Geo-informatics applications in Integrated Coastal Zone Management

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Integrated Coastal Zone Management and environmental issues have been in the main political priorities of the European Union in the last few years. Lots of projects and research programmes were developed and sponsored by the E.U. in order to provide the environmental conscience to people and society, to give the scientific framework and propose solutions.

Coastal environment constitutes a significant part of the Environment Chapter. These issues are related to the interference of human activities in the fragile coastal zone. The environment in the specific geographic space receives this pressure in a large scale. Planning and management of coastal systems and resources is a continuous and evolutionary process that includes traditional, cultural and historical aspects and conflicting interests. Thus, the need for an integrated approach becomes essential.

Nowadays, a new category of science has been raised under the titled Geo-informatics. In this topic a number of scientists are involved mainly these that are related in one-way or another with the information of the geographic space. Subjects, tools and techniques that nowadays exist such as digital cartography, geographic information systems, visualization etc., is possible to be used through a multi-disciplinary cooperation in order to have an integrated approach.

A case study of a Geo-informatics application in Integrated Coastal Zone Management is presented in the current paper. The area under study in this research is Polis Chrysoxous Bay, located in the northwest part of Cyprus. The application evaluates the contribution of tools and techniques coming from Geo-informatics, such as cartography, visualization etc in presentation, interpretation and visualization of coastal zone data. Maps, in 2D and 3D are prepared as well as 3D photorealistic views using modern cartographic and visualization techniques.