

PROJECT NAME	Science and Policy Integration for COastal System Assessment
ACRONYM	SPICOSA
STUDY REGION	-
PRINCIPAL INVESTIGATOR	Dennis Bailly
DURATION	February 1, 2007 - January 31, 2011
PROJECT WEBSITE	Link to project website
LOICZ PROJECT DATABASE	Click here for more project information



PROJECT DESCRIPTION

Spicosa's overall aim is to develop a self-evolving, holistic research approach and support tools for the assessment of policy options for sustainable management through a balanced consideration of the ecological, social and economic aspects of Coastal Zone Systems (Integrated Coastal Zone Management).

Achieving this objective will require a restructuring of the science and methodology needed to understand and to quantify the response of the coastal ecosystems, together with their consequences to their social and economic services, when these ecosystems are subjected to changing environmental and anthropogenic conditions from local to global. It will also demand integration through disciplinary and through geographic, political, and social scales. We are trying to assist Europe in its goal of achieving Sustainable Development by developing and testing a conceptual methodological framework for this transition in coastal zones.

The Spicosa initiative originates from the fact that coastal systems are under increasing human pressure and policy has not been able to respond properly to the resulting negative impacts on ecological, social and economic systems.

As a consequence, we have realized that more innovative effort is needed to treat the coastal zone as an integral functioning system (the CZ System), to focus more on how to provide prognostic information or this integrated system, and to improve the ways in which research information about this is utilized for decision making. The Spicosa working hypothesis is that our present approach to managing our CZ resource needs a much improved, interactive link between the best interests of the natural-resource system and the society that benefits from it. The Project will not conduct a typical field program in coastal zones; instead it will test and perfect its methodology (System Approach Framework, SAF) at various sites in a limited, real-time configuration.

We have chosen eighteen Study Site Applications (SSAs) all over Europe for this purpose. In order that the SAF become an operable tool for both science and policy, it must be applicable to the full range of issues confronting coastal zone management, i.e. we are not producing a researcher- or issue-dependent methodology. Our objective then is to demonstrate the use of the SAF over a wide range of coastal zones that differ in geomorphology, environmental conditions, and human activities.

The group of Coastal Zones (CZ) selected for the SSAs includes all major impacts, has varying types of watersheds, marine environments, and has a wide range of human activities, cultural patterns, and policy priorities. With the application of the SAF to each of these, we will create a significant SSA data set from which we can credibly distinguish those human activities that generate the greatest impacts and those types of CZ systems that are most vulnerable to human activity.

These applications will also allow us to understand which policy controls can be considered as independent of the natural characteristics of a CZ system, which controls need to be made specific to a particular CZ, and to which policy changes are public perceptions most sensitive.

THE PROJECT RELATES TO THE FOLLOWING PRIORITY TOPICS AND SCIENTIFIC THEMES

Priority Topics:

- 1 - Link social and ecological systems in the coastal zone
- 3 - Link governance and science in coastal regions

Scientific Themes:

- 5 - Towards Coastal System Sustainability by Managing Land-Ocean Interactions