

DECISION SUPPORT SYSTEM DESIGN FOR PERUM BULOG RICE REALLOCATION PLANNING

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ABSTRACT

As a prime food stuff, rice became an essential agriculture commodity for Indonesia people's lives. Because of this reason, rice sustainability must be maintained to ensure good prime wealth of all Indonesian people. To ensure that, the government established a certain corporate body that handle rice logistic process in Indonesia, called BULOG. As a corporate body that handle rice logistic, BULOG handle all process that related to rice logistic in Indonesia.

Rice reallocation process is one of logistic activity that is conducted by BULOG. In reality, there are two kinds of rice reallocation process in Indonesia, which are *movenas* (rice distribution from surplus warehouse to minus warehouse that locate in different Divre) and *movereg* (rice distribution from surplus warehouse to minus warehouse that locate in different Subdivre in the same Divre). Rice reallocation process that is conducted in a good way will result in minimizing reallocation problems, such as unstable rice price in market and crisis of rice availability. However, although rice reallocation process had been conducted by BULOG for several years, reallocation problems often happened. One factor that causes the problems is unavailability of standard logistic model that is used to plan rice reallocation process. During the operation of BULOG, the planning of rice reallocation process only made based on intuition and experience from Procurement and Distribution Division of BULOG, not based on standard logistic model. Because of this reason, this research is conducted to design a Decision Support System (DSS) that function as tools in a decision making process in reallocation planning. This system has an ability to provide reallocation solution from standard rice logistic model in Indonesia. The standard logistic model that is used is an integrated model that consists of rice procurement model, demand forecasting model, stock supply model, also *movelok*, *movereg*, and *movenas* distribution model.

With the presence of this DSS, the decision making process that is conducted in rice reallocation planning process will be done effectively. The reason is because by referring to the solution that provide by DSS, Procurement and Distribution Division of BULOG as a planner will use their judgment effectively and it will result to an effective decision making process.

Keywords: Decision Support System (DSS), Rice Procurement, Demand Forecasting, Stock Supply Model, Movereg, Movenas, Reallocation.