Course Goals

By integrating the monitoring of shock factors (market, economic, climatic), developing household food security profiles and impact simulation models on household food security, the goal of this training is to provide knowledge and tools to monitor climate and market/economics shocks and agricultural production, project commodity supply/demand; and estimate the impacts on household income and expenditure, food consumption, food gap and needs for assistance.

Course Outline

This training course will provide attendees basis knowledge and application of the Shock Impact Simulation Model and commodity balance sheets. It will also focus on how the technology will be exploited for crop and market monitoring and food security analysis in national and provincial levels.

Participants

The target participants are

- in Pakistan: agricultural statisticians, managers of agricultural statistics programs, technical staffs/professionals working in market information and food security early warning system, policy analysts from national institutions, and NGOs and International Organizations;
- from other developing countries: others who want to learn how to use the tools to improve the market monitoring and policy analysis for better intervention and targeting.

Number of participants 30-40

Course duration 1 week

Launch Date Early August 2014 (depend on the country's work plan)

Location Islamabad, Pakistan

Cost of the course Paid by FAO/USDA

Available resources

Building rxxx

Participants Meeting/Training Room and Office - will be provided

Training course Coordinator (50%) – xxx

Instructors Dr Cheng Fang (FAO/EST), Ms Chloe Wong (Consultant of SISmod Project (WFP)), and xxx

Training Course Lessons Program:

SISMod Training:

I. OVERVIEW OF SISMOD
A. Background, Introduction and objectives
B. Display the newly developed models for Punjab and Sighn

II. MODEL FRAMEWORK AND OUTPUTS
A. Market monitoring, crop production monitoring and shock factors
B. Income generation module
C. Two-stage demand system (household budget allocation) and parameters
D. Key food security indicators
   » 1) Per capita dietary energy consumption
   » 2) Food gap and food need

III. DATA REQUIREMENT
A. Household survey data
   » 1) Data cleaning and mining
   » 2) HH food security profile development
   » 3) HHs' income, expenditure and food consumption
B. Climate, market and economic shock factors
   » 1) Relationship of the shock factors
   » 2) Implications on HH's food security
   » 3) Component of shock database and monitoring in SISMod

IV. RUNNING SISMOD EXCEL/ACCESS TOOL
A. Overview of the tool and user-manual
B. Demonstration and excise on simulating the impacts of current/anticipated shocks with focus on Punjab Province
   » 1) Use of shock factors from production and market monitoring
   » 2) Building scenarios by adjusting the shock factors
   » 3) Use of SISMod outputs for impact analysis
C. Implications on policy and programme planning

V. SISMOD AND MARKET ANALYSIS
A. Marketing monitoring system and major market indicators
B. Market price analysis and early warning
C. Use of market data in SISMod
D. SISMod's implications for CFSAM/Market Assessment mission

VI. USING MODEL FOR MARKET AND FOOD SECURITY MONITORING
A. Linkage with crop monitoring
B. Linkage with market morning
C. Indicators for interventions on food security
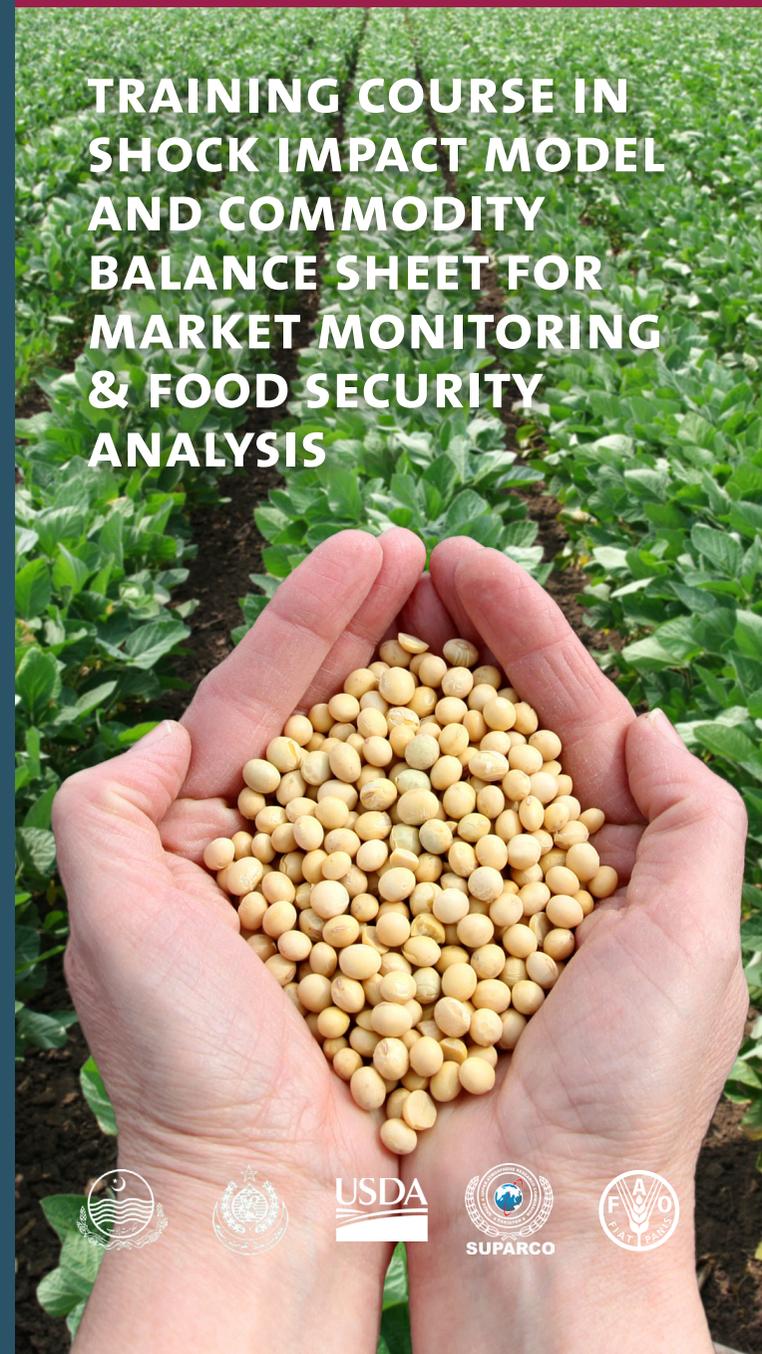
VII. COMMODITY BALANCE SHEET ANALYSIS TRAINING

VIII. PRICE TOOL TRAINING

IX. CONCLUSION AND LESSONS LEARNT

X. COURSE EVALUATION

Training Program in Satellite Remote Sensing Applied to Agricultural Statistics and Market Monitoring

TRAINING COURSE IN SHOCK IMPACT MODEL AND COMMODITY BALANCE SHEET FOR MARKET MONITORING & FOOD SECURITY ANALYSIS

Background

Recent increases in global food prices and increased frequency of natural disasters have had adverse effects on national and household food security in different parts of the world. Many countries are affected by recurring crises and are caught unprepared. Shocks arise from rapid changes in economic, political, market or climatic conditions, affecting different population groups differently.

In response, the Trade and Markets Division of FAO (together with WFP Food Security Analysis Service (OSZA/VAM)) has developed a Shock Impact Simulation Model (SISMod) to help understand and contextualise the impact of various types of shocks (market, economic, climatic) on outcomes such as market supplies and demand; household income; food gaps; and in the final analysis the impact on vulnerable groups. SISMod can be used for estimating ex-ante, current, and ex-post shock impacts to support intervention decisions and for wider policy and planning.

In addition, the volatility in global food prices since 2008 has been identified as major factor to affect agricultural production/investment and undernourishment. Domestic and trade policies are also major factors affecting food security at global, national, and household levels. In response the FAOrity at global, national, and de policies are (GIEWS) started to build a database of basic food prices and developed an online food price data and analysis tool as part of the FAO Initiative on Soaring Food Prices (ISFP). GIEWS has continued to work to increase the coverage of countries and price series, including Pakistan, and developed a price database and policy monitoring system to monitor policy decisions in response to the food price crisis.

Under the overall objective of the project of improving the capacity of Pakistan's provincial authorities in effectively handling agricultural information systems, the market outlook improvement and shock model development will assist in introducing and training the provincial authorities to improve market (domestic and international) monitoring and outlook.

Introduction

The FAO/WFP SISMod has been developed to address a notable rise in the number of people facing various types of shocks (market, economic, climatic) which lead to challenging situations to address food insecurity in developing countries. Previously, it has proved difficult to provide quantitative estimates on the impact that various shock factors have on the livelihoods and food security of different population groups at a nationally representative level.

The objective of this training is to train users to use the developed the modelling for monitoring and preparing for food security briefing. SISmod is a comprehensive tool which brings new possibilities to conducting quantitative analysis in the onset of a shock which impacts market stability and household food access. It can be used to make clear calculations of shock impacts on different population groups, particularly in terms of food security outputs which often require immediate action in times of shock.

What is SISMod Tool?

A Excel/Access based user-friendly tool which combines data sets from the, FAO, WFP, the World Bank and other national sources on key household, economic, market and production data to model the impacts of various key shock factors on households' food security. The key concept of the model is shown in the following diagram showing the framework.

Crop production and market price data is crucial components of SISMod. They are the shock conductors which directly affect income and expenditure, hence food security of rural agricultural households. The combination of crop production and price motoring system and SISMod allow timely simulation on shocked households' income and expenditure, and through demand/supply/price transmission elasticities derived from household survey data, quantifying households' food expenditure and consumption during shocks.

Model structure for simulating shocks