

Over-demanding market affects fisheries more than climate change

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Fisheries that rely on short life species, such as shrimp or sardine, have been more affected by climate change, because this phenomenon affects chlorophyll production, which is vital for phytoplankton, the main food for both species.

Disclosed by the research "Socioeconomic Impact of the [global change](#)

over the fishing resources of the Mexican Pacific" headed by Ernesto A. Chávez Ortiz, from the National Polytechnic Institute (IPN).

Work performed at the Interdisciplinary Center of Marine Sciences (CICIMAR) from the IPN, indicates that in the last five years there have been no "spectacular" changes attributable to climate change, what has affected the fishing resources more is the over demanding market.

"Globally, a great part of the fishing resources is being exploited to its maximum capacity, several have overpass its regeneration capacities and are overexploited" Chávez Ortiz points out.

The specialist at CICIMAR details that the research consisted in exploratory weather and fisheries analysis, and confirmed what has been intuitively said for a while: a lot of the variability in the fishing is due to climate change, the problem is that evidence hadn't been found to prove it.

"In the research we found a clear and objective way to show it: we took historical data from FAO regarding fisheries, available since 1950, compared it to the data of weather variability and found high correlations.

Change patterns were identified, for example, while in the 70's the sardine production increases, in the 80's it decreases below average levels, meanwhile shrimp fishing increased above average but decreased in the 90's.

This way, climate changes were identified in the mid 70's and late 80's that affected the fishing of sardine and shrimp in the Mexican Pacific Ocean, possibly attributable to El Niño. In the particular case of the shrimp, its effects are related to an input of water from the continent; for example, when there's a good raining season, there will be an increase in

the crustacean production, which is reduced when it doesn't rain.



The researcher at CICIMAR clarifies that the analysis of the fisheries, examined in the guidelines of this project, used of a simulation model that allows to evaluate optimal exploitation strategies, possible change in the biomass of the analyzed resources, as well as the long term effects of [climate change](#), like cyclones, and set them apart of those caused by the intensity of the fishing.



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