Managing Trade-offs: Viewpoints from the Negotiation Table

The essence of natural resource management is making decisions about trade-offs. At the most basic level, there are the trade-offs between managing for short-term benefits now or foregoing them for greater benefits later. Then there are trade-offs between different types of benefit: the benefits from trawling in a particular bay, for example, versus the benefits from laying an underwater cable there.

One lesson from humankind's use of the oceans is that the services provided to us by these ecosystems are finite: often the demand for benefits from ocean resources exceeds their sustainable supply. There is a maximum amount of fish an ecosystem can supply for human consumption, for instance. Or there is a particular amount of space a wind farm can take up before it impacts local fisheries. This means that trade-offs need to be made among different services, including the requirements for sustainability of the ecosystem itself.

How best to evaluate trade-offs is a challenging question. Clear, relevant, and well-presented information is essential - on ecology and economics, on threats and impacts, on the consequences of various potential policies. Software tools can help analyze these factors.

Ultimately, however, it comes down to individuals. What incentives and disincentives do they face? And what is their willingness, and opportunity, to compromise? In this issue, MEAM asks several people with experience in trade-off negotiations, or who have advised such processes, for their views: what lessons they have learned, and what tips they have for others entering such negotiations. To aid comparison, they each draw lessons from the fisheries management realm.

[Editor's note: Nic Gibbs is the owner of Fathom Consulting Ltd. based in New Zealand. She has provided policy advice from the fishing industry perspective for multiple trade-off negotiation processes - from MPA planning, to catch allocation, to space allocation between fishing and other industries, and more. Kevin Stokes is owner of stokes.net.nz Ltd., a consulting firm, and previously served as chair of the New Zealand National Rock Lobster Management Group from 2001-2009, as well as in various roles in government and industry. Gibbs and Stokes are also partners in Shoal Ltd., a new collaborative group with a focus on marine-related policy, business, and science.]

A. Negotiate only with those who have something to bring to the table

By Nic Gibbs (nici@fathom.net.nz) and Kevin Stokes (kevin@stokes.net.nz)

On the roles of government in trade-off negotiations

Gibbs: Where the allocation tradeoffs are made between two commercial users of ocean resources (such as government and industry), government should not be involved in the negotiations. Instead, the appropriate role of government is to put in place the legislative framework (including any necessary environmental bottom lines) that enables the parties to reach an efficient and agreed allocation themselves.

Where allocation tradeoffs are required between commercial and non-commercial users, government should seek to maximize direct involvement of the affected parties and minimize its own role. Inappropriate government intervention (e.g., intervention that is perceived to favor one party over another) is the simplest way of destroying trust and reducing any opportunity for an enduring solution.

Stokes: I would add that many parties are not experienced in negotiations, and there is a potential role for government to help parties understand negotiation processes and perhaps to frame positions and identify bottom lines. To the extent that it is helpful, government could play a useful facilitation role, helping to expose bargaining ranges and looking for suggestions to expand the benefits of compromise.

On tips for multi-party allocation processes

Gibbs: Multi-party allocation processes should: (1) involve negotiators with a clear mandate to represent the parties on whose behalf they are acting; (2) have a simple, agreed objective; (3) have access to "neutral" scientific advice (i.e., science providers should play a technical role in the process rather than advocate for a particular outcome); (4) occur within the context of a rational policy framework, supported by appropriate policy guidance; (5) have an agreed set of ground rules at the start - e.g., how to deal with dissenting views, dispute resolution, meeting protocol, etc.; (6) have a timeframe and end point; and (7) lead to a transparent decision-making process (for example, it is no good having a stakeholder negotiation that then goes into the "black hole" of government only for an entirely different decision to emerge, or for no decision to be made).

Government-run negotiation processes should be designed to remove any incentives for parties to "opt out" and seek to run an "end game" directly with government rather than deal directly with other users. For example, any party that withdraws from the process and seeks to lobby the government should be rebuffed. Government should also avoid changing the rules or the goal posts during a negotiation process.

Stokes: I agree wholeheartedly. Many jurisdictions have clear legislation and policies on consultation but it is often hard to believe that consultation is carried out with an open mind and in good faith due to constant examples of late-run influences or clear political moving of goal posts during processes. I would recommend the use of neutral facilitators for negotiations: too often, governments are parties to negotiations, run the negotiations and control the advisory processes. This does not engender confidence.

Gibbs: Most importantly, do not pretend that a resource allocation decision is a negotiation if it is not. For example, three years ago a new NZ government asked the inshore fishing industry to give up large areas of coastal waters as exclusive "recreational fishing havens". The industry was prepared to discuss this, but only in the context of a true negotiation (i.e., if the industry were able to obtain some government undertakings in return for loss of spatial access – for example, a requirement for recreational catch to be...
On negotiation advice for stakeholders

Gibbs:
- Negotiate only with those who have an ability to commit to negotiated outcomes: i.e., mandated representatives who are capable of binding their constituents to agreed outcomes.
- Negotiate only with those who have something to bring to the table (i.e., those who are prepared to "give" rather than just take).
- Where possible, negotiate directly with other affected parties and present an agreed solution to government.
- Use the best available information, and seek agreement on the quality of available information (e.g., identify any uncertainty, etc.).

[Editor's note: In March 2012, private negotiations between bottom trawl fishermen and environmental groups in British Columbia, Canada, reached a breakthrough agreement. The pact, designed to protect certain seafloor habitats from trawl gear, effectively ended years of disagreement between industry and environmentalists. It also required trade-offs from both sides. Here Scott Wallace of the David Suzuki Foundation and Bruce Turris of the Canadian Groundfish Research and Conservation Society (CGRCS), an industry group, discuss the negotiation process and the compromises each side made. (In the negotiations, the CGRCS was assisted on the industry side by the Deep Sea Trawlers Association; on the environmental side, the David Suzuki Foundation was assisted by Living Oceans Society.)]

B. How bottom trawlers and environmentalists found common ground

By Scott Wallace (swallace@davidsuzuki.org) and Bruce Turris (bruce_turris@telus.net)

On the negotiation process

Wallace: This collaboration was focused on the common goal of making sure the industry was not impacting highly sensitive habitats for deepwater corals and sponges, as well as systems deeper than 600 meters characterized by slow growth and low productivity. We used the Monterey Bay Aquarium's Seafood Watch methodology (http://bit.ly/SeafoodWatchcriteria) as the common objective. The goal was to demonstrate that the British Columbia bottom trawl fishery was no longer operating as a "red" fishery (to be avoided by consumers) under the Seafood Watch's habitat criterion. To get to that, we sat down and developed measures that we thought could achieve this end goal.

The first measure was to define the boundary of where the fishery could operate. This was to ensure that no further expansion could ever take place, as science shows that the bulk of the damage occurs with the first few passes of a bottom trawl. To operationalize the boundary we removed "low effort areas" as this allowed for the most important areas for trawling to be identified. This fishery has had 100% observer coverage for over 15 years so the data are very good.

We then took these boundaries and compared them to various ecosystem layers because we had a mutual goal (as guided by the Seafood Watch criteria) of having no more than 50% of any habitat type within the boundaries. This process involved a lot of negotiation. Ultimately we could not reach the 50% threshold on all 200 ecosystem types we identified, so conservation organizations compromised a little here. However, industry also gave up some large amounts of previously fished area to make this threshold for several of the ecosystem types, particularly the deep sea. In addition, some known areas of highly sensitive habitat were also removed from the boundaries at this stage.

Within the defined boundaries we knew there would still be areas of sensitive habitat types (for coral and sponges). If we had waited for government to identify these areas, it could take decades. We developed a highly restrictive individual bycatch quota to essentially put the onus on industry to avoid coral and sponge areas. If a vessel exceeds its individual bycatch quota, it is either taken off the water or it needs to purchase quota from other vessels. However, given that the quota is so low, no one will readily give up their quota. This Habitat Conservation Bycatch Limit will essentially provide a tow-by-tow incentive to change behavior.

On the trade-offs each side made

Turris: The industry had to give up current fishing ground to protect corals and sponges and to protect a percentage of different substrate types by depth strata. We also surrendered the opportunity to bottom-trawl historical fishing ground not fished since 1996, and the opportunity to bottom-trawl new ground outside of the footprint. And we gave up unrestricted catches of coral and sponges within traditional bottom-trawl fishing locations. Furthermore, industry allowed the environmental community to have meaningful input into the management of the groundfish bottom trawl fishery.

In return, the environmental community has to work cooperatively with the groundfish trawling industry on achieving recognition in the market for improved management measures. These measures will help to ensure the sustainability of the groundfish resources and the ecosystem. The environmental community has also agreed to refrain from publicly criticizing the British Columbia groundfish bottom trawl fishery regarding habitat issues addressed in the agreement. Rather, issues are to be addressed through a newly established Habitat Review Committee that includes industry, the environmental community, and the federal Department of Fisheries and Oceans.

On advice for trade-off negotiations elsewhere

Turris: Keep the big picture in sight, and find stepwise solutions that move you in the right direction. Compromising generally results in shared benefits and constructive change. It moves you closer to your goals and objectives, and makes future change more realistic and achievable.

Wallace: The main tip to others is to have a clear set of mutually agreed-to conservation objectives. If this is in place, then the solution can be flexible, creative, and innovative.

[For more information on the agreement, go to www.livingoceans.org/media/releases/ocean-ecosystems/environmentalists-and-bottom-trawl-industry-deve]

[Editor's note: Kevern Cochrane is a consultant on fisheries and sustainable development, based in Cape Town, South Africa. Previously at FAO he served as director of the Resources Use and Conservation Division, in the Fisheries and Aquaculture Department. Over the course of his career, he has engaged in processes worldwide involving many types and scales of trade-offs, usually in the role of providing scientific advice to facilitate planning and decision-making.]

C. The drive for trade-offs should come from stakeholders themselves

By Kevern Cochrane (kevern.cochrane@gmail.com)

On convincing stakeholders to accept trade-offs

The need for making trade-offs - or compromises - and the drive to do so ideally should come from the stakeholders themselves. In most cases the conflict predates the search for a solution, whether between short- and long-term interests of a single user or competition between different stakeholders. As a result, the stakeholders will often already know that they have a problem and will be looking for a solution before the government negotiator brings them together. They will recognize that compromise will be necessary, even if they choose to adopt an apparently short-sighted and intransient position at the start of the negotiations.

In contrast, government negotiators are already in trouble if they have to convince stakeholders that there is a problem and they must make trade-offs. Unless the stakeholders are aware of the problem - and that they are part of both the problem and the solution - successfully negotiating a voluntary agreement is very unlikely, no matter how good the scientific advice or the decision-making tools that are thrown at the problem.
A good, albeit unfortunate, example of this is the ongoing discussions between CITES Parties on criteria for listing commercially-exploited aquatic species on the CITES Appendices. The conflict here is between two groups of countries that can be summarized, with some oversimplification, as:

- Those that see a CITES listing as being an important conservation symbol, a means of raising awareness, and a core component of fixing the problems being experienced in managing many fisheries for species involved in international trade; and
- Those that hold the view that a listing would not strengthen fisheries management and that CITES has no place, or at most a very restricted place, in fisheries management. (This is not least because of concerns about the difficulty of getting agreement to remove a species from an Appendix once it has been imposed, even when the species has recovered.)

Experience over the last eight years suggests that both groups see the status quo, which is effectively an impasse, as suiting their own goals better than any compromise approach. Their views are reinforced by a very low level of trust between the two groups. Therefore at present there seems to be little hope of finding a solution that would enable CITES to be used effectively for species and fisheries where it could play a useful role, although I would like to be proven wrong on this view.

Fortunately, I have also experienced many more positive cases that have ended with improved management to meet multiple, potentially conflicting criteria. Examples include the progress being made in several countries and regions toward implementing an ecosystem approach to fisheries (EAF). In these cases, a number of factors have created an awareness in the fishing industry of the need to take a broader view of management. Those factors have included their own observations of problems in the ecosystem around them, public and consumer pressure, and awareness-building by government authorities, conservation NGOs, and global bodies such as FAO. On the other side of the negotiations in these successful cases, the conservation and non-consumptive stakeholders pushing for implementation of EAF have also recognized the place of fisheries and other legitimate resource users within the ecosystem and the importance of accommodating their needs as far as possible. This environment of mutual acceptance creates fertile ground for successful negotiations.

On the need to respect stakeholders

Most importantly, it is vital for government negotiators to understand and have respect for the perspectives, needs, and hopes of all the different, legitimate stakeholders. Truly cynical and predatory stakeholders are, fortunately, the exception and can usually be identified quickly. The majority of stakeholders bring to the table sincere and important fears and hopes. Identifying these and sharing them among the participants is an important step in building trust and a constructive environment for discussion.

Fundamental to understanding the stakeholders' positions is knowing where they stand in relation to their basic needs. Government negotiators and decision-makers cannot always be expert psychologists. But they need to be able, as far as possible, to understand why particular stakeholders hold the positions they do and therefore what alternatives and incentives may open the way to compromise.

There is, ideally, no convincing by government negotiators involved - just provision of information, guidance, and encouragement for the stakeholders themselves to work toward a common solution.

BOX: Analyzing trade-offs of ecosystem services in Massachusetts Bay

A study by researchers at the University of California, Santa Barbara, assessed potential conflicts among offshore wind energy, commercial fishing, and whale watching sectors in Massachusetts Bay (US), and analyzed the potential value of wind farm designs that minimized conflict among these sectors. The results: according to the model, it would be possible to develop plans that saved the fishing and whale watching sectors more than US $1 million while generating $10 billion in extra value for the energy sector. (These figures would accrue over 27 years.) This was as compared to outcomes from wind farm designs generated under a "business as usual" permitting process focused just on regulating wind energy. In other words, accounting for all the sectors upfront could reduce their potential trade-offs and generate spatial planning scenarios that benefit them all.

Analyzing inter-sectoral dynamics in such a detailed, quantitative way remains uncommon in marine spatial planning. "Trade-offs are rarely considered explicitly in natural resource management decision-making, although they are considered implicitly - in people's minds or during discussions - all the time," says Crow White, lead author of the study.

The study model was designed from scratch with the Massachusetts Bay sectors in mind. But White says it could be adapted to apply to different ecosystems and spatial planning situations. The study is at [www.pnas.org/content/early/2012/02/27/1114215109.full.pdf+html](https://www.pnas.org/content/early/2012/02/27/1114215109.full.pdf+html).

BOX: Links to more information on trade-offs

**EBM Roadmap: Tradeoffs among Human Activities**  
[www.ebmtools.org/roadmap/coreelements/6](http://www.ebmtools.org/roadmap/coreelements/6)

**Environment Australia: Contingent Valuation**  

**SeaPlan: Ecosystem Services Trade-off Modeling**  