

2022

annual report



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welcome

protecting the world's richest reefs

a note from our chairperson

2022 was a year of celebration. As the world found ways to manage Covid-19 and restrictions lifted, we continued our conservation work in Indonesia with renewed vigour. We used these new circumstances as an opportunity to better integrate our programmes for improved efficiency, skill sharing, and increased impact. For example, this year we expanded our Community Education programme into high schools. The next step is to link youth education to our Reef Restoration PROJECT and Ranger Patrol operations. Our Coral Gardeners and Rangers will become teachers in our very own wild laboratory by sharing their knowledge and commitment to ocean health.

We have also been strategising around financial resilience. The pandemic removed the foundation's main funder, Misool

Resort, as travel closures meant the property was shut for two years. Our focus shifted to securing a diversified income stream for the foundation, developing new opportunities for our individual supporters, investigating the potential of long-term funding from Blue Carbon, and the foundation becoming joint owner of Misool Resort's photovoltaic (PV) power plant in order to secure regular payments for power production.

In 2022 travel rebounded and with it a dramatic increase in the number of tourism boats entering the Misool Marine Reserve (*Sub-Zona Pemanfaatan Terbatas untuk Pariwisata*). Subsequently, incidents of unsafe anchoring by tourism operators hit its highest ever number. Additionally, the dramatic increase in divers is negatively impacting the reefs. In response, we have bolstered our relationship with the

local authorities and provided strategic advice and data to improve the long-term management of the Raja Ampat Marine Protected Area Network, including the Misool Marine Reserve.

Misool Foundation recruited new staff for key roles, including our Operations Manager, Reef Restoration Coordinator, and two Ranger Station Coordinators. We also invested in a reregistering the foundation so that it aligns more closely with our organisational goals and reflects the evolution of our mission: the original name registered in 2011, '*Misool Baseftin*,' comes from a local Misool language. Since then, our geographical and functional expansion means that the new name and identity of *Misool Ekosistem Regenerasi* is more inclusive of our diverse range of stakeholders and will help us to unite our conservation work more effectively with



a note from our chairperson

community ownership and empowerment. We amplified our community engagement through the 'Rethinking Plastics' campaign which caught the attention of Sorong City's youth and pushed forward the political agenda of banning single-use plastics in the city. This creative campaign engaged people through art and film and the environmental documentary screening events were a highlight in town and schools for many months.

During the year, it became clear that the pandemic had caused some significant food security issues for the local communities as critical supply ferries were stopped as part of the Covid containment regulations. Food security issues in coastal communities threaten marine protected areas through increased reliance on fishing. Misool Resort addressed this by ramping up its community support with

its micro-agriculture programme, teaching community members to set up and operate small scale fruit and vegetable gardens in the areas surrounding the villages and in poly bags for families without any land near their homes.

This year marked a change for our Savu Sea Alliance programme in East Flores. Since 2015, the team has worked closely with the community to reduce manta ray hunting by developing a network of community rangers and a fishermen's cooperative. We collaborated with the government, gathering and sharing data about the key habitats for Manta and Mobula Rays in the area. This led to a review of the marine protection policy in the waters around East Flores. With this milestone, we have started a transition to close this programme and transfer ownership of the work to the community and cooperative.



a note from our chairperson

Looking forward

In 2023 we will start an exciting collaboration with the organisation, Forest Carbon, to explore the carbon capture potential of the mangrove and seagrass beds in Misool. The objective is to show the financial value of these ecosystems and develop Blue Carbon credits to both incentivise their protection and generate revenue to enact it. These ecosystems are both huge carbon stores and also critical nurseries for many reef fish species: their protection is a huge win for greater ocean health.

In a similar vein, our rewilding agenda is top of the list. The Reef Restoration Project is ready to restore another 1,000m² of reef and we plan to include more people from the community in this project. We are proud to have been chosen as a hatch-and-release

site for endangered Leopard sharks as part of an international project named ReShark. This first of its kind marine rewilding project aims to reintroduce leopard sharks in Raja Ampat, thus reestablishing local populations that are now functionally extinct due to shark fishing.

We will measure the result of our marine protection programmes through research, data collection and analysis of the health of the Batbitim and Daram No-Take Zones. With the support of our research partners from *Universitas Pattimura* in Ambon, Indonesia we will measure Reef Health, Fish Biomass and Shark Abundance.

At the community level we plan to expand the micro-agriculture programme by developing a local marketplace in one of the villages. This will create a platform where community members can sell their

fresh, locally grown produce to other community members, homestay operators and Misool Resort.

After reducing scope during the pandemic, the *Bank Sampah Sorong Raya* Community Recycling Programme (BSSR) will reactivate some of the collection points. Additionally, the team will begin to handle organic waste by using black soldier fly larvae, thereby adding a new revenue stream to this programme. Finally, the BSSR team will scale up engagement with the private sector and provide waste management solutions for local businesses.

We have some major improvements planned for buildings and infrastructure. Our Fafanlap Village Kindergarten, known in Indonesian as *Taman Kanak-kanak Baseftin Al-Ma'arif*, will undergo a schedule of maintenance and refurbishment.

Ranger Stations in Yillet and Kalig will be upgraded to provide better facilities and comfort for our Rangers. We are looking into ways to install solar power at all Ranger Stations to cut the fuel usage, improve communications, and improve our sustainable practices in the field.

Finally, we are focusing on you, our friends and supporters, by building a stronger network for this amazing community that never fails to inspire us. The pandemic took a lot but it also gave many gifts, one of which was demonstrating how strongly you all believe in our work and want to contribute to our mission. Thank you for all your support in 2022 and the last 11 years.

We are small, but with all of you at our side, we are mighty!

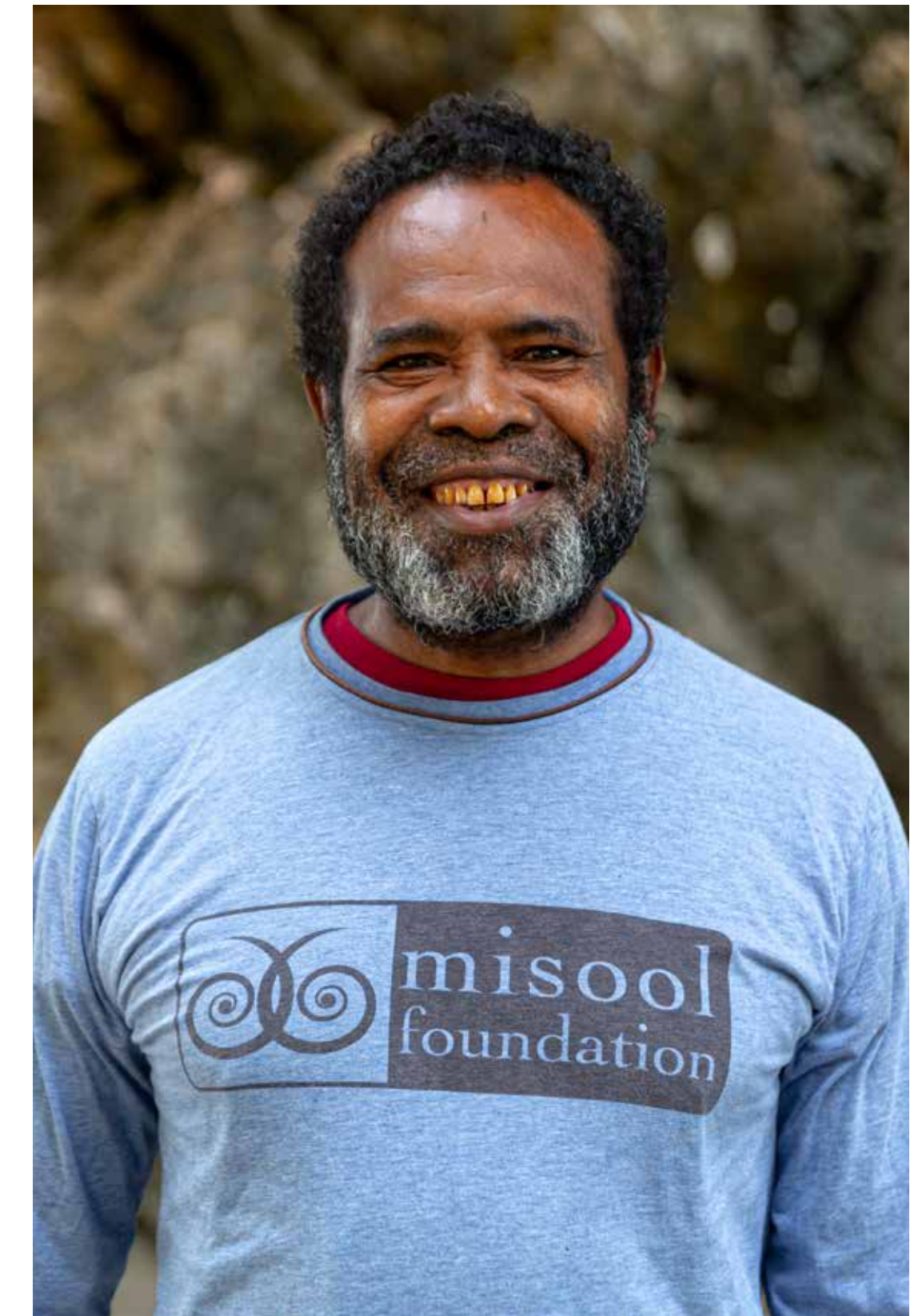
Virly Yuriken

objective: protecting the 300,000-acre misool marine reserve

In 2022, the Misool Ranger Patrol completed 905 physical patrols in the Misool Marine Reserve (*Sub-Zona Pemanfaatan Terbatas untuk Pariwisata*), maintaining its vigilance over the marine environment. With closer stakeholder collaboration at the heart of a well-managed protected area, the team strengthened its partnership with *BLUD UPTD Raja Ampat* (The Raja Ampat Marine Park Authority and Management Unit). The Rangers worked with tourism operators to ensure that boats were properly anchored and not damaging the reefs, in addition to monitoring for illegal fishers.

Two new team members joined us as Ranger Station Managers, one of whom is Bapak Isla Bahalle from the nearby village of Yellu, who worked at the Pearl Farm (*PT. Yellu Mutiara*) prior to joining Misool Foundation. Part of his motivation for joining the Misool Ranger Patrol was his belief that conservation is a collaborative effort, and everyone must work together to protect the resources that the local community rely upon. He has witnessed the positive, long-term effects of the No-Take Zones, which, for the community, translates into an increase in fish catch near the villages.

In addition to physical patrols, the Rangers also protected sea turtle nests and released 580 hawksbill and green turtle hatchlings. Streamlining patrols using technology was a focus and the Rangers undertook a 3-day training course using SEATRACKER, a purpose-built mobile app which collects Patrol field data using GIS (Geographic Information System). Designed by The SEA People, SEATRACKER is an integrated patrol monitoring system which will be implemented across the whole Raja Ampat network of MPAs, giving *BLUD UPTD Raja Ampat* and Misool Foundation real-time reports on infringements.



misool ranger patrol

number of patrol trips



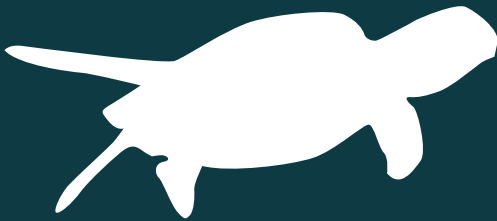
905

number of fishing boats intercepted



47

number of turtle eggs protected



3259

number of baby turtle "hatch-and-released"



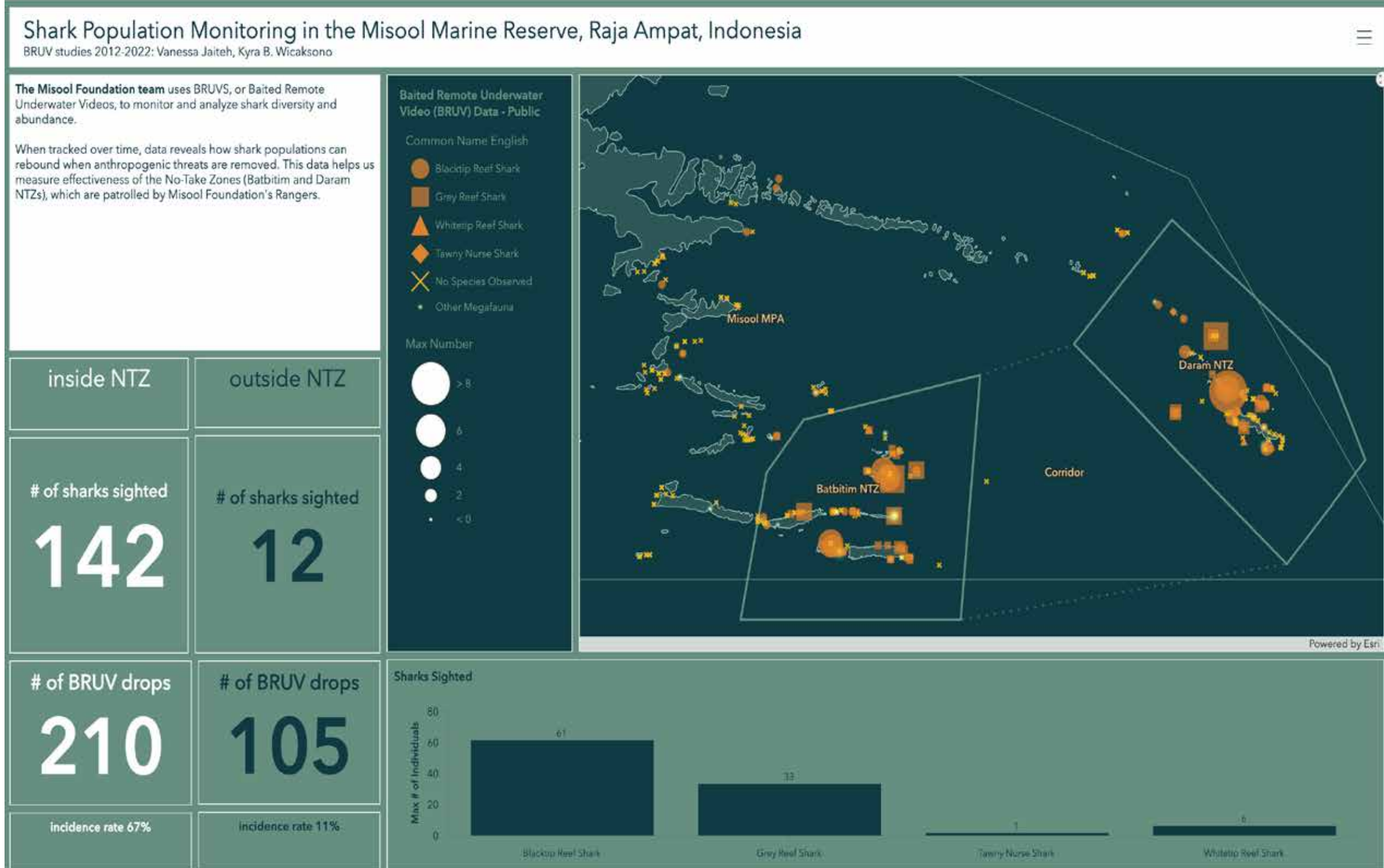
580



objective: integrating spatial data to inform decision making

In addition to upgrading the Ranger Patrol's data collection strategy, the Misool Foundation team explored ways in which technology can integrate spatial data to inform effective decision making. This resulted in a generous in-kind grant of USD 18,200 from Esri for their suite of software including ArcGIS Pro, Dashboards, and mobile apps.

Two Esri experts, Emily Ebba Meriam and Adam Jenkins, donated 63 hours of their time to offer support and training to the team. Thanks to this collaboration, we were able to create dashboards to visualise the results of our shark research as well as detailed maps of our No-Take Zones. Looking ahead to 2023, we will use Esri technology to map our Reef Restoration Project.



objective: rebuilding reefs and restoring biodiversity

We launched the Reef Restoration Project in 2013 to rebuild coral flats that had been destroyed by dynamite fishing prior to the establishment of the Raja Ampat MPA network. Since the 2018, we have installed 2060 m² of artificial reefs.

We continued to work with Indonesian businesses that are committed to social and environmental projects. In 2022 we received funding from *Pertamina EP* (PEP) to install 500 spider-shape artificial substrates, adding to the 300 structures that we installed with PEP's support in 2021. More corporate support came from *PT. Sarana Multi Infrastruktur* and the organisation made a 3-year commitment to the project.

Deliverables include the installation of 3000 m² of wire mesh for reef transplants and community activities including technical assistance in building a circular economy.

Another high point was training conducted by Pak Noke from *Universitas Pattimura* in Ambon. Pak Noke visited the Ranger Patrol to teach methods for reef health monitoring. The Rangers custodianship of the reefs is all encompassing: they plant corals and monitor their health while concurrently ensuring that the entire area is protected from anthropogenic threats and illegal fishing.



reef restoration project

amount of reef restored



579m²

survival rate



80%

misool resort guests
joining the reef restoration
experience



17



objective: working with local communities to keep raja ampat's reefs waste free

A highlight for the *Bank Sampah Sorong Raya* Community Recycling Team (BSSR) in 2022 was the launch of the *#PlastikTaraAsik* (Plastic Is Not Cool) campaign. The campaign forms part of the 'Rethinking Plastics – Circular Economy Solution to Marine Litter' project. This initiative supports the transition to a circular economy for plastics in seven countries in East and Southeast Asia. The concept uses art to connect people with the global plastic problem, resulting in long-term behaviour change.

We launched a competition in late 2021 and artists were encouraged to enter their ideas for murals that would showcase

sustainable plastic usage. The best ideas were chosen and in January 2022 the selected participants set to work on a 110-metre-long wall close to the Sorong Harbour, which was previously covered in graffiti. Four participants also had the opportunity to share their work in a mural in Waisai, the capital of Raja Ampat.

The second stage of the campaign was open to filmmakers who were asked to submit ideas for short documentaries. Four short films were produced and screened in a cinema in Sorong to an influential audience including the Head of Sub-Directorate for Producer Management at the Ministry of Environment and Forestry,

the Heads of the Environmental Service in Sorong Raya (Sorong City, Sorong Regency, and Raja Ampat Regency), as well as other stakeholders including NGOs and universities.

The *#PlastikTaraAsik* documentaries aim to build public awareness and motivate the local government to regulate the use of single-use plastic. The campaign was co-funded by the European Union and the German Federal Ministry for Economic Cooperation and Development (BMZ) and jointly implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Expertise France.



community recycling programme



total recyclables collected

39.2 MT



total recyclables collected since 2018

1162 MT



ocean bound plastics recycled

7547 KG



number of staff

17



percentage of female staff

41%



active collection points

24



objective: developing skills and knowledge for brighter futures

2022 was an excellent year for our education and community outreach programmes. We continued to provide schooling four- to six-year-olds in the local community at the Fafanlap Kindergarten (*Taman Kanak-kanak Baseftin Al-Ma'arif* in Indonesian), and broadened our scope by hiring a new Community Outreach Officer, Lince, who has added high school education to our programme.

Lince delivered a series of classes in three local high schools to a total of 296 students, with topics ranging from endangered marine species to mangrove ecosystems. The aim this year was to develop a

knowledge base that we will build upon in 2023 through practical experience. The most motivated students will have the opportunity to bring their theory to life and join our Reef Restoration Team in Kalig and Yillet to learn about coral transplanted techniques and monitoring.

In Fafanlap Village, our two full-time teachers, Bunda Jaenab and Bunda Ika, continued work with the early education programmes. Graduation took place in June, and we were thrilled that 20 students received their graduation certificate, giving these children a greater potential for success as they continue their schooling.



community education programme



number of kindergarten students

25



number of kindergarten teachers

02



number of high school partners

03



number of high school lessons

100



number of high school students

296



objective: monitoring and protecting misool's manta rays

In 2022, Misool Resort's team and guests submitted a total of 101 Manta ray ID shots for research purposes. University of Auckland's Edy Setyawan, an expert on Raja Ampat's Reef Manta rays, has used the data shared by the Misool Manta Project in a series of scientific papers that are highlighting new discoveries.

In the most recent publication, Edy, researchers from Raja Ampat MPA management authority and Yayasan Konservasi Indonesia, found that Raja Ampat's Reef Manta rays are thriving, and

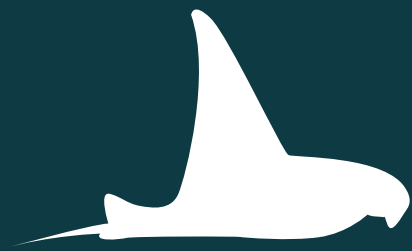
that the Misool sub-population has more than doubled in a 10-year period. In fact, with a total of 1730 reef mantas in the Raja Ampat database (638 in Misool), Raja Ampat's Manta ray population is the second largest in the world after The Maldives.

Misool's guests donated almost all the data from the Misool area that was used in this paper, demonstrating the important link between tourism, citizen science and conservation.



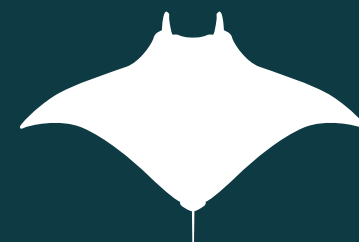
misool manta project

oceanic manta IDs



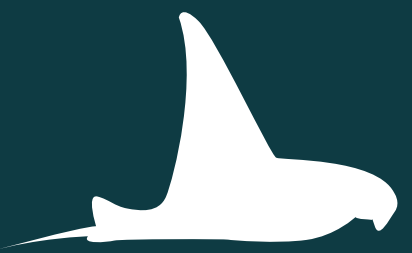
30

reef manta IDs



71

total reef manta IDs (in database)



638

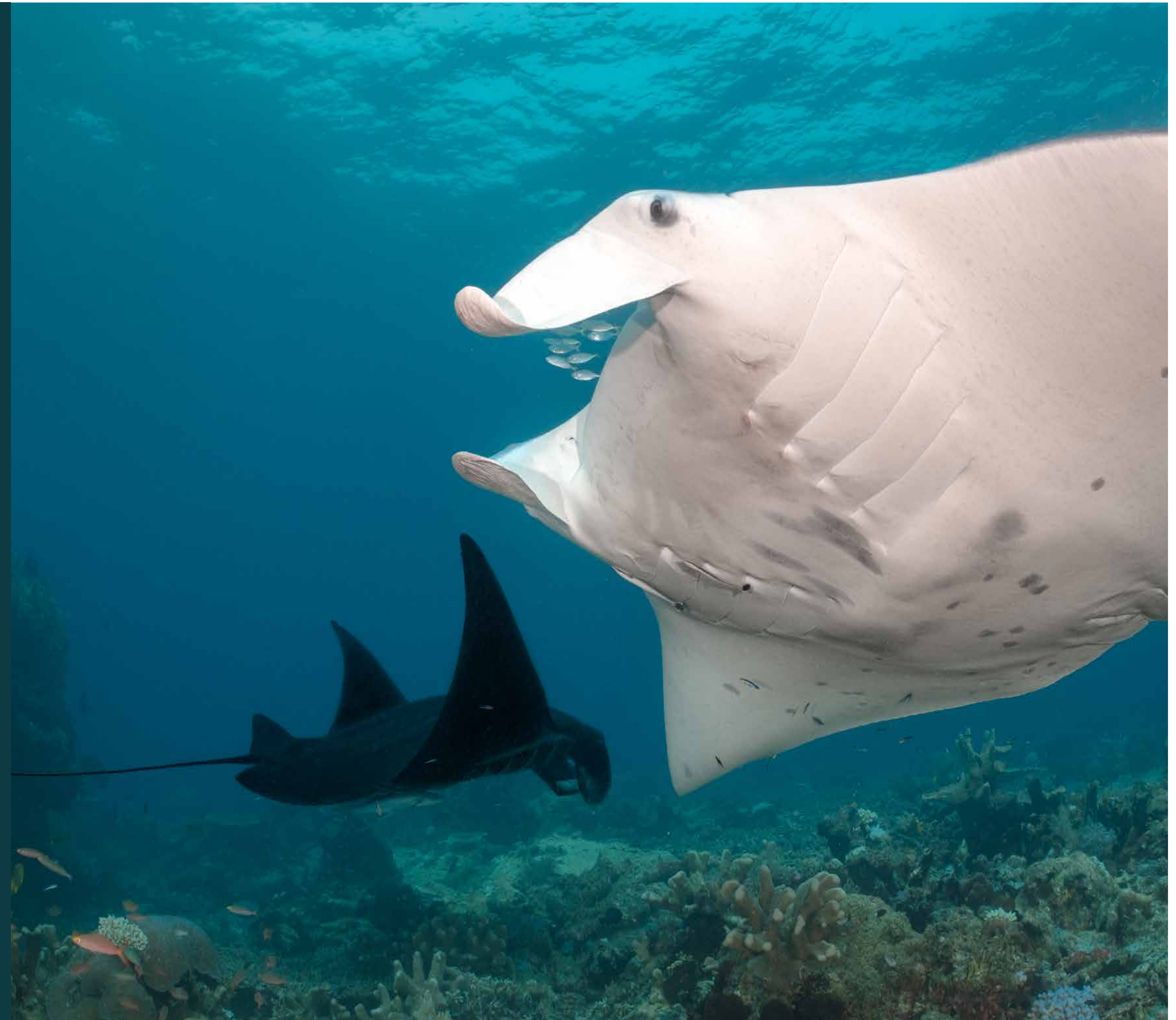
total oceanic manta IDs (in database)



860

35

manta ray adoptions during the report period



objective: economic empowerment and increased food security

Since 2017, Misool Resort has funded a programme to support to economic development in the communities close to the resort, while simultaneously addressing food security issues. During the pandemic food security became a growing concern as supply ferries to the small island communities were stopped due to Covid containment measures. The community development programme's key objective is to empower the coastal communities of Misool, most of whom have traditionally linked household income to the sea. By developing new skills, communities are able to decouple their income from marine

extraction and gain profit from small scale agriculture, while growing fresh produce to meet their own needs.

Participants from nine villages have learned to cultivate small scale fruit orchards and vegetable gardens and build small businesses to sell their produce. They've also learned to process these raw materials into value-added consumer goods such as banana chips and taro chips, which can be easily brought to market. These products are sold locally (including to Misool Resort), thereby bolstering economic resilience in the community.

The development of these practical skills has resulted in a marked shift in mindset about how to generate income and what opportunities exist for sustainable livelihoods. These new insights have strengthened the communities' commitment to marine protected areas and to the importance of resource management. The next step for the programme is to build a traditional market to sell produce. Work on this will start in 2023 and it will be located in the main harbour of Yellu village which has good access routes from the surrounding villages.



misool community development programme

families involved



170

new trainers taught



10

participating villages



09

100%

funded by misool resort



objective: developing livelihoods as an alternative to hunting

At our satellite base in East Flores, 2022 yielded positive outcomes in the form of new policy development, the result of three years of government lobbying and advising. The East Flores and Lembata Marine Protected Areas (MPA) were legally established, creating a zoning system in which different types of activities or fishing are permitted. Data gathered by our team, in particular the Population Ecology Survey Rays (Herwata, et. al 2019) established the main habitats of Mobulid rays and were instrumental in informing the creation of the zones.

The Community Rangers (POKMASWAS) were recognised in the MPA Management Plan, demonstrating the importance of their efforts to the protection of local marine resources. In 2022, POKMASWAS

members submitted an average of 29.5 reports per month, some of which led to the live release of 11 marine animals which were caught as bycatch including turtles, a dolphin and a whale shark.

The alternative livelihoods cooperative continued its work and thanks to the success of the business units, the 125 cooperative members received the highest annual dividend since the cooperative was established four years ago.

In October 2022, we began to reduce our presence in the field and handover the management of the cooperative and associated businesses to the community. We maintain a core field team who remain available for support and community liaison.



savu sea alliance

number of community rangers



324

number of cooperative members



125

number of reports of stranded or trapped megafauna rescues



11



objective: sharing knowledge and inspiring

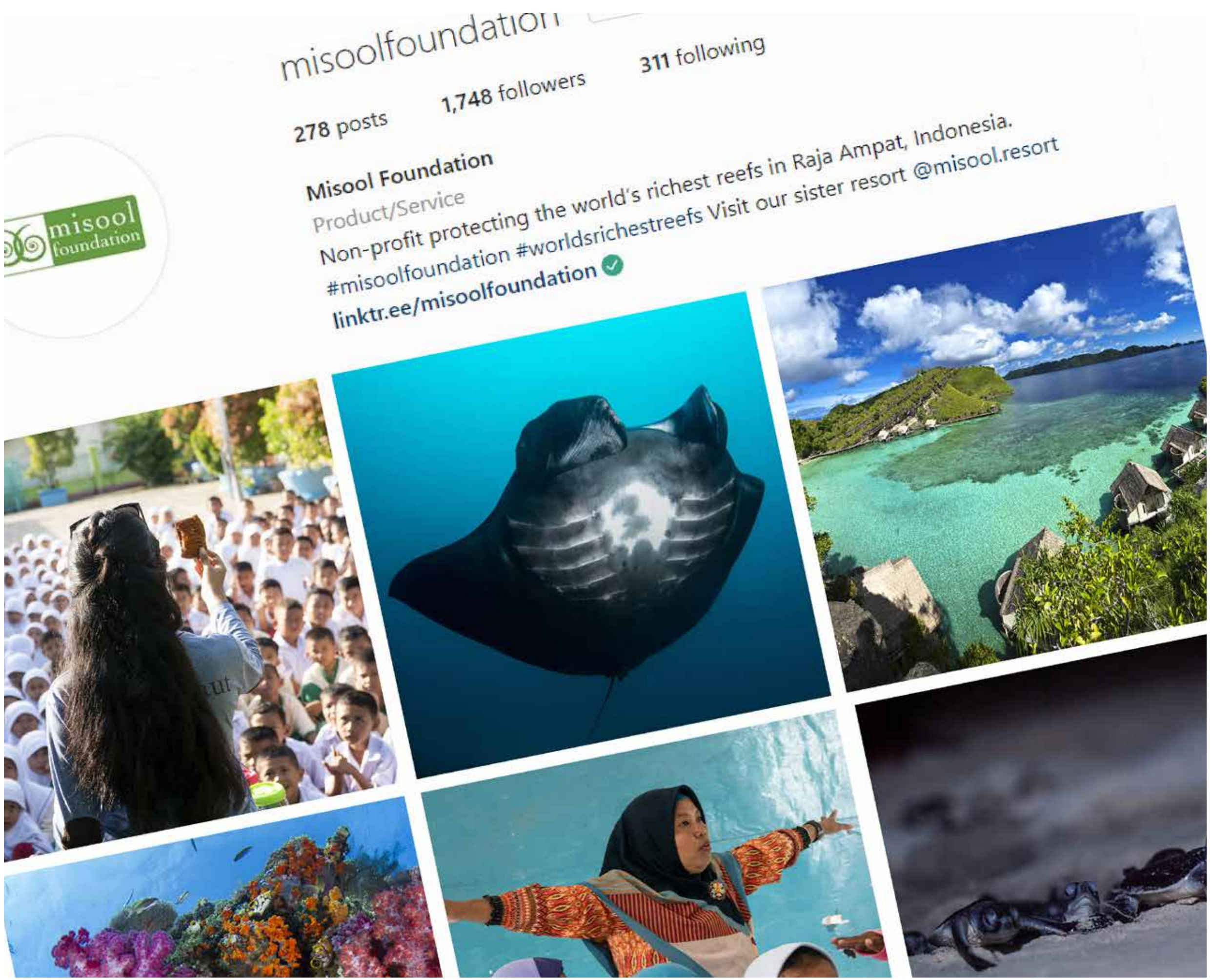
With support from our partners, we launched two match fundraising campaigns in 2022: our annual World Rangers Day giving event in July and a match campaign for Misool Resort's guests, which was launched on 1st December and will run for 12 months. These campaigns have the combined impact of up to \$250,000.

Our stories continued to resonate with a domestic and international audience. We released a short film titled 'Rewilding Misool' which was screened in Singapore at the Asian Philanthropy Circle meeting in November. Our local audiences engaged heavily with social media content and on an international level Misool's conservation story was covered in The Financial Times (UK), CNN Travel, Forbes Hungary and Conde Nast Traveller.

In line with our community engagement agenda, we rebranded the Indonesian facing side of the organisation to describe our mission more clearly; the name *Yayasan Misool Baseftin* was changed to *Yayasan Misool Ekosistem Regenerasi*.

Finally, we were honoured to be invited to the Wildlife Expo in October, organised by the Wildlife Conservation Network. Our chairperson, Virly Yuriken, presented our mission to rewild the Misool Marine Reserve and our commitment to re-establishing a thriving marine ecosystem that is safe from exploitation.

Thanks to MAC3 Impact Philanthropies, H & W Blackie, Wildlife Conservation Network, WildAid.



fundraising & communications

documentaries and short films



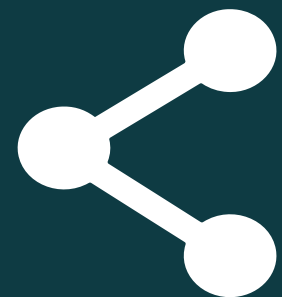
03

media articles



15

social media followers



43,842

website users



122,794

Shark finning camp-turned-eco-resort



financial review



revenue & support

all figures in USD

A grants & foundations	337,075
B private donors	148,924
C donations from misool resort	86,665
D agriculture CSR funding	19,391

total support
592,055

financial review



expenses by type

all figures in USD

A programmes	421,619
B management, fundraising & personnel	132,975
C office & administration	37,009

total expenses
591,604

financial review



expenses by programme

all figures in USD

A	misool marine reserve & reef restoration project	218,711
B	savu sea alliance	107,650
C	bank sampah recycling programme	67,281
D	community development programme	19,391
E	community education	7,712
F	misool manta project	873

total expenses
421,619

our partners



our partners





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