

Reply to Invited Reader

We truly appreciate the time and interest that Andy Thorpe devoted to revising our paper as invited reader. We reply each remark as follows:

- 1) Indeed, we shall improve the English grammar throughout the text.
- 2) It is true that analyzing subsidies policy was not the objective in this investigation. We reckon that granting subsidies for lowering variable costs of fleets is part of a poor policy, which often results in over-exploitation. As we point out in the MS, over-exploited fisheries will be more vulnerable to climatic changes. We will clarify this point in a new version. We will also discuss in more detail the main issues of fisheries management in Mexico as suggested by Dr. Thorpe.
- 3) In the same vein, adaptation and mitigation measures will be developed for the Mexican case.
- 4) The paper by Cheung et al. (2010, *Global Change Biology* 16: 24-35. DOI: 10.1111/j.1365-2486.2009.01995.x) deals with global (i.e. aggregate) data on fisheries. Nevertheless, we can confer more analysis of their results in our MS.
- 5) The paragraph in discussion (p. 10) devoted to the choice of fisheries will be edited and moved over to the Methods section.
- 6) Unfortunately, no disaggregated data are available for employment in fisheries activities. Actually, a number of fishermen in Mexico shift from one fishery to another (even from non-fishing activities and vice versa), depending on the fishing season. We assumed, therefore, that people hired in coastal fishing activities participate either directly or indirectly on activities concerning shrimp and sardine fisheries (e.g. extraction, processing or trading). We will discuss this issue in a newer version of our MS.
- 7) Similarly, time series data on gross registered tonnage (GRT) is rather difficult to obtain. We are aware that it is a better measure of fishing effort than number of vessels, but we decided to use the same definition as in the study of Dalton (2001, *El Niño, expectations, and fishing effort in Monterey Bay, California*. *Journal of Environmental Economics and Management* 42 (3): 336-359, <http://dx.doi.org/10.1006/jeem.2000.1158>).
- 8) Potential change in financial capital is an interesting point that we missed in our MS. In the case of the sardine fishery, it would be difficult to forecast an influx of financial capital due to the high variability that such fishery presents. It, nevertheless, deserves a mention in the discussion.
- 9) As suggested by Dr. Thorpe, other fisheries (aside from shrimp) will be affected by climate change, with respect to coastal facilities. In fact, distribution and storage in many coastal communities are mostly devoted to shrimp landings during the fishing season. More detail in this subject is warrant.
- 10) We consider that the issue of aquaculture is of relevance to both food security and fisheries, because some aquaculture systems rely heavily on wild fish stocks as either nourishment (e.g. tuna) or postlarvae input (e.g. shrimp). Such facilities have increased in both number and capacity in the

past years. We shall further explain this issue in order to clarify the importance of the fishing-aquaculture link to food security and climate change.