

AGRICULTURE INFORMATION SYSTEM

Building Provincial Capacity in Pakistan for Crop Estimation, Forecasting, and Reporting based on the integral use of Remotely Sensed Data GCP/PAK/125/USA

2ND TARGETED TRAINING COURSE: Estimation of crop area using Area Frame Sampling (AFS) April 2 to April 5, 2012

As part of the “Monitoring of Crops through Satellite Technology Phase II” project, the Government of Pakistan has requested the Pakistan Space and Upper Atmosphere Research Commission (SUPARCO) and the Food and Agriculture Organization of the United Nations through the Land and Water Div (FAO/NRL) to organize a workshop for training of provincial Crop Reporting Services (CRS) official.

PROJECT BACKGROUND

The main goal is to help the Government of Pakistan to integrate the use of remotely sensed data into existing data collection, analysis and dissemination systems to improving accuracy and timeliness of agricultural statistics. In the longer term, the project aims to develop national capacity for agricultural monitoring and disaster risk management in response to food insecurity.

FAO provides technical assistance and supervision, while SUPARCO is the national implementing agency, working in close collaboration with the Ministry of National Food Security and Research (MinNFSR), the Crop Reporting Services (CRS) at the provincial level, the Pakistan Meteorological Department (PMD) and the Federal Bureau of Statistics (FBS).

CROP ESTIMATION AND AREA FRAME

SUPARCO uses an Area Frame Sampling and other procedures to estimate cropped area. The area frame was developed using satellite remote sensing and GIS techniques. The steps involved were:

1. Stratification of land into homogeneous types of cropland.
2. Division of land in each stratum into 30-hectare segments without overlap or omission.
3. Selection of a sample of segments for data collection.
4. Collection of data without error from the selected segments.
5. Estimation of totals area by multiplying the collected data by the proper raising factors.

This course would cover topics such as area frames development for estimation of crops. On the last day participants will visit a segment near Islamabad to see how data are collected and processed.

TRAINING FOCUS

- Introduction to area frame construction
- Stratification of cropland
- Sample Selection of representative segments
- Data collection of crop data in the field
- Identification of data collection errors in the field
- Crop estimation using the proper raising factors

TARGET GROUP

Staff from the Crop Reporting Service in Punjab and Sindh for increasing the understanding of the area frame crop estimating technology that has been implemented by SUPARCO.

EXPECTED OUTCOME

CRS staff should understand the principles of area frame sampling so that they can train enumerators and interviewers to collect, edit, estimate and summarize area frame data.

