

## Abstract

A Decision Support System for Integrated Planning crop production at the local level (DSSIP or TongTungThai 2.0) was developed in a continuation of the first version, carried out during March 2002-February 2004, contract no NIG45Q0042. TongTungThai 2.0 or DSSIP research project is financially supported by The Thailand Research Fund (TRF), during May 2004-April 2007. The research area was concentrated in 12 villages of Tambon Mae Feak, Amphoe San Sai, Changwat Chiang Mai. The major aim was to develop a web-based Decision Support System (DSS) to facilitate the local community and growers to better making decisions to improve their crop production with integrated planning process, based on their own data set.

The DSSIP web-based DSS prototype system, code name TongTungThai 2.0, developed to provide a convenient access for documenting, archiving, and exchanging data and information on population, agricultural resources, and planning process according to the Community Business Act (2005). The DSSIP comprises of a Database Management System (DBMS), a Modelbase Management System (MBMS), and a simple analytical tool to evaluate relative income of crop production options. Together with other types of traditional networking and communication methods, users can use the DSSIP via the Intranet or Internet connection. The DSSIP can be applied to collect and link resource information to improve crop productivity and farm incomes. We have successfully presented the data and relevant materials at the URL <http://www.mcc.cmu.ac.th/ttt>, under the support of the Multiple Cropping Center, Chiang Mai University.

During September 2006-April 2007, the Department of Agricultural Extension approved an implementation of the DSSIP in the mud-slide-affected areas of Tambon Nam-Man, Amphoe Ta-Pla, Changwat Uttaradit. The responsible Agricultural Extension Officer, Kaset Tambon, was actively and enthusiastically participated in the coordinating, data entering, and communicating with the local communities. A plan for supporting local women group was formulated and proposed to the Tambon Administrative Organization in Uttaradit for resource allocation and implementation of the plan.

Keywords: web-based DSS, crop production systems, Time-dispersion, Time-concentration, PDSA cycle, TongTungThai, DSSIP, data-driven DSS, model-driven DSS, integrated planning.