

Proposed Frameworks and Typology of coastal and Marine Systems to Improve International Information Exchange Among Integrated Coastal Management Efforts

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Over the last 18 months a project entitled, Baseline 2000 (or B2K), has been sponsored by Canadian and U.S. institutions to assess the status of ICM as an international practice. Baseline 2000 is built on seven organizing frameworks. Each of the frameworks is designed to facilitate and improve international information exchange (IIE) among ICM efforts. One of the seven frameworks is a global database of ICM efforts. At this moment, the database has identified 447 efforts. Distinction is made between efforts at the national or sub-national scale (e.g. state, province or prefecture) and those that cover an international region. The latter are, for the most part, regional seas type efforts (e.g. Baltic Sea or Caribbean Sea). Two hundred nations have been involved (often as token representatives) in the 41 efforts covering international regions. At present, the database indicates that 95 nations and semi-sovereign states are now engaged – or have been engaged – in 406 ICM efforts at the national and/or sub-national scales. One of the more remarkable of the many findings that flow from the database is that 144 efforts (33% of the total number of efforts at the national and sub-national levels) are focused on bays, estuaries, or lagoons.

A major conclusion of the B2K project is that one of the best means to improve the efficiency and effectiveness of IIE is to cluster ICM efforts into groups which have a similar set of motivating issues (e.g. alteration of salinities in estuaries, or wetland loss in deltas from sediment starvation). It is to be expected that coastal systems which have similar geographic characteristics (e.g. landform, geomorphology, hydrology, ecosystems, and levels and types of development) will have a similar set of issues that have, or should, motivate the initiation of an ICM effort.

The main proposition of the paper is that ICM should have at least two types of IIE networks. One network should connect all the world's efforts. There also should be networks the connect each type of coastal/marine system that has both a common set of geographic characteristics and a common set of issues that should – or have – motivated the creation of an ICM effort. The B2K Project indicates IIE networks have – or should be - created for: enclosed coastal seas (e.g. Red Sea), continental currents (e.g. Benguela Current), enclosed non-estuarine bays, estuaries, international lakes (e.g. Lake Victoria), large deltas (e.g. Mekong), small island states (e.g. Barbados), and large coral systems (i.e. a complex of atolls, lagoons and reefs). Separating the large and unwieldy number of ICM efforts for estuaries and enclosed bays into two subsets, urbanized and non-urbanized, is recommended. There is a significant difference in the set of motivating issues associated with each of these subsets.