## Environemntal Assessment Tools In The Pegaso Case - Sevastopol Bay

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The Bay of Sevastopol at the Crimean coast in the Black Sea is one of the PEGASO CASES. The major ISZM Protocol issues related to this site have been identified as eutrophication and water pollution, biological diversity loss, climate change impacts. The major part of environmental problems of this site is of anthropogenic nature and they are due to poorly managed or uncontrolled exploitation of all natural resources. Though the problem is known and a number of national, international and NGO programs/projects/activities has been applied, the problem remains unresolved and it is actually worsening. One of the reasons is with the lack of information and the absence of tools that can be utilized to estimate the current state of this coastal environment. The FP7 PEGASO project (2010-2014, #244170) has been launched to investigate different aspects of and local conditions for integrated coastal zone management (ICZM) and application of the ICZM Protocol in the Mediterranean and Black Seas. The Bay of Sevastopol has been chosen as one of the sites (CASES) for practical application of the results of the project, to assess local conditions and provide practically useful end-products for the purpose of ICZM implementation. We have initiated and are developing a web-portal (http://wiki.iczm.org.ua/en/index.php/Main Page), a WMS server (as the first example, http://193.42.157.77/ru/index.php?r=atlas/wms/view&id=19), and a standalone CD

(http://wiki.iczm.org.ua/en/index.php/Download the latest version of the atlas) version

of a GIS-type tool for the Sevastopol Bay to improve data coverage and provided tools (legal arrangements, interactive digital atlas, indexes, scenarios) for stakeholders and end-users. Scientific support, which is one of the components of ICZM, assumes participation of various specialists and utilization of various data depending on a specific task. The major disadvantage of traditional sources of data, which are atlases and data base, is the need to address various specialists. Geographic Information Systems (GIS) are more helpful. This is the reason that we have designed the system incorporating digital atlas and GIS features, but also allowing interaction with data and application of different ICZM tools. The major of these tools are indexes. While interaction with data makes possible to construct different maps, which have not existed and/or been preloaded, tools make possible to analyze data. Thus, for example, a "traffic light" index has been constructed and applied in order to analyze the reasons of and possible responses to persistent deficit of oxygen in the bottom waters of the Sevastopol Bay. The current version of the system incorporates a number of indexes chosen within the frame of the PEGASO project for environmental assessment.