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WebGIS of Integrated Coastal Zone Management of Iran (IRICZM-WebGIS)

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Key Words: WebGIS, ICZM , Coastal Monitoring, Coastal Planning, Coastal Protection.

Abstract

Integrated Coastal Zone Management of Iran (IRICZM) now needs more conceptual and manageable system. GIS as a tool could give best solution for this problem. In this paper we use three main modules for IRICZM. First; Coastal Planning, second; Coastal Monitoring, and third; Coastal Protection. Between all modules we gave two way alert system module for connecting each others.

This paper presents a framework for a WebGIS for IRICZM. It focuses on the underlying concepts, theories and techniques for designing and implementing the conceptual framework. The framework, called WebGIS-IRICZM. It consists of two main elements supporting the deliberative and analytic components of decision-making process. The deliberative part is based on the concept of argumentation maps. The analytic component consists of decision analysis methods. WebGIS IRICZM uses the server-side architecture approach to Web-based GIS. It employs HTML, CSS and JavaScript on the client-side and a combination of PHP scripting language, MapServer and a SQL Server database on the WebGIS- IRICZM.

KEY WORDS: WebGIS, ICZM , Coastal Monitoring, Coastal Planning, Coastal Protection.

INTRODUCTION

World Wide Web permit information without boundaries to whole over the world, now we can freely described our world with map and spatial data. With WebGIS our information could access with everyone, by operating in the internet, access to GIS not required any permission or limitation by time, space or location. The launch of Google Maps service in 2005 brought countless opportunities for communities around the world to have free access to easy-to-use and browser-based WebGIS functionalities as well as high quality geospatial data.

Google Maps and the applications being built using its easy-to-use Application Programming Interface (API) provide a free WebGIS for the general public and non- GIS experts where they can interact with and present their customized information in a user friendly and familiar environment. The main objective of this paper is to present the IRICZM System based on WebGIS framework. Our case study area is the all Iranian coastal zone of Caspian Sea, Persian Gulf and Oman Sea. In section 2, we first

analyze the most problem that need more manageable on IRICZM and then examine synergic of the integration of GIS and ICZM. Then we analyze the potential solution from the internet as medium to facilitate our solution, and finally we review our WebGIS IRICZM prototype as a tool for geospatial solutions especially in Coastal Monitoring. We provide in section 3 and 4, as our conceptual framework and explain system architecture and user interface design for the framework implementation.

CONCLUSION

The purpose of this paper was to describe the design of WebGIS for Integrated Coastal Management of Iran. This application has been useful tools to Coastal management and solve the problem as fast as possible, especially for problem that need fast decision.

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