A joint Commission and Scientific Council Working Group on the Ecosystem Approach Framework to Fisheries Management (WG-EAFFM) was established in 2014 to examine the ecosystem advice of the Scientific Council and to provide recommendations to the NAFO Commission, NAFO's fisheries management body.

NAFO has now closed designated Vulnerable Marine Ecosystem areas (VMEs), including 15 areas to protect sponge, sea pen and corals and 12 seamount areas where bottom fishing is prohibited, making 372,201 km^2 (or 14%) of the NAFO Regulatory Area closed to bottom fishing. All seamount areas in the NAFO Regulatory Area at fishable depth (i.e. shallower than 4000 metres) are now closed.

NAFO has also done extensive work so far in developing methods to assess 'significant adverse impacts' (SAI) on VMEs by fishing, using all six (6) of the criteria listed in Article 42 of the FAO Guidelines. This includes an analysis of VME functions, assessing connectivity between VME closures, modelling resilience of VME indicator species and determining fishery specific overlaps between VMEs and bottom trawling using the actual area of the seabed fished through detailed haul-by-haul fishing effort data.

c) incorporating economic, social and cultural aspects;

N/A – These aspects are the purview of NAFO Contracting Parties.

d) incorporating environmental factors affecting marine ecosystems, including adverse impacts of climate change and ocean acidification;

The NAFO Scientific Council has a Standing Committee of Fisheries Environment (STACFEN) whose tasks are to:

- develop and recommend to the Scientific Council policies and procedures for the collection, compilation and dissemination of environmental information from oceanographic investigations;
- provide reviews of environmental conditions and advise the Scientific Council on the effects of the environment on fish stocks and fisheries in the Convention Area; and
- encourage and promote cooperation among Contracting Parties in scientific research designed to fill the gaps in knowledge pertaining to the effects of the environment on fish stocks and fisheries as identified by the Scientific Council.

STACFEN climate summaries are presented annually to scientific meetings where stock assessment is being undertaken. Scientific advice and management decisions use both the adopted precautionary approach and the ecosystem approach to fisheries management.

Scientific Council is in the process of developing ecosystem summary sheets to communicate the effects of environmental factors, as well as the effects of fisheries on the ecosystems, to fisheries managers.

(ii) Lessons learned, best practices and challenges in the implementation of an ecosystem approach to fisheries management;

NAFO has also been considering ways in which ecosystem considerations can be incorporated more into fisheries management decision-making, such as the use of ecosystem summary sheets. For this purpose, NAFO is organizing a dedicated "*Ecosystem Roadmap Workshop*" for fisheries managers and scientists to take place later in 2022.

(iii) Actions needed to further strengthen the implementation of an ecosystem approach to fisheries management, including to address particular challenges faced by developing