Caribbean Marine Atlas Summary

URL: *http://www.caribbeanmarineatlas.net*

Purpose of application

The Caribbean Marine Atlas (CMA) is a joint project of several Caribbean countries aimed at providing high quality geospatial data and related information focused on the marine and coastal zones of states bordering the Caribbean Sea. The purpose of the CMA is to improve regional decision-making in the environmental management sector by providing managers and policy-makers with access to the data, information and tools necessary to make timely, effective and fact-based decisions with regard to environmental stewardship.

Geographic extent

The CMA covers the entire Caribbean Sea, and as a result encompasses the Greater and Lesser Antilles, the Cayman Islands, the Bahamas, Turks and Caicos and the sections of Central, South and North America that border the Caribbean Sea.

Target audience

National agencies, regional agencies, international organizations, researchers, consultants, and interested individuals.

Data included (general categories)

Number of data sets: 15 and growing
Information on:

- Hydrosphere (physical and chemical oceanography)
- Biosphere (habitats, species distribution)
- Atmosphere (hurricanes)
- Geosphere (tectonics, earthquakes)
- Human environment (boundaries, cities and towns, etc)

Distinguishing features

Geographic Data:

- No fees for the download or use of data.
- Majority of the data visible in the atlas is available for download.

Technology used (web GIS, server, database, content management system?)

- **WebGIS:** OpenLayers, GeoServer
- **Database:** PostGIS
- **Server:** IIS Server

Atlas support (financial/institutional)

From its inception, the project has received continuous financial and administrative support from the International Oceanographic Data and Information Exchange (IODE) of the Intergovernmental Oceanographic Commission (IOC). The project has also benefited from counterpart contributions from several national agencies across the Caribbean in terms of the provision of staff to work on aspects of the atlas and the coordination of select training activities.

Challenges encountered
- Sustaining interest in the project
- Loss of participants due to staffing changes
- Obtaining high-level buy in from policy makers
- Sufficient manpower for the design and development of mapping applications
- Constantly changing technology
- Constantly evolving web standards
- Steep learning curve for the programming technologies which allow for web-based mapping
- Difficulty facilitating training for developers quickly
- Broad user base

Lessons learned
- Obtain feedback from potential users at the design phase of the project
- Articulate very clear goals for the project
- Gain support from executive management
- Advocate the benefits of the atlas and coastal atlases in general in local terms to local stakeholders

Future directions (ongoing and future improvements?)
Planned improvements to the Atlas include:
- Upgrading entire website and mapping interface
- Adding additional data layers
- Adding metadata records
- increasing the functionality of the atlas (providing tools)
- updating the existing data layers.