

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 will promote 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 is poised to equip 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 year 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 and setting up of membership guidelines;
- Members' Meeting and Workshop (June 2011);
- Recruitment of additional research and communications support staff;
- Launch of the official AGRODEP website (www.agrodep.org) in October 2011;
- Launch of the AGRODEP Newsletter and the Quarterly Update series;
- Launch of the AGRODEP Grants Program; and
- Launch of the AGRODEP Discussion Paper series.

Five new staff members, including a Web Portal Specialist and a Post-Doctoral Fellow, were hired between August and October 2011. The new website, which also serves as the portal for models, data, and resources, was launched in October 2011. The data and modeling activities for 2011 were launched once the website and new staff were all in place late in the year. They will therefore be finalized in the first quarter of 2012.

This document outlines the 2012 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 2012, with asterisks indicating the quarters when concrete deliverables are expected from each activity.

1. 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.

During the first quarter of 2012, the Modeling Component will focus on the completion of the model code and documentation for the initial set of models which were slated for release by the end of 2011. These include both simulation models and econometrics models.

- *Multi country, multi sector general equilibrium model*: a specific version of the global MIRAGE model, MIRAGRODEP, is being developed to facilitate capacity building activities. GAMS code and documentation for MIRAGRODEP will be produced (Q1).
- *IFPRI Single country, general equilibrium models*: Improved GAMS code and documentation for the IFPRI standard model will be produced (Q1).
- *PEP Single country, general equilibrium model*: GAMS code and documentation for a specific version of the PEP single country CGE model will be produced (Q1).
- *Multi-market partial equilibrium model*: GAMS code and model documentation have been completed and are ready for final validation (Q1).
- *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 (Q1).
- *Econometric models of trade*: Literature review and STATA model code for a gravity type model is under review (Q1).
- *Supply and demand estimation models*: Literature review and model code for standard supply/demand estimation procedures will be developed (Q1-Q2).

During the rest of 2012, the Modeling Component will conduct research to develop extensions to current models, and develop and document new models that can be used to analyze research and policy issues that are relevant to African countries and are of interest to AGRODEP members. The model development will be implemented by the Modeling Component team in collaboration with AGRODEP partners or external consultants. Specific deliverables are listed below:

- *Household disaggregation in MIRAGRODEP*: Several features of MIRAGE-HH, the version of the MIRAGE model including household disaggregation, will be identified (Q2) and implemented in MIRAGRODEP. GAMS code and documentation will be produced (Q3).
- *Impact Assessment Tool Box*: Documentation and model code will be developed (Q2-Q3).
- *Research on natural resources management*: Model features needed to address the specificities of natural resources management will be identified (Q2-Q4) and implemented in both:
 - *A partial equilibrium approach*: Documentation and model code for a first PE model about natural resources management will be produced (Q4)
 - *A general equilibrium approach*. Documentation and model code for a GE model about natural resources management will be produced [\(2013\)](#)
- *Global Stochastic Partial Equilibrium*

- Multi-market Model: Documentation and GAMS model code for PE model with stochastic agricultural policies and endogenous trade policies (Q2-Q3)
- Including Optimal Storage Behavior: Documentation, solver, and model code examples for PE models on price stabilization and optimal storage policy with perfect expectation will be developed (Q2-Q3)
- 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 (Q1-Q2)
- 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 (Q3-Q4).
- 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 (Q2)
- Econometrics of price transmission: Review of literature, documentation and STATA code for price transmission analysis will be developed (Q1-Q3)

2. DATA COMPONENT

The Data Component intends to bring together statistical, economic, and geospatial data in one central clearinghouse with a data portal. It provides links to existing key data sources, complement these as necessary, and develop shared standards, formats, and exchange protocols that would facilitate access by Consortium members to high quality and consistent datasets.

Set-up Activities. During the first quarter of 2012, the Data Component will finalize set-up activities which were delayed by the completion of the web portal. These include:

- Data Partnership Plan: draft, disseminate, and implement a data partnership plan (Q1)
- Development of data standards and protocols on data acquisition, archiving, metadata, documentation, quality control, dissemination (Q1)

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 a selected data category in each-half year period. The broad data categories 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.

Deliverables for 2012 include:

- Social Accounting Matrices: data and documentation for 15-20 African countries will be released (Q1 - Q2)
- Household Survey Data: data and documentation for 15-20 African countries will be released (Q2 - Q3)
- National Agricultural Statistics: data and documentation for 20-30 African countries will be released (Q3 - Q4)
- International Data Sets: access to 2-5 international data sets will be provided (Q2 - 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 2012 is to:

- Develop and document 2-5 new Social Accounting Matrices (Q2-Q3)
- Build 5 complete datasets for specific models (multi-market models, regional models, gravity models) (Q3-Q4)

3. NETWORK COMPONENT

The Network Component aims to promote access to and use of the modeling tools and data and facilitate 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 2012, the Network Component will continue to implement activities that were launched in 2011 (e.g. grants for innovative research) and engage in new activities that will be initiated in 2012 (e.g. training courses). Listed below are key deliverables:

Network Advisory Committee (NAC) Meeting (Q1)

- Organize a virtual meeting for the NAC to discuss and provide advice on the 2012 networking activities.

Membership Extension (Q1)

- Extend the membership from 55 to 75 individuals, with specific attention to gender and regional diversity.

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, and review activities.

Members' Website Activities (Q1-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 1, and all members by the end of the quarter 2.

Newsletters (Q1-Q4)

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

Grants for Innovative Research (Q2-Q4)

- Monitor progress of the 14 Innovative Research projects funded by AGRODEP.
- Implement the mentoring activities as needed for research projects.
- Design and adopt a review process of projects.
- Launch the second call for proposals and award grants for 2013.

Grants to Address Research Gap (Q1-Q3)

- Launch the first call for grant proposals to address research gaps and award grants for 2012-13.

Research Valorization Grants (Q1-Q4)

- Promote the use of AGRODEP Research Valorization Grant to enhance the visibility of members through support and incentives for publication in peer reviewed journals and participation in scientific conferences.

Training Activities (Q1-Q4)

- Implement the package of training courses listed in Annex II.
- Prepare and validate a survey questionnaire to monitor and evaluate AGRODEP training courses early in the first quarter.
- Develop a new training program for 2013.

Working Paper Series (Q1-Q4)

- Increase publication activities from about 2 submissions per 10 members in 2011 to 3 submissions per 10 members in 2012.

Manual of procedures (Q1-Q4)

- Document the design, implementation, and monitoring of AGRODEP activities; the manual is developed along the implementation of the 2012 activities.

4. 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:* AGRODEP management will coordinate the activities and ensure communications across the three Components. Regular coordination meetings are held bi-weekly and are attended by all AGRODEP Management team members and Component Coordinators.
- *Staffing (Q2):* AGRODEP management will hire one more additional staff member at the post-doctoral fellow level to work part-time for AGRODEP in the delivery of the activities of the Model and Data Components. Management will also be involved in responsible for hiring consultants/collaborators for the project.
- *Interaction with Governance Committees (Q1-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.
- *Communications and Outreach Plan:* The plan will be finalized and implementation will commence in the first quarter (Q1).

- *Quarterly Update (Q1-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, Q3)*: Produce two issues of the semi-annual AGRODEP Bulletin (first volume on February 15, second volume on August 15).

Annex I: 2012 AGRODEP Quarterly Chronogram

Activity\Period	Q1	Q2	Q3	Q4
MODELS COMPONENT				
The MIRAGE model for AGRODEP: MIRAGRODEP	*			
IFPRI single country CGE	*			
PEP single country CGE	*			
Multi market PE model	*			
Econometrics of trade	*			
Trade PE model – HS6 level	*			
Supply and Demand estimations		*		
Household disaggregation in MIRAGRODEP			*	
Impact Assessment Tool Box			*	
Natural resources management				*
Global Stochastic Partial Equilibrium			*	
Poverty analysis: Top down approach for GE and PE		*		
Endogenous Saving behavior in CGE				*
A GLOBIOM model for AGRODEP				*
Econometrics of price transmission			*	
DATA COMPONENT				
Data Partnership Plan	*			
Development of standards and protocols	*			
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				
Network Advisory Committee Meeting	*			
Membership Extension	*			
Survey questionnaire to monitor and evaluate training courses	*			
Members' Website Activities				
Newsletter	*	*	*	*
Research Valorization Grants				
Implement the package of training courses	*	*	*	*
Grants to Address Research Gap				
Contribution of Partners		*		
Monitor progress of the 14 Innovative Research projects				
Implement the mentoring activities for research projects			*	
Review Process of projects			*	
Second call for Innovative Research proposals			*	
Develop a new training program for 2013				*

Working Papers Series

COORDINATION AND GOVERNANCE

Cross Component Collaboration

Staffing

Interaction with Governance Committee

Communications and Outreach Plan

Quarterly Updates

AGRODEP Bulletin



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Annex II: AGRODEP 2012 Training Program

Trainer	Topic	Duration	Date
Ismael Fofana IFPRI-WCAO Senegal	Building Up and Updating A Social Accounting Matrix	3 days	March 13-15
Philippe Van Kerm & Anne-Claire Thomas Université catholique de Louvain Belgium	Poverty Measurement and Analysis	4 days	April 23-26
Veronique Robichaud Universite Laval Canada	GAMS-based Computable General Equilibrium Modeling (basic)	9 days	May 14-25
Carlo Azzari and Melanie Bacou IFPRI-EPTD USA	Household Surveys Data: Sampling and Processing	3 days	September
Rembert De Blander Université catholique de Louvain Belgium	Panel Data Econometrics	5 days	September 24-28
Bernard Tanguy IFPRI-MTID Sénégal	Impact Evaluation and Analysis of Development Interventions	5 days	October
Veronique Robichaud Université Laval Canada	GAMS-based Computable General Equilibrium Modeling (advanced)	3 days	November
David Laborde & Antoine Bouet IFPRI-MTID USA	Multi Country Multi Sector General Equilibrium Analysis: MIRAGRODEP	3 days	December