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Towards the sustainability of world fisheries

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Traditionally, the management of fisheries is based on the goal of maximum sustainable yield (MSY), benchmark of fisheries biology, but over time it has become apparent that at this point, sustainability was not reached completely; thus it has been established as a benchmark target, the maximum economic return (MEY), if it is known. Because, estimated values of the Fishing mortality (F) are based on the MSY, and since this is the threshold of production, fisheries easily exceed its value. Then, it has been necessary to establish other levels as reference targets in an arbitrary fashion, because of the ignorance of MEY. Each benchmark target is fixed below the FMSY, since the FMEY always lies in a value lower than apex of the MSY curve. Only a small proportion of fisheries take into account the complexity of the activity and the resource capacity to regenerate itself. At this point, a little variation in F generates significant changes. It is remarkable to realize that the maximum yield of the world oceans approaches very close to 100 Mmt and the biomass of all the exploited stocks is near to 200 Mmt. Another important point to call the attention is that in most cases, the MSY was attained more than a decade ago and the current yield and stock biomass are nearly 40 per cent below those maxima. This is something to be concerned and should be considered as a possible indicator of excessive pressure on the fish stocks. Evidently, the over exploited fisheries have passed by several stages already pointed by several authors and unfortunately, the perspective suggests that other world oceans apart from those of the Antarctic, will follow the same steps towards depletion, if no action is taken by the nations to ensure exploiting the sea in a sustainable way.

Biography

Ernesto A Chavez did his PhD in 1978. He is the Professor of the Marine Sciences Research Centre of the Polytechnic Institute in La Paz, Mexico. His research interests are Bio economic assessment of fisheries by simulation, impact of climate on fisheries, coral reef ecology. He is the teacher of the courses, fisheries simulation, fisheries management and coral reef ecology at the graduate program of his research centre. He has been adviser of 25 MSc thesis B Sc, 16 at the M Sc Program and 5 at Ph D level. He has led 17 research projects and has collaborated on another 16. He has published more than 150 scientific papers, including the co-edition of a book on the coral reefs of the south Gulf of Mexico (2007), translated into Spanish (2010).

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