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EFFECTIVE ANALYSIS OF LAND SURFACE WATER RESOURCES OF ANDHRA PRADESH WITH ROUGH SET BASED HYBRID DATA MINING TECHNIQUES USING R

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ABSTRACT

Agriculture plays an important role in economy of India. More than half of the population in India depends on Agriculture. It provides raw material for many industries. Early more than half of the land mass is used for Agriculture and over the years there is decline in agriculture land. Various factors like urbanization and development results in the growth of Non-Agriculture land year by year. Agriculture is the largest abstractor and prime consumer of ground water resources across globe and hence study of agro-economies that is ground water dependent became widely popular. Agriculture Irrigation, Surface water and Ground water resources are interlinked to each other. Water Usage and Food Production are dependent on each other extensively. Water is the major parameter that controls the crop yield. Many countries agriculture yield depends on rain fall. Many at time's rainfall is not sufficient to crop yields. It made researchers to do rigorous analysis on water resource availability and suggest farmers for its effective utilization. This paper aims at development and application of new Hybrid Data Mining (HDM) Techniques for effective analysis of Land Surface Water Resources (LSWR) like Canals, Tube wells, Tanks and other water resources. Apart from that analysis is also made on Various Agriculture yield's i.e., both for Cereals and Millets namely Kharif, Rabi, Sugarcane, Maize, Ragi, Wheat, Barley, etc., using new Hybrid Data Mining (HDM) techniques. To model the complex logic, Decision Tables (DT) is used. The results were proved to be good when new Rough Set Based Hybrid Data Mining (RSBHDM) Techniques are applied over the refined data sets.

KEYWORDS: Agriculture, Hybrid Data Mining (HDM) Techniques, Décision Tables (DT), Land Surface Water Ressources (LSWR), Rough Set Based Hybrid Data Mining (RSBHDM) Techniques