

Melanesian Spearhead Group of countries addresses sea cucumber fisheries management

Fiji, Papua New Guinea, Solomon Islands and Vanuatu – all members of the Melanesian Spearhead Group of countries – have agreed to common measures and a plan of action to improve the management of sea cucumber fisheries and help communities to maintain a sustainable income from this valuable but threatened fishery. This is one of the salient outcomes of the 6th meeting of the MSG Fisheries Technical Advisory Committee.



To better manage the fishery, minimum size limits for all commercial sea cucumber species, including for the high-value white teatish shown here, should be standardised across the region. Image: Steve Purcell

The Melanesian Spearhead Group (MSG) convened the 6th Fisheries Technical Advisory Committee (FTAC) meeting from 13 to 17 November 2017 at the MSG Secretariat in Port Vila, Vanuatu. The Acting Director General of the Secretariat, Peter Eafeare, welcomed participants from MSG member countries as well as the group's development partners, the Pacific Community (SPC) and the Pacific Islands Forum Fisheries Agency (FFA). The meeting was chaired by Rosalie Masu, Deputy Director Inshore Fisheries Division, Solomon Islands Ministry of Fisheries and Marine Resources.

At the meeting, FTAC progressed previous agenda items on offshore fisheries, and placed particular emphasis on the progress and implementation of two regionally unique coastal fisheries instruments that were endorsed by leaders in 2015: the "MSG roadmap for inshore fisheries management and sustainable development 2015–2024" (MSG roadmap) (MSG Secretariat 2015a) and the "Memorandum of understanding on technical cooperation in coastal fishery and aquaculture development" (the MoU) (MSG Secretariat 2015b).

Progress towards the following seven MSG roadmap outcomes was reviewed by the countries:

1. Development of an effective policy, legislation and management framework for the management of inshore resources, in accordance with other relevant international agreements, to empower coastal communities to manage their marine resources;
2. Education, awareness raising and the provision of information on the importance and management of inshore fisheries;
3. Capacity building to sustainably develop and manage inshore resources, with particular reference to experiences in MSG member countries;
4. Adequate resources to support inshore fisheries management and best available science and research;
5. Secure long-term economic and social benefits to coastal communities from the sustainable use of inshore resources;
6. Establish effective collaboration with stakeholders and partners; and
7. Restore and maintain sea cucumber stocks to maximise long-term economic value to coastal communities.

MSG member countries noted the achievements made in the areas of management plans, licencing, and management regulations. The efforts of fisheries agencies and the support of regional organisations were also noted, particularly SPC, most recently through the World Bank-funded PROP project.¹ The MSG roadmap and the MoU both raise sea cucumber fisheries and the beche-de-mer (processed sea cucumber) trade as priorities.

The sea cucumber fishery in MSG countries is reputedly the second-most valuable fishery in the Pacific Islands region after tuna. Sales of beche-de-mer represent the most significant source of income from marine harvesting for rural communities.

High market demand and challenges to sustainably managing sea cucumber fisheries have resulted in the four countries implementing moratoria or seasonal closures in an attempt to prevent commercial extinction of this fishery. FTAC meeting participants noted how average catches had fallen by around half in recent years which, combined with a shift towards lower-value species, and data presented in the SPC/World Bank PROP study, confirmed the finding of Carleton and colleagues (2013) that this represents tens of million dollars worth of lost revenue to countries and communities.

Representatives from four fisheries agencies in MSG countries agreed to strengthen collaboration under the auspices of the MSG roadmap on inshore fisheries in order to implement effective mechanisms for the management, maintenance and restoration of sea cucumber stocks for the goals of maximising long-term economic value and ecological sustainability.

A key requirement is political support for management plans and their enforcement, without which the recovery and increased long-term economic contributions to communities is not possible. Management plans include criteria for licencing buyers and exporters, restrictions on certain fishing methods, and bans on certain species or undersized animals.

Enforcing minimum size limits for sea cucumbers to ensure stock replenishment is a high priority. Countries adopted common standard minimum size limits, based on best available technical advice, to be incorporated into forthcoming management plans and regulations. The agreed minimum size limits are shown in Table 1. Countries also agreed to ensure a total ban on fishing for sea cucumbers with any kind of underwater breathing apparatus without exemptions.

The countries agreed to increase coordination and information sharing under the auspices of the MSG Secretariat with support from SPC and donors such as the World Bank. MSG Secretariat will seek financial support to establish an office for MSG beche-de-mer and coastal fisheries trade and information sharing.

Improved information on buyer and market prices will help ensure that fairer prices are paid to local fishers, and that increased collaboration with national customs authorities

will ensure better control and improved returns to national governments to offset the costs of management.

Overall, the outcomes of the meeting represent a significant step towards achieving the call in the MoU for the development of harmonised systems for the sea cucumber fishery in the area of policy, development and management measures that address marketing issues and fishery development strategies, which are suited for MSG governments and communities.

Rosalie Masu, chair of the 6th FTAC meeting stated that:

“The sea cucumber fishery is very highly valued in the Solomon Islands and the MSG region, only second to the tuna fishery. Our communities depend on this fishery for their livelihoods and economic benefits. Because of the threats posed to this fishery by overfishing, we, as regulators, must develop policies and regulations to ensure that the sea cucumber fishery is sustainable and we must also help communities maximize benefits from this limited resource. The MSG members recognize the importance of this fishery and a regional approach to make sure it is well managed that will facilitate information sharing and provide better ways forward.”

References

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- MSG Secretariat. 2015a. MSG roadmap for inshore fisheries management and sustainable development 2015–2024. [www.spc.int/DigitalLibrary/Doc/FAME/Reports/Anon_15_MSG_Roadmap.pdf]
- MSG Secretariat 2015b. Memorandum of understanding on technical cooperation in coastal fishery and aquaculture development. [<http://purl.org/spc/digilib/doc/mgtfs>]
- Tabunakawai-Vakalalabure M., Kuridrani N., Lalavanua W., Mangubhai S. and Bertram I. 2017. Pre-export sizes of beche-de-mer in Fiji. p. 38–46. In: Mangubhai S., Lalavanua W. and Purcell S.W. (eds). Fiji's sea cucumber fishery: Advances in science for improved management. Wildlife Conservation Society. Report No. 01/17. Suva, Fiji. [<https://fiji.wcs.org/Portals/82/reports/WCS%20Sea%20cucumber%20report%20260217.pdf?ver=2017-02-27-213114-827>]

¹ The objective of the Pacific Islands Regional Oceanscape Program (PROP) project is to strengthen the shared management of selected Pacific Island oceanic and coastal fisheries, and the critical habitats upon which they depend.

Table 1. Agreed standard sea cucumber minimum size limits for Fiji, Papua New Guinea, Solomon Islands and Vanuatu. It is noted that these limits are also compatible within rounding errors with the limits imposed by the fifth Melanesian Spearhead Group member, New Caledonia.

Scientific name	FAO code	Common name	Live (cm)	Dry (cm)
<i>Actinopyga echinites</i>	KUE	Deep water redfish	25	15
<i>Actinopyga lecanora</i>	YVW	Stonefish	20	10
<i>Actinopyga mauritiana</i>	KUY	Surf redfish	25	10
<i>Actinopyga miliaris</i>	KUQ	Blackfish/Hairy blackfish	25	10
<i>Actinopyga palauensis</i>	YGP	Deepwater blackfish	30	15
<i>Bohadschia argus</i>	KUW	Tigerfish/Leopardfish (SI)	30	15
<i>Bohadschia similis</i>	BDX	Chalkfish	25	10
<i>Bohadschia vitiensis</i>	BDV	Brown sandfish	25	10
<i>Holothuria atra</i>	HFA	Lollyfish	30	15
<i>Holothuria coluber</i>	HHW	Snakefish	40	20
<i>Holothuria edulis</i>	HFE	Pinkfish	30	15
<i>Holothuria flavomaculata</i>	JCI	Snakefish red	30	15
<i>Holothuria fuscogilva</i>	HFF	White teatfish	35	15
<i>Holothuria fuscopunctata</i>	HOZ	Elephant trunkfish	45	20
<i>Holothuria hilla</i>	JCK	Tigertail sea cucumber	25	10
<i>Holothuria lessoni</i>	JCO	Golden sandfish	25	10
<i>Holothuria leucospilota</i>	HFQ	Snakefish white/white threadfish	25	10
<i>Holothuria scabra</i>	HFC	Sandfish	25	10
<i>Holothuria whitmaei</i>	JDG	Black teatfish	30	15
<i>Pearsonothuria graeffei</i>	EHV	Flowerfish	30	15
<i>Stichopus chloronotus</i>	JCC	Greenfish	20	10
<i>Stichopus hermanni</i>	JNG	Curryfish	35	15
<i>Stichopus horrens</i>	KUN	Peanutfish /dragonfish (SI)	20	10
<i>Stichopus vastus</i>	JPW	Brown curryfish	25	10
<i>Thelenota ananas</i>	TFQ	Prickly redfish	40	15
<i>Thelenota anax</i>	HLX	Amberfish	40	15
<i>Thelenota rubralineata</i>	JDZ	Lemonfish/candyfish	30	15
TBC (to be confirmed)		Brown curryfish	25	10
TBC		Deepwater blackfish	30	15
TBC		Honpai fish, pigfish	NA	NA
TBC		Labuyo	30	15
TBC		Loli's mother	40	20
TBC		Ocellated curryfish	25	10
TBC		Pink curryfish	25	10

Note: Minimum size limits should be set above the size at which sea cucumbers become fully mature to ensure adequate recruitment. Using size-at-maturity data from other countries in the region, such as Papua New Guinea, Solomon Islands, New Caledonia and Australia, three size limit groups (i.e. 10, 15 and 20 cm total dried length) were recommended by Tabunakawai-Vakalalabure et al. (2017). The above size limits were adopted by consensus and are based on the PROP report 'Sea cucumber fisheries and management in Melanesia: Review and policy briefs', with few modifications to allow for countries to adapt to their own situation and environment.

For more information:

Stanley Wapot

Programme Manager, Governance and Sustainable Development, MSG
sj.wapot@msg.int

Hugh Govan

Consultant, SPC/World Bank PROP
hgovan@gmail.com

² <http://www.msgsec.info/index.php/publicationsdocuments-a-downloads/study-reports>. See also article by Hugh Govan on page 31 of this issue.