

Published on Marine Ecosystems and Management (MEAM) (https://meam.openchannels.org)

EBM Toolbox: Calling all MSP tool developers! How MSP tools are being used around the world and remaining gaps in tool functionality

Thirty-four different decision support tools are being used in 28 different marine spatial planning (MSP) initiatives around the world - that's what a recent paper published in Marine Policy ("Decision support tools in marine spatial planning: Present applications, gaps and future perspectives") found from a review of MSP initiatives in the <u>UNESCO MSP reference list</u>. This work adds to and updates previous research on MSP tools including a <u>guide for selecting appropriate tools</u> and a global survey of MSP practitioners (see here, here, here, here, <a href="here, here, <a href="here, here, <a href="here, <a href="here</a

Some highlights from the paper:

TOOLS THAT ARE BEING USED: The tools being used most often are Marxan (9 uses); SeaSketch (8 uses cited in paper*); Aries and Marxan with Zones (4 uses each); and Adriplan Data Portal, Atlantis, InVEST, MapViewer, Marine Management Atlas, Marine Planning Evidence Portal, MSP Challenge simulation game, and SISAQUA (3 uses each).

HOW TOOLS ARE (AND AREN'T) BEING USED: Tools are primarily being used for gathering data and defining the current situation; identifying issues, constraints, and future conditions; and developing alternative management actions.

Relatively few processes are using tools for the earlier stage of defining goals and objectives or the later stages of evaluating alternative management actions; monitoring and evaluating actual management actions; and refining goals, objectives, and management actions.

GAPS IN TOOL FUNCTIONALITY: Authors found that the main gaps in tool functionality are that individual tools have limited functionality, are often unstable, do not necessarily consider economic and social decision problems, are difficult to use, and cost more than practitioners can pay. [The authors did acknowledge, though, that creating multifunctional tools might be at cross-purposes with providing easy-to-use and inexpensive tools!]

MOST SURPRISING RESULT: According to three of the paper's authors (Kemal Pınarbaşı, Ibon Galparsoro, and Angel Borja of AZTI), what really surprised them was "how few DSTs [are] applied in real MSP processes. Although there are dozens of tools for MSP in scientific papers and tool databases, there is little direct evidence of their use by authorities and planners. This made us wonder about the demand side of the equation, and we are currently trying to get perspectives of potential and actual tool users through this survey."

WHERE TOOLS ARE BEING USED: When asked where tools are being used, the authors responded that that MSP processes based in the United States tended to apply tools more frequently than European and Asian MSP processes. One particular highlight for tool use was the Massachusetts Ocean Management Plan, which produced and used online tools such for data management and GIS based visualization.

The paper can be accessed here and a matrix of which tools were used in which MSP processes can be accessed here.

* Update as of 03 October, 2017: The SeaSketch developers have conveyed to MEAM that some of the information about SeaSketch usage in the matrix is incorrect, and they are currently working with the authors of the paper on an update.

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