



A Multidisciplinary Workshop To Address Ecosystem-Level Impacts of Fisheries Bycatch on Marine Megafauna

*Biodiversity Conservation through Mitigation, Policy,
Economic Instruments, and Technical Change*

Gland (Switzerland) 7-10 October 2013





Workshop overview, goals and objectives, and specific questions

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Agenda

7 October: Plenary presentations: two angles

- By-catch reduction: a resource-based perspective
- Biodiversity impact mitigation: an ecosystem perspective

8 October:

- End of plenary presentations
- Setting and running of two parallel Working Groups
 - WG on Biodiversity Mitigation Issues : Led by Joe Bull*
 - WG on Mitigation projects: Led by Dale Squires*
 - Progress report in Plenary*

9 October:

- Running of the two parallel WGs*
- Progress report in Plenary*

10 October:

- End of the WGs*
- Last Plenary Session*
- Meeting closure (lunch time)*

Broad goals and objectives

Examine the potential of market-based measures to further reduce the biodiversity foot print of fisheries and develop practical proposals/projects

1. Review conventional bycatch management policies and measures broadening the focus from resource to ecosystem considerations
2. Expand the discussion to combine conventional instruments (including technical change) with economic mitigation and compensation instruments a for least-cost conservation
3. Consider the role of additional economic incentives
4. Examine the concept of “Balanced Harvest” and its management and economic implications
5. Learn from similar terrestrial initiatives and programs
6. Clarify the role of further “biased technical change”, technology policies and their financing
7. Develop specific concepts of marine biodiversity mitigation and specific programs for oceanic sharks, sea birds and turtles

Specific goals and objectives

1. By-catch management in a broader concept

- Conventional measures affecting fishing operations and practices: a resource-based approach
- Expansion to broaden the conventional approach:
 - *Looking at the ecosystem and biodiversity conservation approach to fisheries management,*
 - *Defining the “megafauna” of explicit concern for this meeting*
 - *Discussing the nature and implications of Balanced Harvest strategies,*
 - *Considering broad-based conservation and complementary policy instruments accounting for the entire geographic range, life history, and sources of mortality (I do not understand this one totally)*

Specific goals and objectives

2. Biodiversity mitigation and least-cost conservation

- Broaden the discussion on conservation focusing upon biodiversity mitigation and least-cost strategies covering the entire life history and geographic range of the species.
- Consider when could biodiversity mitigation be used as an additional conservation tool
- Develop specific biodiversity mitigation programs for oceanic sharks, sea birds and turtles.



Specific goals and objectives

3. Consider economic incentives policy instruments

Expand bycatch reduction policies...

From conventional:

- Effort reduction and time-area closures,
- Individual or industry bycatch quotas (performance standards)
- Regulation of gear, equipment, and operations (technology standards)

To include also economic policy instruments that create/add direct incentives to reduce bycatch, e.g.:

- Transferable bycatch use rights (individual and group)
- Assurance bonds, taxes, and insurance schemes;

Specific goals and objectives

4. Consider implication of Balanced Harvest

Consider implications of Balanced Harvest...

1. In terms of policies and management strategies:

- As an additional “ecosystemic” norm for fishery management
- As one of the norms to consider for “Sustainable Use” in fisheries
- As a longer-term (more strategic) dimension to add to conventional operational resource-based management

2. From an economic point of view:

- Transferable bycatch use rights (individual and group)
- Assurance bonds, taxes, and insurance schemes;

Specific goals and objectives

5. Terrestrial conservation policy instruments

How can terrestrial conservation policy instruments be applied to broad-based bycatch reduction strategies?

E.g.:

- Payments for ecosystem services (PES),
- Indirect economic incentives such as community-based conservation and integrated conservation and development projects



Specific goals and objectives

6. Further biased technical change

1. Perhaps most important way to reduce bycatch: Eco-FADs, circle rather than J-hooks, backdown procedure, Medina panel, etc.
2. Factors inducing biased technical change: market forces, policies, NGOs' action, resource conditions?
3. Policy instruments best suited to induce the desired technical change?
4. How do these instruments interact and compare with conventional policy instruments focused directly on bycatch reduction?
5. What is the role of technology standards and interaction with future innovations?

Specific goals and objectives

6. Technology policy

1. Examine technology policy that creates and diffuses bycatch-saving knowledge and technical change through formal and informal research and development by the private and public sectors.
2. What is the best means of organizing and financing this effort?



Specific goals and objectives

7. Proposals

- Further develop specific concepts of marine biodiversity mitigation and specific programs for oceanic sharks, sea birds and turtles



Workshop purpose in a nutshell

How to design an integrated by-catch policy that:

- Takes a broader ecosystem and biodiversity conservation approach
- Considers the entire life history, geographic range and all sources of mortality of bycatch species
- Reduces cost and lowers regulatory burden for both vessels and society;
- Creates strongest incentives to reduce bycatch in both short and long term (incl. through technical change; and
- Increases operators' freedom to find technological solutions, respond to changing markets and environment, and minimize compliance and enforcement costs





Specific questions

1. Given the practical possibilities of implementation, which set of bycatch policy instruments is more cost-effective, give vessels flexibility, create compliance incentives, and can be monitored and enforced, leaving more freedom to firms to find a technological solution to minimize compliance costs?
 - *Instruments that create stronger economic incentives to reduce bycatch?*
 - *Role of positive and negative incentives (carrots and sticks)?*
 - *Role of continuous versus “one-shot” incentives?*
 - *Regulations that give vessels the flexibility to select best solutions?*
 - *Means to foster their innovation?*
 - *Short- versus long-term impacts (performance) of bycatch regulations*
2. What are the opportunities, constraints, benefits and costs of Balanced Harvest?
 - *How to strike balance between the norms for Sustainable Use?*



Specific questions (2)

3. What is role of technology standards?
 - *When to use, limit, and effect upon (**promote?**) future innovation?*
 - *Are market-based measures more flexible and conducive to innovation than technological standards because they leave more freedom to firms to find a technological solution to minimize compliance costs?*
4. Which bycatch instruments (conventional and others) are complementary and in what ways, particularly in an ecosystem / biodiversity context, over life history and geographic range?
5. Which bycatch instruments might be redundant , counter-productive, unnecessarily restrictive to vessels, or too expensive to implement?

Questions to Consider During Workshop...(3)

6. What is the potential role for terrestrial conservation policy instruments in marine realm? Implications from lessons learned
7. What is the role of biodiversity mitigation (offsets) in a cost-effective ecosystem approach to bycatch reduction?
8. What are conceptual and design principles for marine biodiversity mitigation? Where are the potential flaws?
9. What are specific biodiversity mitigation projects for sea birds, oceanic sharks, and sea turtles?

Workshop purpose in a nutshell



**Ready to start?
More questions?**

Thanks!...Questions?

