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Coastal Environmental Change
During Sea-Level Highstands:
A Global Synthesis with implications
for management of future coastal change

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Quaternary coastal morphology and sea level changes

Project 437

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Modeling geomorphological processes in the coastal area using soft computing approach as case study from the island of Corfu (Greece)

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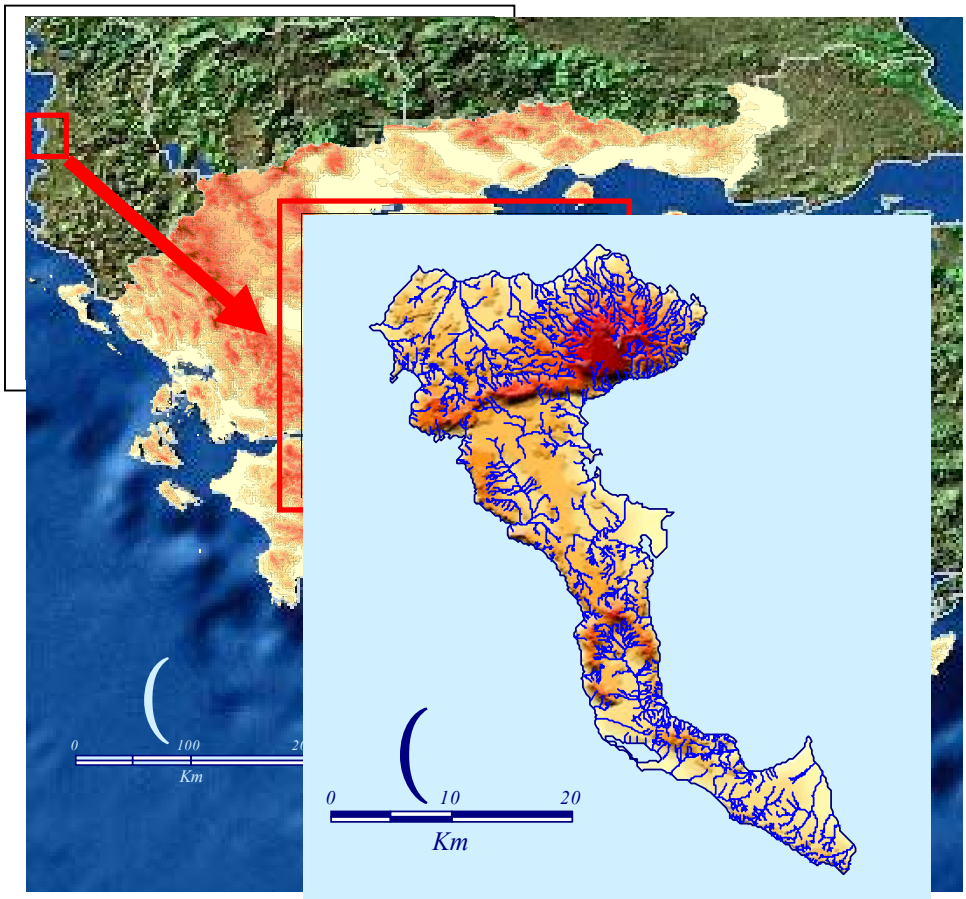
Abstract

Coastal areas are the result at a complex interaction of many factors such as the rock properties, landward geomorphological processes and wave action. We approach these dynamic landscapes using fuzzy sets theory. As input variables we use rock's erodibility, slope gradient, land use and vegetation.

Next we formulate logical fuzzy rules to transform input variables to output one. The output of the system represents the coastal depositional and erosional processes. As a case study we choose the island of Corfu (Greece) which presents lithologies very vulnerable to erosion and receives very high amount of rainfalls, relatively to the rest of Greek territory.
All this procedure has been developed using a flexible GIS platform.



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