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Decision Support Model for Irrigation and Drainage Management of Paddy Fields in Uganda

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A decision support model - IDRAMAP - has been developed as planning and operational tool for the main irrigation system. Within each block responsibility for water allocation and distribution lies in the hands of the Water Users Association. The model is based on the water balance for paddy fields. The irrigation and drainage requirements are determined considering the amount of expected daily average rainfall and reference evapotranspiration, the current field conditions of water depth and the stage of growth of the crop. The model provides a flexible database linked to a weather station in which the user enters the design, the meteorological, and the agronomical information. In case the scheme water demand exceeds the available water at the headworks, an equal reduction factor is applied to all the blocks. The results of the model are displayed in the form of tables and graphs.

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