Michigan State University
Department of Agricultural, Food and Resource Economics,
East Lansing, Michigan USA

Strengthening Regional Agricultural Integration in West Africa (Phase 2 – SRAI 2)

A proposal note to the Syngenta Foundation for Sustainable Agriculture

December 17, 2012

1. Introduction

Efforts to promote productivity-enhancing agricultural technologies and risk management practices in West Africa will only succeed if they take place within a policy environment that encourages private-sector actors, including farmers, to invest in them. The economies of the 15 ECOWAS countries of West Africa are closely linked, with policies adopted in one country frequently having strong spillover effects on neighboring countries. These spillovers were seen clearly in the actions, such as export bans, adopted by several West African countries in response to the 2007-08 world food price spikes. The ensuing process of “globalization in reverse” discouraged farmers and traders in potential grain-exporting countries such as Mali and Burkina Faso from investing in expanded production and marketing infrastructure, as these countries were suddenly cut off from profitable opportunities to sell their products across their borders.

Since 2009, the Strengthening Regional Agricultural Integration in West Africa project (SRAI 1) has served the main policy research and outreach program of the Syngenta Foundation in West Africa that has addressed the need for policies to encourage productivity growth throughout the food system. Since 2008, SRAI 1 has provided empirical policy analysis to policy makers at the national, regional, and international levels about: (a) the impacts of policy actions taken by West African governments and regional organizations in response to changing international market conditions, such as the increase in the level and volatility of world staple food prices since 2008; (b) the factors that will likely drive market evolution in the region in the coming years, and (c) options for more productive policy designs. This proposal spells out a 3-year program of work (2013-2015) that builds upon and extends the results of SRAI 1, including expanded outreach to key policy makers regarding the actions needed to bring about a quicker and more effective convergence between the rapidly evolving food consumption patterns in West Africa and the capacity of food systems in the region to meet those demands. In this new phase, SRAI 2 will draw upon the research done by others on factors constraining productivity at the farm level and concentrate its efforts on adding new empirical understanding on factors likely to constrain productivity growth in the off-farm elements of the food system. In particular, the project will focus on
analyzing and discussing with policy makers (a) the rapidly evolving food consumption patterns in West Africa and their implications for West African agriculture and agribusinesses, (b) the implications of changes in the rice economy for the competitiveness of West African rice production, and (c) ways to effectively link smallholders in selected value chains to West Africa’s growing agro-industry. SRAI 2 will pay particular attention to the constraints and opportunities facing the off-farm elements (particularly processing and marketing) of key value chains, which are emerging as major bottlenecks in limiting the supply response to the rapidly changing demand. This analysis will leverage work that MSU is currently carrying out in Mali, Guinea, and Benin under IFAD funding on the strategies to make rice, cassava, and horticultural value chain development efforts more inclusive of women and youth. In doing so, the program will also identify the implications of changes and opportunities in the processing and marketing systems for needed technical, organizational, and managerial adjustments at the farm level.

Outreach efforts will be organized, in collaboration with West African partner organizations, at the national level, the sub regional level (e.g., with ECOWAS, WAEMU, AfDB, and CILSS), the continental level (e.g., with UNECA in the context of its new Regional Value Chains initiative) and at the international level (e.g., with the OECD/Sahel and West Africa Club and FAO).

2. **Background and Motivation**

West African demand for food products and consumption patterns have been changing profoundly over the past 30 years, driven by population and income growth, rapid urbanization, globalization, and the attendant changes in lifestyles. There has been a shift towards (a) faster-to-prepare staples, such as rice and wheat products; (b) growing consumption of cassava and maize in several countries, spurred by major technical advances in their production; (c) increased demand for product quality, manifested by growing product differentiation within individual categories of products (e.g., increased price premia for higher quality rice); (d) growing per capita consumption of fruits, vegetables, fats and oils, and animal protein products; (e) rapidly rising demand for processed food products; and (f) stronger consumer concerns about nutritional quality and food safety. All of these forces are opening increased opportunities and challenges for West African agribusinesses (especially agro-processing) and boosting the demand for feedgrains for livestock.

There are growing concerns among national and regional policy makers in West Africa that the region’s agriculture and agrifood system lacks the capacity to adapt quickly enough to this changing demand, leading to increased dependency on imports. For example, in spite of recent efforts to boost rice production in many countries in the region following the 2007/08 price spikes, imports of rice and wheat continue to burgeon, and the very rapid expansion in poultry consumption in countries like Benin, Togo and Ghana has been met almost entirely by imports of frozen chicken from the Americas and Europe. This, in turn, has led to calls by both farmer organizations and governments for increased protection of West African agriculture, often under the banner of promoting “food sovereignty.” These concerns are driving debates, for example, over the setting of import-tax levels in the proposed new fifth (higher) tariff band of the ECOWAS common external tariff (CET).

The debate about the competitiveness of West African agriculture and agribusiness has led to a related debate about how West African agriculture and related value chains can be structured so as to become more competitive while still generating broad-based employment
growth and avoid politically explosive “land grabs” by domestic and foreign investors. The need to generate productive jobs for the burgeoning number of young people entering the labor force and the need to restructure land-tenure arrangements to promote broad-based growth represent two of the most pressing “time bombs” facing West African countries. Leaders of farm organizations such as ROPPA (the network of West African producer organizations) and many NGOs argue that many national political leaders are losing faith that family farms can respond to the challenges described above and hence are promoting large-scale, capital-intensive farming, often through leases or grants of large areas to domestic and foreign investors. In this view, the resultant lack of rapid employment growth and tensions over land tenure will lead to social explosions.

The competitive position of West African agriculture and agribusiness depends not only on what is happening in West Africa, but also on how supply and demand conditions are evolving in the rest of the world. For example, how rice production and demand change in Asia over the next 20 years (due to changing consumption patterns in China, the potential entry of Myanmar into the market as a major exporter, etc.) will profoundly affect how competitive West African rice systems become. Thus, the debate over the future competitiveness of West African agriculture and agribusiness, and the role of small farmers and the poor in them, needs to be informed by an improved understanding of forces at work both in West Africa and in other parts of the world.

3. **Project Description**

3.1 **Goal**

The goal of SRAI 2 is to provide specific, targeted empirical information to policy stakeholders in West Africa to inform the debate about how West African agriculture and agribusinesses can respond to the region’s rapidly growing and changing demand in a way that ensures broad-based benefits to farmers, agribusinesses, and consumers. These policy stakeholders include local, national, and regional officials; farmer organization leaders; private sector actors, civil society, and development partners. The aim is to promote efficient, equitable growth in the agri-food system that allows West Africa to address the challenges outlined above. SRAI 2 will do this by building on and making more known to policy makers the research results of SRAI 1, drawing on empirical findings of other researchers working on these questions, and by carrying out targeted research and outreach to fill remaining critical knowledge gaps. The focus will be on 4 areas:

1. Understanding the changing structure of food demand in West Africa and its likely future evolution and the implications of these changes for development of agroprocessing in West Africa;
2. Analyzing the likely future evolution of the Asian rice market and its implications for West Africa;
3. Analyzing alternative models of value chain organization that link smallholders to markets in ways that capture scale economies, quality and timeliness.
4. Drawing implications of all the foregoing for national and regional policies regarding regional and international trade and investment.

The project will encompass two principal efforts:

- Research and capacity development focused on identification of factors that will help to connect more effectively regional supply and demand for food, with special attention given to the off-farm-elements of key value chain, including processing.
project will focus particularly on value chains that (a) have strong growth and employment-generation potential and (b) are important contributors to food security.

- Outreach and policy dialogue aimed at supporting regional initiatives for food security and agricultural growth. Outreach efforts will include multiple channels: policy briefs, working papers, journal articles, radio and television programs, online fora, workshops and regional and international conferences.

### 3.2 Objectives

#### 3.2.1 Identify, through empirical research, key factors that permit stakeholders and policy makers to more effectively connect supply and demand for food products in the region, with an emphasis on products for which demand is growing rapidly and which are likely to generate strong employment growth (rice, cassava, processed products, and key horticultural and animal products).

To achieve this objective, SRAI 2 will begin by studying how the structure of demand for food is evolving and will likely continue to evolve in West Africa and the implications of those changes for the organization of food production and agroprocessing in the subregion. It will then turn to two key questions concerning how well West African agriculture and agribusiness are responding to this changing demand in a way that also ensures a broad distribution of benefits among smallholders: (a) how are likely changes in the Asian rice market over the next two decades and (b) what are alternative ways of organizing key value chains that link smallholders to markets in ways that capture scale economies, quality and timeliness. The project will then draw implications of all these analyses for national and regional policies involving national and regional agricultural trade and investment.

#### 3.2.2 Facilitate understanding and consensus building among key stakeholders about the key policy issues involved by introducing research results and analysis of their implications for policy alternatives into regional policy dialogues.

### 3.3 Activities

#### Objective 1: Identify, through empirical research, key factors that permit stakeholders and policy makers to more effectively connect supply and demand for food products in the region, with an emphasis on products for which demand is growing rapidly and which are likely to generate strong employment growth (rice, cassava, processed products, and key horticultural and animal products).

To achieve this objective, SRAI 2 will begin by studying how the structure of demand for food is evolving and will likely continue to evolve in West Africa and the implications of those changes for the organization of food production and agroprocessing in the subregion. It will then turn to two key questions concerning how well West African agriculture and agribusiness are responding to this changing demand in a way that also ensures a broad distribution of benefits among smallholders: (a) how are likely changes in the Asian rice market over the next two decades and (b) what are alternative ways of organizing key value chains that link smallholders to markets in ways that capture scale economies, quality and timeliness. The project will then draw implications of all these analyses for national and regional policies involving national and regional agricultural trade and investment.

#### 3.3.1 Analysis of the changing nature of food demand in West Africa and its implications for the development of agroprocessing

Drawing on work begun under SRAI 1 (analysis of consumption food consumption patterns in the 15 ECOWAS countries carried out in conjunction with ReSAKSS and by MSU doctoral student Nathalie Me-Nsop), consumer and retailer focus-group studies commissioned recently by FAO\(^1\), recent studies of key value chains in West Africa, such as

---

1. In the context of the ongoing FAO-African Development Bank-ECOWAS study on Agricultural Growth in West Africa. John Staatz is the lead consultant to FAO in developing the synthesis report for this study.
rice, maize, poultry, and horticultural products, and targeted other studies, SRAI 2 will develop synthesis reports characterizing:

- Major trends in food consumption patterns by type of country in the region (past trends and likely future trends) and identification of the major drivers of those changes, such as income growth and urbanization. Examples include expansion of calorie consumption, with minor changes in the composition of the diet in the poorest countries (such as Niger), growth in calorie consumption combined with strong substitution from traditional staples (millet and sorghum in the Sahel and roots and tubers on the humid coast) towards rice and wheat products in several countries (e.g., Mali, Ghana, Côte d’Ivoire, Nigeria); expanded consumption of horticultural and dairy products and of eggs in all countries experiencing modest to rapid growth in per capita incomes; greatly expanded consumption of (mainly imported) poultry in countries such as Ghana and Sierra Leone; and growing demand for processed agricultural products and “fast food” in rapidly growing urban areas.

- Analysis of the scope for substitution between locally produced coarse grains (particularly in processed form) and rice in Mali and in other countries for which the key consumption parameters (cross-elasticities) can be obtained from previous or ongoing work.

For products identified in the consumption studies as those facing rapid demand increases and for which West Africa has the possibility of import substitution (e.g., rice, maize, cassava, dairy, poultry, cassava, cooking oils, selected horticultural products, and possibly juices and dried foods), SRAI 2 will choose three products and conduct analyses of opportunities and constraints for expansion of production, with a particular emphasis on the post-harvest components of the value chains. The criteria for the final choice of the products to be studied will be (a) the same as those used by ECOWAS to identify its “strategic products”, viz. products in which demand (and imports) are growing rapidly and in which West Africa has a potential comparative advantage and hence scope for import substitution and eventual export competitiveness and (b) the existence of reliable information in the key countries where production of such products is likely to grow rapidly in the next 5-10 years. SRAI 2 will draw on secondary data, previously completed value-chain analyses, recently released world outlook information through 2021 produced by OECD and FAO, analyses of opportunities and constraints carried out by UNIDO and FAO in which SRAI-affiliated staff have been involved, on the cereals marketing policy work carried out under SRAI 1, and targeted new analysis in specific countries to document:

- Evolution of these value chains’ contribution to value added in GDP and how these are likely to change in the future
- Trends in employment and investment
  - Evolution of structure, procurement system, market share and target markets for these value chains, with particular attention to challenges in assuring reliable volume and quantity to processors and retailers.
  - Constraints and opportunities of off-farm segments of the value chain, with particular attention to:
    - Constraints in infrastructure and energy needs in the processing system
    - Constraints in the institutional environment
    - Implications of these findings for needed policies and investments at the regional and national levels to induce expansion of production and employment in these key agribusinesses.
The lead SRAI-supported staff for this component of the study will be John Staatz, Boubacar Diallo, and Nathalie Me-Nsopé.

3.3.2 Analysis of the Evolution of Asian Rice Market and its Policy Implications for West Africa

In the wake of the 2007/08 price spikes in the world price of rice, most West African countries launched major investments to expand domestic rice production, and ECOWAS identified rice as one of its “strategic products” for focus under the regional CAADP program. Studies that SRAI 1 carried out in partnership with AfricaRice indicate that under the high-price conditions of 2008-09, domestic rice production was competitive with imports in several African countries. Whether West African rice will be competitive in the coming years, however, will depend critically not only on conditions in West Africa but on how the rice economy in Asia evolves.

Asia (particularly Thailand, Vietnam, Pakistan, and India) is the major source of burgeoning rice imports into West Africa. Several factors are likely to strongly affect the Asian rice economy in the next 5-10 years, and hence the competitiveness of Asian rice exports to West Africa: (a) increased diversification of the diet in Asian countries such as China that are experiencing rapid economic growth; (b) changes in production patterns across Asia—for example, as land moves out of rice into more high-value products in China and as Myanmar possibly enters the market as a new low-cost producer; (c) evolving costs of production in Asia in response to higher energy and water costs and technological change; and changing marketing strategies of Asian rice producers, such as shifting emphasis away from low-priced mass markets such as Africa and targeting high-end markets in Europe with low volumes and high prices.

This analysis will focus on the dynamics of rice value chains in Asia and their implications for rice subsector development in West Africa (including the debate over the level of protection to be afforded West African rice under the ECOWAS common external tariff). SRAI 2 will undertake the following activities:

- Bibliographic analysis of rice production, consumption trends, changes in value-chain organization, and projections in Asia, drawing on existing databases from FAOSTAT, recent OECD/FAO international outlook reports through 2021, Oryza, IRRI, IFPRI, and others, with emphasis on:
  - The structure and coordination of rice value chain (production, processing, marketing, including the changing mix of countries targeted by the main Asian exporters);
  - Constraints and opportunities in rice processing and quality requirements, including the impacts of changing rice processing technologies; and
  - How changing land tenure arrangements and water pricing are likely to affect Asian rice production.
- Analysis of evolving patterns of world rice trade and Asian rice export policies
- Synthesis of any existing DRC studies for the Asian Systems
- Refinement/review of the results from the SRAI/Africa Rice studies from SRAI 1 to allow comparison with Asian systems

---

2 Timmer (2010) argues that such dietary changes will likely lead to a decrease in per capita rice consumption, particularly in China, putting downward pressure on world rice prices.
• Synthesis recent rice value chain studies for West Africa (e.g., those commissioned by USAID)
• This work will be complemented, by short field visits to key Asian production areas, with African colleagues (e.g., from ECOWAS) to better understand the evolution of these systems.

SRAI 2 will conduct some of this analysis jointly with colleagues from Asia (e.g., from IRRI and the University of the Philippines-Los Baños), and will work with the Foundation and its contacts in Asia to identify the most appropriate local consultants. The work will also draw on agricultural sector assessment work that MSU will be carrying out from late 2012 through 2013 in Myanmar and in Cambodia with USAID support. The analysis will be forward-looking, developing scenarios based on likely future production and consumption patterns over the coming 10 years.

Based on these analyses, SRAI 2 will develop documents drawing implications of its findings for policy changes for rice development in West Africa
  • Rules regarding trade restrictions
  • Implications of decisions regarding the ECOWAS Common External Tariff for key commodities
  • Identification of productive platforms for private-public partnerships
  • For each value chain studied, what mix of scale in farming, processing and technology is most likely to achieve the goals of growth and inclusiveness?
  • What are the implications of these findings for needed reforms in land tenure and water access rights in the principal production basins?
  • What other implications do these findings have for a regional approach to agricultural development?

Lead SRAI-supported staff for this activity will include Nango Dembélé, John Staatz, Ramziath Adjao (graduate assistant) and Duncan Boughton.

3.3.3 Analysis of alternative models of value chain organization that link smallholders to markets in ways that capture scale economies, quality and timeliness

As demand for higher quality and more processed foods increases in West Africa, both for domestic consumption and for export, agroprocessors need reliable supplies of sufficient volume of agricultural products delivered in a timely way at reasonable cost—what is referred to by some of these businesses as “quality @ quantity.” Achieving this goal has often led processors and exporters to either: (a) integrate vertically directly into farm-level production, often through large-scale, mechanized farming (which may not be sustainable without access to subsidized capital); (b) work with larger producers, as the transaction costs of assuring needed quantities, qualities, and costs are often lower working with larger “certified suppliers” than with a large number of smallholders; (c) turn to imported raw products to process for sale to the domestic market in West Africa (as is done by the West African dairy processing industry, which relies heavily on imported milk powder). As a result, there is growing concern that the modernization of value chains in West Africa will largely bypass smallholders, relegating them to less profitable and more risky markets. These concerns have been aggravated by recent efforts to attract foreign investment directly into large-scale farming in West Africa—efforts characterized by their critics as “land grabs” that disenfranchise and further marginalize smallholders.
In response to these concerns, numerous innovative efforts have been made to develop approaches of value-chain development that are more inclusive of smallholders, either in their role as farmers or through creating other employment opportunities for them in other parts of the value chain (such as in processing and marketing). These efforts have involved various forms of contract farming and outgrower schemes. One investor-driven model, known in southern Africa as *farming blocks* or *resettlement schemes*, involves linking smallholders to a larger “anchor farm” and processing facilities, with the larger farm serving to help ensure enough volume to ensure scale economies in input provision and in processing, while also serving as a source of extension services to smallholders. Some investors (e.g., the Novel Group, based in Geneva) are now extending this model to West Africa. Other efforts to involve smallholders more effectively in modernizing value chains via producer-driven models involve organizing group action by farmers in input and output market and in quality control (as currently promoted by organizations such as AGRA and IFAD), linking farmer organizations with other value-chain organizations in interprofessional organizations (*interprofessions* in French) to improve vertical coordination (this approach has been widely used in Senegal), and linking smallholder organizations with a dominant firm in the value chain (as was historically done in the cotton value chains in the francophone countries).

This component of SRAI 2 will examine, through bibliographic review and selected case studies, experience with these various models, in linking smallholders into these value chains in ways that capture the scale economies, quality and timeliness that these value chains increasingly demand in order to be competitive.

The broader literature review on alternative models of linking smallholders into dynamic value chains will put the Novel experience into a broader context and highlight important options for future initiatives, including ways of involving youth from farms as service providers elsewhere in the value chain. For example, in the green-bean export industry of Senegal, there has been a rapid expansion of hired labor in farm-level production and in conditioning /packing the products for export, which has created jobs for many previously involved in small-scale farming. Youth originally from small-scale farms who get jobs elsewhere in the value chain may also act as sources of information to their relatives back on the farm about the quality characteristics most demanded by consumers and the practices needed to ensure such quality. The aim of the review and case studies will be to identify models that enable the selected West African value chains to be competitive, inclusive, and environmentally and socially sustainable. In so doing, SRAI 2 will help identify platforms for private-public partnerships in value chain development that facilitate achieving this goal.

Tentative value-chain/country combinations to be studied based on a combination of literature review and in some cases field studies include the following. (The final list will be confirmed through consultation with SFSA and local partners early in the program.)

- Cassava: Nigeria and Benin
- Maize/poultry: Mali, Cote d'Ivoire, Senegal, Ghana
- Horticulture, focusing on onions (Mali), potatoes (Mali), and tomatoes (Burkina Faso/Ghana trade).
- Sorghum (focusing on contracting between farmers and breweries): Nigeria.

Key SRAI/MSU staff for this component will include Nango Dembélé, Veronique Theriault and Steve Haggblade.
3.3.4 Drawing Implications for Regional and International Trade and Investment

All of the preceding three themes will have important implications for rules established at the national and regional levels in West Africa to govern regional and international trade and investment in agriculture and agribusiness. This component of SRAI 2 will synthesize the implications of the other three components for trade and investment, complement them with ongoing monitoring of trade and investment policies within the region (e.g., possible impacts of renewed imposition of export bans and other restrictions in the name of “food sovereignty”) and develop targeted outreach messages about them for decision-makers at the national, regional and international levels.

Objective 2: Outreach – Improved policy environment through strengthened, evidence-based regional policy dialogue, building on the SRAI 2 research results.

All of the research efforts described above will feed directly into a robust outreach program aimed at key public and private decision makers in the sub-region. These outreach efforts will partner with national, regional, and international organizations that have been deeply involved in promoting greater regional agricultural trade and more rapid agricultural growth in West Africa. Among these likely partners will be many of those with whom SRAI has worked closely: CILSS, WAEMU, and ECOWAS at the sub-regional level, as well as new partners, such as the Sahel and West Africa Club of OECD, the Rural Hub in Dakar, the World Food Program, FAO, the African Development Bank, UNECA, and FEWSNet.

3.3.2.1 SRAI 2’s outreach activities

The pathway between SRAI 2’s empirical research and its policy impacts is built on a strong program of policy outreach to stakeholders at the national, regional and international levels. The outreach plan will include multiple outreach tools, targeted at different audiences. The tools will include policy briefs, more in depth research reports, articles in the popular press and in on-line magazines targeted to an audience of policy makers, policy advisors, and the general public (e.g., Solutions [http://www.thesolutionsjournal.com/]), web-based tools (MSU’s whole set of West Africa Food Security websites is currently being redesigned), and presentations at workshops, and high level regional and international conferences.

In addition to outreach events organized explicitly by SRAI, the SRAI team will present results and policy messages at major policy meetings organized by key partners in West Africa, Europe, and North America. Such an approach enhances cost-efficiency, as it will take advantage of gatherings of policy makers at major events without SRAI 2 incurring all the costs of organizing the gathering. The initial targets for such presentations include:

a. A joint ECOWAS/USAID conference in Accra (scheduled for the end of January 2012) on the free movement of goods within the ECOWAS zone (and to which Nango Dembéle has been invited as a key presenter)

b. The ECOWAS/CILSS annual market outlook conference.

c. Meetings of the ECOWAS CAADP group.3

3 In June, 2012, the MSU/SRAI team was selected by the Rural Hub in Dakar as part of a team to provide technical assistance over the next 3 years to ECOWAS on the implementation of the regional CAADP plan. This involvement will provide a platform through which SRAI 2 results can be fed directly into the regional CAADP process.
d. The semi-annual meeting of the CILSS/Club du Sahel Committee on Food Crisis Management.

e. The annual meeting of the advisors who prepare the meeting of the CILSS Council of Ministers.

f. Outreach in early 2013 with the African Development Bank and ECOWAS, organized by the FAO as part of the Agricultural Growth in West Africa study in which members of the SRAI team are involved.

g. Meetings of the West African Futures Group of the Sahel/West Africa Club of the OECD.

h. Meetings/seminars of the Partnership to Cut Hunger and Poverty in Africa in Washington.

SRAI 2 will also work closely with SFSA to identify other important venues for presentation, such as the Davos International Disaster and Risk Conference and a possible future edition of the Geneva Trade and Development Forum in Crans-Montana.
Table 1: Expected Research and Outreach Outputs, Timelines, and Milestones (2013-2015)

| Component 1: Evolution of food demand in West Africa and the implications for development of agroprocessing |
|---|---|---|---|---|---|
| **Topics** | **Deliverables** | **Countries** | **Products/value chains** | **Timeline/Milestones** | **Possible outreach venues (Component 4 of project)** |
| Review of major trends in consumption patterns via analysis of Food Balance Sheets and more in-depth consumption studies to analyze demand prospects and scope for substitution. | 1. Summary report on evolving nature of food demand in West Africa and likely future trends, with implications for agro processing (in English and French)  2. Paper on substitutability among cereals (cross-elasticities), especially between imported and local staples, in Mali | Summary report covers all 15 ECOWAS countries. | All major food items | • Summary report: June 2013; policy brief, July 2013  • Paper on substitution: August 2013; policy brief, Sept. 2013  • Journal article, Sept. 2013. | • ECOWAS/CILSS Annual Market Outlook Conference (April 2013) – preliminary findings  • Possible joint outreach on consumption trends with FAO at AfDB in mid-2013 |
| Synthesis of existing information on trends in agroprocessing (products, value added, target markets) in the region and identification of major constraints. | Report focusing, on a few key countries, analyzing: (a) Evolution of value added in GDP; (b) Estimation of investments, employment, volume and value of output; (c) Evolution of structure, procurement system, market share | Tentative List: Nigeria, Ghana, Cote d’Ivoire, Senegal, Mali | To be identified from review of consumption trends. Likely | • Report: April 2014; policy briefs (2) – June, 2014  • Journal article, Dec. 2014 | • Meetings/seminars with Partnership to Cut Hunger & Poverty in Africa (mid 2014)  • ECOWAS/CILSS Annual Market Outlook Conference (April 2014) |

---

4 All of the 3 components shown in this table will feed into an major outreach effort with ECOWAS, national governments, and international organizations regarding the implications of the findings for CAADP-supported investments, private-sector opportunities, and regional trade policies. As described earlier in the proposal, this will involve presentation of results in various conferences, diffusion of results through websites and listserves, and presentations through radio, TV, and the popular press. This column lists possible conference and meeting venues where some of this outreach effort will take place.
and market targets; (d) likely future trends in consumption over the next 10 years; (e) Inventory of processing technologies; (f) Constraints and opportunities of off-farm segments (g) Constraints in infrastructure and energy need in the processing system; (h) Constraints in the institutional environment

cases include: Packaged foods (Nigeria); rice processing (Mali, Nigeria); animal feed (Senegal, Mali)
<table>
<thead>
<tr>
<th>Topics</th>
<th>Deliverables</th>
<th>Countries</th>
<th>Products/value chains</th>
<th>Timeline/Milestones</th>
<th>Possible outreach venues (Component 4 of project)</th>
</tr>
</thead>
</table>
| Recent evolution of world rice market, with emphasis on comparative costs of production in Asia and West Africa | Bibliographic review and review of secondary (FAOSTAT; FAO/OECD joint outlook reports) data on rice production in Asia, structure of production and marketing systems, and future trends in consumption and production costs. Synthesize comparable information for West Africa from SRAI 1 work with AfricaRice and additional forecast/outlook analyses. | Thailand, Vietnam, China, India, Pakistan, Myanmar, Philippines (?) | Rice                   | • Report based on literature and secondary data, highlighting key changes in Asian systems with respect to production, processing, quality differentiation, and environmental sustainability. – June 2013; Policy synthesis; Aug. 2013  
• Journal article, Dec. 2013                                           | • Circulation of materials of all materials through RESIMAO (network of West African MIS network);  
• Presentation to UNECA-organized meetings on African MIS forum in Addis (Nov. 2013) and/or UNECA meetings in late 2013 on regional value chains. |
| Implications of changing world rice market for West African investments in rice production | Analysis of implications in world rice market (particularly in Asia) for current and planned rice policies and investments in West Africa in the context of CAADP. Topics to address: Implications for policy changes regarding: • Rules regarding trade restrictions | ECOWAS 15                      | Rice                   | • Report, December 2013  
• 3 policy syntheses – Feb. 2014 (major input into outreach effort)  
• Journal article, Sept. 2014                                           | • ECOWAS/CILSS Annual Market Outlook Conference (April 2014)  
• Meetings of ECOWAS/CAADP group, mid 2014  
• Annual meeting of advisors to CILSS Council of |
<p>| What platforms for private-public partnership? | What scale of farming, processing and technology and ways of linking them in the value chain? | Rules governing land and water tenure Regional approach to regional approach to rice development | Ministers (mid 2014) Presentation in Washington with Partnership to Cut Hunger and Poverty in Africa (mid 2014) Crans-Montana II if that is held (Sept. 2014) |</p>
<table>
<thead>
<tr>
<th>Topics</th>
<th>Deliverables</th>
<th>Countries</th>
<th>Products/value chains</th>
<th>Timeline/Milestones</th>
<th>Possible outreach venues (Component 4 of project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of alternative models of linking smallholders to dynamic value chains</td>
<td>Literature review of alternative experiences in West Africa and elsewhere around the world, focusing on contract farming, investor-driven and producer-driven models</td>
<td>Main emphasis on sub-Saharan Africa, but examples from other areas as well</td>
<td>Various crops (e.g., horticultural products, cassava, rice)</td>
<td>Report; June 2014. Policy synthesis, August, 2014</td>
<td>• Presentation in Washington with Partnership to Cut Hunger and Poverty in Africa (3rd quarter, 2014)</td>
</tr>
<tr>
<td>Analysis of specific experiences in West Africa</td>
<td>Case studies, to be identified through literature review. Cases will likely include some of producer-driven models (e.g., those supported by AGRA; Senegalese experience with interprofessions) and investor-driven models (e.g., in Ghana)</td>
<td>Likely value chain/country combinations:</td>
<td>Full report, March 2015 Policy syntheses, June 2015 Journal article, Sept. 2015</td>
<td>• Meetings of ECOWAS/CAADP working groups (3rd quarter, 2015)</td>
<td></td>
</tr>
</tbody>
</table>
4. Budget and budget narrative

The proposed budget for this activity is $1,653,204, as summarized in table 2 and presented in detail in the attached Excel file.

**Budget: Syngenta Foundation for Sustainable Agriculture: January 1, 2013 – December 31, 2015**

***Table 2. Budget***

<table>
<thead>
<tr>
<th>Summary Budget</th>
<th>Syngenta Foundation for Sustainable Agriculture</th>
<th>14 December 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YEAR 1</td>
<td>YEAR 2</td>
</tr>
<tr>
<td>LINE ITEM</td>
<td>(1/1/13-12/31/13)</td>
<td>(1/1/14-12/31/14)</td>
</tr>
<tr>
<td>TOTAL MSU PERSONNEL</td>
<td>222,775</td>
<td>215,935</td>
</tr>
<tr>
<td>TOTAL FRINGE BENEFITS</td>
<td>53,362</td>
<td>55,860</td>
</tr>
<tr>
<td>TOTAL LOCALLY CONTRACTED PERSONNEL</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL TRAVEL/TRANSPORT/ALLOWANCES</td>
<td>64,493</td>
<td>48,034</td>
</tr>
<tr>
<td>TOTAL EQUIPMENT</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL OTHER DIRECT COSTS</td>
<td>178,281</td>
<td>145,416</td>
</tr>
<tr>
<td>TOTAL COSTS</td>
<td>541,208</td>
<td>502,505</td>
</tr>
<tr>
<td>INDIRECT COST (@ 10%)</td>
<td>54,121</td>
<td>50,251</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>595,329</td>
<td>552,756</td>
</tr>
</tbody>
</table>

**Personnel**

**MSU**

- Dr. Boubacar Diallo: Mali-based faculty principal investigator will help analyze the ways of linking smallholders effectively to dynamic value chains and take the lead role in overall policy extension work, summarizing key findings from the research from the earlier phase of SRAI and playing a key role in the outreach presentations, particularly with West African regional organizations.

- Dr. Steven Haggblade: US-based faculty member who will take lead role, beginning in year 2, on work linking smallholders effectively to dynamic value chains and on drawing implications for this work for regional integration in West Africa.

- Dr. Niama Nango Dembélé: Mali-based principal investigator and researcher will help carry out the analysis of the evolution of Asian rice economy for West African rice development and will develop the policy extension materials and outreach strategy and participate in outreach meetings in West Africa and Europe.
• Dr. John Staatz: campus-based principal investigator will work on the evolution of food consumption trends in West Africa and on the implications of changes in the Asian rice economy for West Africa. He will also work closely with Dembele and Diallo in years 1 and 2 developing the outreach strategy and materials, supervise the graduate research assistants in helping develop such materials, and participate in outreach activities in North America and West Africa.

• Dr. Veronique Theriault: campus-based faculty researcher—beginning in year 2, she will contribute to the research on linking farmers to dynamic value chains, helping coordinate this work with that which she coordinates under a separate IFAD-funded study.

• Dr. Duncan Boughton: campus-based faculty member and co-Director of MSU’s Food Security Group, will contribute to work on the implications of developments in the Asian rice economy for West Africa, drawing on work that he is helping direct, under USAID funding, in Cambodia and Myanmar.

• Mr. Steve Longabaugh: campus-based specialist, will assist in report preparation, including mapping/GIS presentations

• Post-doc Nathalie MeNsope: A campus-based post-doctoral researcher, she will take the lead in preparing reports on the evolution of food consumption patterns in West Africa for the development of agro-processing in the subregion, drawing on her doctoral research on this topic carried out under SRAI 1;

• Kay Barber: Administrative Assistant, will review and process vouchers and accounting materials prepared by the Bamako-based local staff

• Xiao Zhen Li: Administrative Assistant, will handle arrangements for project-related travel

• Cathy Snider: Administrative Assistant, will handle posting outreach materials to the project website and travel-notifications.

• Two MSU Graduate Assistants: Level III, 1/2-time appointment: In year 1, the two graduate research assistants will be Ramziath Adjao and Jacob Coulibaly. Ms. Adjao will focus her research on developments in the Asian rice economy and its implications for West Africa, while Mr. Coulibaly will help develop analyses of trends in West African agro-processing. In years 2-3, the graduate research assistants will help in the analysis the links between smallholders and agribusinesses and development of outreach materials.

Allowances

• Allowances are provided to Field-Staff Personnel on long-term overseas assignment. Allowances paid are Post Differential, Post Allowance, and Permanent Quarters. These allowances have been budgeted according to the US Department of State’s
Standardized Regulations. Living Quarters Allowances (includes rent, utilities, guards, and maintenance) for Dembélé and Diallo are based on actual expenditures incurred through the current cooperative agreement in Mali. Education Allowance for Dembélé is based on actual expenditures incurred through the current agreement in Mali.

**Fringe Benefits: (US based salaries):** Fringe Benefits are applied to MSU based employees at a rate specific to each employee. Items within the fringe benefit rate for U.S-based personnel include the following:

- Social Security/Medicare
- Unemployment Insurance
- Insurance- AD&D
- Insurance- Health
- Insurance- Short-Term Disability (STD)/ Long-Term Disability (LTD)
- Workers Compensation
- Employee Assistance Program Benefits
- Pension Expense if enrolled

**Equipment:** There will be no equipment (defined as durable machinery with a value of over $5,000) purchased on the grant.

**Travel, Per Diem, and Allowances**

Travel is to attend various outreach activities (typically presentations to be made at major events in West Africa, Europe, and North America organized by others to which the SRAI team members will be invited to present key findings and outreach messages.

**International Travel**

- **International Airfare-US to Philippines & Bangkok:** In year 1, travel is budgeted for 2 MSU-based researchers to travel to Asia to work with colleagues on the analysis of the evolution of the Asian rice market.

- **International Airfare-From Bamako to Bangkok:** In year 1, travel is budgeted for one Bamako-based MSU researcher and one West African research partner (e.g., from AfricaRice or from the West Africa Network of Agricultural Market Information Systems) to travel to Asia to work with colleagues from Asia and MSU-based staff on the analysis of the evolution of the Asian rice market.
• **International Airfare – US to Bamako, Mali:** For all three years of the project, travel is budgeted for US-based MSU staff to travel to Bamako to work with the Bamako-based MSU team on the different components of the project.

• **International Airfare – Bamako, Mali to U.S.:** In year one, one trip is budgeted each for MSU Bamako-based faculty member Boubacar Diallo to travel to MSU for annual project planning meetings with US-based staff. In years 2 and 3, one trip per year is budgeted for both Dr. Diallo and Dr. Dembele to travel to campus for such planning sessions.

• **International Airfare – U.S. to Basel, Switzerland:** 1 trip per year is budgeted for US-based staff to travel to the Foundation headquarters in Basel to report on project activities and discuss implications for the Foundation’s activities.

• **International Airfare – Bamako, Mali to Basel, Switzerland:** 1 trip per year in years 2 and 3 are budgeted for Mali-based staff to travel to the Foundation headquarters in Basel to report on project activities and discuss implications for the Foundation’s activities.

• **International Airfare – Bamako, Mali to various countries in West Africa:** 3 trips per year are budgeted for staff (Bamako-based staff and US-based staff on temporary assignment in Bamako) to travel to other countries in West Africa for planned research and outreach activities.

• **Per diem Rates:** All per diem rates used in this budget are based on the US State Department’s Foreign Per Diem Rates (either at or below the State Department rates). Daily rate for the Bamako, Mali to various countries in West Africa we used the rate of Cotonou, Benin.

**Other Direct Costs**

• **Supplies:** On-campus field research backstop costs are estimated based on similar expenses incurred through the current project in Mali.

• **Outreach:** Outreach/publication on implications of changing food consumption patterns in West Africa for agribusiness development is budgeted 20K in year 1 and 15K in year 2. Cost is estimated on the basis of similar programs undertaken in other MSU Mali-based projects.

• **Outreach:** Outreach and supplementary research on the implications of the evolution of the Asian rice economy for West Africa are budgeted 20K in year 1 and 20K in year 2. Cost is estimated on the basis of similar programs undertaken in other MSU Mali-based projects.

• **Research: Linking smallholders:** Supplemental survey work on other value chains 45K is budgeted total across all 3 years of the project.
Consultant Services – Hiring of Asian consultants to assist in the analysis of the evolution of the Asian Rice Economy is budgeted $50K in year 1 of the project.

ADPE Computer Services are budgeted for upkeep of the computers

In-Country Staff: Local (In-Country) Staff contracts are paid to Non-MSU employee project staff, and reflect competitive market conditions.

Total Direct Charges

Total Direct Charges for Overhead Application: Represents all the costs of the program.

Total Indirect Charges

Indirect Cost Rate: Per Syngenta Foundation’s procedures, MSU is entitled to charge overhead at the rate not to exceed 10% on the total direct costs portion of an award.

Total Program Budget

PROGRAM TOTAL: This line represents the program total including all direct charges subject to overhead, direct charges not subject to overhead and indirect costs.

Program total is: $1,653,204.