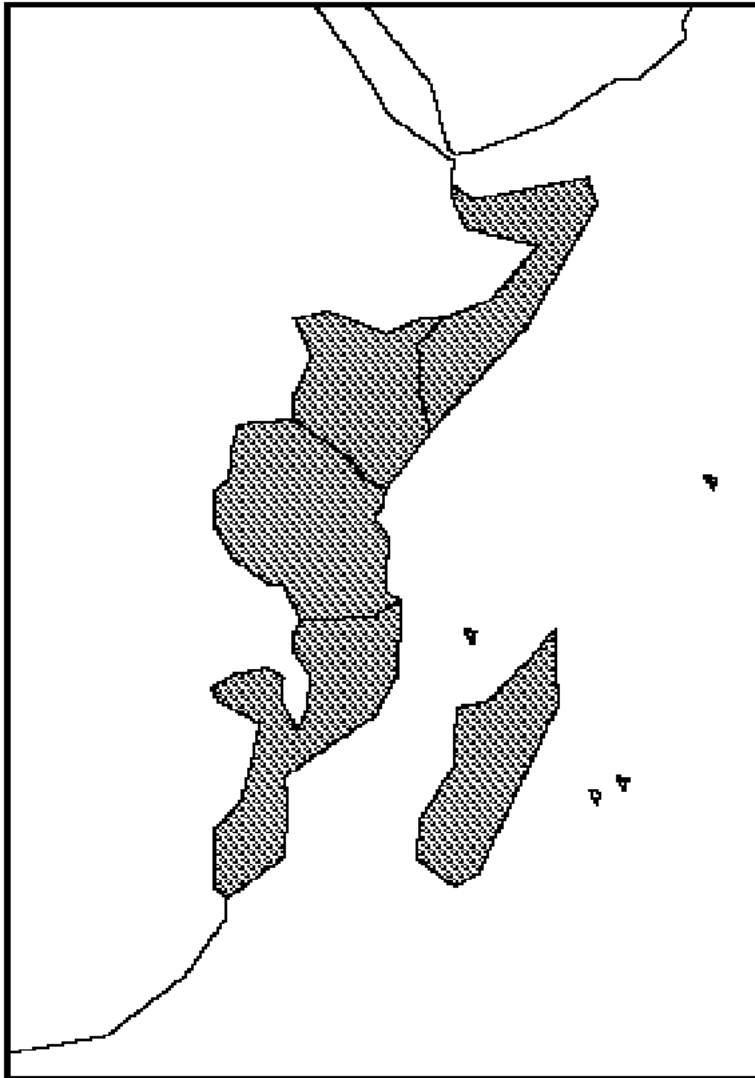


# THE EASTERN AFRICAN COASTAL AND MARINE ENVIRONMENT RESOURCES DATABASE AND ATLAS PROJECT (EAF/14)



*The Eastern African Region*

*The Eastern African Coastal and Marine Environment Resources Database and Atlas (EAF/14) was founded within the framework of the 1985 UNEP-brokered Eastern African Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region. Governments of the Eastern African Region - Comoros, France (La Réunion), Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia and Tanzania are signatories to the Convention, which entered into force in May 1996.*

*The EAF/14 project was initiated in June 1993 by the Water Branch of UNEP and is scheduled to run for five years, up to December 1998. The overall objective of the EAF/14 is to provide decision makers, and the general public alike, with a planning and management tool for developing their coastal resources. Ideally, to achieve a sustainable use of resource, the planning process dictates use of the best available tools to organize information.*

The main task of the EAF/14 project is to collate existing information from institutes, Government departments, agencies and other research bodies on the coastal environment of the Eastern African Region and to summarize the same in country map sheets. National coastal and marine resource maps are printed to the scale of 1:250 000, or at the larger and more detailed scale up to 1:10 000, for small islands nations. Relevant country information is stored in a computer based Geographical Information System (GIS) database located within a designated lead collaborating agency in each country. To effectively accomplish the task of the EAF/14 project, the following seven inter-linked activities, estimated to last for about 18 months, are sequentially undertaken in each country:

- \* Nomination of a Lead Collaborating Agency by UNEP's focal point in each country and the consequent establishment of an In-Country Working Group with expertise on coastal and marine environment under the leadership of an In-Country Coordinator,
- \* Search and collation of existing data and information by the working group from Government departments, institutes, agencies and other research bodies holding information relevant to the coastal and marine ecosystem,
- \* Photo-interpretation of recent satellite images resulting in the preparation of land cover maps where such land cover maps are outdated or missing,
- \* Development of a geo-referenced computer-based coastal resources database from data and information collated,
- \* Coastal ecological survey to remedy gaps identified during the data collation exercise and validation of the satellite-derived land cover maps,
- \* Production of carefully selected resource maps in paper format,
- \* Awareness campaigns through seminars, workshops, newspapers and periodical newsletters on the use and benefits of resource maps and related coastal resources GIS databases.

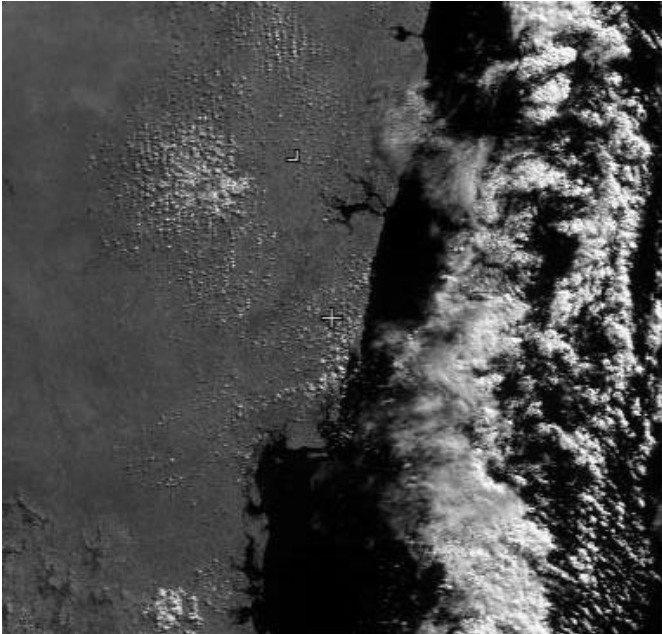
The EAF/14 project is now finalized in Kenya, but is at various stages of implementation in Tanzania, Mozambique, Seychelles, Comoros, Madagascar and Mauritius.

The following are the EAF/14 In-Country Lead Collaborating Agencies.

**KENYA:** Kenya Marine and Fisheries Research Institute (KMFRI), PO Box 81651, Mombasa.

**TANZANIA:** Institute of Marine Sciences (IMS), University of Dar Salaam, PO Box 668, Zanzibar.

**MOZAMBIQUE:** Office of Integrated Coastal Zone Management, Ministry for Coordination of Environmental Affairs, (MCEA), Av. Acordos de Lusaka, 2115 - C.P. 2020, Maputo.



*Landsat TM satellite image scene of the South Coast of Kenya*

**SEYCHELLES:** Division of Environment, Ministry of Foreign Affairs, Planning & Environment, PO Box 445, Victoria, Mahé.

**COMOROS:** Direction Générale de l'Environnement, Ministère du Développement Rural, de la Pêche et de l'Environnement, B.P. 41 Moroni.

**MADAGASCAR:** Office National pour l'Environnement (O.N.E), Ministère de l'Environnement, Antananarivo 101.

**MAURITIUS:** Department of Environment, Ministry of Environment and Quality of Life, 2nd Floor - Ken Lee Tower, Barracks Street - Port Louis.

While the database will meet the current needs of planners and decision-makers from various administrative institutions and specialized agencies in the region, the maps will be of immense benefit to the tourist and hotel industry, the teaching profession, conservationists, village administrators, the yachting fraternity, fishing cooperatives, the general public, and overseas interested persons.

Evidently, resource maps are portable and reliable, appear in a user-friendly format, and provide an organized graphical summary of available information. The maps indicate areas of conflict requiring resolution, provide foresight on likely consequences of specific decisions, indicate gaps in knowledge and information base, and suggest priority areas for research and investigation.

Resource maps act as a guide to recreational opportunities and tourist attractions. When accompanied by a computer-based GIS database, these maps become even better, more useful and more efficient because the mapping software allows regular updating and in-depth analysis.

Detailed information in the database and mapsheets include crucial, important and interesting parameters. Under the physical environment the database extensively covers parameters in climate, hydrology, oceanography and coastal types.

Information on biological resources (including those with a commercial value) feature important ecosystems such as coral assemblages, mangrove systems, wetlands, estuaries, agricultural areas and rangelands. In the database, special focus is directed towards protected, rare and endangered marine and terrestrial species. Information on marine fisheries is a good example of the database on biological resources. The information is treated under various categories e.g. commercial fisheries, subsistence fisheries, big-game fisheries, marine farming, etc. Location and extent of fishing grounds, fishing methods and catch statistics are included. Given that artisanal fishery is maintained by a complex inter-relationship of the diverse flora and fauna of the shallow intertidal waters, integrated approaches using the resource maps will facilitate the conservation and management of coastal biodiversity.

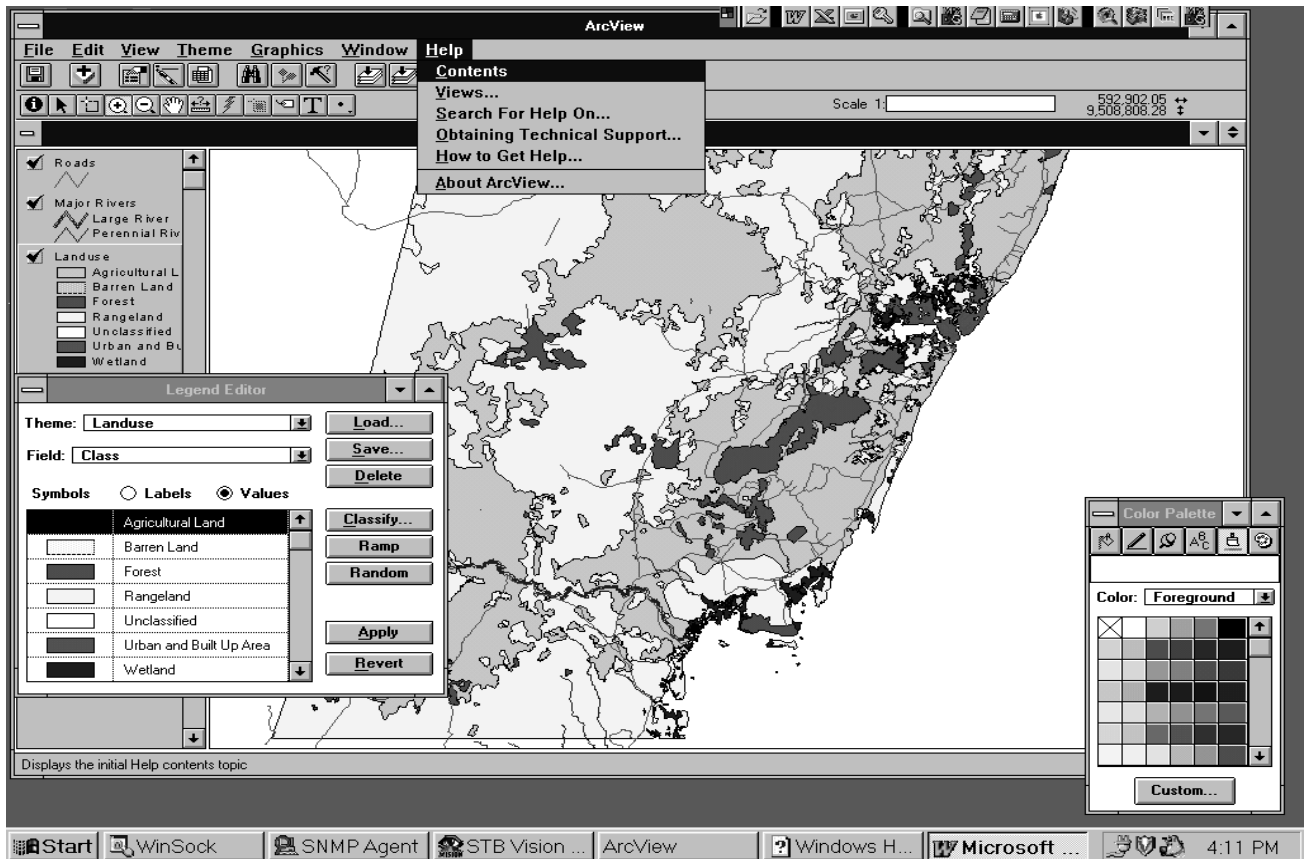
The database and maps also contain information on mineral resources of the coastal region including energy. Impacts on the coastal ecosystem through pollution and over-exploitation of resources are included. Indeed the atlas will be used as a versatile tool in making strategic interventions in cases of oil spills in the marine environment.

The major tourism centres and the location, physical attributes and the tourism potential of cultural resources are covered by the database. There is room for socio-economic activities embracing population density, per capita income, and administration. Economic activities, industries, utilities and marine transport are shown on the maps and database.

The GIS database and resource maps are accompanied by a textbook on resources of the coastal environment in each country discussing their uses and management. The project will distribute about 3000 copies of the textbook and resource maps to Government ministries and departments, academic institutions, libraries, sub-regional and national environmental authorities and the general public. In the final phase of the project, after all national level activities are finalized, the project is devoted to the production of an attractive Coastal Resources Atlas of Eastern Africa.



*Prawn Fishing, Mwachi River - Kenya*



*An example of a user-specified land use map extracted from the EAF/14 GIS database for Kenya. [Land cover derived from photo-interpretation of the satellite image of the previous page].*

For planning purposes, the resource maps developed under the EAF/14 project cover a corridor of about 100 kilometers of the coastal and marine environment. It is envisaged that these coastal resource maps will meet the demands of local policy makers, administrators, planners, developers, environmental resource managers, marine ecologists and the general public for synthesized and harmonized information on the coastal and marine environment. Better planning and sounder-based decisions are made possible by these comprehensive coastal resource maps and related database. UNEP is confident that the increased accessibility to information is an important step towards the wise use and sustainable development of the coastal environment.

The EAF/14 project is funded through a voluntary contribution of the Kingdom of Belgium to the Eastern African Action Plan.

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