

## **Agenda of a 6-day Intensive Crop Forecasting Training in MAF, Laos**

by Jürgen Grieser (FAO)

**General Objective:** Training of co-workers of Ms. Vivanh Souvanamethy (Deputy Chief of Statistics Division, Department of Planning) and Mr. Boualaythong Koumphonh (Deputy Chief of Technical Division, Meteorology and Hydrology Department) in the calibration, adaptation and use of the Crop Monitoring Box (CMBox) to produce agrometeorological rice-yield forecasts for all provinces in Laos.

**Location:** Ministry of Agriculture and Forestry's IT center

**Attendees:** About 4 to 8 employees of the Ministry of Agriculture and Forestry (MAF), Laos. One computer per attendee was provided.

**Schedule:** Each day consisted of a morning session and an afternoon session of 3 hours. Each session was divided into a 90 minute lecture and 90 minutes of exercises.

1st Day	Morning	Introduction of people, evaluation of computer skills, some general computer exercises
	Afternoon	Introduction to agrometeorological crop forecasting, general strategy and methods, examples
2 <sup>nd</sup> Day	Morning	Crop Yield Variables, Data Quality Assessment, Trends, Detrending, Significance of Trends, Mapping
	Afternoon	Meteorological Variables, Data Quality Assessment, Potential Evapotranspiration (PET) its role in agrometeorology and crop forecasting and its approximation
3 <sup>rd</sup> Day	Morning	Mapping of yield data and meteorological data, Interpolation of data, New_LocClim as a tool for the preparation and interpretation of maps and their quality
	Afternoon	AgroMet Shell, introduction of data into the database, data base management, aggregation of data, output of data according to different selection criteria (queries).
4 <sup>th</sup> Day	Morning	The FAO crop-specific soil-water balance model, part 1: Plant specific coefficients, their meaning and settings. Introduction of new species into the software. Change of features.
	Afternoon	The FAO crop-specific soil-water balance model, part 2. Running the soil-water balance, understanding and interpreting the output.
5 <sup>th</sup> Day	Morning	Search for a statistical weather-yield function and assessment of its quality, part 1: Data pre-processing, Principal Component Analysis, Correlation Analysis. Interpretation of the coefficient of determination.
	Afternoon	Search for a statistical weather-yield function and assessment of its quality, part 2: Stepwise-Multiple Regression and the Crop-yield-Weather function. Absolute and relative errors. Quality assessment.
6 <sup>th</sup> Day	Morning	Performing Forecasts: Application of the weather-yield function to meteorological observations in order to calculate crop-yield forecasts.
	Afternoon	Publish Forecasts: Preparation of publishable material graphs, maps, tables for agrometeorological bulletins.