DECISION SUPPORT SYSTEM PROTOTYPING
FOR INDONESIA FERTILIZER ZONING-SUBSIDY

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ABSTRACT

Indonesian government subsidizes the distribution of various fertilizers in order to control the prices under farmers buying power. The maximum selling price is set by the Ministry of Agriculture through regulation No.4/Permentan/SR.130/2/2006. Every year, a task force consisting of representatives from Ministry of Agriculture, Ministry of Industry, Minsiry of Trade, Ministry of Finance, and fertilizer producers conducts a meeting to make integrated decisions in assuring the availability of the fertilizers in the market and controlling the fertilizer price. The decisions include fertilizers demand planning, production plan, zoning of the producers' market, and the amount of subsidy needed.

An integrated model on fertilizer distribution zoning and subsidy with total logistic cost and total subsidy minimization has been developed by Hidayat (2007). This model considers different aspects that affect the controlled fertilizer price that all decisions in the model are integrated. The research question to be addressed in this final project is how to develop a decision support system prototype that improves the zoning and subsidy decisions for urea fertilizer in Indonesia. In order to answer the question, the final project's goals include the design of a decision support system (DSS) working prototype based on the analysis made on the requirements and the improvements to be done to the existing process.

Several approaches are used in the DSS development, including Noviasta's fertilizer distribution system elaboration (2007), the integrated model on fertilizer distribution zoning and subsidy by Hidayat (2007), the 'Staged Implementation Route' system development process (Whitten, 2001), and DSS development process by Turban (2001). In developing the DSS, a preliminary study is conducted to define the methodology before the requirements are analyzed. After the model base, database, and user interface are designed, overall analysis is done and conclusions are made.

The output of the development process is a DSS working prototype to be tested by the user. Based on the test done by the designer, the prototype has met the requirements analyzed at the beginning of the process, therefore it is suggested that a test be done to the prototype in a real decision making environment.