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COORDINATING WORKING PARTY ON FISHERY STATISTICS

Intersessional Meetings of Aquaculture and Fisheries Subject Group

Sixth Meeting of the Aquaculture Subject Group (AS) and Twenty-seventh meeting of the Fisheries Subject Group (FS)

Rome, Italy, 15-16 May 2019

NAFO activities report to CWP

Author: NAFO

1. Catch Estimation Strategy

At the 26th Meeting of FS held in June 2017 in Copenhagen (FIAS/R1213), NAFO Secretariat reported:

> In 2016, the Catch Data Advisory Group (CDAG) of the Joint Fisheries Commission-Scientific Council Working Group on Catch Reporting conducted a review of the various NAFO fisheries and catch data sources and developed the Catch Estimation Strategy. Catch estimates in the NAFO Regulatory Area are used by the Scientific Council in its fish stock assessment work. The strategy is based mainly on the use of Port Inspection data. They are considered accurate as they are verified by an inspector during fish landings.
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> 32. Daily catch reports[1], in addition to haul-by-haul data[2], are considered primary sources in catch estimation because of their completeness. It has been noted, however, that these are more prone to error and/or misreporting than the entries on nominal catch information from the Port Inspection Reports. Through the Catch Estimation Strategy, the nominal catch information (product form × conversion factor) from port inspection reports is now used as a verification tool when evaluating the veracity of the primary data sources. Catch estimates are made on a fishing trip basis[3].

[1] Article 28.6.c of the NAFO Conversation and Enforcement Measures (NCEM) stipulates: every fishing vessel shall transmit electronically the quantity of catch retained and quantity discarded by species for the day, by Division, including nil catch returns, sent daily before 12:00 UTC. The daily catch report of the fishing vessel is identified as "CAT" in the NAFO Vessel Monitoring System.

[2] Article 28.8.b of the NCEM stipulates the recording and submission requirements of catches on a haul by haul (or tow or set) basis, or logbook information, of each fishing vessel.

[3] Per Article 1.7 of the NAFO Conservation and Enforcement Measures, "fishing trip" for a fishing vessel includes the time from its entry into until its departure from the Regulatory Area and continues until all catch on board from the regulatory Area has been landed or transhipped.

> 33. The Scientific Council made us of catch estimates [sic] calculated using this approach for the first time in 2017, estimating catch for three priority stocks of Greenland halibut, cod and redfish in the NAFO Regulatory Area. This approach will be eventually used for all stocks that are managed by NAFO.

Update since the last progress report:

- CDAG was renamed NAFO Joint Commission-Scientific Council Catch Estimation Strategy Advisory Group (CESAG),
- The NAFO Secretariat has provided the 2017 and 2018 catch estimates that were derived applying the Catch Estimation Strategy method to the Scientific Council for consideration in its fish stock assessment work. The catch estimates were expanded to all TAC-managed NAFO fish stocks.
- At its meeting in April 2019, the Catch Estimation Strategy was reviewed and CESAG recommended that NAFO Secretariat, which holds the daily catch reports, haul by haul reports (logbook data) and port inspection reports, continue to apply the Catch Estimation Strategy.

II. Observer Smartphone Application:

The NAFO Secretariat has developed a smartphone application to facilitate the automatic transmission of observer data in NAFO[4]. The application is currently designed to mimic the current data collection requirements for the observers at sea, but can be modified to include more features as needs arise.

Consideration was taken to ensure the design of application's user interface was intuitive and easy to use. The user answers questions about the fishing activity with step-by-step questions rather than a cumbersome list on form data entry fields. The application is operable with a small screen resolution, like an inexpensive smartphone, to ensure maximum portability and minimal hardware costs. The application purposely avoided the use on the device's build-in keyboard by providing a custom numeric input to ensure the maximum distance between the button with the goals of avoiding data entry errors.

Data will be transmitted to the NAFO Secretariat, but reviewed by flag State data quality assurance individuals before being finalized and entered into the NAFO Observer database. At-sea pilot is expected to begin in May 2019.

III. FAO 3-alpha codes for Vulnerable Marine Ecosystem (VME) indicator species[5]

[4] The NAFO Observer Program is outlined in Article 30 of the NCEM.

[5] Measures to protect the VMEs in the NAFO Regulatory Area from bottom fishing activities are outlined in Chapter II of the NCEM. Annex I.E.VI provides the list of VME indicator species.

The NAFO list of VME indicator species was reviewed against the ASFIS list of FAO 3-alpha codes. To facilitate reporting of encounters of the species during bottom fishing operations, the VME indicator species list was updated to include the FAO 3 alpha code of the species.

For some species, 3-alpha code is not available. In this regard, the NAFO Secretariat is working with FAO (at this meeting) for the creation of codes for the rest of the NAFO VME indicator species.