



Aquatic Wild Meat and the Sustainable Development Goals

What is aquatic wild meat?

Aquatic wild meat (aquatic bushmeat)¹ can be defined as the products derived from aquatic mammals and reptiles² used for subsistence food and traditional uses, including meat, shells, bones and organs and also as bait for fisheries. Aquatic wild meat is obtained through unregulated, and sometimes illegal, hunts, as well as from stranded (dead or alive) or bycaught animals. This aquatic wildlife, including species of dolphins, whales, manatees, crocodiles and turtles, are utilised as a source of nutrition and livelihood for coastal communities across the tropic, temperate, sub-Arctic and Arctic regions.

Hunting of aquatic species has taken place for generations, but it is clear that many coastal communities are becoming newly reliant on aquatic wild meat to satisfy their daily dietary requirements. These communities have also turned to this harvest for an alternative source of income because of the cumulative impact of modern pressures and growing human populations on their traditional income sources. In particular, declining fish stocks caused by industrial scale, unsustainable fishing practices including Illegal, Unreported and Unregulated (IUU) fishing is pressuring coastal communities, creating socioeconomic circumstances that fuel their increased and unsustainable capture and trade of non-fish species³.

Despite increasing evidence of this problem, and the recent recognition by various existing international conventions and agreements, aquatic wild meat is 'falling through the cracks' between environmental and fisheries Ministries, agencies and international processes. As an issue, it remains unaddressed and unregulated.

Aquatic wild meat and the UN 2030 Agenda for Sustainable Development

Central to the United Nations' 2030 Agenda for Sustainable Development are the 17 Sustainable Development Goals (SDGs)⁴ which will shape national development plans until 2030.

The SDGs provide a new global framework through which the issues driving aquatic wild meat consumption can be considered and addressed. The SDGs encourage the integration of conservation and sustainable development. Its key driver is community level displacement caused by overfishing and other industrialised industries, making it intrinsically linked to sustainable development of coastal communities, in particular relating to poverty and food security.

OceanCare welcomes SDG 14 to conserve and sustainably use the oceans, and advocates for urgent action by all stakeholders to ensure achievement of its various targets. An increased consideration of the socioeconomic and cultural benefits of marine environment protection and the interconnection between SDG 14 and the other SDGs is strongly encouraged by OceanCare, particularly regarding the wide range of ecosystem services that humans derive from the oceans.

SDG 1 - End poverty in all its forms everywhere

Poverty is more than a lack of income and resources to ensure a sustainable livelihood. It also reflects a lack of opportunities and capabilities in many interlinked areas, including insecure access to food and education, and being excluded from decision

making⁵. In all the world's oceans, the past three to four decades of development in the fisheries sector has led to overexploitation of resources and escalating threats to habitats and ecosystems. Practices which have traditionally allowed for the fair allocation and sharing of resource benefits in small-scale fisheries have become altered by the imposition of non-participatory and often centralised fisheries management systems, rapid technology developments, and demographic changes⁶. Competition from large-scale, and often foreign, industrialised fishing operations has placed great pressure on local communities. Industry and infrastructure developments from other sectors, such as tourism, aquaculture, agriculture, energy and mining often have a stronger political or economic influence, weakening the voice of small-scale fisheries in decision making⁷. Many of these industries provide little or no benefits to local communities, unfairly exploiting the natural resources of a region or local area, and providing nothing in return, leaving local communities impoverished and forced to find alternative sources of food and livelihoods. This ripple causes negative impact on species that cannot withstand the escalating harvest rates.

SDG 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture

One of the greatest challenges of the 21st century will be to feed over 9.7 billion people by 2050⁸. Across the world, fisheries are the core contribution to food security for many coastal communities. However, declining fish stocks, increased competition for marine resources, and IUU fishing have all conspired to put the nutritional needs of our growing human population in jeopardy. This is a problem most clear at local levels but represents a global responsibility – to ensure that the needs of present generations are met without compromising future generations.

As access to traditional ocean resources declines, it is not surprising that people are turning to alternative sources of protein including from species such as dolphins, turtles and manatees that are inherently unsuitable as a sustainable food source. Most of these species are long-lived, slow-breeding and already considered endangered, threatened or vulnerable by the International Union for Conservation of Nature (IUCN). Their populations are unlikely to cope with increasing and unregulated harvests. In turn, human communities which have an existing or emerging dependency on such species are likely to face an on-going threat to their food security.

SDG 3 - Ensure healthy lives and promote well-being for all at all ages

Good health depends on safe, nutritious food. Aquatic wild meat is not a sustainable food source and dependency on it could negatively impact human health and well-being in the longer term. Because of global environmental pollution, top predators within the food web, such as dolphins, porpoises and small whales have high contamination levels of heavy metals, chlorinated organic compounds and other toxic substances^{9,10}. The accumulation of these substances is particularly high in blubber and internal organs. The serious health impacts for humans ingesting such pollutants are now widely recognised. The consumption of cetaceans products with high pollutant levels is linked to impaired pre- and post-natal development, and also adverse health effects in adults^{11,12}. Small cetacean products consumed by humans, regularly exceed the safety limit for mercury or PCBs set by the Food and Agriculture Organization of the United Nations¹³. Studies have also shown that traditional preparation methods can result in a produce that has a much higher mercury concentration than the unprocessed tissue¹⁴. Although studies have not yet been done in many developing countries where aquatic wild meat is most regularly consumed, the studies in other countries which eat cetacean products such as Japan and the Faroe Islands, should be considered in any discussions about aquatic wild meat.

SDG 12 - Ensure sustainable consumption and production patterns

SDG 12 recognises the lessening ability of the natural resource base to supply food. It has specific targets which ask governments by 2030 to achieve the sustainable management and efficient use of natural resources, and to ensure that people everywhere have the relevant information to ensure sustainable development and lifestyles in harmony with nature¹⁵.

These are extremely relevant targets to consider in the context of aquatic wild meat which is currently being regarded as an alternative food source but without adequate regulatory measures in place or proper information available to support decision makers. The utilisation of megafauna, such as dolphins, manatees and turtles is an example of a failure to implement sustainable development in coastal areas which cannot cope with the overexploitation of their natural resources. Local

communities are being marginalised, competing for fisheries resources with foreign entities, and displaced from their traditional way of life so much that they are relying on inherently unsustainable practices to meet short-term food and income needs. More information is needed to understand the trends in aquatic wild meat consumption, including the species consumed and factors driving harvest trends, so that the cycle of unsustainable consumption and production can be halted.

SDG 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Humans depend on the world's oceans. Oceans help regulate the vital life support systems of our planet and provide food and livelihoods for people all over the world. Providing adequate protection for marine species is integral to achieving sustainable management and protection of marine and coastal ecosystems by 2020¹⁶.

In West Africa alone, at least five species of manatee, five species of turtle, seven species of dolphin, and one species of crocodile are regularly hunted across the region to fuel the demand for aquatic wild meat. All the species utilised as aquatic wild meat are listed on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) appendices which means it is agreed that their populations can be compromised by trade of them or their products¹⁷. They are also included in the appendices of the Convention on the Conservation of Migratory Species of Wild Animals (CMS). Those on Appendix I should be protected from local trade or consumption by domestic legislation¹⁸.

SDG 14 also focuses on the overfishing crisis. By 2020, governments are urged to regulate harvesting effectively and end overfishing, IUU fishing, and destructive fishing practices. They are asked to implement science-based management plans, and to restore fish stocks in the shortest time feasible¹⁹. Across the SDG14 targets, the importance of giving particular consideration to the needs of Small Island Developing States and Least Developed Countries is consistently recognised. These countries are vulnerable to the impacts of overexploitation from distant water fishing vessels, including those from the U.S., Europe, China, Taiwan and Japan, who are effectively 'ocean-grabbing' resources. These foreign industrial vessels (distant water fleets) provide a cover for IUU fishing, an issue perpetuated by

transshipments at sea, and so greatly contribute to overfishing and increased pressure on local coastal communities.

Effective regulation, and sustainable management and use of fisheries, will help reduce the pressure on coastal communities and in turn address driving factors which lead to aquatic wild meat consumption and other uses.

Recommendations

OceanCare proposes the following important actions for relevant stakeholders to address aquatic wild meat.

Governments should:

- Review national practices and legislation, with the support of relevant international organisations and academic institutions, to gain a thorough understanding of the current situation regarding the number, location and impacts of the trade, consumption and other uses of aquatic wildlife at a national level. Governments should also conduct a policy gap analysis to identify what opportunities exist for improvement.
- Recognise the importance of, and provide support to, capacity development to address the aquatic wild meat issue, in particular in developing countries and Small Island Developing States. Such capacity development is required so that governments can adequately enforce existing legislation, increase public awareness and education initiatives, and enable improved information sharing at regional and international levels.
- Consider becoming contracting parties to relevant Multilateral Environmental Agreements (MEAs), if aquatic wild meat consumption and trade is a problem in their country. These MEAs facilitate international and regional cooperation to address the conservation issues impacting coastal and marine species.
- Firmly embed the three pillars of sustainability, environmental, economic and social, into their fisheries management, in particular through the responsible use of marine resources, the consideration of local communities and small-scale fisheries by industrialised nations, and when implementing relevant existing policy instruments into national legislation and regulation, they should:

- Implement measures to support small-scale fisheries, in particular through the guidance provided in the Food and Agriculture Organization's (FAO) *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines)*, ensuring that participatory and inclusive growth policies, strategies and legal frameworks are in place to support marginalised people in coastal communities, and addressing key drivers which may increase the reliance such communities on unsustainable sources of food and livelihood.
- Urgently address Illegal, Unreported and Unregulated (IUU) Fishing by strengthening fisheries laws and regulations, taking effective action against those engaging in IUU activities, establishing mechanisms that encourage compliance, and ensuring that any subsidies or grants provided to fisheries sectors do not nurture IUU fishing and addressing transshipments at sea. Relevant instruments and agreements to combat IUU fishing should be implemented in particular by becoming a contracting Party and urgently implementing the Port State Measures Agreement.
- Ensure the ecosystem approach to fisheries management is applied in their jurisdictions, in recognition that a wider framework for planning, development and management of fisheries is required to take into consideration the effects of other sectors on fisheries and the effects of fisheries on ecosystems. Governments should also ensure that the principles of FAO's *Code of Conduct for Responsible Fisheries* are applied.
- Adopt and implement measures to ensure the reduction of bycatch in fisheries. Such measures should guard against the commercialisation of products from by-caught marine mammals, reptile, birds sharks and rays to prevent any incentives that might exist to capture such species during fishing operations.
- Prohibit the use of non-fish species as fisheries bait and support the development of alternatives.
- Support increased work on aquatic wild meat within relevant intergovernmental fora, in particular through dedicated working groups and multi-stakeholder partnerships which can actively support work taking place at regional and national levels through the provision of technical expertise and attract funding towards projects.

- All stakeholders should recognise the links between aquatic wild meat and issues relating to poverty, human health and food security, and the threat to the conservation of highly vulnerable species. Aquatic wild meat should be addressed within the integrated framework of the UN's 2030 Agenda and the Sustainable Development Goals.

Addressing the root causes and impacts of aquatic wild meat requires action from a range of stakeholders. OceanCare's Voluntary Commitments to drive and support progress in addressing aquatic wild meat as part of the 2030 Agenda for Sustainable Development can be found here: <https://oceanconference.un.org/commitments/?id=16046>

References

- ¹ Within some forums and definitions the term aquatic bushmeat is also used to describe this issue and in earlier publications OceanCare has also used this term. However, aquatic wild meat has evolved to become the preferred terminology of OceanCare which is also the preferred term within forums such as the Convention on Migratory Species (CMS),
- ² Discussions are ongoing within intergovernmental fora about whether this definition should be included to include seabirds, sharks and rays.
- ³ Prideaux, M (2016) Aquatic Bushmeat: A local issue with global responsibility, OceanCare, Wädenswil
- ⁴ <https://sustainabledevelopment.un.org/sdgs>
- ⁵ <http://www.un.org/sustainabledevelopment/poverty/>
- ⁶ International Guidelines on Securing Sustainable Small-Scale Fisheries (SSF Guidelines). In FAO Fisheries and Aquaculture Department. Rome.
- ⁷ Ibid
- ⁸ Food and Agriculture Organization of the United Nations (FAO) (2016). The State of World Fisheries and Aquaculture. Contributing to food security and nutrition for all. Rome. 200 pp.
- ⁹ Hall, A (2018): Mercury in Cetaceans. Document SC/67B/E/08 for the IWC Scientific Committee
- ¹⁰ Isobe, T. et al. (2009): Organohalogen contaminants in striped dolphins (*Steella coeruleoalba*) from Japan: Present contamination status, body distribution and temporal trends (1978-2003). Mar. Poll.Bull. 58: 396-401
- ¹¹ Environmental Investigations Agency (2015) Dangerous Diet: Japan fails in its duty of care over toxic whale and dolphin meat. p 4
- ¹² Weihe, P. & Joensen, H. D. 2012. Dietary recommendations regarding pilot whale meat and blubber in the Faroe Islands. International Journal of Circumpolar Health, Vol. 71.
- ¹³ Baulch, S & Perry, C. (2014) A sea of plastic: Evaluating the impacts of marine debris in cetaceans. Document SC/64/E10 for the IWC Scientific Committee.
- ¹⁴ Fielding, R. & Evans, D. (2014) Mercury in Caribbean dolphins (*Stenella longirostris* and *Stenella frontalis*) caught for human consumption off St. Vincent, West Indies. Mar. Poll. Bull. 15; 89 (1-2) 30-34
- ¹⁵ <http://www.un.org/sustainabledevelopment/sustainable-consumption-production/>
- ¹⁶ <http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water/targets/>
- ¹⁷ Consentino, A.M., Fisher, S. (2016) The Utilisation of Aquatic Bushmeat from Small Cetaceans and Manatees in South America and West Africa. Frontiers in Marine Science. V3, p 163
- ¹⁸ Convention on the Conservation of Migratory Species of Wild Animals. 1979. Convention Text http://www.cms.int/sites/default/files/instrument/CMS-text.en_.PDF
- ¹⁹ <http://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-14-life-below-water/targets/>