

# Hooray for Manta Rays

Lamakera, a tiny village in Indonesia, is a centre for the global trade in manta rays, which are listed as vulnerable by the International Union for Conservation of Nature (IUCN)

The IUCN Red List of Threatened Species – a critical indicator of the health of the world’s biodiversity – has assessed 93,500 animal species since it began its work in 1964. Its research found that over 26,000 species are threatened with extinction – that is, 27 per cent of all assessed species. Sharks and ray, or *Chondrichthyes* – characterized by their cartilaginous skeletons – are under intense pressure. There are 1,041 known *Chondrichthyes* species and, of these, 181 (17.4 per cent) are classified as threatened: 25 (2.4 per cent) are assessed as Critically Endangered (CR), 43 (4.1 per cent) Endangered (EN), and 113 (10.9 per cent) Vulnerable (VU). Within this group are the manta rays (*Manta birostris* and *Manta Alfrede*), charismatic, filter-feeders found in tropical and sub-tropical waters around the world. Sadly, both species are listed as vulnerable to extinction. Threats to manta ray populations have been directly attributed to the development of a market for their body parts (specifically, their gill plates), which began growing in the 1990s.

In the far reaches of eastern Indonesia is a small village named Lamakera, which is known by some as one of the locations for the biggest manta fisheries in the world. The Lamakerans have hunted mantas for centuries; in their words, since ancestry (*sejak nenek moyang*). In the past, Lamakerans hunted manta rays in dugout canoes and sailboats and this fishery was a small-scale subsistence fishery, and the Lamakerans only used the meat for local consumption; the remaining body parts (including the gill plates) had no value and were thrown away. However, over the last two decades, increased demand and enhanced technology have

transformed the fishing from a modest source of sustenance to a barbaric pursuit of profit. China’s demand for manta gill plates – which are used for bogus, pseudo-medicinal purposes – has turned Lamakera into one of the centres of the global trade.

The Lamakera manta ray fishery landed an estimated 975 mobulid rays in 2002. Catch comparisons across a 12-year period (2002 to 2014) revealed a 75 per cent decline in manta ray and mobula catch, despite an increased fishing effort. Interviews conducted in 2011 and 2014 revealed that fishers found it increasingly difficult to locate mantas,

...over the last two decades, increased demand and enhanced technology have transformed the fishing...

further suggesting that populations may have declined significantly due to fishing pressure. Despite recognizing the fact that stocks may be depleted, there was no effort from the fishermen to reduce hunting efforts.

## CITES

In 2013, a momentous announcement changed everything. Member countries of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) voted to include both species of manta ray under Appendix 2, thus regulating the trade in these animals’ body parts. In January 2014, Indonesia went a giant step further by banning all hunting of manta rays in national waters. The regulation, issued by the Marine and Fisheries Ministry Regulation (Kepmen KP No. 4 2014), banned the hunting,

This article is by **Amiroh Husna Utami** ([ahusnautami@outlook.com](mailto:ahusnautami@outlook.com)), *Alternative Livelihood Officer* and **Jo Marlow** ([jo@misoolcoresort.com](mailto:jo@misoolcoresort.com)) of Misool Foundation, Indonesia

selling and distribution of both species of manta ray. Violation of this regulation can incur a punishment of a maximum prison sentence of six years and a fine of approx. US\$100,000. This new regulation provided a catalyst for a coalition of non-governmental organizations (NGOs) and passionate individuals, which included Misool Foundation, Reef Check, Indonesian Manta Project, Blue Sphere Media and Wild Aid, to begin work in Lamakera. Their goal was to end manta ray hunting in the region, redirect villagers' focus to new sources of income, and create a model that could be used to transform the practices of other communities.

In 2014, this coalition, led by Misool Foundation, began working with the Indonesian Ministry of Marine Affairs and Fisheries, local government and coastal villages to introduce a comprehensive community-based conservation programme designed to collect scientific data, influence marine policy and diversify livelihoods within the community. In 2016, realizing the need for a local enforcement component to complement the community development and research, the Wildlife Crimes Unit (WCU) of the Wildlife Conservation Society (WCS) was bought in to begin a local patrol initiative.

### **In January 2014, Indonesia went a giant step further by banning all hunting of manta rays in national waters**

The first step was to set up several meetings with the local community and the Indonesian Ministry of Marine Affairs and Fisheries, local government departments and NGOs. These meetings aimed to provide clarity about the regulation, provide a forum for community members to raise their concerns or share their perceptions, and start discussions about possible alternative livelihood options. These discussions were met with mixed feelings from the community. Some felt their incomes were threatened, while others understood the law and were keen to seek alternative options. Misool

Foundation responded by developing new income streams that are decoupled from manta hunting. The team engaged ex-manta hunters and those community members who were ready to change. The goal was to give them the option to stop hunting in exchange for NGO and government support. The Foundation's team gathered those people and asked them to sign an agreement to state that they would stop hunting mantas, an agreement which was ratified by the local government departments. In return, and with the consultation of fishermen, surveys were conducted to understand how to best address the communities' needs.

A Rapid Assessment on the Potential for Sustainably Focused Programme Development, conducted by Yayasan Masyarakat dan Perikanan (MDPI), concluded that most of the Lamakera fishermen are opportunistic, and take multiple gears with them on their fishing trips. This assessment showed that fishermen were open to new methods, therefore giving potential to explore other options such as the development of new supply chains of high-value species like skipjack tuna and high value demersal fish.

In 2016, a fishermen's co-operative was created as an economic device to support the fishermen's transition away from hunting manta rays. By September 2018, 32 ex-manta hunters and a total of 105 community members had joined the co-operative. The main stipulation of co-operative membership is that all members should sign the official agreement to stop hunting.

#### **Training support**

This co-operative is registered with the Department of Co-operatives and is a legal entity. This means that members receive support and training, and are eligible for grants from the local government. Based on interviews with the community and survey results, five small business units were established within the co-operative framework, as also microfinance opportunities, a community mini-market, ice production facilities, seaweed farming, and a mini purse-seine boat.

The business units are structured to enhance existing incomes, lower

household costs and – in the case of the mini purse-seine fishing boats – provide a higher income by using alternative fishing methods. Good-quality ice and storage, for example, means that fishers can easily increase the value of their existing catch, without having to increase catch numbers.

In addition to working directly with the Lamakeran community, the team began working with the coastal communities surrounding Lamakera. They planned to reinstate multiple groups of community rangers (POKMASWAS) and provide them with knowledge and tools to protect and preserve their own marine environments. These groups were encouraged to take pride in these areas and their efforts were celebrated in monthly publications. In September 2018, the POKMASWAS members increased in number to 324 people across 33 villages.

A call centre was launched to provide a mechanism to report incidents of illegal, unreported and unregulated (IUU) fishing, bycatch and animal strandings. A rapid response team was put in place to respond to these reports. As a result, the team released 27 large, vulnerable marine animals, including manta rays and whale sharks this year.

It is now four years since the programme's inception, and there have been a number of exciting achievements. Without doubt, the most significant of these achievements is a 97 per cent decrease in mantas caught by the targeted fishery between 2015 and 2017. Increased interest in, and membership sign-up to, the fishermen's co-operative proves that behaviour change is occurring at a local level, and community members have an increased understanding of the need to transition to new fishing practices. These encouraging results provide evidence that the two-pronged approach to enforcement and livelihoods development is working.

Lamakera is a lynchpin to emboldening the Indonesian government to continue the process of national conservation of manta rays and sharks. Success here – proving that even the most ardent community can buy-in and even prosper from



Indonesian Lamakera manta ray hunters in action. Stories like Lamakera demonstrate that with passion, dedication and strong partnerships, our marine environment has a bright future ahead

national marine legislation – sets the stage for even more aggressive implementation of the manta hunting regulations. Indonesia is defined by its coastline and its rich marine assets. Stories like Lamakera demonstrate that with passion, dedication and strong partnerships, our marine environment has a bright future ahead. ♣

#### For more



<https://www.misoolfoundation.org/>  
**Misool Foundation**

<https://www.icsf.net/en/proceedings/article/EN/104-indonesia-works.html?start=10>

**The Indonesia Workshop Report: Indonesia Workshop Report: Customary Institutions in Indonesia: Do They Have a Role in Fisheries and Coastal Area Management?**

<https://www.icsf.net/en/samudra/article/EN/78-4338-Strong-Pillars.html>  
**Indonesia: Strong Pillars**

<https://www.icsf.net/en/samudra/article/EN/72-4186-No-Turning-Back.html>  
**Indonesia / Illegal Fishing: No Turning Back**