Marine GIS Applications for Integrated Coastal Zone Management

13. Overview of Data Needs, Data Management & Data applications

UNESCO/IOC Project Office for IODE
Ostend, Belgium
26-30 November 2018
Using Coastal Data

• This week we have already seen a wide variety of applications built to suit users in ICZM or MSP situations

• In most cases the data in these applications is just part of a large message that is being communicated

• Every application or tool is built for an audience, and it is critical to understand that audience and their needs
Who is ICAN?

• Members: Over 70 organisations are registered as members of ICAN covering more than 20 countries.

• Duration: ICAN is supporting coastal and marine web atlas developers and users since 2006.

• Support and Recognition: ICAN became a project of UNESCO IOC´s International Oceanographic Data and Information Exchange (IODE) Programme in 2013.

• Website: http://ican.iode.org/
International Coastal Atlas Network

ICAN is a global reference for the development of Coastal Web Atlases (CWAs)

What is a Coastal Web Atlas?
“A collection of digital maps and datasets with supplementary tables, illustrations, and information that systematically illustrate the coast, oftentimes with cartographic and decision support tools, all of which are accessible via the Internet.” (O’Dea et al., 2007)
ICAN members develop their atlases at a range of scales and ICAN CWAs can cover areas of different sizes e.g. local, national, regional or even continental.
ICAN Objectives

- Have Global Representation
- Inform Technical & Policy Guidelines
- Improve Interoperability
- Undertake Collaborative Activities
- Align Atlas Efforts
- Provide Technical Support
- Active Stakeholder Engagement
- Contribute to technical capacity building

North Carolina Coastal Atlas, USA
ICAN Activities

- Bi-annual ICAN workshops are the premier networking events for ICAN and involve on average 25-40 participants from member organisations and other interested individuals.

- Training within workshops, specific training events, researcher placements and lectures in other courses such as the OTGA training courses.

- ICAN publications include the peer reviewed ICAN – Book “Coastal Informatics”, ICAN Newsletters, ICAN workshop reports, and ICAN Technical Cookbooks.

- The ICAN CWA User Interaction Guide, compiles best practice in user interaction based on ICAN members experience.
Building Atlases

- ICAN members have collaborated on several helpful reference publications

- Select chapters are available online via OceanDocs: https://www.oceandocs.org/bitstream/handle/1834/6671/ICAN_Handbook.pdf

- Other chapters available on request to ICAN
Building Atlases

- Coastal Web Atlas Features
- Coastal Web Atlas Implementation
- Coastal Atlas Interoperability
- Atlas Case Studies
  - Ireland
  - Oregon
  - Virginia & Maryland
  - Wisconsin
  - Belgium
  - Africa
  - Caribbean
  - UK
  - Spain
- Coastal Atlases and SDIs
- Creating a Useable Atlas
- Improving a Growing Atlas
- Supporting a Successful Atlas
Working with Users

- ICAN has produced a best practices guide for working with users
- Contains lots of helpful information for understanding user needs and then designing your application to meet those needs
- Available via OceanDocs: [http://hdl.handle.net/1834/9579](http://hdl.handle.net/1834/9579)
Working with Users

This handbook was compiled by gathering information from ten atlas developers as well as extracting relevant information from ICAN workshop reports.

The information is summarised and analysed leading to two sets of recommendations, one focused on the development of new atlases and the other focused on how to maintain interactions with audiences of already developed atlases.
Think about the Story

Coastal Atlases have always had curated maps, and related coastal data and information products.

More recently ICAN members have been experimenting with tools from online journalism to enhance the stories that atlases can tell.

A recent workshop in Columbia contained an excellent overview of some of the tools available:

https://classroom.oceanteacher.org/pluginfile.php/15174/mod_resource/content/1/13_HART_HADDAD.pdf

http://projects.propublica.org/louisiana/
Finding the correct tools

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Connecting the dots

A rich Atlas experience is often not just about data displayed on maps.

Can you connect other information to the map in addition to the data?

For example, consider linking:

- Text information
- Scientific references
- Photographs
- Metadata
- Service links
- Data Downloads

Always think of the User
Thank you!

Please contact us with any questions, or if you think ICAN be helpful to your projects!

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