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Retrospective: Experts see progress on EBM but warn of risk of “all planning but little action”

In the [first issue of MEAM](#) in September 2007, we asked several leading practitioners in marine conservation and management for their views on the challenges facing the field of ecosystem-based management (EBM). Eight years later, as the newsletter readies its first significant change in format (“The future of MEAM”, above), we thought it would be fitting to catch up with these practitioners to see what progress, if any, the EBM field has seen since 2007 in their view.

The experts agreed: progress has been made in many areas, including in the management of nearshore systems, in intersectoral planning, and in the development of planning tools. However, that progress is not universal, and actual implementation of EBM lags far behind its planning. Their insights are below.

A. EBM: Still merely a buzzword?

Editor's note: Tundi Agardy is executive director of Sound Seas, a US-based NGO that advises on ocean planning and management issues worldwide. Email: tundiagardy@earthlink.net

MEAM: In 2007, you told us, “In most cases, EBM is merely a buzzword - and it hasn't moved too far beyond the state we were in 15 years ago, when I remarked that ecosystem management was like the joke that everybody laughs at but nobody really gets....” That's pretty depressing. Do you still feel that EBM is just a buzzword?

Tundi Agardy: I think there is no doubt that we've made progress toward integrated EBM in many areas around the world. It is anyone's guess whether this is attributable to EBM theory and training, or whether it is the logical and inevitable progression of coastal zone management taking on more with each successful attempt to manage across various sectors. But it is interesting and instructive to look at where success is apparent - it does seem like EBM is better achieved the closer one gets to shore. There are few practical examples of EBM in pelagic systems and even fewer in wider systems that couple nearshore and pelagic. And - perhaps paradoxically - EBM seems more operationalized in developing country settings with local management than at large scales in developed countries. This is despite the enormous amount of rhetoric that developed country governments offer on the need for EBM.

MEAM: Also back in 2007, you said scaling up management to scales appropriate to vast, interconnected systems was one of the biggest challenges for implementing EBM. Have you seen any broad-scale success in scaling up management in recent years?

Agardy: Here I think it's fair to say that the watershed management folks are far and away ahead in both their thinking and execution of EBM. Sadly, scaling up EBM requires two sorts of broadening: 1) the geographical scaling up that links management of coastal ecosystems to inland land and water use, on the one hand, and offshore marine use on the other, and 2) the incorporation of more and more uses or sectors into the planning schemes and ultimately the management of marine areas. For the time being, even the geographically large EBM initiatives have shied away from tackling some of the thornier use issues (especially fisheries) and have not done a terribly good job in addressing threats from afar, such as riverine-borne pollution that threatens marine ecosystem health and functioning. And even in places where the mantra of EBM or EA (Ecosystem Approach) is accepted dogma, management ends up being more like a collection of sectoral management, all rolled into one pot called integrated management, than actual holistic, cross-sectoral, and truly integrated management.

Take the European Union, for example, which has required countries to align their management to target conditions under eleven environmental descriptors, each of which relates to impacts from one or more uses of the marine environment. The Marine Strategy Framework Directive (MSFD) has not indicated how management that achieves targets for each descriptor could be linked. And furthermore, since fisheries management falls under the Common Fisheries Policy and not under the MSFD Directive, a major pressure on ecosystems and a driver of ecosystem condition cannot be addressed through this new integrated, supposedly EBM approach.

MEAM: Any words of warning or advice for EBM practitioners for the future?

Agardy: It is probably a function of human nature and a result of the way funds flow to management, but in my mind we have embarked on a dangerous course of accepting the EBM rhetoric, paying homage to it through planning, and then doing very little that diverges from business-as-usual when it comes to management. Take marine spatial planning (MSP), for example - something most of us feel is the most practical embodiment of EBM that exists to date. If one were to add up the time or money spent on planning effective, integrated management through MSP initiatives, and then compare that to the time and money spent on putting those plans into practice, I think we would see a very front-loaded and - dare I say it - delusional investment of resources in EBM. It makes me harken back to a time when we didn't have all this EBM jargon: managers managed to succeed - albeit on a small scale - in collaborating to establish common goals and then worked cooperatively towards those goals.

But the optimist in me also realizes MSP is a nascent enterprise. Perhaps with trial and error, MSP will come to demonstrate how EBM might be done in practice, not just in theory. It would be great to ask this question again in a decade, and see just how far we'd come from these cynical times of today!

B. EBM: Continued progress at a slow pace?

Editor's note: Ussif Rashid Sumaila is professor of Ocean and Fisheries Economics at the University of British Columbia, Canada. Email: r.sumaila@fisheries.ubc.ca

MEAM: In 2007, you told us, “EBM is still in the conceptualization, modeling, and experimentation stage.... Progress is being made, but only slowly.” Have you seen substantial progress in implementing EBM in recent years?

Rashid Sumaila: In terms of the development of tools that would help increase the application of EBM, yes, I think there has been significant progress. In the last eight years, we have seen the further development of ecosystem modeling tools such as Ecopath-Ecosim-Ecospace and Marxan. We have also seen progress in terms of integrating human dimensions into modeling and ecosystem economic valuation frameworks that until now have been more about the biophysical side of EBM. A particular effort that comes to mind here is the work of The Economics of Ecosystems and Biodiversity, or TEEB, initiative (www.teebweb.org). Finally, the use of indicators to capture the spirit of EBM has increased.

MEAM: You also said, "To know EBM has been successful, I will need to see joint management institutions put in place by countries sharing a given ecosystem."

Sumaila: There has been some progress there. For example, the Benguela Current Large Marine Ecosystem and ecosystems in the Caribbean are increasingly being managed jointly (at least to some degree) by multinational management bodies. It is probably true that there is hardly any fisheries management authority today that manages fisheries without giving some consideration for ecosystem effects.

MEAM: Any words of warning or advice for EBM practitioners for the future?

Sumaila: I think the biggest challenge to achieving EBM is the difficulty in moving it past a point where EBM can practically and cost-effectively be implemented by management authorities around the world.

C. EBM: A policy puzzle adrift in outer space?

Editor's note: Jeff Ardron was a senior fellow at the Institute for Advanced Sustainability Studies in Germany. He has just moved to London to serve as an adviser on ocean governance for the Commonwealth Secretariat. Email: jeff.ardron@gmail.com

MEAM: In 2007 you presented three "riddles" pertaining to the future of good EBM practice. (One such riddle, for example, was "Can the implementation gap be closed or do we require a re-thinking of what is necessary?") Then you proposed answers to them. Were you right?

Jeff Ardron: Looking over that article, I am struck by how timeless it has all become. The insights from then still stand now, more or less. It is as if the doors on the time machine/space ship got jammed and we are all looking out at the world changing around us - while inside, things remain eerily the same. Kind of a "hitchhiker's guide to the universe of marine policy", and conservation policy more generally. [Editor's note: "A hitchhiker's guide" refers to The Hitchhiker's Guide to the Galaxy, a science fiction radio comedy series created by Douglas Adams in the late 1970s and later adapted to books and other formats.]

Let's look at the riddles I posed and their proposed answers together:

1) Riddle: How can we reconcile the priorities of specialists (e.g., biologists) with those of generalists (e.g., ecologists) who presumably are the advocates of EBM?

Back then, I suggested the answer could be "...that specialist funding is preferentially given to research that can aid in addressing EBM questions..." And, weirdly enough, this has more or less come to pass. We now see much more funding for cross-disciplinary projects, research networks, and policy-oriented questioning. In the US, for example, forage fish became a research topic after it was begrudgingly accepted that other critters ate them, too - even critters without fins or commercial value. (Well, OK, the ones with fins and commercial value still get more attention.)

2) Riddle: Can traditional incremental improvement apply a new paradigm such as EBM?

I answered with "...a qualified yes, given that a multi-departmental approach can be achieved as an intermediate step (i.e., fisheries and environment directorates must begin working together) - and, if this is not possible, then more dramatic institutional restructuring may be called for." Lo and behold, last year the European Directorates for Fisheries and Environment, after years of not cooperating, were placed together under one Commissioner! They might have to get along better now.... Incremental improvement means baby steps, and these babies are appearing everywhere. Even in Canada, a country with an increasingly oiled environmental reputation, we are seeing some signs of better inter-governmental federal/provincial/First Nations cooperation in marine planning in the province of British Columbia.

3) Riddle: Can the implementation gap be closed or do we require a rethinking of what is necessary?

Back then I said, "I believe much simpler approaches are possible and just as likely, if not more so, to be successful." On this last point, the results are not yet in. In Europe, scientists and policy wonks are getting to know one another as they struggle together to meet the requirements of the Marine Strategy Framework Directive ("the most important piece of marine legislation that you have never heard of") - which was passed shortly after MEAM's first issue came out. Whether simple meaningful indicators can be devised, or whether the whole thing sinks into a Euro-bureaucratic quagmire, is still not entirely clear. But at least they are trying to do what many others only talk about.

MEAM: Any words of warning or advice for EBM practitioners for the future?

Ardron: No more long leisurely discussions drifting across a dark marine policy universe. I hear the sounds of pick axes, diggers, and jolly singing dwarfs (Hi ho! Hi ho! It is off to the deep sea we go...). No one said this was going to be easy. Now would be a good time to step out of the time machine and embrace the work in all its contradictions.

Editor's note: Francisco Arreguin-Sanchez, director of the Center of Interdisciplinary Marine Sciences at the Polytechnic Institute in La Paz, Mexico, was also interviewed for the September 2007 issue of MEAM but was unable to participate in an interview for this edition by the publication deadline.

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