ADDRESSING THE IMPACTS OF CLIMATE CHANGE IN THE PHILIPPINE AGRICULTURE SECTOR

BACKGROUND

The Philippines is an archipelagic country where agriculture plays a vital role in providing around 30 percent of employment and 10 percent of the country’s total gross domestic product in 2013. Recent natural disasters significantly affected crops and livestock resulted to severe loss in agricultural production including human lives. Climate change worsens the economic situation and food security among others of the Philippine people. Hence, there is a critical and urgent need to develop climate-smart technologies available and accessible to the farmers through creation of an enabling institutional environment.

PROJECT INFORMATION

The National Economic and Development Authority (NEDA) is responsible for advising the Philippine President on national development planning, including recommending the level of the annual government expenditure as stipulated in the 2011-2016 Philippine Development Plan and Public Investment Program. In NEDA, the Agriculture, Natural Resources and Environment Staff (ANRES) provides technical support in coordinating the formulation of national plans and policies for agriculture, natural resources and agrarian reform sectors. The NEDA-ANRES has expressed strong interest to develop and apply new methods to evaluate current policies and formulate future policies, particularly for the agriculture sector.

Objective

This collaborative research partnership between IFPRI and NEDA-ANRES aims to establish a decision-support mechanism on agricultural, climate change and food security policies, that uses newly generated data, modelling output and innovative scenario assessment. It is designed to integrate an innovative set of data, models and scenarios in the areas of climate change, agriculture and food security in the NEDA’s development process (e.g., planning, project evaluation, and investment programming). In the completion of this research project, it is expected that the NEDA technical staffs are capacitated to analyze the strengths and weaknesses of policies and explore the resilience and the provisioning capacity of the agricultural sector given future climate scenarios.
Specific Activities

There are four key activities to be implemented to achieve the above objectives. These are:

1. Scenario-Building and Food Policy Analyses I. Measuring the Impact of Climate Change on Agriculture, and Evaluation of Adaptation Strategies and Technologies
2. Scenario-Building and Food Policy Analyses II. Policy Analyses of Development Investment, Environment and Natural Resources, and Other Policies in relation to Climate Change, Agriculture and Food Security
3. Knowledge Management I. Capacity Strengthening (Workshops, Technology Transfer and Training), Database Management of Adaptation Technologies and Strategies
4. Knowledge Management II. Information, Education and Communication and Outreach

Outcomes

There are six expected outcomes from this research, as follows:

1. Book publication, dissemination and usage by policymakers, researchers, donors, and non-government organizations to guide the implementation of rural programs, research projects and development or amendment of policies related to agriculture and climate change;
2. Enhanced ability of the research and technical individuals not only in the utilization of the model results run by modelers and other experts, but also use and run the IFPRI’s International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT) themselves as well as test the policy impacts;
3. Increased ability of the GIS personnel to use the results of crop model in the evaluation of the climate change impacts in specific locations of the Philippines;
4. Improved ability of the policy experts to pose questions to be inputted to the models and to recognize the sensible model results, and utilize these model results, as deemed appropriate;
5. Better understanding of the project objectives, activities, expected outputs, timelines and responsibilities of each participant through the conduct of project inception workshop; and
6. Enhance decisionmaking. Final project workshop will be conducted as a venue for a dialogue with senior policymakers in developing scenarios and analysis and delivery of priority policy assessments. Also, the workshop participants will be provided with project-generated reference materials (i.e., reports, books, and datasets) for understanding and consideration as important sources of information in the development and implementation of agricultural policies in the Philippines.

Outputs

The expected outputs of the project are:

1. Project Note 1. Status of the Agriculture Sector and Climate Change in the Philippines
2. Project Note 2. Existing and Potential Climate Change Adaptation Strategies and Technologies, and Priorities for the Philippine Agriculture Sector
3. Project Note 3. Costs (economic impact) of Climate Change in the Philippine Agriculture Sector
5. Project Policy Note 1. Recommended Sub-national Climate-smart Adaptation Practices/Technologies/Strategies for the Philippine Agriculture Sector
6. Project Policy Note 2. Sub-national Impacts of Selected Investment Strategies and Policies for Agricultural Growth, Climate Resilience and Food Security
7. Project Inception Workshop Report 1
8. Project Final Workshop Report 2
9. Project Training Manuals on IMPACT and Computable General Equilibrium Model and policy analysis
10. Datasets on climate change, input data for analyses and modeling climate-smart adaptation strategies and other agricultural-related policies