the region annually, this export orientation has shifted in

recent years, with more white maize being exported to markets like Mexico and the East.[7] On average, total RSA exports amount to about 10% of national maize production. From year to year, regional maize exports from South Africa tend to fluctuate in response to production shortfalls elsewhere (Figure 3). An analysis of production volatility over time indicates that regional maize production varies less than individual country variations, implying general gains from intra-regional trade (Tschirley *et al*. 2006). As a result, as countries in the region have relaxed maize marketing controls since the mid-1990s, both formal and informal cross-border flows have increased. Spatial integration studies suggest that regional maize markets are well integrated, becoming more efficient over time, and that marketing costs have declined (Tschirley *et al*. 2006). Protectionist tendencies have nonetheless emerged, particularly during regional drought years, and with special force since the onset of the food price crisis in 2007/2008. Paradoxically, government activity during drought years has often exacerbated price volatility rather than diminish it, as private sector uncertainty about what government will do, combined with frequent delays in the arrival of state-controlled imports, freezes the private sector and leads to scarcity and high prices (Dorosh *et al*. 2009; Tschirley & Jayne 2009). In a regional environment characterised by unpredictable policies, frequent mistrust between government and traders, and consequently unpredictable exports from other surplus producers in the region, South Africa and Mozambique have served as reliable suppliers of last resort during years of production shortfall.

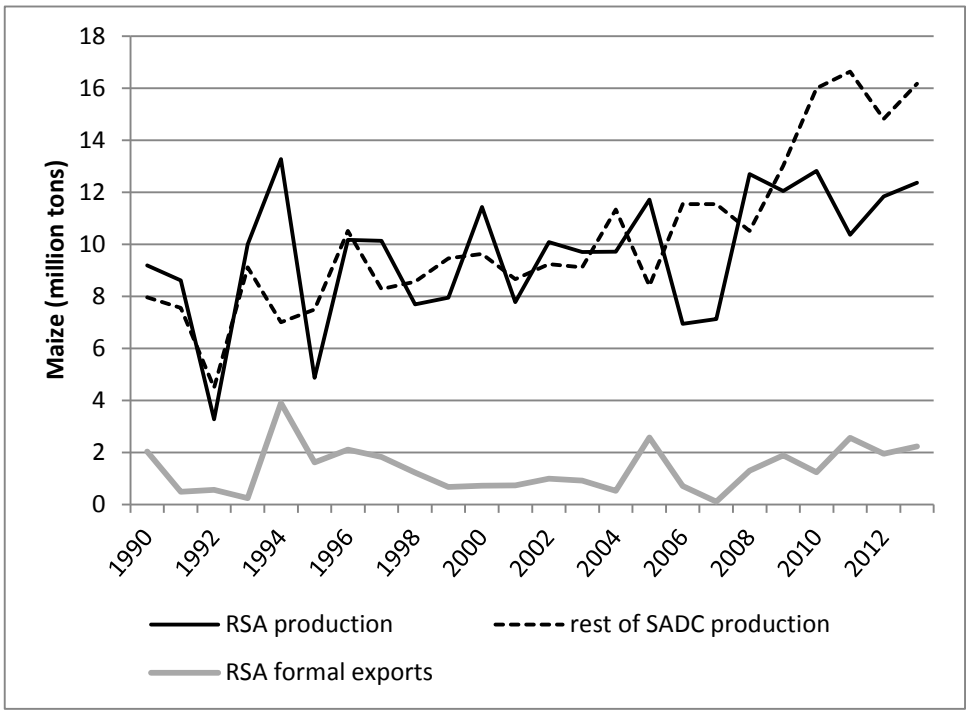

Figure 3: SADC regional maize production and Republic of South Africa (RSA) maize exports
Source: FAOSTAT (2015)

The RSA's market liberalisation and the subsequent emergence of its major grain trading companies and the Agricultural Markets Division of the South African Futures Exchange (SAFEX) have cemented South Africa's role as a regional market leader, promoting price transparency, introducing modern instruments for forecasting and managing price volatility and developing trading infrastructure for ensuring regional food security. Prior to 1996, the Marketing Act 59 of 1968 governed agricultural marketing policy within South Africa. The Act established a state-

[7] GMO maize accounts for more than 50% of South African maize production and exports. This has raised concerns in some maize-deficit countries, given the common trade practice among RSA traders of not segregating GMO maize from non-GMO maize.

controlled pricing and marketing system that restricted competition through a combination of controlled input and output prices and single-channel marketing systems for grain products (Ndibongo-Traub 2002). By the mid-1990s, during a period of vast political and social reform, increasing criticism of the marketing system focused on its obvious bias towards large-scale white commercial farmers, while parallel concerns were raised about high consumer prices for many commodities. The emerging new consensus favoured comprehensive rural restructuring programmes with the aim of creating access to land, support services and other resources for the portion of the population that was previously denied such access (Van Rooyen *et al*. 1997). Against this socio-economic background, the new government drafted and adopted a series of major reforms. The final phase of deregulation was rapid and was managed under the Marketing of Agricultural Products Act 47 of 1996, which has served to shape agricultural marketing policy in RSA to date. Under this Act, the commodity boards were abolished, leaving prices within the industry to be based entirely on negotiation between market actors.

The private sector responded rapidly to the new agricultural environment. The number of private firms involved in the food and agricultural sector increased rapidly, as did the numbers involved in exporting citrus and deciduous fruit. Farm incomes increased perceptibly (Bayley 2000). The most significant development was the establishment of the formal commodities market, SAFEX. To date, SAFEX is the only formal futures market in Southern Africa and the only futures market in the world that offers a white maize futures contract. RSA's national maize crop is traded over ten times on SAFEX as a result of active trading, speculation and hedging activities by farmers and traders. The SAFEX spot and futures prices serve as a regional "benchmark" for the prices market actors ask or offer in their daily trading. SAFEX also reports fixed transport differentials to various destinations in the country; consequently, the spot price for a region is derived from the SAFEX price minus the transport differential. A number of initiatives currently under way will further strengthen the presence of this RSA-based trading platform in the region. For example, in recent years, significant progress has been made in the negotiations to have a white maize futures contract listed on SAFEX with Lusaka as a delivery point. South Africa's open trading regime, its SAFEX pricing system and modern trading infrastructure serve as the regional hub for grain marketing in Southern and Eastern Africa.

4.2. From SADCC to SADC

Regional economic relationships in Southern Africa have undergone a similarly remarkable transition, from an SADCC system founded on outright hostility and aimed at the containment of RSA, to one of cautious regional embrace under the Southern African Development Community (SADC). The Southern African Development Coordination Conference (SADCC) was launched in 1980 immediately following Zimbabwean independence, with the objectives of reducing economic dependence on RSA by the frontline states and pursuing policies and investments aimed at the economic integration of their economies. The original nine frontline countries were Angola, Botswana, Lesotho, Malawi, Mozambique, Swaziland, Zambia, Zimbabwe and Tanzania. Namibia joined in 1990 as the 10th member of the Conference. Looking back, the impact of the SADCC in reducing economic dependence on South Africa was rated by its members as modest, but the organisation was considered most successful and effective as an instrument for securing international investment, particularly in transportation and communication. The economic driving principle behind this regional cooperation was collective action coupled with economies of scale.

The SADCC transformed itself into the Southern African Development Community in August 1992. Unlike the SADCC, the SADC acquired a legal status, with a formally signed treaty. The SADC treaty announced an ambitious plan to achieve a deeper and wider form of economic integration among members leading to a monetary union, coordinated fiscal policies, open trade and

unrestrained movement of capital and labour – much like the ultimate aims of ECOWAS. In 1994, following the advent of majority rule, RSA joined the SADC. Later, Mauritius, Seychelles and the Democratic Republic of Congo also became members, making the SADC a regional bloc of 14 countries.

The integration of the RSA into the SADC brought a significant change to Southern Africa – the end of active containment of South Africa by the frontline states and a period of active promotion of regional integration. Given its economic wealth and scientific prowess, the RSA holds significant potential for influencing intra-regional trade and agricultural research, through its agricultural science institutions, trade policy, foreign direct investment, regional supply chains and financial institutions.

4.3. Regional agricultural collaboration in Southern Africa

Private sector investors have proven more nimble than their public sector counterparts in promoting regional agricultural and agribusiness opportunities in Southern Africa, in contrast to the pattern seen in West Africa. The RSA's major agribusinesses, trade organisations, retailers and banks have all moved aggressively into regional investments. Yet policy harmonisation and the connective infrastructure investments required to accelerate private investments and trade demand public policy coordination at a regional level.

Led by the Regional Economic Commissions (RECs), formal CAADP regional plans are emerging more slowly in Southern Africa than in West Africa. Despite SADC-initiated efforts to develop a Regional Agricultural Policy (RAP) in 2008, work proceeded slowly, in part because of limited nongovernment stakeholder involvement and in part because of confusion over the distinction between the RAP and a prospective SADC regional CAADP plan. Recently, following the West Africa model, the SADC has elected to develop a CAADP-compatible RAP (Rampa & Van Seters 2013). The Common Market for Eastern and Southern Africa (COMESA) – which shares overlapping members the DRC, Zambia, Malawi and, until 2011, Tanzania with the SADC – prepared a draft regional CAADP compact in July 2010. But approval stalled when the council determined that COMESA's plan should become part of a broader, but still-nascent, tripartite regional compact involving COMESA, the East African Community (EAC) and the SADC. COMESA has recently reversed course and is currently working actively on a stand-alone COMESA regional compact (Kimenyi *et al*. 2012). The EAC, which has instituted a functioning common market, is also far advanced in developing a companion regional CAADP compact (Afun-Ogidan 2012).

A series of multilateral technical agreements currently link South Africa functionally with important regional agricultural coordination efforts. South Africa is currently a member of three water basin management entities, the Southern African power pool and the Maputo Trade Corridor (Rampa *et al*. 2012). South African researchers have led efforts to harmonise regional seed protocols and to facilitate research and development spillovers (Minde & Waithaka, 2006). In agricultural education, South Africa's universities currently train students from throughout the region in a wide range of agricultural fields. The University of Pretoria provides the common core backbone coursework for the regional Collaborative Masters of Agricultural and Applied Economics (CMAAE).

A series of recent reviews by the European Centre for Development Policy Management (ECDPM) concludes that the quickest path to expanding regional agricultural investments, technology and trade spillovers in Eastern and Southern Africa will involve building on technically focused multilateral agreements in practical areas where obvious spillovers drive common interest among core beneficiaries (Rampa *et al*. 2012; Rampa & Van Seters 2013). Areas such as river basin and

watershed management, livestock disease control, agricultural education, seed policy harmonisation, trade corridor development programmes and agricultural trade policy offer many such opportunities.

5. Key lessons for shaping South Africa's CAADP strategy

West Africa has advanced further and faster than other regions in Africa in promoting regional agricultural cooperation, collaboration and market integration. A review of its experience, in comparison with Southern Africa, suggests five major lessons for South Africa's national agricultural planning.

5.1. Importance of constructive engagement by the dominant economy

In both Western and Southern Africa, one economic powerhouse shapes opportunities and outcomes throughout the region. As a result, Nigeria and the RSA will play key roles in governing prospects for regional agricultural growth as well as regional agricultural collaboration.

In West Africa, Nigeria's many decades of underinvestment in agriculture, its strong, oil-based currency valuation and the protectionist tendencies of its influential large-scale "minister-farmers" have resulted in poor competitiveness in regional markets, and hence limited interest in integrating regional agricultural markets. As a result, the leadership and energy in ECOWAS in favour of regional agricultural integration, investment and trade has come primarily from the collection of smaller countries.

In the SADC the situation appears reversed, with the South African private sector leading efforts to integrate regional agricultural input and output markets. Unlike Nigeria, RSA's farms and agribusinesses are highly competitive in both regional and international markets. Hence RSA agribusinesses have a clear commercial interest in expanding regional trade and regional markets. The South African public sector can build on this strong private sector support by actively contributing to a regional vision for public investments that will help to simulate mutually beneficial technology transfers, input market efficiency gains and trade flows of major food staples, thereby improving regional food security. Although the SADC currently stands well behind ECOWAS in regional agricultural collaboration, an active, engaged RSA could play a constructive role in changing that dynamic by helping to accelerate regional technology spillovers and market development in Southern Africa.

5.2. Aligning incentives and identifying win-win opportunities.

Differences in comparative advantage and market scales create incentives for trade and technology sharing, but also give rise to vested interests in some countries that lead them to resist integration efforts. In Southern Africa, win-win opportunities exist in several areas: agricultural education, scientific research and technology development, and improved food price stabilisation now are possible through regional commodity trade, together with the tools of modern price risk management and reduced input prices for fertiliser and seed that result when the expanded market scale lowers costs and when improved trade corridors offer more fluid commodity, financial and information flows to interior countries. The RSA has led the way in promoting regional trade corridors, such as the Maputo Development Corridor, which has served as a focal point for discussion about further strategic regional infrastructure and policy agreements (Jourdan 1998; 2008; Söderbaum & Taylor 2008; Khulman *et al*. 2011).

Viewed from RSA's narrow national self-interest, larger and more predictably accessible regional markets will expand commercial and investment opportunities for South African farmers and agribusinesses. As a result, RSA's national CAADP strategy will benefit from the explicit promotion of regional agricultural growth, investments, technology spillovers and better market integration.

At the same time, smaller countries in the region can benefit from improved agricultural technology spillovers, the lower input costs that result when regional input supply platforms allow scale economies in input supply, lower transport costs that result from improved trade infrastructure, improved financial flows and more rapid technology transfer. Effective control of plant and animal diseases requires regional collaboration, as do efforts to manage shared watersheds. Perhaps most important in this drought-prone region, the market pricing and trade infrastructure built up around RSA's SAFEX exchange offers prospective benefits to all countries in the region through improved price transparency, improved price risk-management tools, and improved physical supplies. The most promising pathway forward will be for the RSA to offer equal measures of leadership and collaboration in advancing selected win-win opportunities for the regional integration of agricultural technology and market systems.

5.3. Mobilising regional resources

ECOWAS has earmarked a portion of its community-wide import revenues to advance regional agricultural collaboration. The availability of these internally generated funds provides some insulation from the uncertainties of donor pipelines and enables regional collaboration to proceed in priority areas identified within the region. The SADC would benefit from a similar self-financing facility.

5.4. Building on past collaboration

The leadership of the ECOWAP process by Francophones reflects a very long history of past collaboration through regional organisations such as CILSS and WAEMU, which have built patterns of trust and cooperation. For Southern Africa, building on previous successful regional collaboration efforts – such as the regional Collaborative Masters of Agricultural and Applied Economics (CMAAE), the Maputo Development Corridor linking Johannesburg and Maputo, and the regional SAFEX trading platform – can serve as a foundation for broader regional agricultural collaboration.

5.5. Linking trade and safety nets

West Africa's interest in agricultural market integration derives in large part from its long collective history of responding to droughts and the observed responsiveness of often informal cross-border flows. Drought-prone Southern Africa stands to realise similar benefits by enabling regional breadbaskets in South Africa, northern Mozambique and central Zambia to respond more predictably and efficiently to localised regional food shortages by removing trade bans and improving market information, infrastructure and trade policies. Because vocal urban constituencies face acute food price pressures and pose significant political risks during food crisis years, the West African experience suggests that a conscious link between safety-net developments and free trade policies may offer a promising pairing for advancing a regional free-trade agenda.

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