

PROTECTION AND MANAGEMENT OF PRIORITY HABITATS IN MEDITERRANEAN COASTAL AREAS

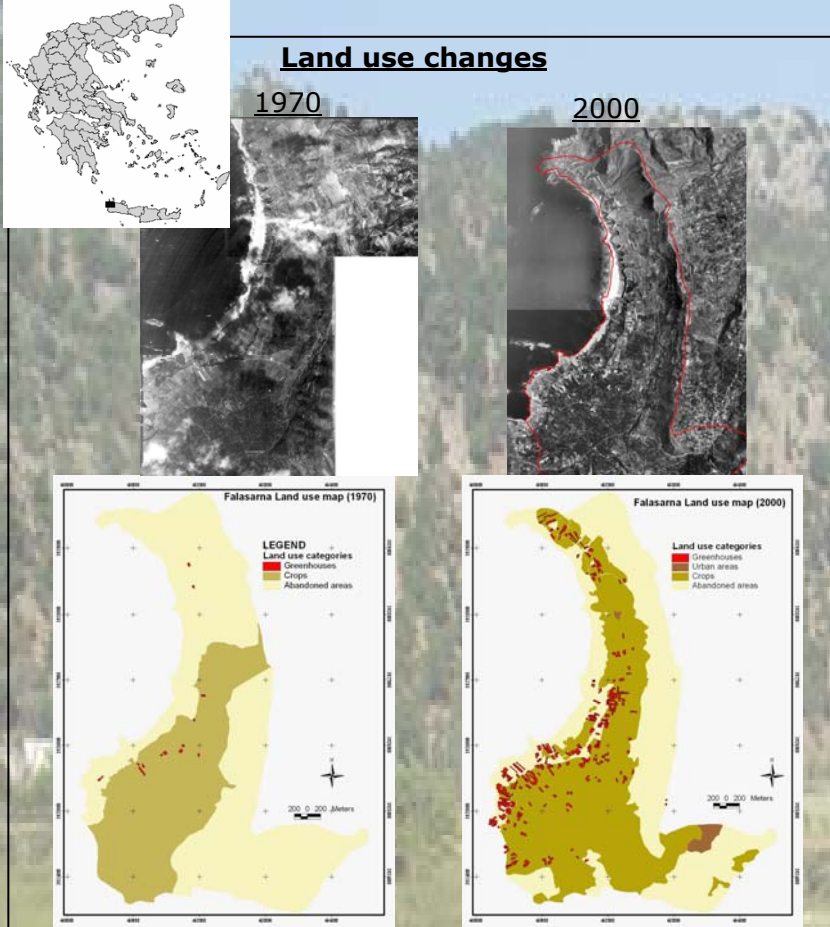
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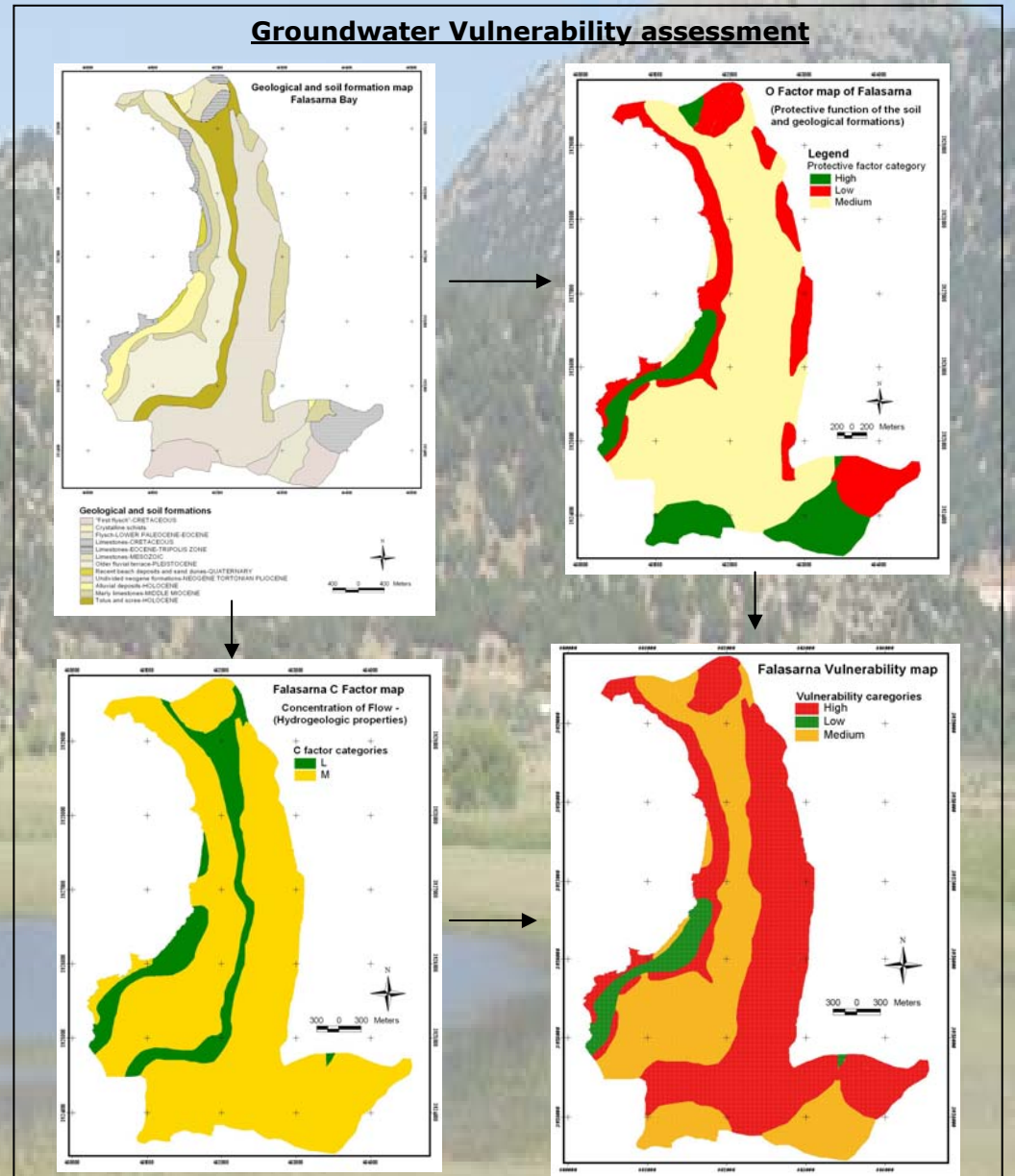
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Abstract

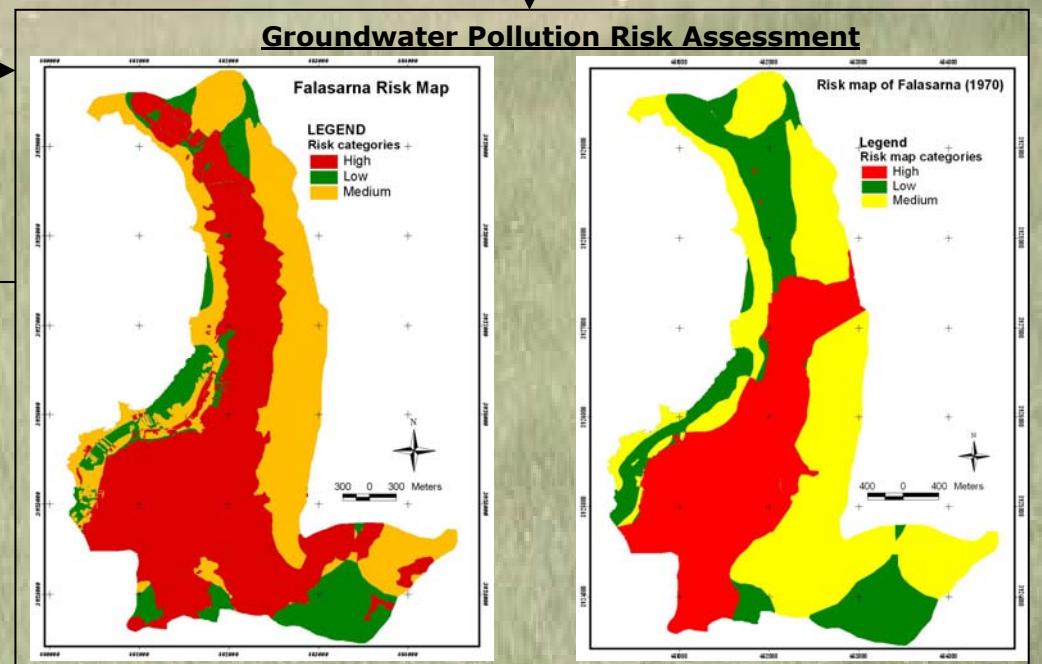
Coastal Wetlands undergo significant stresses nowadays, mainly due to developmental activities and the relevant land use changes observed during the last 3 decades. Intensive agriculture and the associated pollution, solid waste disposal and expansion of touristic infrastructure have led to the elimination and degradation of priority habitats. In the particular study GIS and Image analysis techniques have been used in combination with hydrogeologic data to assess the groundwater pollution risk in a priority habitat area (EC/92/43) originating from alterations in the land use regime. The results can be used for mitigation measures and environmental management activities to contribute in preserving the significant wetlands without causing unbearable socio-economic problems.



Land categories (m ²)	1970	2000	Change rate (%)
Cropland	4486770	6011201	34
Natural forests	7893136	5776602	-27
Greenhouses (no)	13	262	1915
Greenhouses (area)	21618	469390	2071
Urban areas	0	138676	100



Risk	1970 (m ²)	2000 (m ²)	Change rate (%)
High	4001092	6124643	53
Medium	5456195	4224568	-22
Low	2581819	1701568	-31



Falasarna Bay today

Conclusions

The above elaborations indicated that there are significant land use alterations during the period 1970-2000 in the study area, including a 34% increase of the cropland, a 27% decrease in the natural areas-forests and a 2071% increase in the extent of the Greenhouses. These changes affected the groundwater pollution risk potential by increasing the areas of high pollution potential over 53% in relation to the 70's values and eliminating the low pollution risk zone by 31%. Thus, urgent mitigation and restoration measures should be undertaken to avoid further environmental degradation in a Natura 2000 site that hosts ecologically important wetland habitats (Mediterranean Temporary Ponds).

This study has been conducted under the framework of Life-Nature '00 project entitled: 'Actions for the conservation of Mediterranean Temporary Ponds in Crete'