



SRAI

Strengthening Regional Agricultural Integration in
West Africa

<http://aec.msu.edu/fs2/srai/index.htm>

Revision in the SRAI work plan:
January, 2010 –December, 2011

June 2, 2010

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**Strengthening Regional Agricultural Integration in West Africa (SRAI)
[Le renforcement de l'intégration agricole régionale en Afrique de l'Ouest]**

Revision in the SRAI work plan, January, 2010-December, 2011

Background and Justification for the changes proposed in the work plan

The SRAI program was initially designed in late 2008 to carry out a program of applied research and outreach over the period January 2009 – December 2010. The immediate impetus for the program was concern over restrictions on regional agricultural trade that arose during the food price crisis of 2007-08. The restrictions raised serious questions about whether farmers would be allowed to profit from market opportunities, especially in the West African regional market, and hence have incentives to invest in agriculture and adopt improved technologies.

Although the issues that gave rise to the SRAI program (policy issues that arose from the higher international and regional prices for staple foods) continue to be crucial, the institutional context in the sub-region evolved significantly during 2009, leading to a need to modify the initial SRAI research and outreach program. Perhaps the most important change has been progress in the subregion in developing the Comprehensive Africa Agriculture Development Program (CAADP) agenda, both at the national level and at the regional level. From mid 2009 through early 2010, 11 of the 15 ECOWAS member states (including Mali) developed and signed their country CAADP compacts, and the West Africa Regional CAADP Compact was approved by ECOWAS, its member states, development partners, and civil society in November, 2010. The initial five-year CAADP program of ECOWAS, with a tentative budget of 270 million USD, focuses on facilitating regional trade, improving the policy environment for agricultural growth within West Africa, and dealing more effectively with food emergencies and developing targeted social safety net programs. As outlined in the 2009 SRAI annual report, MSU/SRAI staff was deeply involved in providing technical support to the Mali national team and the ECOWAS Commission for Agriculture, Water Resources and the Environment in the development of their CAADP programs. Part of this support involved sharing with the teams results from the SRAI-supported research. The involvement of the SRAI team in the ongoing CAADP process has also opened up new opportunities for outreach to high-level decision makers on the results of the SRAI research program.

In light of these changes and because the SRAI team learned that in 2009 several other research/outreach programs in the region were launching research and capacity strengthening programs similar to certain component of the initial SRAI work plan, MSU agreed with Syngenta Foundation to revise the work plan for 2010-11 in order to take advantage of potential synergies, particularly with the programs the Africa Rice Center, ReSAKSS¹, LARES²,

¹ ReSAKSS: Regional Strategic Analysis Knowledge Support System, based at IITA in Ibadan.

² LARES: Laboratoire d'Analyse Régionale et d'Expertise Sociale, basé in Cotonou, Benin.

FEWSnet. This document briefly describes the proposed changes in the original work plan and the reasons for these changes.

Main changes

Tables 1 and 2 summarize the revised work plan. On these tables, blue font indicates activities already completed, gray font indicates ongoing activities (as originally scheduled), red font indicates rescheduled activities, and green font indicates new activities. Annexes 1 and 2 present background information on the two major new joint research and outreach programs that SRAI proposes to undertake jointly with Africa Rice and ReSAKSS.

Research on price transmission

1. The original program of work called for work on price transmission to be carried out in 3 countries: Mali, Senegal, Niger, and Burkina Faso. Given the nature of trade flows in the subregion in 2009, a decision was made to broaden the number of countries to 6 (adding Côte d'Ivoire and Guinea) in order to take better account of the regional flows.
2. The original work plan called for the production of two working papers on price transmission: once covering transmission from the international level to the national level and the second covering transmission from the retail level to the farm level. This has been revised to include a single working paper (which is completed and is available on the SRAI website) that covers all the transmission interfaces (international to national and retail to farm level).
3. The completion of the policy synthesis, which now covers all 6 countries, has been rescheduled to June 2010 instead of the original date of December 2009.

Research on Supply Response and Trade Flows

1. The study of cereal production and import trends has been rescheduled from November 2010 to March 2011.
2. The study synthesizing and updating previous studies regional trade flows, which was originally scheduled to be completed in July, 2009, was deferred until May 2010. It is now completed and available on the SRAI website. This report was produced in collaboration with LARES.

Analysis of competitiveness and the evolution of comparative advantage

1. The comparative advantage/Domestic Resource Cost (DRC) studies will now be carried out in partnership with Africa Rice, which had an ongoing program in this area and expressed the desire to partner with SRAI (see Annex 1 for details). The completion of these studies, which now cover a broader range of countries, has been rescheduled from January 2010 to August 2011 (cf. Annex 1).

Analysis of the Evolution of Consumption & its Implications for Safety Nets

1. During the second half of 2009, SRAI was approached by ReSAKSS about collaborating on a broader program on changing food consumption patterns in West Africa than was envisioned in the original SRAI work plan. The new effort, described in Annex 2, involves a joint program of work that will eventually synthesize the results of consumption studies carried out in 10 countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Mali, Niger, Nigeria, Togo and Senegal) and further data generated by

them to understand better the forces driving changes in consumption patterns in the subregion over the past 25 years, with the view to drawing implications for agricultural development and food security strategies. This expanded review of budget consumption studies in partnership with ReSAKSS/IITA have been rescheduled from February 2010 to December 2010 (cf. Annex 2).

Expected Outreach Outputs, Timelines, and Milestones

The outreach activities are being modified in part because the MSU/SRAI participation in the CAADP process has opened new opportunities to present results directly to top policy makers in West Africa, reducing the need to work through intermediate channels.

1. The following activities have been scaled back to adapt with the new ECOWAS/AGRIS outreach program: (i) Summaries of key findings to other web-based outlet (such as the new CIRAD price-stabilization policy website and to AgEcon Search_ and, (ii) Outreach via written and electronic press.
2. The Web-forum is rescheduled to run from July 2010 through December 2011 due to the later anticipated availability of some of the key research results.
3. The presentation of research results to policymakers to accompany the CAADP process has been added as new activity. As explained above, SRAI staff's involvement in the national and regional CAADP activities has opened this avenue up as a new, major outreach opportunity.
4. Both international meetings and professional publications are rescheduled from to run from March 2010 through December 2011.

Table 1: New Expected Research Outputs, timelines, and milestones

Delivered activities (in blue) On going activities (in grey) Activities to be rescheduled (in red) New activities (in green)				
Topic	Deliverables	Countries	Crops	Timeline/Milestones
Research on Price Transmission				
<i>Price transmission study</i> a. International prices to national and retail to farm level	<ul style="list-style-type: none"> • 1 working paper on international to national price transmission • Policy synthesis on price transmission • Presentations in national and regional policy forums 	Initial countries: Mali, Senegal, Burkina Faso Countries added: Niger, RCI, Guinea	Maize, rice, millet, sorghum, banana plantain including analysis of inter-commodity price transmission between internationally traded commodities (such as wheat) and these commodities.	January 2009-December 2009 <ul style="list-style-type: none"> • Working Paper: Nov. 2009 • Policy Synthesis: April-June.10 • Professional Journal publication (CIRAD) March-June 2010 CIRAD • Presentations in various forums: Sept. 2009-March 2010
Research on Supply Response and Trade Flows				
<i>Mapping the evolution of production and trade flows</i>				
Study/synthesis of cereals production and imports trends	1 Synthesis Report	West Africa	Millet, sorghum, maize, rice, cowpeas	<ul style="list-style-type: none"> • Nov 2010 – March 2011 • Synthesis report: April 2011
<i>Update of trade flow studies</i>	<ul style="list-style-type: none"> • Synthesis report summarizing findings on patterns and trends in regional agricultural trade since 1990. • Maps of trade flows • Final summary report 	West Africa	Millet, sorghum, maize, rice, cowpeas	January 2010 – May 2010 <ul style="list-style-type: none"> • Synthesis of prior regional trade studies: June 2010 • Maps of evolution of trade flows: December 2010 • Synthesis report: May 2010

Table 1 (continued)				
<i>Analysis of competitiveness and the evolution of comparative advantage</i>				
Topic	Deliverables	Countries	Crops	Timeline/Milestones
<i>National import-parity price studies</i> (carried out in conjunction with national market information systems)	<ul style="list-style-type: none"> 6 country studies that estimate the import parity price of rice and maize under different assumptions regarding world prices, exchange rates, and local transport costs 	Initial countries: Mali, Niger, Sénégal, Burkina Faso <u>Countries added: Côte d'Ivoire, Guinea</u>	Rice, maize	January 2009 – June 2010 <ul style="list-style-type: none"> Training of MIS in use of model: June-August 2009 Country reports, June 2010
<i>Regional synthesis of parity price studies</i>	<ul style="list-style-type: none"> Report synthesizing the 4 country studies and drawing implications for regional and international trade policy for the 4 countries 	West Africa	Rice, maize	July 2010 – December 2010 <ul style="list-style-type: none"> Synthesis report: Dec. 2010
<i>Comparative advantage studies using Domestic Resource Cost approach</i>	<ul style="list-style-type: none"> DRC studies, carried out in conjunction with Africa Rice Center and NARS, on the factors affecting the competitiveness of locally produced rice, maize in different markets in West Africa. 	Mali (irrigated and NERICA rice) Mali, Burkina Faso, Ivory Coast (maize)	Rice, maize	January 2010 – August 2011 Timeline to be discuss with Africa Rice Center <ul style="list-style-type: none"> Anglophone methodological workshop: July 2010 Francophone methodological workshop: August 2010 Countries DRC reports: Feb 2011 Synthesis report: Feb 2011

Table 1 (continued)

Analysis of the Evolution of Consumption & its Implications for Safety Nets

<p>Review of budget consumption studies to assess scope for intra-commodity substitution</p>	<ul style="list-style-type: none">• 10 country studies assessing the extent of consumption changes over the last ten years with an emphasis on intra-commodity substitution and growing demand for animal feed and from institutional buyers• Synthesis report summarizing findings on consumers' adaptation to higher staple food prices	<p>West Africa (Benin, Burkina, Cote d'Ivoire, Ghana, Guinea, Mali, Níger, Nigeria, Senegal, Togo)</p>	<p>Cereals and other food items</p>	<p>February 2010 – December 2010</p> <ul style="list-style-type: none">• Countries consumption reports: July 2010• Synthesis report: Aug. 2010
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Table 2. Expected Outreach Outputs, Timelines, and Milestones		
Outreach		
<i>Web forum</i>	Web forum to allow ongoing discussion of the impact of trade policy on national and regional food security. Forum to be linked to project website	July 2010-December 2011 <ul style="list-style-type: none"> • Web forum started by February 2010 and runs for length of project
<i>List-serve for policy makers</i>	List Serve linking key policy makers in West African ministries of agriculture, trade, and other agencies, as well as private-sector actors. Main purpose is to make available to them key policy-relevant research results and induce them to participate in the web forum	March 2009-Dec. 2011 <ul style="list-style-type: none"> • Identify initial list of participants: March-April 2010 • Launch list serve: May 2010
<i>Project Website</i>	Web site to include all project research and outreach documents and progress reports	January 2009-December 2011 <ul style="list-style-type: none"> • Website set up in January 2009 and regularly updated
<i>National and regional meetings</i>	Presentations to key national and regional meetings of stakeholders. List of these venues to be developed in consultation with West African partners, including NARS researchers, national market information systems, CILSS, ECOWAS, and private-sector organizations, such as the West African Agricultural Traders Association (ROESAO). <ul style="list-style-type: none"> • Presentation of research results to policy makers to accompany the CAADP/ECOWAP process 	March 2009 – December 2011 <ul style="list-style-type: none"> • First presentation to be at the annual West African Regional Agricultural Outlook Conference (jointly sponsored by ECOWAS and CILSS) in 2010. • Subsequent presentations to be scheduled in consultation with ECOWAS, ReSAKSS and Africa Rice
<i>National and regional publications</i>	Articles in national publications (such as NARS working paper and research review series) and regional publications, such as <i>African Development Review</i> . Work with African partners in NARS to post their working papers to the INSAH website and to RePEc to broaden the visibility of the national work	June 2010– December 2011 See table 1 for list of papers by topic and expected dates
Table 2 (continued)		
<i>International meetings</i>	Policy outreach/presentations at key international meetings, identified in conjunction with the Foundation and other partners.	March 2010 – December 2011 <ul style="list-style-type: none"> • GTDF in 2010 – 2011 • Meetings of the Partnership to Cut Hunger and Poverty in Africa (2010 -2011)
<i>Professional publications</i>	Journal articles aimed at the research and policy analyst community, in journals such as <i>Food Policy</i> and <i>World Development</i> .	March 2010 – December 2011

Annex 1: Collaborative Program between MSU SRAO and the Africa Rice Center (Development of crop production and marketing budgets for rice and maize and estimation of Domestic Resource Cost (DRC coefficients using the Policy Analysis Matrix approach)

1. Background: Summary of ongoing Africa Rice and MSU/SRAI initiatives contributing to the collaborative program:

AfricaRice: Ongoing research initiative on the competitiveness of rice and maize: Enhanced Availability and Access of Statistics for Rice

- a. 1-year project (June 09-March 10), funded by Japan / under the CARD / ERI³: 21 initial countries, of which current SRAI partner countries (indicated in the following list by “*”) total five (Benin, Burkina Faso * Cameroon, Central African Republic, Cote d'Ivoire *, DR Congo, The Gambia, Ghana, Guinea *, Kenya, Liberia, Madagascar, Mali *, Mozambique, Nigeria, Rwanda, Senegal *, Sierra Leone, Tanzania, Togo, and Uganda). Subsequently, Niger (also a SRAI partner country) was added.
- b. Purpose of the Project: Creating and establishing a system for collecting, processing and analyzing reliable and representative data on rice production and making those statistics on rice available and accessible.
- c. The data collection and processing process is nearly complete. A portion of the data collected can be used to develop crop budgets for rice and maize.
- d. An MOU signed in April-May 2009 with NARS⁴ (resource persons: 1 economist per NARS and 1 statistician per DPS⁵). The institutional arrangement established under this project could contribute to complete the Collaborative Program MSU-AfricaRice.
- e. A workshop to launch the study for French-speaking countries was held on May 11-15, 2009 in Cotonou, Benin. Twelve (12) countries were represented: Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Madagascar, Mali, CAR, DRC, Rwanda, Senegal and Togo. In addition to NARS scientists, some university professors and researchers also took part.
- f. A workshop to launch the study for English-speaking countries was held in Dar es Salaam, Tanzania on June 1-5, 2009. Nine countries took part: Gambia, Ghana, Kenya, Liberia, Mozambique, Nigeria, Sierra Leone, Tanzania and Uganda.
- g. A methodological workshop was held on July 27-31, 2009 in Abidjan. Training conducted on sample design and data analysis. 22 WARDA countries including Niger took part. The workshop allowed each country to take a mid-term review of its progress.
- h. Implementation of the study by the national teams is ongoing, with the expected due date of draft reports (crop budgets and statistical analysis) in the second half

³ CARD/ERI: Coalition for African Rice Development/ Emergency Rice Initiative.

⁴ NARS: National Agricultural Research System.

⁵ DPS: Direction de la planification et des statistiques.

of 2010.

Initiatives led by MSU (SRAI) in the context of strengthening regional market integration: Strengthening regional integration in agriculture in West Africa

- a. 3 year project (2009-2011) funded by The Syngenta Foundation for Sustainable Agriculture, covering 6 countries (Burkina Faso, Côte d'Ivoire, Guinea, Mali, Niger, and Senegal).
- b. Purpose of the Research: Analysis of the impact of higher world food prices on domestic prices and on import parity prices, competitiveness and comparative advantages of local rice and maize. This theme is one aspect of the project⁶.
- c. Contracts signed in June 2009 with the agricultural Market Information Systems (MIS) of the 6 countries involved to carry out country studies on price transmission and calculation of import parity prices.
- d. Workshop to launch the study held in Bamako on June 17-19, 2009.
- e. Validation Workshop of the study held in Bamako on January 13-15, 2010.
- f. Country reports and summary reports available on the SRAI website (<http://aec.msu.edu/fs2/srai/index.htm>).

2. Program proposals developed by mutual agreement (AfricaRice-MSU)

- a. The common interest of AfricaRice and MSU/SRAI in analyzing the comparative advantage and competitiveness of rice and maize led to discussions on March 2-5, 2010 between the two organizations about a joint research effort. The working hypothesis is that rising global prices for grains and inputs have changed the competitiveness of West African rice and maize value chains.
- b. In addition to the 6 countries involved in the MSU/ SRAI study, AfricaRice intends to support the extension of the project to a larger number of countries, including Benin, Ghana, Gambia, Liberia, Nigeria, Sierra Leone, and Togo. The institutional framework set up by AfricaRice for implementing the project "Enhancing the Availability and Access of Rice Statistics" will be further discussed and strengthened. In the joint effort, the execution of the activities at the national level will be undertaken by the National Agricultural Research Systems (NARS) and National Systems of Agricultural Statistics (NSAS). Universities and other advanced research centers could take part if necessary. AfricaRice and MSU/SRAI will provide the technical support necessary for the conduct of the activities and will prepare regional syntheses and outreach activities as well.
- c. Development of a conceptual framework for the analysis of the competitiveness of rice and maize will be outlined in an MOU between AfricaRice and MSU that has been developed and is under review by MSU and AfricaRice.

⁶ Other lines of research under this project are: (1) evolution of the production and trade basins (2) changes in consumption patterns in the subregion.

- d. Educational materials for an initial workshop with the NARS and NSAS participants will take be developed between April 1-August 16, 2010.
- e. Organization of the initial workshop with NARS and NSAS participants, focused on training use of the Policy Analysis Matrix (PAM):
 - i. Separate sessions for English and French speakers are planned respectively for July and August 2010, with the SRAI team leading the Francophone workshop and AfricaRice colleagues leading the Anglophone session.
 - ii. The content of the workshops will include: (a) objectives and literature review (1 day), (b) training and presentation of methodological tools (3 days), (c) development of the work plan and budget (1 day), and (d) presentation and discussion of the work plan and budget (1 day).
 - iii. The tentative schedule for carrying out the rest of the study is shown in the following table.

Annex 2: Collaborative MSU-ReSAKSS/IITA Program to Study the Dynamics of Food Demand and Consumption in West Africa

1. Context: the high food-price crisis.
2. Objectives:
 - i. Better understand the food consumption of different income groups (divided into income quintiles) in order to design more efficient policies, including social safety nets, to deal with high food-prices crises, while still maintaining production incentives.
 - ii. Understand the determinants of diet composition for different quintiles, both in rural and urban areas (e.g., through estimation of income elasticities of demand and trends in the composition of diet of different income groups)
 - iii. Make medium- and long-term projections of food demand, disaggregated by income class

3. Tasks:

Task 1 (national and regional teams): Documentation and analysis of food production and price trends following the food crisis

Task 2 (national teams): Expenditure surveys from the countries will be analyzed to compute absolute budget shares of different foodstuffs and analyze the trends over time in the consumption patterns for different quintiles:

- i. Aggregate the products into 12 groups: 4 most important products, other cereal products, other roots and tubers, animal products excluding fish (meat, livestock products and poultry products, milk and milk products), fish, fruits, vegetables and pulse and oil crops, and non food
- ii. Descriptive analysis : Calculation of : weight of food in the total consumption basket, absolute budget shares relative to food expenditures, disaggregation according to the residence (urban/rural) and income quintile, Gini coefficients, share of the poorest quintile, diet diversity (number of products/groups of products, covering 75, 80, 90%, etc. of consumption)
- iii. Drawing on existing studies, explain the forces driving the main trends in the evolution of the structure of consumption
- iv. Regression analysis (using the ratio semi-log inverse [RSLI] function) to determine the marginal shares (marginal propensities to consume) and the income elasticities of demand

Task 3 (national teams): Analysis of Food Balance Sheets (with supplemental data drawn from consumption studies)

- i. Analysis of the contribution of different types of food products (animal products, cereals, roots, tubers, and others) to total calorie, protein and fat availability

- ii. Evolution of the shares of different products in total consumption (comparison with 5 trends or averages over the past 5 years)
- iii. Impact of the changing patterns of demand for animal feed on food availability for the human population
- iv. Shifts in availability between internationally tradable foods (e.g., rice and wheat) and locally produced non-tradables or semi-tradables (e.g., sorghum and millet) (evolution of the share of local products in apparent consumption)
- v. Calculation of food insecurity levels using the FAO parametric approach. From the mean calorie intake and an estimated standard deviation of calorie intake (approximated from the coefficient of variation of the food expenditure calculated from the expenditure survey and some other assumptions) and the minimum calorie intake requirement, the probability of household under minimum calorie intake requirement is estimated using the log-normal distribution.
- vi. Level and evolution of the degree of reliance on imports for the principal food products
- vii. Trends in food supply, apparent consumption, and product shares compared with 5-year averages or trends
- viii. Percentage of population below calorie intake requirements, using the FAO parametric approach described above.

Task 4 (SRAI and ReSAKSS teams):

- i. Backstopping of national teams and review/comments on national reports
- ii. Preparation of regional syntheses
- iii. Organization of regional validation workshop
- iv. Regression analysis to obtain price- and cross-price elasticities and to make demand projections.

Collaborative MSU-ReSAKSS/IITA Program: Timeline of Activities

	March	April	May	June	July	August	September
Development of the tor of the study	08-10						
Signing contracts with countries			24-31				
Developing teaching materials	march 08-may31						
Methodological Workshop in French				21-23			
Methodological Workshop in English				21-30			
Conduct of national studies				June 18 to July 31			
Draft of national reports					31		
Draft of regional synthesis						22	
Validation Workshop						29-31	
Final draft of national reports							15
Final draft of regional synthesis							30
Regional restitution workshop with ECOWAS							