

**DEVELOPMENT OF A USER FRIENDLY GIS BASED MANAGEMENT
INFORMATION SYSTEM FOR IRRIGATION RESERVOIRS IN
BATTICALOA DISTRICT**



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ABSTRACT

Water, the most precious natural resource is the priceless agricultural input. Many practices adopted to manage water for human needs have led to pollution beside over exploitation of water resources. Hence, effective development and management of water resource are essential for sustainable agriculture development and poverty reduction in Batticaloa district which is situated in Eastern province of Sri Lanka. Irrigation reservoirs are major potential water resource for agriculture sector. Hence improvement of irrigation reservoirs management practice is needed to meet the future agriculture water demand and food requirement of the district. Sustainable and equitable water resource development needs reliable and accurate database. Unfortunately, there is no combine database available for district level irrigation management. In this view, A Geographical Information System (GIS) based Management Information System (MIS) has been developed for the Irrigation reservoirs management in Batticaloa district, named as "Batticaloa Irrigation Tanks Information" (BIT Info). It was developed under ArcView 3.3, Microsoft Excel and HTML software environment. This package offers very accurate, up dated and relevant information on Irrigation reservoirs, and irrigated paddy cultivation of Batticaloa district which is needed by water professionals, farmers and water resource decision makers. This research study has demonstrated the necessity of adopting Geo-informatics technology in irrigation reservoirs management of the district.

Key words: Geographical Information System, Management information system, Database.

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