RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security

CGIAR CCAFS

Baseline survey of CCAFS sites: monitoring and planning for climate-smart interventions

Photo credit: A Tall

Baseline surveys, designed by CCAFS, were carried out as part of the process in setting up Climate-Smart Villages in the Indo-Gangetic Plains in South Asia.

This survey aimed to provide baseline information at the village level about socio-economic indicators, natural resource utilisation, organisational landscapes, information networks for weather and agricultural information and mitigation baseline information. This information can be compared across sites and monitored over time. The surveys also provide important information for planning and implementing climate-smart interventions in the CCAFS sites.

Objectives

- To assess over a period of time the characteristics of farming systems in terms of resource availability and use, changes in crop and livestock farming practices, livelihood sources, household assets, food security and access to and use of climate and agriculture-related information in CCAFS Climate-Smart Villages.
- To develop simple and comparable cross-site household and village level indicators for which changes can be evaluated.
- To understand what constitutes an enabling environment for climate change adaptation in CCAFS sites.

Locations

Khulna in Bangladesh, Karnal (Haryana) and Vaishali (Bihar) in India, and Rupandehi in Nepal

Partners

Bangladesh Centre for Advanced Studies (BCAS), Center for Environmental, Agricultural Policy Research, Extension and Development (CEAPRED) in Nepal, and Rajendra Agricultural University, Bihar, India

Approach

- The survey sites, villages and households were selected following the methodology and sampling framework suggested in the CCAFS Baseline Survey Manual. CCAFS sites were selected based on their climatic risks, vulnerability to climate change, and potential to improve agriculture production.
- Baseline survey materials included questionnaires, implementation and training manuals and data entry and analysis systems.
- Field surveys were carried out in the randomly selected seven villages in all CCAFS's sites.
- Each household was listed from those selected villages using voter lists and cross-triangulated with census data. Households from each village were selected randomly.
- The questionnaire was pre-tested to assess the appropriateness of the language and develop the skills of enumerators. The study team leader and the supervisor monitored the field survey activities and checked the quality of data regularly.
- Research teams have developed indices for seven indicators – food security, asset/wealth, production diversity, commercialization diversity, adaptation, mitigation, and gender access to climate information – to assess the characteristics of survey sites.
- Climate data of the sample sites was collected from the meteorology department of each country.

Initial Results

- Many farmers in the survey sites had made substantial changes in their farming system/practices over the last 10 years- adjusting to climate variability and market demands of agricultural products.
- Besides climate-related factors, farmers' desire to increase crop yields, availability of seeds of higher yielding crop varieties, competitive prices and improved marketing opportunities are important factors shaping farming strategies.
- Several climate change mitigation related activities were reported in the survey sites. Many farmers are practising agroforestry, soil and nutrient management methods on their lands.
- A very small proportion of households received weather-related information such as forecasts of extreme climatic events, pest/disease outbreak and rainfall from various sources (e.g. radio, television, agricultural extension service, etc.). In all survey sites, women farmers had less access to climate-related information than their male counterparts.
- Survey data for all sites is available for further research http://thedata.harvard.edu/dvn/dv/CCAFSbaseline

ABOUT CCAFS

The CGIAR Research programme on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT).

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