

Draft 2013 AGRODEP WORKPLAN

November 9, 2012

INTRODUCTION AND OVERVIEW

The African Growth and Development Policy (AGRODEP) Modeling Consortium aims to create a critical mass of leaders among African experts in the study of strategic development issues and the broader agricultural growth and policy debate in Africa. AGRODEP promotes access to state-of-the-art economic modeling tools to enable high-quality, locally-based research; facilitate access to existing datasets and improve the quality of such datasets; and support collaboration among African researchers and their peers outside Africa. By sharing core economic models; establishing a central Web-based database for statistical, economic, and geospatial data; and combining a network of experts with a community of practitioners, AGRODEP equips participating African researchers with the tools to perform science-based research and help address locally relevant agriculture-related challenges through sound policies.

Significant progress was made in the establishment of the AGRODEP Modeling Consortium during the first two years of the project. Among the highlights of AGRODEP activities since its inception in October 2010 are the following:

- Organization of the management team and governance bodies;
- Selection of 55 African researchers as members by 2011, followed by two membership extensions in 2012 (at the end of 2012, there should be 120 AGRODEP members), and setting up of membership guidelines;
- Members' Meeting and Workshop (June 2011);
- Recruitment of additional research and communications support staff;
- Development of a Communications and Outreach plan (approved by the SC in June 2012);
- Launch of the official AGRODEP website (www.agrodep.org) in October 2011 and continued improvements in web features;
- Launch of the AGRODEP Newsletter and the Quarterly Update series;
- Launch of the AGRODEP Bulletin with two releases on March and September 2012;

- Launch of the Training Program with 8 Trainings organized in 2012; at the end of October 2012 five trainings have been followed by 52 AGRODEP members; three other trainings will be organized in November and December 2012;
- Launch of the AGRODEP Innovative Research Grants Program in 2011 and awarding of 14 research projects under this type of grants;
- Launch of the AGRODEP Gaps in Research Grants Program in 2012 and selection of three proposals under the first call;
- Launch of the AGRODEP Research Valorization Grants Program in 2011 and awarding of grants for research valorization to four (4) AGRODEP members;
- Participation of eight (8) AGRODEP members under World Trade Organization (WTO) sponsorship in the GTAP conference in Geneva on June 2012; a special issue edited by Antoine Bouet and Mustapha Sadni Jallab will be published in 2013 in the African Development Review and the process of selection, review and editing has started in 2012;
- Presentation of a proposal for co-organization of the 2014 GTAP conference by IFPRI and AGRODEP in Dakar at the annual GTAP board meeting on June 2012 in Geneva: the GTAP board has approved the proposal;
- Launch of the AGRODEP Discussion Paper series in 2012 and release of the first AGRODEP Discussion Paper in 2012 with five papers currently under review;
- Launch of the Award for Excellence in Publication in November 2011;
- Development of the 2012 workplan (approved by the Steering Committee – SC - in June 2012) ;
- First physical meeting of the Network Advisory Committee in June 2012;
- Virtual meeting of the Steering Committee in July 2012;
- Development of 9 models uploaded on the AGRODEP website with 4 documented;
- Stocktaking of Data Sources and Available Data for the Data Component;
- Establishing Consortium Data Policies and Protocols for the Data Component;
- Development of an AGRODEP Data Portal and Data warehousing.

After presenting in a first section the current project status, this document outlines in a second section a preliminary version of the 2013 workplan activities and outputs of AGRODEP classified under its four components: (1) Modeling Infrastructure; (2) Data Infrastructure; (3) Membership, Research Networking, and Capacity Building; and (4) AGRODEP Coordination and Governance. The quarterly chronogram in Annex I provides a summary of when specific activities will be conducted in 2013, with asterisks indicating the quarters when concrete deliverables are expected from each activity.

1: Overview of current project status

a. MODELING COMPONENT

The AGRODEP modeling infrastructure is initially based on complementary models, developed by or are being used extensively at IFPRI, to be customized, as necessary, in addition to supplementary models to be developed as needed. The goal is to provide Consortium members access to a set of high-quality, adapted tools that can be used to address their respective research needs as dictated by demand emanating from country- and regional-level priorities.

At the end of 2012, the Modeling Component has developed 9 models, one multi-country multi-sector Computable General Equilibrium model, two single-country multi-sector Computable General Equilibrium model, three Partial Equilibrium model, one statistical model and two econometric models:

- Multi country, multi sector general equilibrium model: a specific version of the global MIRAGE model, MIRAGRODEP, has been developed to facilitate capacity building activities. GAMS code is already available and documentation for MIRAGRODEP will be produced soon.
- IFPRI Single country, general equilibrium models: Improved GAMS code and documentation for the IFPRI standard model have been produced.
- PEP Single country, general equilibrium model: GAMS code and documentation for a specific version of the PEP single country CGE model have been produced.
- Multi-market partial equilibrium model: GAMS code and model documentation have been completed.
- Partial equilibrium trade model: GAMS code, Excel workbook, and documentation of a partial equilibrium model that focuses on trade issues at the tariff line level (HS6) is being developed.
- Econometric models of trade: Literature review and STATA model code for a gravity type model is under review.
- Poverty analysis: Top down approach for GE and PE: Documentation, STATA and GAMS codes for poverty analysis using household survey and simulation model results or exogenous price shocks using a top down approach are available.
- Stochastic Partial Equilibrium: Storage, and price stabilization: Documentation, solver, and model code examples for PE models on price stabilization and storage policy with perfect expectation will be developed before the end of the year.
- Supply and demand estimation models: Literature review and model code for standard supply/demand estimation procedures are being soon completed.

b. DATA COMPONENT

The Data Component brings together statistical, economic and geospatial data in one central clearinghouse with a data portal. It provides links to existing key data sources, complements these sources as necessary, and develops shared standards, formats, and exchange protocols that would facilitate access by Consortium members to high quality and consistent datasets. The three major types of activities of the data component are set-up activities, data warehousing, and data construction projects.

The set-up activities were realized during the first two years of the project. This includes the establishment of the component (data sources and data stocktaking), construction of the web data portal, posting of available data, and development of data standards and protocols.

The stocktaking of data sources, existing data and data experts was begun in the first year of the project and has now been completed. A data inventory database (in Microsoft Access) was constructed and is used to compile sources of data and the data available from the sources. The information collected about sources of data includes the names of the institutions, their web and mail addresses and contact information. The institutions are classified according to whether they are national (e.g. statistical offices, universities), regional, Africa-wide, (e.g. UNECA, AfDB), international (including IFPRI, World Bank, FAOSTAT, ILO, WTO, UN) or special data initiatives (including GTAP, CEPIL, HarvestChoice, ASTI). In collecting information on available data, data are classified according to: (1) types – e.g. household surveys, social accounting matrices; national agricultural statistics; trade, tariffs; economic indicators; (2) Coverage – time period, geographic (sub-national, national, regional, global), (3) Format – e.g. excel, stata, pdf, documentation. AGRODEP continues to maintain and update the data inventory database as new information becomes available.

The web-based data portal was developed along with the development of the AGRODEP website which was launched in October 2011. The website also provides data visualization tools (MAP), a WIKI space for scientific exchange and collaborative documentation, and a RESOURCES library that provides access to AGRODEP publications, presentations, training materials, and much more.

Data warehousing was begun as soon as the data portal became available in October 2011. AGRODEP started by providing links to African datasets that are publicly available from IFPRI's data collection. These include Social Accounting Matrices (SAMs) and household survey data. This yielded SAMs for 14 African countries and household survey data for 12 African countries. The collection of household survey data from IFPRI has been supplemented with publicly available household surveys data from the World Bank's Living Standards Measurement Surveys (LSMS) and also from Demographic and Health Surveys. The data portal also provides links to data from other IFPRI projects such as the Agricultural Science and technology Indicators (ASTI), Food

Security Portal, HarvestChoice, ReSAKSS, and the Statistics of Public Expenditures for Economic Development (SPEED) Database. Data in the portal is classified according to data types such as household surveys, national agricultural statistic, etc. The geographic coverage of the datasets is also indicated and the datasets can be searched or filtered accordingly. Since the data component focuses on data that is useful for modeling purposes and since it does not want to replicate what is already available in other websites, including data indicators, links to country-level indicators and country briefs are provided in individual country pages for 56 African countries. Each country page includes a list of the models, datasets, resources, and the AGRODEP members that are based in the country. Links to various data summarized in country reports are available from the country pages as well as links to some national agencies that are relevant for agricultural and economic development in the country.

The definition and adoption of adequate data policies and protocols is on-going and is being carried out in conjunction with the web data portal. These policies and policies address and regulate issues related to data acquisition, standardization, archiving, cataloguing, metadata literature, documentation, certification, access, and dissemination. A document on the data policies and protocols is under development and will be released by the end of the year.

c. NETWORK COMPONENT

In 2011 and 2012, the Network Component has implemented various activities:

- *Network Advisory Committee (NAC) Virtual Meeting;*
- *Website activities:* currently, AGRODEP portal contains seven models, 164 datasets, and 309 publications. AGRODEP utilizes a multi-channel network including social media (i.e. LinkedIn, Facebook, Twitter, and YouTube) to promote AGRODEP activities. The number of monthly visits in the AGRODEP Web portal has increased by 180% and was at 2,943 on October 2012 with 52 % of visits from Africa. 83 AGRODEP members actively have been participating AGRODEP Website activities¹;
- *Members' Website Activities:* the network component has actively worked on strengthening online interaction and resource sharing by AGRODEP members (Blog and Wiki);
- *Newsletters:* the monthly issue of the AGRODEP Newsletter contribute to inform all the stakeholders

¹ AGRODEP members are considered as actively participating AGRODEP Website activities by: (i) either registering the Web portal, providing their bios, and uploading photos by themselves; (ii) or applying AGRODEP events and grants using online-application; (iii) or providing their publications to the AGRODEP Web portal; (iv) or provide feedbacks of AGRODEP training courses; (v) or providing testimonials of AGRODEP training courses in order to create AGRODEP news; (vi) or participating AGRODEP blog activities; (vii) or participating AGRODEP social media.

- *Grants to Address Research Gap*: a first call for this grants has been launched on October 2012: 3 projects have been selected amongst the 76 applications;
- *Training Activities*: at the end of 2012 AGRODEP will have organized 8 training courses; the five first trainings in 2012 have been followed by 52 AGRODEP members;
- *Working Paper Series*: a first AGRODEP Discussion Paper has been released and five (5) papers are currently under review;
- *Research Valorization Grants*: six (6) AGRODEP projects have been funded;
- *Grants for Innovative Research*: the Agrodep management team has monitored progress of the Innovative Research projects funded by AGRODEP in 2011.

2: Planned activities and goals for 2013.

a. MODELING COMPONENT

In 2013, the Modeling Component will first focus on the completion of the documentation for the initial set of models which were slated for release by the end of 2012. Second in 2013 the Modeling Component will develop 7 new analytical instruments to be uploaded on the AGRODEP website for all AGRODEP members. These include both simulation models and econometrics models:

- *Spatial Partial Equilibrium Model*: documentation and GAMS code for a Spatial Partial Equilibrium model will be developed (Q1-Q2);
- *Impact Assessment Tool Box*: documents of structural models for impact evaluation, tools for impact evaluation for RCT and non – RCT methods (Q2-Q3);
- *Endogenous Saving behavior in CGE*: Identification of the inter-temporal framework and household saving determinants to generate endogenous saving rates in the MIRAGRODEP model with one representative household (Q1-Q2). Documentation and GAMS code for MIRAGRODEP model with endogenous savings will be developed (Q2-Q3);
- *A GLOBIOM model for AGRODEP*: The features of the GLOBIOM model adaptable for an AGRODEP version and the scope of work for the IIASA team will be identified (Q3-Q4);
- *Econometrics of price transmission*: Review of literature, documentation and STATA code for price transmission analysis will be developed (Q2-Q3);
- *Regional Computable General Equilibrium Model*: documentation and GAMS code for a regional CGE based on MIRAGRODEP (Q1-Q2). The model focuses on expanding standard multi-country CGE to tackle the multidimensionality of regional integration. Implementation for the ECOWAS region is expected in 2013.

- Spatial analysis and Geographic Information System: review of literature and development of a spatial analysis tool for AGRODEP members.

b. DATA COMPONENT

Two directions are being followed, first working on data warehousing, second designing data construction projects.

Data Warehousing Activities. The data warehousing activities include the range of procedures that are performed on various data sets from data acquisition to dissemination to members via the web data portal. Data acquisition efforts will focus on broad data categories that include: (a) national agricultural statistics, (b) international data sets, (c) household survey data, (d) social accounting matrices, and (e) socio-economic development indicators. The choice of data category is based on priority setting done in consultation with the Models and Network Components teams.

A set of procedures is applied on the various data sets from data acquisition to data dissemination via the web data portal. The following regular data activities will be conducted for most of the data types that will be handled by the Data Component: (i) data acquisition, cataloguing, and metadata generation; (ii) data quality checking; (iii) thematic data expert consultations (applicable to certain data types); (iv) data dissemination (posting on website); and (v) data maintenance. For 2013, the data component will compile and release data for countries for which the dataset (i.e. new data) is not yet available in the AGRODEP web portal. Data targets for 2013 are:

- Social Accounting Matrices: new data and documentation for 5 African countries will be released by quarter (Q1 – Q4).
- Household Survey Data: new data and documentation for 3 African countries will be released per quarter (Q1 – Q4).
- National Agricultural Statistics: new data and documentation for 20-30 African countries will be released per quarter (Q1 - Q4).
- International Data Sets: access to 1 international data set per quarter (Q1-Q4)

Data Construction Projects. Based on identified data gaps, the Data Component will engage in special data construction projects that are designed to produce specific data output for the models in the AGRODEP library. These projects will be implemented by the AGRODEP data team in collaboration with the Modeling team and with AGRODEP partners or external consultants. Grant contracts will be designed for these activities in coordination with the Network Component. The target for 2013 is to:

- Develop and document 4 new Social Accounting Matrices (Q1-Q2)

- Build 5 complete datasets for specific models (multi-market models, regional models, gravity models) (Q3-Q4)

c. NETWORK COMPONENT

The Network Component promotes access to and use of the modeling tools and data and facilitates collaborative research among members and with other leading African scientists and their peers outside Africa. The ultimate goal is to build a dynamic research community for the members. In 2013, the Network Component will continue to implement activities that were launched in 2011 and 2012 (e.g. grants for innovative research, grants for gaps in research, training courses) and engage in new activities that will be initiated in 2013 (e.g. network of experts, special AGRODEP award). Listed below are key deliverables:

Network Advisory Committee (NAC) Virtual Meeting (Q1)

- Organize a virtual meeting for the NAC to discuss and provide advice on the 2013 networking activities.

Members' Website Activities (Q1-Q2-Q3-Q4)

- Strengthen online interaction and resource sharing (Blog and Wiki) among members in the new website. At least eighty per cent of members should have regularly logged and used the Blog or the Wiki by the end of the quarter 2, and all members by the end of the quarter 4. Applications to AGRODEP funded activities by AGRODEP members will be carried out throughout the website.

Newsletters (Q1-Q2-Q3-Q4)

- Produce monthly issues of the AGRODEP Newsletter except on months when the AGRODEP Bulletin are issued.

Grants to Address Research Gap (Q4)

- Monitor progress of the three Gaps in Research projects funded by AGRODEP in 2012 and communicate about the final report (Q4).
- Launch the second call for grant proposals to address research gaps and award grants for 2013-14 (Q2-Q3).

Training Activities (Q1-Q2-Q3-Q4)

- Implement eight training courses amongst the twelve proposals listed in Annex II.
- Monitor and evaluate AGRODEP training courses organized in 2013.
- Develop a new training program for 2014.

Working Paper Series (Q1-Q2-Q3-Q4)

- Increase publication activities with an objective of 10 publications in 2013 including the outcome of the six (6) AGRODEP funded projects.

Research Valorization Grants (Q1-Q2-Q3-Q4)

- Promote the visibility of members through support and incentives for participation in national and international gathering and publication in peer-reviewed journals. A dissemination strategy will be defined for the six (6) AGRODEP funded projects.

Constitution of networks of experts (Q2-Q4)

- Building upon the AGRODEP researchers' specialization in method and topic and launching the organization of their work around specific networks of experts. We intend to develop two networks of experts within AGRODEP in 2013: one on the impact evaluation of agriculture development policies, one on the foresight and projection of agriculture growth and food security in Africa. We will start integrating the concept of "Ad Hoc Workshop", also involving some well known scholars. This will be another level of advanced and targeted scientific exchanges gathering.

Grants for Innovative Research (Q2-Q3-Q4)

- Monitor progress of the 2012 Innovative Research projects funded by AGRODEP.
- Launch the second call for proposals and award grants for 2013. This year, the grants will focus on the building of the network of experts. A small grant will be disbursed to a limited number of AGRODEP members within the two projected networks of experts.

A special AGRODEP Award (Q1)

- AGRODEP intends to implement a special "AGRODEP Award" in the first quarter of 2013 to gather information on the research activities in which AGRODEP members was involved in over the years 2011 and 2012. The objective is to provide further incentive to AGRODEP members to undertake policy-oriented research activities and to produce relevant publications. AGRODEP will consider research outcomes related to any of the AGRODEP programs: training, grants, and publication support programs. A selection committee will be set up to designate the winner of an annual award of 3,000 US\$. Special consideration will be given to studies on the emerging and long-term policies related to the Comprehensive Africa Agriculture Development Programme's (CAADP) growth and poverty reduction agenda.

Contribution of Partners (Q2)

- Continue the stocktaking on partners' strengths in modeling and data work to guide future implementation of the workplan, particularly in training, mentoring, review activities, and the development of the network of experts.

d. COORDINATION AND GOVERNANCE

The management team of AGRODEP supervises and coordinates the three main Components of the project: Data, Models, and Network. The key activities of the management team are the following:

- *Cross-Component Collaboration (Q1-Q2-Q3-Q4)*: AGRODEP management will coordinate the activities and ensure communications across the three Components. Regular coordination meetings are held monthly and are attended by all AGRODEP Management team members and Component Coordinators.

- *Interaction with Governance Committees (Q1-Q2-Q3-Q4):* AGRODEP management will continue to interact with the Scientific Advisory Board and the Steering Committee; will circulate relevant documents for information, input, or approval; and provide support for the organization of SC and SAB meetings.
- *Organization of Annual Meetings (Q4):* Organize the meetings of the SC, SAB, and NAC during the last quarter of 2013 to discuss and provide advice on all AGRODEP activities.
- *Communications and Outreach Plan (Q1-Q2-Q3-Q4):* implementation of the communication and outreach plan.
- *Quarterly Update (Q1-Q2-Q3-Q4):* The AGRODEP Quarterly Update series is produced every quarter to provide regular summary updates about AGRODEP developments to the Governance Committees.
- *AGRODEP Bulletin (Q1-Q2-Q3-Q4):* Produce four issues of the AGRODEP Bulletin (first volume on February 15, second volume on May 15, third volume on August 15, fourth volume on November 15).
- *Organization of the 2014 GTAP Conference – Dakar June 2014 (Q1-Q2-Q3-Q4):* The AGRODEP Management Team will work on the organization of this big and important conference: logistics, design of the scientific program, funding.

Annex I: 2013 AGRODEP Quarterly Chronogram

Activity\Period	Q1	Q2	Q3	Q4
MODELS COMPONENT				
Impact Assessment Tool Box		*	*	
Global Stochastic Partial Equilibrium: Optimal Storage Behavior	*	*		
Regional Computable General Equilibrium Model	*	*		
Endogenous Saving behavior in CGE	*	*	*	
A GLOBIOM model for AGRODEP			*	*
Econometrics of price transmission		*	*	
Spatial Partial Equilibrium Model	*	*		
DATA COMPONENT				
Data Warehousing: Social Accounting Matrices (SAMs)	*	*	*	*
Data Warehousing: Household Survey Data	*	*	*	*
Data Warehousing: National Agricultural Statistics	*	*	*	*
Data Warehousing: International Data Sets	*	*	*	*
Data Construction: Development of SAMs	*	*		
Data Construction: Building datasets for specific models			*	*
NETWORK COMPONENT				
NAC Virtual Meeting	*			
SC/SAB/NAC Meeting				*
Contribution of Partners		*		
Members' Website Activities		*		*
Newsletter	*	*	*	*
Working Paper Series				*
Research Valorization Grants				*
Training Activities		*	*	*
Grants to Address Research Gap				*
Contribution of Partners		*		
Grants for Innovative Research projects		*	*	*
Constitution of networks of experts		*	*	*
A special AGRODEP Award	*			
COORDINATION AND GOVERNANCE				
Cross Component Collaboration				
Interaction with Governance Committee				
Organization of Annual Meetings				*
Communications and Outreach Plan				
Quarterly Updates	*	*	*	*
AGRODEP Bulletin	*	*	*	*
Organization of 2014 GTAP Conference				

Annex II: AGRODEP 2013 Training Program

Training Proposal 1

EVALUATION OF PUBLIC POLICIES

Guy Lacroix, Laval University, Quebec, Canada

Training Proposal 2

IMPACT EVALUATION AND ANALYSIS OF DEVELOPMENT INTERVENTIONS

Tanguy Bernard, IFPRI, Dakar, Senegal

Training Proposal 3

ASSESSING CROP PRODUCTION, NUTRIENT MANAGEMENT, CLIMATIC RISK AND ENVIRONMENTAL SUSTAINABILITY WITH SIMULATION MODELS - DSSAT VERSION 4.6

Gerrit Hoogenboom, Washington State University, Washington, USA

Jawoo Koo, International Food Policy Research Institute, Washington DC, USA

Training Proposal 4

BUILDING AND UPDATING A SOCIAL ACCOUNTING MATRIX

Ismael Fofana, International Food Policy Research Institute, Dakar, Senegal

Training Proposal 5

GAMS-BASED COMPUTABLE GENERAL EQUILIBRIUM MODELS

Véronique Robichaud, Laval University, Quebec, Canada

Training Proposal 6

WRITE UP ON GRAVITY MODEL OF TRADE

Devesh Roy, International Food Policy Research Institute, Washington DC, USA

Training Proposal 7

ESTIMATION OF THE ECONOMIC IMPACT OF HIGH FOOD PRICES USING MICRO DATA

Miguel Robles, International Food Policy Research Institute, Washington DC, USA

Training Proposal 8

EXPERIMENTAL METHODS

Angelino Viceisza, International Food Policy Research Institute, Washington DC, USA

Training Proposal 9

CONVERTING A SAM INTO GTAP FORMAT

Terrie Walmsley, Purdue University, USA

Training Proposal 10

PARTIAL EQUILIBRIUM MODELLING

Ferdinand Meyer, University of Pretoria, Pretoria, South Africa

Training Proposal 11

CBMS-BASED POVERTY MAPPING

Celia Reyes, Angelo King Institute, Manila, Philippines

Training Proposal 12

MAPS AND SPATIAL DATA: DIFFERENT OPTIONS FOR EXPLORING DATA

Elias, Maribel (IFPRI)