Abstract

Irrigation network is channel, building, and its complementary building which is as a unity needed for provision, division, administration, usage, and disposal of irrigation water. The Public Works Water Resources Department which maintains the irrigation in Merauke Regency until recently has not have a Map of the Area for Irrigation by online which can be accessed by stakeholders of Local Government of Merauke Regency. The potential of Merauke Regency for agriculture is quite high [1], therefore to maintain the potential, it is needed a water resources maintenance, which functions as evaluation, monitoring, and operational, and maintenance of the irrigation network.

In this study, it will be conducted Web (WebGIS)-Based Geographical Information System Development by online in the Public Works Department of Merauke Regency. The method used in this development is SLDC/Water Fall (System Development Life Cycle). The objective of this study is to ease the Local Government of Merauke Regency through the Public Works Department in the maintenance of irrigation channels by online and integrated with the
Webgis-based Irrigation basic Map Model of Merauke Regency Papua
development dealing with Merauke regency. Data processing uses software ArcGIS and
MapObject for the processing of the map, ArcGIS For Server, MS SQL Server for the making of
database server, Apache for the making of web programs.

The result of this development of WebGIS is the irrigation maintenance can be done online by
the Government of Merauke Regency which is maintain by the staff of Public Works Department
of Merauke Regency. It also can be used by the decision makers in the irrigation maintenance
in Merauke Regency.

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Index Terms

Computer Science

Information Sciences

Keywords

WebGIS, Water Fall, irrigation channels, Merauke Regency Papua.