



PACIFIC ISLANDS
FORUM SECRETARIAT



Pacific
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du Pacifique



SPREP
Secretariat of the Pacific Regional
Environment Programme



FFA

REGIONAL FISHERIES MINISTERIAL MEETING

Virtual
25 – 27 August 2020

Agenda Item	7
Paper No:	RFMM.WP05
Title:	Marine pollution and ecosystem issues of importance for Pacific fisheries

Summary:

At the Special Regional Fisheries Minister's Meeting held in Federated States of Micronesia on 20 June 2019, Working Paper 6 highlighted several emerging environmental issues for the attention of Ministers.

In response the ministers called for greater cooperation between their Fishery and Environmental administrations. This paper updates on some initiatives for which collaboration between CROP agencies and between national fishery and environmental administrations is progressing.

The project updates herein highlight just some examples of the ecosystem-based approaches to fishery management.

1. **Threatened and Migratory Species Programme.** SPREP has for many years provided strategic guidance for management and protection of threatened migratory marine species of turtles, dugong and whales and dolphins through the development of the Pacific Islands Regional Marine Species Programme. The current set of action plans is out of date and new species plans for new species are currently being developed. [Pacific Islands Regional Marine Species Programme 2013-2017](#)
2. **WCPFC and Cetacean bycatch.** As requested by the Commission, SPC have provided an Information Paper [SC16-ST-IP-12](#) to the Science Committee meeting this year. The paper compiles available data on longline and purse seine fisheries interactions with cetaceans.
3. **WCPFC Conservation Management Measure 2017-04.** The WCPFC CMM 2017-04 for Marine Pollution to implement MARPOL (led by RMI) came into force on 1st January 2019.
4. The **SPC/FFA/PIRFO Observers** recorded close to 18,000 **GEN6 Reports** over a 15 year period from 2003-2017. This includes more than 16,500 incidents by purse seine vessels and more than 1,400 pollution incidents by longline vessels within the EEZs of 22 PICTs and in international waters.
5. A new **Pacific Coral Reef Action Plan** is currently being developed and requires cross sectoral engagement across the region to develop an effective implementation strategy.
6. An evaluation of the PNA's FAD tracking programme has been presented by SPC to WCPFC-SC16. FADs can cause ecosystem impacts and the issue is being monitored by some Member countries and requires further attention across the region.

7. Development of ecosystem and climate change indicators for fisheries is currently being progressed in WCPFC SC, providing a mechanism for progress on WCPFC resolution 2019-01 which was led by FFA Members.

Recommendations:

Ministers are invited to:

- i. Support improved data collection of cetacean bycatch events in the longline and purse seine fisheries and ongoing analysis through member country engagement in the WCPFC processes.
- ii. Encourage effective monitoring, reporting and enforcement of Conservation and Management Measure for the Protection of Cetaceans from Purse Seine Fishing Operations CMM 2011-13, under WCPFC rules.
- iii. Support action to implement and enforce the WCPFC CMM 2017-04 on Marine Pollution including action on Paragraph 1 which affords assistance to CCMs to become Parties to MARPOL and its annexes.
- iv. Seek support for increased monitoring, reporting and enforcement of pollution violations by types of fishing vessels, including supporting the ongoing analysis of GEN 6 data.
- v. Seek support for improvements in Pacific port waste reception facilities to enable them to receive fishing vessel waste on shore.
- vi. Task fishery agencies and CROP agencies to engage in cross-sectoral management and conservation of coral reefs through development and implementation of the Pacific Regional Coral Reef Action Plan.
- vii. Note developments in the monitoring of FADs and the regional nature of this issue.
- viii. Note progress in the development of ecosystem and climate change indicators for fisheries.

Key issues to be considered:

1. Threatened and Migratory Species Programme

1. With support from the New Zealand Department of Conservation Secondment Programme, SPREP is undertaking a review of the Regional Marine Species Action Plans 2013-2017 in preparation for finalising the new set of plans. The new plans will include sharks and rays and seabirds.
2. Threats to marine turtles, whales and dolphins, dugong, sharks and rays and seabirds include: bycatch in domestic and industrial fisheries; overfishing; intentional take including illegal take; entanglement in active and non-active fishing gear including Abandoned, Lost and Discarded Fishing Gear (ALDFG); climate change effects such as the impact of increased temperature on marine turtle sex ratios and rising sea levels on nesting beaches for sea turtles and seabirds; coastal development and associated effects such as lighting and noise; Emerging threats include Deep Sea Mining.
3. Since the last plans were developed the threat ranking for some migratory marine species has increased e.g. Leatherback turtles in the Pacific subpopulation received a threat ranking of Critical (CR) by the IUCN in 2013; Hawksbill remain CR, Green turtles are Endangered (EN) and Loggerheads are Vulnerable (VU) ; Humpback whales though are a success story and are on a slow upward population trend in the Pacific, however ongoing threats such as entanglement in fishing gear could threaten this.
4. The addition of plans for sharks and rays and seabirds will provide further guidance for the management and protection of these critical components of marine ecosystems.
5. The Review is currently being conducted through online discussion with relevant Member country government staff and will assist in shaping the final draft plans for the next set which will be discussed at a regional workshop next year.

2. WCPFC and Cetacean bycatch.

6. SPC Information Paper [SC16-ST-IP-12](#) shows that 33 species interact with purse seine fisheries, 24 of which also interact with longline fisheries. This includes Endangered species such as blue and humpback whales and threatened species such as Pseudorca (false killer whales) and fin whale.
7. The most interactions occurring in both longline and purse seine fisheries are with Pseudorca and although cetacean interactions have decreased over the last few years in the purse seine fishery, numbers remain high for some species including deaths.
8. The actual number of interactions of any species in longline fisheries is very difficult to estimate due to the very low levels of observer coverage in this fishery. Estimates for cetaceans overall have been calculated by SPC in another information paper – 11, for 2018 as between 1200 and 2600 noting that the report states these will be unreliable due to low observer coverage particularly north of 10oN.
9. For some species it is hard to understand why interactions are occurring and what the outcome for the animals are for example the four baleen whale interactions observed with longline fisheries over the period 2015-2019 (since these whales are not targeting tuna, and noting point 3 above). Further investigation of the reasons for these interactions is warranted as species involved are endangered. Noting also that humpback whales are especially important in the whale watching industry in some Pacific countries.
10. High numbers of species remain unidentified to species level and further observer training may be required or some other methods of species ID verification may be needed.
11. To understand the implications of the interaction and mortality levels being indicated in this preliminary report, the relationship between the number of events which could or did result in

mortality and the population size/threat ranking of the particular species involved is needed. Through the By-catch and Integrated Ecosystem Management (BIEM) Initiative, SPREP will use Pacific European Union Marine Partnership (PEUMP) Programme funding to investigate the population risk to species as a result of these implications.

12. There is a broader question around compliance with the Conservation and Management Measure for the Protection of Cetaceans from Purse Seine Fishing Operations CMM 2011-13. The [Regional Observer Report for 2019](#). Table II indicates significant alleged infringements for setting on cetaceans and whale sharks in the WCPO. While recognising that interactions have declined in the last few years this suggests there is still more work to do to ensure compliance with this CMM.

3. WCPFC CMM 2017-04 & SPC/FFA Observer GEN6 Reports & Fishing Vessel Port Reception

13. WCPFC CMM 2017-04 for Marine Pollution calls on Members to ratify, accept, approve or accede to the annexes of MARPOL and the London Protocol.

14. There have been close to 18,000 GEN6 reports from the SPC/FFA/PIRFO Observers over the 15 year period from 2003-2017 as analysed in 2018. More than 16,500 pollution incidents were reported by purse seine vessels and more than 1,400 pollution incidents reported by longline vessels within the EEZ of PICTs and in international waters. The analysis found that 77% of the reported purse seine pollution incidents related to waste dumped overboard; 15% to oil spillages and leakages; 7% to abandoned, lost, or dumped fishing gear; and 1% categorised as others. When the category waste dumped was analysed further, plastics were found to make up the largest portion, 38%, of total purse seine pollution incidents. The EEZs of most incidents were PNG (38.5%), Kiribati (16.8%), the Federated States of Micronesia (11.8%), Solomon Islands (6.7%) and the Marshall Islands (6%).

15. Whilst the data is limited, the evidence and analysis finds that pollution from fishing vessels, particularly purse seine vessels, in the Western and Central Pacific Ocean is a serious problem and highlights the need for action in implementing the WCPFC CMM 2017-04 which came into effect on January 1, 2019.

16. Future analyses of the GEN 6 data will assist in understanding the levels of compliance with this measure.

17. Note however, that the CMM does not prohibit the disposal of old fishing gear at sea which as noted above can be a particular problem for threatened marine species such as whales, turtles, sharks and dugong. Although MARPOL Annex V prohibits the discharge of all plastic, including fishing gear, not all Members are signatories to this provision. CMM 2017-04 could be a good mechanism to get more widespread compliance with this issue.

18. Assessment of the domestic vessels including fishing vessels waste reception Vanuatu have highlighted some constraints on waste management including a number of individual islands and the scattered population, limited resources available to regulatory authorities for the establishment and management of waste reception facilities and services. Only 4 of the islands have municipal waste collection services and managed landfill sites by municipal councils. There is also limited economically viable options for recycling of waste within Vanuatu and the cost of shipping generally makes exporting materials for recycling unfeasible.

19. There are a number of initiatives in Vanuatu that are underway for the improvement of waste in Vanuatu, which are being led by the national government, international agencies and community groups.

20. Although the impacts of marine debris have received considerable attention and the broad policy framework for marine management is in place in the form of the National Ocean Policy 2016,

to date there appears not to have been initiatives focussed on the issue of waste sourced from domestic and fishing vessel operations.

4. Pacific Coral Reef Action Plan

21. Coral Reefs are amongst the most important marine ecosystem in the Pacific Region. The Pacific islands region is home to an estimated 25% of the world's corals. Coral reefs provide a number of ecosystem services including:

- Providing critical habitat and production for commercially important coastal fishery species and for subsistence food security.
- Providing coastal protection from swells and seas
- Providing a source of sustainable income through nature-based tourism

22. Coral reefs worldwide are under threat from warming oceans, ocean acidification and increasing intensity of storms. While a recent report on the status of coral reefs in the Pacific showed that reefs in the region are doing better than some other locations, there are still some disturbing signs, including shift to greater abundance of massive species of corals and decrease in abundance of herbivorous fish and a concomitant increase in algal cover.

23. Coral reefs exist in a continuum and are ecologically connected with other island ecosystems. Healthy coral reefs also rely on healthy fish populations for their ecological integrity. It is crucial that we maintain healthy coral reefs by reducing pressures locally as much as possible. This requires an ecosystem based and integrated approach to coastal management with active engagement from all sectors of the economy and society.

24. SPREP is preparing a Pacific Coral Reef Action Plan (PCRAP) which will identify the key issues facing our reefs and will map out the way forward to protect and conserve these vital ecosystems.

25. The initial draft was compiled through consultation with member countries who have identified the following as the three highest ranking stressors on coral reefs:

- Development
- Climate Change
- Local overfishing

26. Impediments to action on reefs included data scarcity, lack of technical capacity, poor planning and enforcement.

27. Members highlighted a need for a coordinated approach, backed by political will. This should include community-based approaches will be an essential part of this important work, as identified in the New Song for Coastal Fisheries and in the coastal fisheries part in the Regional Roadmap for Sustainable Pacific Fisheries

5. Monitoring Fish Aggregating Devices (FADs) and mitigating environmental impacts

28. Led by the Parties to the Nauru Agreement, SPC OFP has evaluated the PNA's FAD tracking programme information to provide scientific information to inform management discussions. SC16 information paper SC16-MI-IP-14 presents the results of this collaborative work.

29. Through the WCPFC's tropical tuna Conservation and Management Measure 'CMM 2018-01', members required the use of low-entangling FAD designs to be used within the Western and Central Pacific Ocean purse seine fishery from 1st January 2020. This should reduce the risk of entanglement of sharks and sea turtles in FADs.

30. To reduce the amount of synthetic marine debris, that CMM also encourages the use of natural or biodegradable materials for FADs. Information paper SC16-EB-IP-03 describes the latest

information available from member's observers on FAD designs being used within the WCPO. Industry trials are underway on effective biodegradable designs (SC16-EB-IP-08).

31. The development of biodegradable designs could offer the potential for members to develop local industries to grow the necessary materials to support local fishing industry implement these designs, as has already been investigated by some members.

32. Noting the increasing prevalence of FADs beaching on the shorelines of member countries, as identified through the PNA's FAD tracking programme, several members have trialled in country data collection programmes with SPC support to help evaluate the rate of beaching and its environmental impact (noting that this is a regional issue that needs regional cooperation to address). These programmes involve local communities reporting their findings to fisheries officers, who enter data on forms and in their country/territory database. The work is described further in SC16-EB-IP-02. Programmes have started in the Cook Islands and Wallis and Futuna; and are under development in French Polynesia, Federated States of Micronesia and Republic of the Marshall Islands. We stand ready to assist other members in the development of programmes.

6. Developing ecosystem and climate change indicators

33. Monitoring the health of the pelagic ecosystem is important to identify changes, including those arising through climate change, that might affect the region's key tuna stocks. SC16-EB-IP-07 identifies a range of ecosystem and climate indicators that can be examined with the aim of developing a framework for regular monitoring.

34. This framework would also to provide a mechanism through which the WCPFC's Scientific Committee can provide future advice relevant to WCPFC Resolution 2019-01 on climate change that was led by the FFA membership.

RECOMMENDATIONS:

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