

**Report of the Secretary-General on Oceans and the law of the sea  
Part I – The role of seafood and global food security**

**Contribution of the World Meteorological Organization**

**FISHERIES, FOOD SECURITY AND CLIMATE SERVICES**

Agriculture and other food production systems like fisheries (both capture and aquaculture) and resulting food security are closely linked to weather and climate conditions. Extreme weather, climate variability, and long-term climate change pose important challenges to future fisheries and food security.

Food production systems - including fisheries - that wisely use climate information can make better informed decisions at policy, institutional and community levels so as to improve the efficient use of limited resources and increase fisheries production by reducing impacts of climate risks and enhancing opportunities. The Global Framework for Climate Services (GFCS)<sup>1</sup> — established by WMO and UN and international organizations including FAO, WFP, World Bank, UNDP, WHO, UNESCO — supports the development and sharing of information products based on climate predictions targeting the most climate-vulnerable sectors and populations and helping to improve food security<sup>2</sup>.

Climate change and variability is likely to modify the productivity and distribution of oceanic fisheries. Increasing climate variability will make fisheries management, and the forecasts of fisheries production, more challenging. Ocean acidification has increased by 26% since the beginning of the industrial revolution and may have potentially devastating impacts on marine ecosystems, including loss of shellfish, coral reefs and calcareous plankton, the base of much of the marine food chain.

A better understanding of climate and its impacts on coastal and oceanic fisheries is critical to the future management of these valuable resources for subsistence and market-based economies, and cultures. Developing countries and Small Island Developing States (SIDS) that depend heavily on fish for food and exports will also need special assistance in adapting to the effects of climate change on oceanic fisheries. Climate services can play an important role for fisheries.

The World Meteorological Organization's (WMO) Commission for Agricultural Meteorology (CAgM) and the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) are committed to improving access to and use of weather and climate data and products relevant to fisheries management. Interdisciplinary cooperation is needed to advance science on climate-to-fish-to-fisheries. The WMO-led International Workshop on Climate and Oceanic Fisheries held in the Cook Islands in 2011 was organized to contribute to this process. Many of the Pacific Island countries and territories depend heavily on oceanic fisheries and need to rely on the assistance of interdisciplinary teams to plan the sustainable use of their fisheries resources.

Food production systems and food security is one of the priorities of the GFCS. In anticipation of the Third International Conference on Small Island Developing States (Samoa, 1-4 September 2014), WMO, in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP) is organizing a regional consultation on GFCS for SIDS in the Pacific (Rarotonga, Cook Island, 31 March - 4 April 2014)<sup>3</sup>. The meeting will address weather, climate and water events and climate change effects that have an impact on the socio-economic development of SIDS, including fisheries.

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<sup>1</sup> See: <http://gfcs.wmo.int/>.

<sup>2</sup> See also TST Issues Brief on Oceans and Seas, pp. 3 and 6.  
([http://sustainabledevelopment.un.org/content/documents/2311TST%20Issues%20Brief%20Oceans%20and%20Seas\\_FINAL.pdf](http://sustainabledevelopment.un.org/content/documents/2311TST%20Issues%20Brief%20Oceans%20and%20Seas_FINAL.pdf)).

<sup>3</sup> See: <http://gfcs-climate.org/content/regional-consultation-gfcs-small-island-developing-states-pacific>.