An approach using Grass to the analysis of the coastal anthropic impact

Valeria Mancini, Lorenzo Felli, Angela Barbano, Attilio Colagrossi
APAT – Agenzia per la Protezione dell’Ambiente e i Servizi Tecnici
Via Curtatone, 3 – 00185 Roma
attilio.colagrossi@apat.it

Abstract
During the last century the Italian coastal system has been involved in a strong anthropic process (i.e. process of colonization by man of natural habitat, with consequent modification and alteration of the same ones), which remarkably has transformed the natural and environmental characteristics of the territory.

In order to define protection programs and development plans, one of the most important and pressing problems to solve is to analyze the Italian coastal anthropic data.

In this paper an approach to this important problem by using two tools, is presented. The tools are GRASS and Corine Land Cover. The former is the well known open-source GIS; the latter is a cartography of the land containing the information about soil use, obtained as a result of a project by European Commission launched in 1985 and constantly up-to-date.

In particular, the present research considers communes located in an area of Italian coastal ranging 10 km from the coast toward inland, also including those communes partially included in the range. A new layer has then been created identifying for each commune the tipology of soil use.

This work also presents the details of the approach followed, both for what concerns the problems faced with, and to highlight the use of the functionalities provided by GRASS.