

Canada

**CANADA'S 2022 SUBMISSION TO THE UN SECRETARY GENERAL ON
EFFORTS TO IMPLEMENT AN ECOSYSTEM APPROACH TO
FISHERIES MANAGEMENT
MARCH 15, 2022**

Canada's differentiates between the terms *ecosystem approach to fisheries management* (EAFM) and *ecosystem-based fisheries management* (EBFM):

- EAFM retains primarily an individual stock and fishery focus, while incorporating ecosystem variables (including climate, oceanographic and ecological factors) to better inform stock and individual fishery-focuses management decisions. Fishing plans are the primary management tool.
- EBFM is an area and system-based management approach that (1) incorporates interrelationships among the elements of an ecosystem and ecosystem productivity, (2) accounts for system-wide human and environmental effects on populations, and (3) considers trade-offs between fishery and conservation objectives at the ecosystem-level as well as the stock and fishery level.

This summary is focused on EAFM, which is an incremental step towards EBFM. Canada is not exploring means to implement an EBFM approach at this time.

- Prior to 2019, the Canadian Department of Fisheries and Oceans (DFO) has undertaken multiple science initiatives to advance EAFM in Canada.
- In addition, through the [Sustainable Fisheries Framework](#) (SFF) suite of policies, first introduced in 2009, Canada has been able to advance an ecosystem approach to fisheries management. Key milestone includes the publication of a new SFF Policy in 2019, the *Fishery Monitoring Policy* and supporting guidance. It sets out the direction for fishery monitoring in Canada's federally-managed wild capture fisheries as dependable, timely and accessible fishery data are essential to effectively apply the SFF policies and support progress towards an EAFM. Work to implement this policy is ongoing.
- In June 2019, the *Fisheries Act* was amended to include consideration of the ecosystem in decision-making.
 - For example, s. 2.5(a) states the Minister may consider "...an ecosystem approach" when making decisions under the Act. Note the Act doesn't define an ecosystem approach.
 - In addition, the Fish Stocks provisions (ss. 6.1-6.3), require the Minister to take into account environmental conditions acting on stocks when implementing measures to maintain the stocks at sustainable levels, or rebuild them when they become depleted. Note that ss. 6.1-6.3 only apply to stocks prescribed in regulation and are not currently in effect for any stocks.
 - DFO is working to advance a regulation that will bring into effect the Fish Stocks provisions for the first batch of stocks. It is anticipated this regulation will come into force in 2022-23.
- The national Ecosystem Approach to Fisheries Management Initiative was also initiated in 2019 with the purpose to develop a national framework to operationalize an EAFM approach in fisheries management. The initiative's objective is to develop:

- A suite of methods to integrate environmental variables into stock assessments and science advice. These methods are being developed through case studies;
- Accompanying guidance on which method is suitable based on data quality/availability, available analytical methods and management constraints or policies is also being developed; and
- A feedback mechanism between science and management to improve the communication and integration of science advice into fisheries management decisions.

This work remains ongoing and is expected to conclude in late 2023.

- DFO continues to monitor and study changing ocean conditions and their effects on Canada's fisheries, aquatic ecosystems, and coastlines through the Aquatic Climate Change Adaptation Services Program (ACCASP). Through ACCASP, Canadian scientists are conducting:
 - Monitoring and research activities to understand the state, extent and impacts of ocean acidification and hypoxia;
 - Vulnerability assessments of fisheries and small craft harbours to the impacts of climate change; and
 - Refinement of applied ocean models to improve forecasting to better understand and predict future ocean conditions such as water temperature, currents and ocean chemistry.
- In 2018, ACCASP undertook a Canadian Science Advice Secretariat National Peer Review Process to develop a *Framework for Incorporating Climate-Change Considerations into Fisheries Stock Assessments* (Science Advisory Report 2019/029). The results of this process informed the launch of the Ecosystems Approach to Fisheries Management work and future follow-up work could enable the systematic integration of climate change, oceanographic and ecological data and fish stock vulnerability information into stock assessment advice in order to enable climate-ready decision-making in fisheries resource management.