

Abstract

The lack of information and coordination among administration, research centres and socio-economical sectors is one of the main problems in coastal erosion management at local level. One of the aims of the EUROSION project (www.euroSION.org), is to improve or implement a local information systems that should provide quality and complete information of the coastal area, and facilitate the decision making process in coastal erosion. (1) Four pilot sites are selected for the design, realisation and set-up a local information system (2). This paper aims at describing the local information system set-up for the Catalan site of Sitges in Spain, with its goals and functionalities.

Keywords: Coast, metadata, map server, Catalonia

Introduction

One quarter of the European Union's coast is currently eroding despite availability of a wide range of measures to protect shorelines from eroding and flooding. Therefore the DG Environment commissioned a consortium led the Dutch National Institute for Coastal and Marine Management (RIKZ) to carry the EUROSION project. One of the aims is to produce results of immediate value for policy-makers, managers and researcher to deal with coastal erosion in the most sustainable way. One example of such a product is a local information system that will provide "a set of technological, human, organisational, financial, and information resources organised in such a way to improve archiving, retrieval, representation, exchange and dissemination of information produced by institutions involved in shoreline management and on a specific area" (3).

During the project several pilot sites were selected where an in-depth study and analysis was executed towards several assessment levels (4). The lack of access to useful information and coordination among administration was highlighted and the proposal of a local information system was pointed out as a valuable tool to provide quality and complete information of the coastal area, and facilitate the work for policy makers and managers.

This paper introduces the case study of Sitges in Spain, where a LIS was designed in the frame of a Catalan initiative called IDEC (SDI of Catalonia). It is a consolidated initiative of the autonomous government of Catalonia, financed by the Secretary of Information Society and managed by Catalan Institute of Cartography, which aims at creating an Infrastructure of Spatial Data for Catalonia, through a catalogue of Metadata of georeferenced information under Standard ISO 19.115. Local information system for the coast will be hold under the umbrella of IDEC as a sector IDE called IDE-COSTES. Next the main components of IDE-COSTES are going to be described.

Ide-costes description

The main services that IDE-COSTES offers are contained in a web site (www.geoportal-idec.net/idec-costes/) with a friendly user interface, free accessible. A part from the usual services such as News, Links, Documents, Information and Forum, main specific services are directly accessible except for the upload module, which is a stand-alone software component downloadable from it.

IDE-COSTES is oriented to a broad group of user so it has a multilingual interface in Catalan, Spanish and English languages.

Metadata capture, editing and export-import function

The information providers and all those who have information about the coast will have to be able to describe it properly so its possible for interested third parties to locate it, discover it and find out about its characteristics. This involves the generation of metadata. To fulfil this aim a stand-alone software component, called MetaD, has been created in the frame of the whole IDEC initiative. It is made using Visual Basic and an Access database, which can be installed in a PC or network using Windows 98, 2000, XP or NT. The capture formulas are based on the standard ISO 19115.

After user generates metadata, it is exported in XML format and stored in an Oracle BdData, which is also connected to ArcSDE and ArcIMS software to support the spatial searches.

Metadata search (internet catalogue server)

The software component called Catalogue Server, which complies with OGC interoperative specifications (WCS 1.0 OGC), enables access and consultation to the catalogue of metadata. It forms part of the services accessible via the IDE-COSTES geoportal.

Access to geographical data (map server)

This function enables access to and display and consultation of (simple or combined) cartographic data. This is based on a specialised component of the system, a WMS Client that complies with OGC specifications.

Conclusion

The idea of establishing IDE-COSTES is to improve and increase access to the information by the whole community so its participation in the decision making process can be more active and better-informed, providing it with the suitable tool for this purpose.

Several drawbacks have to be mentioned however, such as the maintenance and continuous manual generation of metadata records and costs for maintenance of the system.

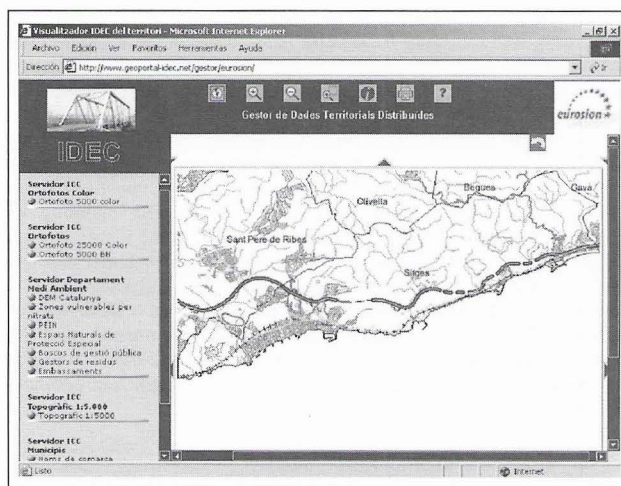


Fig 1. Screenshot of the map server of IDE-COSTES.

References

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