Annex: The International Coastal Atlas Network (ICAN)

Aims and Objectives
The International Coastal Atlas Network (ICAN) is an informal group of organizations and professionals that have been meeting since 2006 to scope and implement data interoperability approaches to coastal web atlases (CWAs). The strategic aim of ICAN is to share knowledge and experience among atlas developers in order to find common solutions for coastal web atlas development whilst ensuring maximum relevance and added value for the users. These atlases can be local, regional, national and international in scale. As interactive Internet resources they are of particular value in respect to coastal management decision making. This is a mutually beneficial international activity with complementary strengths in evidence among the currently more than 50 ICAN participating organisations.

The long-term objective is for global-level operational interoperability which will evolve as the ICAN community strives to increase awareness of the opportunities that exist for increased coastal and marine data sharing among policy makers and resource managers as strategic users of a CWA. ICAN participants seek to play a leadership role in forging international collaborations of value to the participating nations, thereby optimizing regional governance in coastal zone management. A major goal is to help build a functioning digital atlas of the worldwide coast based on the principle of shared, distributed information.

In order to reach this goal ICAN has the following objectives:

- Ensure that ICAN has representation from coastal web atlas development and user groups from across the globe.
- Develop technical and policy guidelines to assist coastal web atlas developers in acquiring data and engaging with data providers. Accordingly, collate and publish a set of ‘best practise’ guidelines for the development of coastal web atlases.
- Highlight the benefits of interoperability and standards based systems to the coastal atlas development communities and the potential users of CWAs.
- Develop collaborative projects for the sharing of know-how, implementation of technical solutions and demonstration of atlas benefits to users.
- Align the atlas efforts of the Network partners to facilitate interoperability.
- Engage with other relevant international projects and developments.
- Involve representatives of the relevant user communities to help in tailoring coastal web atlases to their needs.

Accomplishments to Date
IN 2006 and 2007 two workshops were held in Ireland and the United States respectively to discuss issues around development and use of coastal web atlases. Out of these workshops emerged the idea for an International Coastal Atlas Network. This informal network has since captured the interest of local and state governments, non-governmental organizations, universities and internationally well-known organisations such as the National Oceanic and Atmospheric Administration (NOAA) in the United States, the European Environment Agency (EEA) and UNESCO’s Intergovernmental Oceanographic Commission. ICAN has thus far proven to be an organic, highly motivated, productive group that is capable of generating tangible, useful products that are attractive and helpful to users. These products to date include a working atlas interoperability prototype, a peer-reviewed handbook on coastal web atlas design and
implementation (published in 2010 by IGI-Global Publishers), scores of technical articles and mini-workshop materials, and a comprehensive web site.

Following the initial workshops, further international workshops were hosted by the European Environment Agency in Copenhagen (2008), UNESCO’s International Centre for Theoretical Physics Trieste (2009) and UNESCO’S IODE Project office, Oostende (2011). Proceedings have been published from these workshops. Moreover, ICAN participants have contributed to a number of training events both at Oostende and in the regions for the Caribbean Marine Atlas and the African Marine Atlas, and software developed by one European ICAN organisation is being re-used in the national atlas development within the African Marine Atlas project.

ICAN as an IOC project

IODE already recognises the benefits of ICAN and has supported its activities to date. As an IOC project, ICAN can share its knowledge and aid capacity building among IOC members in relation to approaches for the exchange of coastal and marine data and information. Moreover it can assist with promoting the implementation of international data standards in regard to coastal and marine data management and exchange. ICAN can enhance networking among members to spread best practise, in the first instance within the AMA and CMA, but in the future to other IODE related initiatives. ICAN can also continue to contribute and enhance its role in IODE training initiatives. The network can furthermore contribute open source software for atlas development, once appropriate agreements on re-use are in place. ICAN can assist IOC members in accessing appropriate data and information to enhance decision making in regard to management of the global coasts at local, regional, national and transnational levels.

The current ICAN governance model consists of a Steering Group, which provides strategic direction, and a Management Working Group responsible for the day-to-day operation of the network. There is also a Technical Working Group that advances a range of technical activities, including standards and prototype development. There is a need to formalise ICAN governance and establish it on a more long-term and sustainable footing. As a project under IOC auspices, we believe that ICAN would have a stronger international profile and greater visibility. Moreover ICAN would be in a better position to seek support from a range of international funding programmes and to participate as a partner within other relevant projects. Should ICAN become an IOC project, we propose that the initial project Steering Group should include current members of the ICAN Steering and Management Working Groups, who all serve today on a volunteer basis.

An emerging area of interest for ICAN is coastal and marine spatial planning (CMSP) and we believe that coastal web atlases have a significant role to play in answering the data requirement and management needs for CMSP. ICAN also sees its activities as complementary to the IOC Integrated Coastal Area Management (ICAM) programme and believes that as an IOC project it could forge mutually beneficial links with ICAM.

ICAN has achieved much in the six years since its initial conception. We believe that it is now the appropriate time to build on this and formalise ICAN within an intergovernmental structure from where it can continue to lead in regard to development and use of coastal web atlases.

Current web site: http://ican.science.oregonstate.edu/en/home