

To: CCSF Steering Committee  
From: Matthew Elliott, Principal  
California Environmental Associates  
Date: 9/21/2012  
Re: Revision of the *Charting a Course to Sustainable Fisheries* report

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In February of 2012, CEA began soliciting feedback from leading NGOs, scientists, and foundations on the *Charting a Course to Sustainable Fisheries* report. We conducted three feedback seminars in San Francisco, Washington, D.C., and London, which were attended by over 75 participants. Following these sessions, we also received feedback from sixteen organizations through email correspondence. In sum, we received almost two hundred specific comments on the report. These comments ranged from very specific questions to broad feedback on the overall recommendations and depth of analysis. Most comments built off of the reviewer's particular areas of research and advocacy expertise.

In this updated version of the report, we have done our best to incorporate all of the comments we could address within the scope of the project. We are grateful for all of the helpful input that we received, and are confident that this vetting process has substantially strengthened the report. For the purposes of transparency, we have assembled a detailed comment log to track all of the comments received and the accompanying responses.

We outline some of the most common feedback below:

- There was general agreement among reviewers that the report provides a strong synthesis of the state of global fisheries. Specifically, reviewers most often appreciated the summary provided in Chapter 1, with the deconstruction of fishery trends into the developed, middle-income, and developing world, and the exploration of the effects of fisheries on habitat and wildlife.
- However, more than one reviewer indicated that that the recommendations in Chapter 3 were less compelling than the analyses in the first two chapters, and indicated a desire for more detail and more directed recommendations. We concur that the recommendations in the distributed version of the report could have been more specific and stronger. The pre-distribution draft of the report contained more specific recommendations, but we ultimately removed those from the document for fear of being overly directive with recommendations that had not been fully vetted. We have

reincorporated some of these findings with the hope that these broad recommendations will serve as a springboard for ongoing conversations.

- One of the most common criticisms was that the analysis failed to acknowledge some of the broader environmental problems that impact fisheries and will continue to affect fisheries in the future. Climate change and aquaculture were the two most commonly cited topics, although the impact of watershed pollution and land use change on anadromous fish was also mentioned. Initially, we opted to keep these issues outside of the scope of analysis. Based on the feedback, we have incorporated brief break out sections covering both aquaculture and climate change that provide a high level overview of their interactions with marine-capture fisheries. These summaries are far from comprehensive, but take a step toward explicitly acknowledging the serious implications of both issues.
- Another common criticism was that reviewers found the discussion of the habitat impacts of fisheries (particularly trawling and other mobile fishing) too limited. Several reviewers took umbrage with the report's statement that the impacts of mobile fishing gear are not well understood; these reviewers directed us to additional literature on this topic. In response to these legitimate criticisms, we have added more information regarding the impacts of bottom trawling on the marine environment, and beefed up the appendix covering the broader issue of EBFM. We have also clarified our past statements regarding the current understanding of habitat impacts of mobile fishing gear. The revision now notes that the acute impacts on benthic communities are well documented at small spatial scales. However, translating the results of these studies to the scale of fisheries is a remaining gap. Given the diversity of habitats, fishing intensity, recovery times, and other factors, the available science does not sufficiently show that habitat disturbance has reduced global fishery productivity.
- Several respondents commented that the analysis and recommendations for addressing fisheries managed by RFMOs could be strengthened. Some felt that the context we provided on RFMOs was too simplistic, and that any rigorous assessment of RFMOs should be grounded in the literature of negotiation scholarship. Unfortunately, in this revision we have been unable to dive deeper into the incentives and power dynamics at play, but acknowledge that bringing in experts in international law and multilateral negotiations would help refine and strengthen the recommendations for RFMOs. Respondents generally agreed that creating change within RFMO managed fisheries is difficult, but several offered some additional suggestions. These included pursuing protections (e.g., spawning ground closures, gear restrictions) within the EEZs of RFMO member countries as a complement to top-down change within RFMOs; additional governance reforms to promote accountability and transparency; and continued efforts to improve implementation of UNCLOS and UNGA.

- Based on the feedback we received, one of the more controversial aspects of the report was the emphasis on output controls and, specifically, rights-based management techniques. There is a continued debate in the marine advocacy community about the effectiveness and applicability of these tools. Reflecting this debate, we have deepened the discussion of these tools and highlighted some of the remaining controversies. The revisions include additional discussion about the preference of output vs. input controls, the question of whether the application of catch shares has been demonstrated to result in increased biomass, the limitations of catch shares in addressing habitat concerns, and the concern about the social impacts of rights based fisheries management. The revised report stands by the original conclusion that output controls should be the primary tool in industrial fisheries, and that catch shares can improve the durability and economic efficiency of these output controls, but the expanded discussion more explicitly acknowledges that there are many other concerns and that the appropriate design of these management systems is crucial to address social, economic, and ecological objectives.
- Finally, there was a great deal of interest in the new analysis from Costello, Gaines, et al. on unassessed stocks. One respondent felt that the discussion brought about some clarity to the debate about the health of fishery stocks globally. Others felt that the finding that assessed stocks were healthier than unassessed stocks was the critical finding in the report, and that the finding suggests that more work should be done to promote stock assessments and bring the cost of assessments down. We concur that more cost-effective stock assessments would be a very valuable contribution to fishery management. We also recognize that the availability of a stock assessment is an indicator of strong management (e.g. management framework, enforcement), and while necessary is not sufficient to improve the health of unassessed fisheries. Reviewers were interested in the methods used in the analysis, and we are excited to say that the analysis was recently accepted in *Science*. The article outlines the methodology and includes a discussion of the implications of this new research.

We have been overwhelmed with the level of interest in *Charting a Course to Sustainable Fisheries*, and we remain deeply appreciative of the time and constructive feedback from numerous people and organizations active in the marine conservation movement. Although many gaps, differences of opinion, and presumably errors still remain, we hope that the revised report and accompanying analyses will help contribute to your ongoing efforts to end overfishing and improve the health of the world's marine ecosystems.