

ANNUAL ACTIVITY REPORT 2021



GILI ECO TRUST

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TABLE OF CONTENTS

- 01** Opening Words
- 02** Overview of the Organization
- 03** UN SDG
- 03** Project Descriptions
- 04** Our People
- 05** Outlook to 2022
- 06** Financials
- 07** Appendix

OPENING WORDS

Dear Reader,

Wrapping up 2021, we are looking back to a year filled with challenges, adaptations, and sometimes calls for our nerve-wracking patience. But we accepted that Covid-19, including its regulation- and isolation measures, would become part of a more extended period than we initially thought. Thus, we shifted most of our activities and operations online, focusing primarily on grant applications, awareness creation via social media, and long-term collaboration opportunities. And this worked out! We are proud of the numerous positive outcomes achieved: Not only did we receive a significant amount of bookings for coral restoration workshops for 2022, but we also managed to win a marine park restoration grant to restore a section of Halik Reef, and became a partner of the Global Giving platform and published our inaugural impact report!

In the Gili Matra marine park, coral reefs and aquatic life have had a well-deserved break from pressures from water activities, snorkel boats and anchoring, we've seen biodiversity increase on every dive site.

Physically, we still tried to keep our weekly activities, such as the beach cleanups and monitoring & education workshops alive. This was tough, due to non-existent tourism, isolation measures and lack of interest. If this was not already bad enough, we were faced with more challenges: Parts of our waste separation and collection staff had to be let go as no sufficient income was able to be guaranteed. Therefore, with great disappointment and frustration, we had to limit the scope of our operations and reduce our activities to a minimum. But we are keeping hopes high.

And looking towards 2022 to come, we are expecting a promising return of economic activities on the island, as borders are opening up again. This means that we will be able to operate on a bigger scale and increase our staff and volunteer teams again, partner up with like-minded organizations and continue our intense conservation support to reach our goal of making Gili T a zero-waste-to-landfill island by 2035. We are hopeful for the year to come and want to thank our (international and local) team for their tremendous efforts throughout the years. It will only get better.

Terima Kasih,

Delphine & Sian

UN SDG

We believe that the work that we do at Gili Eco Trust contributes to the **United Nations Sustainable Development Goals (UN SDG)**. To ensure that we make reference to the SDGs in a meaningful and credible manner, we looked deeper than the headline Goal and mapped our activities against the targets under each Goal. From which, we identified **6 SDGs and 9 Targets** to which our operations make meaningful contributions to.



SDG 4. QUALITY EDUCATION

Target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development



SDG 12. RESPONSIBLE CONSUMPTION AND PRODUCTION

Target 12.5: By 2030, substantially reduce waste generation through education, prevention, reduction, recycling and reuse



SDG 13. CLIMATE ACTION

Target 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning



SDG 14. LIFE BELOW WATER

Target 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

Target 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Target 14.4: Effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics



SDG 15. LIFE ON LAND

Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, protect and prevent the extinction of threatened species

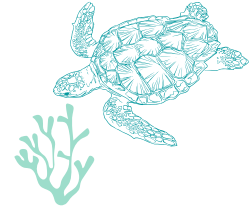


SDG 17. PARTNERSHIP FOR THE GOALS

Target 17.17: Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

HIGHLIGHTS

Protecting and Restoring Marine Ecosystems



50% reduction in anchoring

from 2018-2020 in studied areas

153

Biorocks deployed around the Gili Islands and Lombok in Indonesia

1,000m²

of reef restoration as a result of Biorock cathodes

173

Individuals trained on the Biorock reef restoration process since 2006

33

Turtle nests hatched in 2020-2021, using established nesting protocols,

Waste Management



75

Beach clean-ups in 2020 and 2021 to reduce marine and street litter

9,049 kg

Waste collected through beach clean-ups in 2020 and 2021

Eco-Bricks

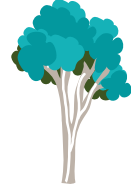
produced using crushed waste glass and used for construction on the island and sold offshore

15,016 kg

Waste recycled by FMPL and transported off the island

HIGHLIGHTS

Reforestation



~1,660 tree saplings planted

in 2021 in 4 events.

Animal Welfare



36 Tonnes of horse feed purchased

for working horses on the island, in collaboration with horse cart drivers, since 2009 along with Stud Riding & Rescue stables.

200 horses treated and de-wormed

Working cart horses and cika horses moved through our free monthly checkups in the local harbour in 2021

4,485 stray cats treated

at local volunteer cat clinics in collaboration with partner non-profits since 2013



3,385 stray cats spayed / neutered

as part of our Trap, Neuter, and Release program, in collaboration with partner non-profits who run local volunteer vet clinics, since 2013

OVERVIEW OF THE ORGANIZATION

Organisation Details

The Gili Eco Trust (GET) was created in 2001 to fight destructive fishing methods happening in Gili Matra, MPA, in Indonesia. The Gili Islands are located North West of Lombok island in Nusa Tenggara Barat, the heart of the Coral Triangle. Gili Matra is a Marine Touristic park established in 1980 as a Marine Protected Area to protect the large population of Blue Coral in the shallow waters of the 3 Gilis. GET's mission is to protect, conserve and educate. Its main goal is to establish a unique relationship between stakeholders, local communities, businesses and government to work together towards eco-tourism and sustainable development. GET is covering many projects in the Gili islands with objectives such as:

- Restoring Coral Reefs
- Protecting and Conserving the Oceans
- Fighting against Plastic Pollution
- Educating and Raising Awareness about Eco-Tourism and Sustainability
- Beach, Land and Underwater Clean-Ups
- Implementing Circular Economy in Waste Management
- Recycling and Up-Cycling
- Animal Welfare

Due to the global pandemic crisis and the lack of financial and political support, GET decided to restructure its main strategy with the result of some projects still being on hold and many activities temporarily frozen. Though, as global activities are picking up again, tourism is permitted and interest in supporting the NGO were rising again, we have been successful in making many new partnerships, increased our grant applications and successfully ran fundraisers and received grants..

Our Mission

Protection, Conservation and Education. Our main mission is to create a sustainable island.

We are aiming to achieve this through:

- promoting ecotourism and provide a healthy environment for working animals.
- restoring our coral reefs and to replenish our natural fish populations.
- ensuring that all waste created on Gili T is reduced to minimum levels and managed and separated properly for recycling projects where materials can be transported off the island.
- insuring the livelihoods of the local community is enhanced.

OVERVIEW OF THE ORGANIZATION

List of Governing Body Members

- Haji Malik, Director
- Raisman Purnawadi, Treasurer
- Delphine Robbe, Managing Director
- Pak Cahyo, Local Manager + Managing Director FMPL
- Sian Williams, Chief Marketing Officer and Coordinator
- GIDA - Main support of funding

Legal Status

We are a non profit and non governmental organisation
Yayasan Ekosistem Gili Indah (Bahasa)
NGO reg # 31.670.363.6-915.000

Memberships and Partners



..and more:



Approachables
Twio/Twig
MeshMinds
FreeFlowActive
Fox Evergreen
New Vision Berlin
Sea Token

Flossie and the Beach Cleaners

KAROLA
TAKES
PHOTOS

OUR PROJECTS IN 2021



PROTECTING AND RESTORING MARINE ECOSYSTEMS

Preventing Anchor Damage

Problem

As early as 2002, we noticed that numerous fishing boats and recreational vessels were dropping anchors at the Gili Islands. Anchors from boats can damage coral reefs significantly, causing breakage, fragmentation, and direct impact to the reef environment. This is because it can shatter or dislodge corals, sponges, and sea fans, causing immediate and long-term damage to wide portions of the coral reefs. Because many coral species in the area only grow 2.5-3cm centimetres per year, recovering from an anchoring incident could take decades. Anchoring also damages reef-associated ecosystems like seagrass beds, which are essential as nurseries and juvenile habitats for many marine species.

Approach

Since 2005, we managed to work with the marine authorities to ban the use of anchors at the Gili Islands - it is illegal for anyone to drop an anchor within the Gili Matra MPA, yet this is still not policed to the full potential.



Mooring Buoy Installation and Maintenance:

Recognising that providing better alternatives for boats to moor would accelerate the shift away from the use of anchors, we started installing solid structure mooring buoys across the Gili Islands since 2005. Boats can be attached to these buoys and thus avoiding the irresponsible use of anchors. In addition, we continue to ensure that these mooring buoys are well-maintained by checking on them once a week and conducting repairs where needed. As of January 2022, we have installed and maintained 100 mooring buoys across the Gili Islands and a further 30 are ready to be installed in mid 2022.



Anchor Watch: For two days a week, we conduct anchor watch surveys to collect data on the use of illegal anchors whilst checking on the conditions of mooring buoys installed. Data is collected on Tuesdays & Saturdays to create comparative data from weekends with heightened local tourism from Lombok and what we have assessed to be the day with the least boat activity (Tuesday). Data coincided with regular Reef Check surveys to monitor the progress and health of the reef ecosystem.

Data from the anchor watch surveys have been used to report cases of illegal anchoring to the government and to show the need for improvements in policing this policy.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Preventing Anchor Damage (continued)

Progress

Initially, our anchor watch surveys back in 2016 counted up to 80 anchors dropped daily within an area of 200 square meters, however since the progressive installation and maintenance of mooring buoys, we now observe up to a 50% reduction in anchoring from 2018-2020 in studied areas. This figure was accelerated in the days just after we implement more moorings.

Gili Eco Trust and GIDA were also subsidising a local association, 'Gili Boys' and Pokdarwis Tramea, to carry out boat patrols around the Gili Matra to monitor and report illegal fishing and anchoring activity. This was started to plug a gap in the oversight of illegal fishing and anchoring in the area. 350,000rp would be paid each week by either GIDA or GET for the purchase of petrol for the patrol boats.

Reef Monitoring



Problem

The conflation of an increase in tourism and the lack of regulatory control of dive sites has caused damage and stress to the coral reefs. To assess the impacts of irresponsible human practices and long-term damage due to climate change, we conduct regular reef checks to collect locally and globally relevant data that can help to increase understanding of the conditions and the protection required for the reef habitats.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Reef Monitoring (continued)

Approach

We've adopted the globally recognised Reef Check survey approach and have been carrying out assessments since 2009.

Most recently, we continue to survey three reef areas with historically high boat traffic, pollution, and our 'healthiest' shallow reef as control and continue to analyse long-term trends or decline in the reef abundance and diversity.

Progress

From our surveys, we have noticed recovery of shallow-water reefs and an increase in fish abundance around the Gilis - this is potentially due to the reduction of anchoring, heavy boat traffic, and diver damage

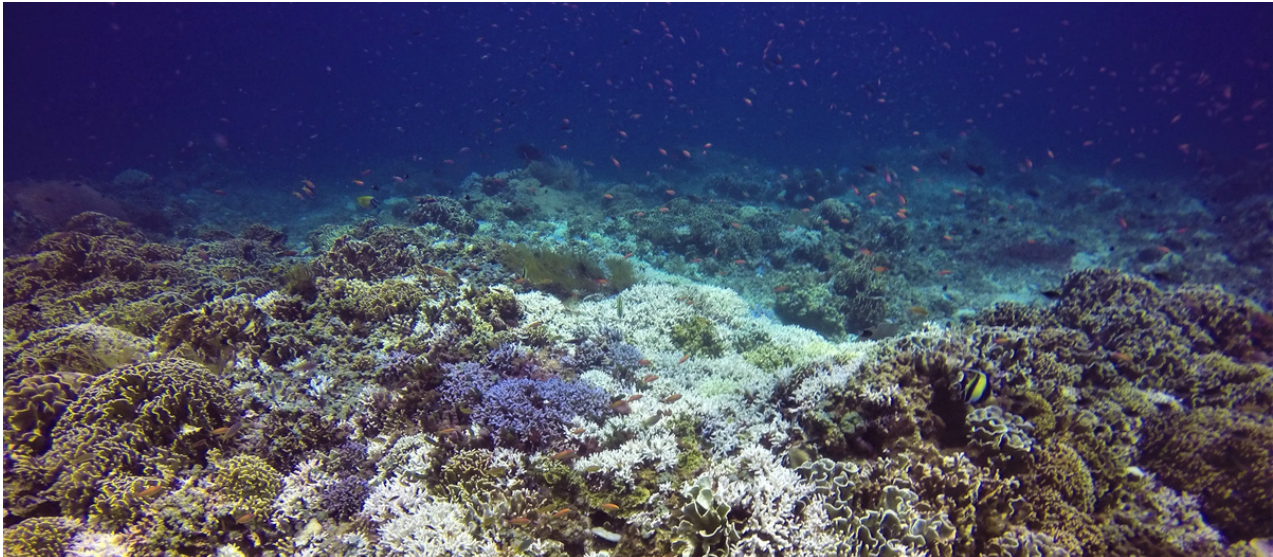
We've only seen minor bleaching each year that has been absent during El Nino events showing increased resilience of the reefs.

We can extract data from Reef Check surveys and compare reef health spatially and annually to create stronger reports for the local marine authorities to show why we need better protection measures.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Reef Restoration: Biorock

Problem



Shark Point April 26th 2016, in the worst Mass bleaching event the globe has seen.

Rising sea surface temperatures, driven by climate change, are increasing the frequency and severity of mass coral bleaching events and reducing the opportunities for corals to recover.

About 14% of the world's coral reefs have been destroyed due to the effects of climate change (i.e., rising sea temperature), and coral reefs throughout the world are also threatened by local human activity such as overfishing, irresponsible fishing practices, coastal development, and water pollution. Through coral restoration and the use of Biorock technology in the Gili Islands, more corals where these methods are deployed will survive these threats, sustaining life underwater and providing oxygen and protecting beaches from coastal erosion.

We have also observed localised bleaching events on some or all of our dive sites around the Gilis. Major events that affected Gilis corals to date were 1998, 2009, 2010 and most recent and severe, in 2016.

As coral bleaching events occur more frequently and at greater severity due to climate change, it is critical for us to keep up the maintenance of the Biorock structures to protect our reefs from further damage. Moreover, it is unclear what the effects of runaway climate change, rising sea temperatures and ocean acidification would be at a local level in the Gili Islands.

Regarding anthropogenic threats, while the Gili Islands are now safe from destructive fishing methods such as dynamite and cyanide fishing, we are still constantly mitigating threats that affect our beautiful marine ecosystem. For example, the use of anchors, although illegal on the Gilis and we have since observed reduced use of them, the damage from anchor use can still be observed in various parts of our reefs, where they become sites of rubble that are quickly covered by algae.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Reef Restoration: Biorock (continued)

Approach

Biorock installation and maintenance: We've been installing Biorocks around the reefs. Biorocks are steel structures attached with a low voltage direct current to accelerate the growth of corals, and increase their resistance to resistance to temperature sensitivities, hence increasing their resilience against coral bleaching and storm damage. The low voltage current creates an electrolytic reaction and a stable substrate of calcium carbonate accretes onto the rebar causing the structure to grow in size and become heavier and anchor itself to the reef. Layers of calcium carbonate are deposited on the structures, providing a sturdy and optimal surface for corals to cement to. Hence, the low electric current promotes the coral to grow faster and stronger than on the natural reef.

Along with the help of visiting reef gardeners and Biorock course students, we recover corals that have been dislodged from the reef due to human and natural damage and transplant them carefully onto our Biorock structures.



PROTECTING AND RESTORING MARINE ECOSYSTEMS

Reef Restoration: Biorock (continued)

Progress

153 Biorock structures have been installed around the Gili Islands and Lombok, resulting in an estimated total of 1,000 square meters of reef restoration when only accounting for the Biorock cathode. In addition, the reef around the Biorock structures (up to 10 square meters around the Biorocks) also benefits from faster growth and better survival - accounting for this co-benefit would result in an estimated of about 3 times that surface of reef benefitted/restored by our Biorocks. Through the installation and maintenance of our Biorocks, the Gili Eco Trust has managed to restore some of the beautiful coral reefs of Trawangan in a short period.

Whilst the Biorock structures are artificial reefs, they work faster than a natural reef to mitigate damage in destroyed areas of reef and help to stabilize rubble-dominated substrates in previously barren areas.

When significant coral bleaching events occurred (2016 was the most severe), all reefs including the Biorock reefs were at least partially bleached. Studies carried out during the 2016 El Nino event on corals transplanted onto Biorocks had a much slower rate of bleaching than on natural reefs. Moreover, when the sea cooled back down (within 3 months from the 2016 El Nino event), corals on the Biorock structures had a much quicker recovery rate and overall lower mortality rate. Corals that were attached to Biorocks with consistent power gained 100% recovery whereas natural reefs in similar conditions (depth, ocean temperature and sun intensity) had a 60% recovery rate.

Between 2016 to 2021, we have trained 173 individual students, scientists and resort owners on the Biorock process.

Biorock international workshops specifically targeting Marine Park managers were carried out on Gili Trawangan between 2006 and 2012 - a total of 283 individuals were trained. To be able to implement Biorock artificial reefs around the world, marine park managers would need to partake in this training workshop to be certified to use this technology properly.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Reef Restoration: Ocean Quest Coral Propagation and Rehabilitation

Approach

In addition to restoring coral reefs using the Biorock technology, we also adopt Ocean Quest's established methods to create coral nurseries to promote accelerated growth of damaged, stressed or destroyed reef areas. Unlike the Biorock approach, this approach leaves no man-made structures to create stable raised coral nurseries.

Through the Ocean Quest Coral Rehabilitation Course, we can raise awareness, train recreational divers on conservation techniques, and introduce an active approach to ecosystem restoration that is more inclusive than other forms of coral rehabilitation. We can train and empower youth groups, the local community and recreational divers to start them on a path of coral and ocean conservation.

Progress



Coral 'Prop' 1-2 days old



Coral 'Prop' 6 months



Coral 'Prop' 1.5 years



Coral 'Prop' 2 +years

Two nurseries were constructed and completed in 2018, a training nursery and a remote boat nursery. In 2020, we built two additional nurseries to rehabilitate certain areas prone to anchor damage. These nurseries are monitored in the long term to determine their impacts on biodiversity in the area. A Coral-A-Thon was also held during 2020's World Ocean Day where we planted more than 300 baby corals in Gilis nurseries.

To train individuals on this technique, classes were conducted online amid the COVID-19 pandemic. We have also modified this training to introductory-level coral ecology training for youth and school groups visiting Gili Trawangan. In May 2022, we held a workshop for 16 nine to twelve-year-olds and four adults. One of our trainers also underwent 6-weeks of updated training to remain current with updated measures and standards for this technique.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Turtle Protection

Problem

Endangered: According to the World Wildlife Fund, six out of seven species of sea turtle are now classified as endangered, with three of the seven existing species being critically endangered. Poaching, bycatch, plastic pollution of the oceans, oil spills, chemical runoffs, rising ocean temperatures, and even artificial lights are some of the factors that threaten the various turtle species.

Issues with head-starting: Head-starting refers to taking hatchling turtles and raising them in captive tanks until they are large enough to have a significantly better likelihood to survive in the wild. This has globally been accepted as a non-sustainable form of population preservation. Many turtle 'conservation' centres across Indonesia have been observed to adopt inappropriate head-starting practices. These keep the hatchlings in tanks for 6-18 months in the hope to increase their chances of survival. However, this greatly inhibits vital organ development in their young years so when released, these young turtles are likely to have ill-developed lungs and cannot free-dive or hold their breath to find food and rest at the seabed. Whilst head-starting has great public and political appeal, especially in Indonesia, it has been proven to not be successful and in some areas even damaging to the populations of turtles.

Approach

We support the protection of the turtle population on Gili Trawangan, in several ways.

1. We defy poaching by tracking, logging, hiding and monitoring turtle nests. Collecting this data allows us to forecast when hatchlings will be born so that we can supervise their safe exit into the sea, monitor nesting hotspots with care, and demonstrate that it is now too dangerous to follow our previous natural nesting protection protocols due to increased beach erosion and poaching activities.
2. We collaborate with the local beach resorts and establishments to train their staff on proper protocols to eventually phase out the need for volunteers to support nesting/hatching events. Having local staff and community members operate simple tasks such as limiting lights, music and flash photography and reporting landings will increase the success rate of nests on the Gilis.
3. Due to the degradation of the beaches around Gili, turtles are running out of places to nest. We've partnered with eco-resort Hotel Lumi to construct an ethical turtle hatchery to provide a safe space to incubate eggs for 50+ days, to hatch with no predation and to be released within 12 hours when ocean conditions are most suited.
4. Partnership with The Turtle Foundation to create an ethical hatchery following verified SOPs. We recruit Turtle Rangers (who are trained specialists that translocate eggs to the hatchery) & Project Supervisors who are environmentally-minded Indonesian nationals living on Gili Trawangan that provide operational support to these efforts.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Turtle Protection (continued)

Progress



In 2020, we successfully hatched 23 nests, amounting to more than 2,100 hatchlings released unharmed (14 Hawksbill nest, 3 Green Turtle nest, 6 unknown<- unmonitored releases). In 2021, we successfully hatched 10 nests (9 Hawksbill nest, 1 Green Turtle nest). Many more turtle nests have hatched successfully without being recorded each year due to turtles laying earlier or later than the predicted season / our monitoring period.

August 2022 will see the partnership with Turtle Foundation grow stronger as 3 members of the Gili Eco Trust will visit Kalimantan for 2-3 weeks, training in the field to recreate measures back in Gili to train turtle rangers on proper handling techniques to increase the success rate of translocated nests and hatching. This will be funded by the Global Giving fundraiser that has been in action since September 2021.

2 years of data collection have proven the ineffectiveness of present conditions for turtles to successfully nest, incubate and hatch naturally - illuminating the need for headstarting and further turtle protection and conservation efforts.

Hatchery proposals are in place with contractors to be built in 2022.

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Clean Ups

Problem

Indonesia is the second biggest contributor to marine litter in the world, closely following only China. There is little to no waste infrastructure on many of the 17,000 islands of this archipelago, including the Gili Islands where we operate.

From September to March, heavy frequent rainfall will bring residential and commercial waste down through river systems and into the sea. From Sumbawa and Lombok, the Gilis are the first port of call and any pollution that washes up here needs to be excavated as soon as possible before it washes into the open ocean.

Tourism on the east side of the island has also brought detrimental impacts to the beaches, with local snack stalls offering disposable plastic takeaway products with no disposal management. Much of the waste hence ends up discarded on beaches.

Approach

Action: We created a movement called Debris Free Friday in 2013, where tourists and locals are galvanised to clean up the beaches and streets on the island. Since 2013, we have completed more than 500 beach cleans.

Education: 10-minute weekly training about waste pollution and the extent of recycling activities in Indonesia, is aimed to create awareness amongst tourists to be more mindful of how they handle their trash. Through Debris Free Friday, we seek to raise awareness and inspire the local community and those who visit the Gili Islands, to be changemakers in their own rights

Empowerment: Educating and inspiring resort staff to keep establishment surroundings clean.

Partner:

- Working with the local island businesses to create a cleaning schedule and establishing collaborations to reward participants of Debris Free Friday.
- Businesses who sponsor clean-ups get extra education and must adhere to sustainable business standards of committing to reduce single use plastics in their restaurants, having them signed up to FMPL responsible waste collections, using eco-friendly takeaway containers, and supporting and promoting the refill stations available on the island for drinking water

PROTECTING AND RESTORING MARINE ECOSYSTEMS

Clean Ups (continued)

Progress

Every Friday evening, the Gili Eco Trust organises the island community beach clean. Everybody is invited to join this 1 hour clean up. Data reflecting the amount of waste collected and recycled from 2020 to 2021 are reflected below. The total weight of recycling is in reality higher than reported below, however the true figure could not be reported due to lapses in data collection which we seek to address in the coming year.

Year	# Clean up	Total (kg)	Recycling (kg)
2020	31	5,182	1,584.5
2021	44	3,866.5	2,015.5



Mala Garden West Side



Mad Monkey Hostel

WASTE MANAGEMENT

Landfill Management and Recycling (FMPL)

Problem



For over 2 decades, Gili Trawangan did not have an operating waste management system. As a result, illegal dumping in the ocean, beachside and burning took place.

In 2001, waste deposited at one site was amassed in a landfill that became the go-to location for unloading the island's trash. In high season, up to 20 tonnes of trash per day are produced and end up there.



Additionally, unregulated combustion takes place, due to the decomposition activity of waste. Deposited: flammable waste, such as aerosol canisters and simply glass bottles, magnify heat amongst flammable organic matter. The smoke from the landfill fire pollutes the air, risking potential health issues for families that live in the vicinity of the landfill.

Approach

Front Masyarakat Peduli Lingkungan (FMPL) translates to community front for environmental care. **Since 2007**, FMPL collaborates closely with GET within waste collection logistics. Together we made plans for the dump, an incinerator and an access road in **2008**.

In 2010/11, GET organised fundraising with all stakeholders and donations from abroad, to change waste management through selected coloured bins for different types of rubbish.

In 2015, GET started improving the overall waste management system by organising daily waste pick-ups, recycling, and upcycling opportunities. The FMPL staff was taught about caretaking measures for their horses and optimization of waste pick ups (e.g encouraging the selection of waste materials that could be sold for income).

In 2016, FMPL and GET created Gili's first recycling station, Bank Sampah, to consolidate valuable wasted materials to be processed and sent off the island to join the waste bank initiative across Indonesia. GET aims to sort the rubbish off the entire island and maximise the amount that can be recycled whilst limiting trash that gets sent to the dump.

From 2016 onwards, GET & FMPL have been managing the daily waste collections from more than 500 businesses on Gili Trawangan, to ensure the waste isn't dumped and burned, and to ensure that the island remains safe and healthy from waste pile ups.

WASTE MANAGEMENT

Landfill Management and Recycling (FMPL) – continued

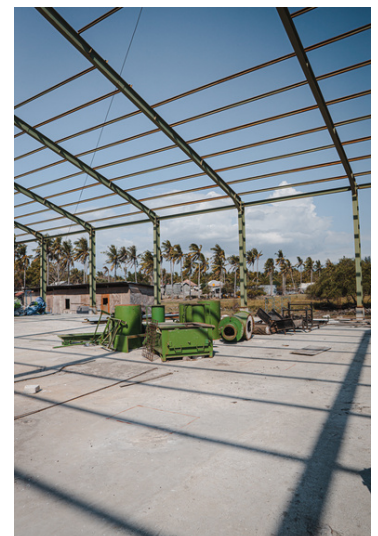
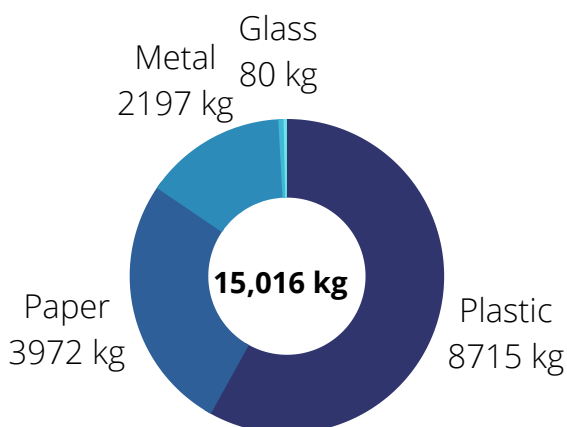
Progress

Bank Sampah as a station for recyclable materials (e.g plastic bottles, cardboard, cans, glass bottles and Tetrapak cartons) is processing these materials, crushing and organizing it in huge blocks for shipment to a recycling station in Lombok. The FMPL transport between 10-15 tonnes of recyclable waste off Gili T every fortnight (2017 data). **The aim is to be a zero-waste-to-landfill island by 2035 and have a new headquarter (HQ).** This requires funding and collaboration with the government.

In 2018, the government started to build a new structure next to the island dump, the TPST (Tempat Pengolahan Sampah Terpadu). This will eventually become an integrated waste management headquarters, dealing with all types of waste where it can be processed, crushed, repurposed and composted. For now, it remains unused and unmanaged and permission requests have been unanswered. The initial purchase of waste processing machinery has degraded to the point that all will need to be replaced. The moment FMPL will be granted access to manage a new HQ, FMPL and GET will be able to move equipment from temporary shelters into one central location, conveniently right beside the dump. This will open up more employment opportunities for the local community and increase the efficiency of trash processing.

GET is also looking to work in partnership with a company pioneering pyrolysis machines to be able to turn unrecyclable (residual) waste back into oil, which we can then continue to power the island.

Waste recycled at FMPL in 2021



WASTE MANAGEMENT

Upcycling

Problem

There is a huge amount of material, which could be processed differently than finding its ending at the dump. Glass bottles are a common waste item due to the multiple bars on the island and they post a fire threat in landfill conditions when left in the extreme heat on the dump, due to magnifying intense heat coupled with unmanaged methane release. Glass bottles also increases the dump size rapidly due to the empty volume of bottles. The volume of glass (and alcoholic beverages) consumed on Gili has increased steadily throughout the years as the island moves towards drinking and party tourism.

Approach

Rare, unusual or colourful bottles are collected from the top layer of the dump or bars on the beach weekly. They can be selected, cleaned, cut and sanded to create drinking glasses, ashtrays, lamps, earrings and other jewellery. An individual Indonesian bottle drinks company (Bintang) accepts empty bottles back for a small deposit. This keeps beer bottles in a circular rotation reducing waste creation for this business model and for the island. Other drinks companies have not yet followed suit.



The local GET Shop is a showroom of unique and hand cut upcycled glass products, all hand-selected from glass bottles consumed on the island and completed through GET's glass workshop. Local businesses can order these sustainable products that can be personalised with the brand logo or name etched in the glass. Proceeds of the Gili Glass campaign go back to the staff salaries, collecting and upcycling the waste bottles found whilst keeping waste volume reduced to a minimum.



Most waste glass are used to create Eco-Bricks for tourism and resort construction. Glass waste is crushed into small shards of sandy aggregate, which can then be mixed with cement powder, fresh water and glue to create a strong brick very similar to those used in construction on the island. The glass shards replace the need for sand to be dug up from our beaches to be used in bricks, protecting the eroding beaches. Moreover, they are heavy, stronger and sturdier due to freshwater rather than brackish groundwater that is used in traditional brick making on the island.



WASTE MANAGEMENT

Upcycling - continued

Progress

With both crushing machines, repaired and functioning, (since 2020 when bars were closed and glass waste was scarce) we are now resuming these activities and searching for brickmaking staff to continue operations.

Educating the bars to return to separating their glass waste from other waste to create efficiency in glass collections and crushing. (stopped in 2020) .Chief glass cutter and artist Pak Zul is searching for an apprentice(s) to train to cut, sand and etch on the glass to expand activities to keep up with demand.

We've got 5 busy bars weekly separating their glass bottle waste to be able to pick up 'clean' from source, we hope to expand this to all the bars on the island separating their glass waste.



Glass bottles collected from bars



Crushed into sandy aggregate



Moulded into strong and sturdy construction bricks

WASTE MANAGEMENT

Waste Reduction: Eco Rangers

Problem

Productive waste separation and waste reduction is still foreign principle to the local community in Trawangan. Thus, approximately 200kg of inseparable trash is produced every day leading to enormous opportunity costs for the environment and the island's recycling business potential. If this was separated at source (business or resort) then we now have the potential to recycle/repurpose/compost up to 70% of waste created on Gili Trawangan.

Approach

Eco Rangers is a green police patrol that will monitor waste production whilst teaching and educating about waste selection and reduction at source. Founded by Greeneration ID and Waste4Change ID this team will help to share knowledge, entrepreneurship, guidance, organization and empowerment in addressing problems with waste in the tourism industry in localized destinations.

Progress

The project was ready to launch in June 2018, fully funded by Coca Cola ID, but after experiencing serious earthquakes in the region, the funds were redirected to North Lombok to help with sanitation and humanitarian missions after the disasters. A pilot project has already been established in Banyuwangi but needs further funding. Since COVID, this project was paused. Our priority will be getting businesses back on board for waste pickup and sustaining their involvement .

This is a long term but the critical project as education is a vital component to ensuring success in waste management with repetition, rewards and incentives to continue to select waste efficiently at the source

Training manuals, presentations and interview documents have been completed and are ready for the initial recruitment of 5-8 Eco Rangers. In the midst of the pandemic, 2 years' worth of fundraising focused on its waste reduction project were diverted to emergency waste management pickups, processing, staff salaries and care for the ponies picking up waste whilst tourism brought no income.

REFORESTATION

Tree Planting

Problem

Within the last two decades, the Gili Islands have been subject to natural disasters such as droughts, fires and serious coral bleaching events, leading to a rapid loss in biodiversity.

Especially, many parts of Trawangan island are subject to deforestation to make space for the development of more hotels and resorts. As a result, it is warming up the island's microclimate, increasing the need for artificial cooling, especially in the town, which puts additional strain on the island's already limited electricity supply.



Approach

Initiated by the Balinese man Suparman, GET partnered up with him to create a movement called *Suparman's Treerevolution*.

His vision is to encourage tourism by more green spaces, tree cover, a cooler, and a more beautiful island: Growing more trees means having more shaded areas,, especially along newly cemented/asphalt roads. This will eventually cool down the microclimate of Gili T and reduce soil surface runoff, and more sediment running into the sea (leading to the suffocation of coral reefs and increasing risk of algal blooms along with reducing the visibility for scuba diving (the main source of tourism).

Carbon sequestration, one of the easiest and cheapest ways to sequester the greenhouse gases in the atmosphere is by reforesting our lands. Mass reforestation and conservation of existing forested cover are critical to getting carbon back into the ground. Planting trees makes for a highly achievable step forward.

Progress

We helped to select locations all over Gili T for tree sapling, 'grey' areas which could use greening, or areas with little or no shade after years of deforestation.

Kicking off in 2019, Suparman headed a project with volunteers planting more than 7,000 Trembasi and Flamboyan seeds and carefully tended to them for 11 months until they were ready to be planted. Each event (now we have organized more than 15 tree planting events) sees between 300-2,000 saplings of young native and hardy species with up to 70 volunteers and local businesses' support, helping in each event.

This is an ongoing project to collect enough donations to pay gardeners to full time tend to the nurseries. We are looking for further support on increasing the number of tree planting activities around the Gili Islands and are planning to improve watering logistics and hire a gardening assistant for Suparman to tend to the saplings in the nursery and in their first 6 months after being transplanted.

ANIMAL WELFARE: HORSES AND CATS

Horses

Problem



Horse carts are a traditional means of transportation throughout Indonesia.

Gili T is not allowing motorised vehicles on the island. The rightful care of horses is an ongoing problem: there is a lack of education and financial concerns surrounding horse care. Horses are not cheap to feed, especially on the Gilis, where there is no natural pasture or freshwater source.

All feed has to be imported from the mainland. When you consider the humble income of a horse cart driver, balancing the portion of income for rent and nutrition for their horses and supply for their family is challenging. Further, over recent years, the island's roads have been resurfaced using bricks and concrete. This is less than ideal for the horses' feet:

While the quality of the roads have improved, the quality of the horseshoes has not

This causes issues not only with the horses' feet but their joints and legs. The drivers simply don't have access to quality horseshoes despite expressing great interest and willingness to buy them.



There has never been a resident vet on the Gili Islands, despite the number of animals, (mainly working horses and cats). This means that the drivers have never had access to medical care for their animals. They continue to use traditional approaches to medicine when it comes to sick horses, (e.g. coffee for colic symptoms, application of engine oil or boiling water on wounds). Especially through the challenging times, such as the earthquake in 2018 and the pandemic, affecting tourism for over 2 years in the Gili Islands, it is almost impossible to earn enough money to feed their horses, let alone themselves.

Approach

During times of crisis, we have helped as many drivers as possible feed their horses through feed subsidies. This allowed all of the drivers on the island to purchase feed at a cheaper rate. For over 12 years, GET has been arranging free clinics for the island animals, where volunteer international and local vets, spend 2 weeks examining and treating them. Treatments include hoof care, dental floating, wound care, and similar.

GET is also collaborating with organisations such as Animal Aid Abroad, SPANA, Animal Australia, Vets Beyond Borders and the University in Lombok to make the necessary arrangements for a vet to reside permanently on the Gili Islands. We are also working towards helping the drivers get access to quality and affordable horseshoes, as well as providing education in farrier techniques

ANIMAL WELFARE: HORSES AND CATS

Horses (continued)

Progress

It took many years to gain the horse-cart drivers' trust and explain our intention to help rather than criticise. Drivers were reluctant to accept our advice and approaches to horse care and free health checkups. However, they are now more receptive to our help and in many cases, actively seeking our advice. It shows that slow education is critical to gaining long-term trust and loyalty amongst the drivers to ultimately help them to help their own horses and understand the need for better care regimes.



Working together with Stud Horse Riding and Rescue, we are gathering information and funding to import large quantities of horseshoes from China. We are also collaborating with the horse cart drivers to educate them on better hoof care and provide them with the tools necessary to perform the task themselves. Also, meetings have been conducted between international organisations and the university of Lombok to employ a full-time vet on the Gili Islands. We hope to facilitate international vets to assist the horses on a more regular basis.



Cats

Problem

Cats have been a major part of Gili's life for decades. Introduced as pets with populations growing rapidly there is now a large stray population across the 3 Gili Islands, they get fed by generous warungs and locals when eating, or scrounge from bins and leftovers from the restaurants. However, they are a largely inbred population, which leads to genetic and physical deformities. Stumpy, crooked and weird tails are the most obvious sign, with shorter life spans and more susceptible to issues with kidneys and organ failure later in life.



ANIMAL WELFARE: HORSES AND CATS

Cats (continued)

Approach

In 2013, Cats of Gili was founded as a project sponsored by Gili Eco Trust to help care for cats on an ongoing basis. They work hard to keep the cat population under control through an ongoing Trap Neuter Return sterilisation programme whilst offering basic health care for sick and injured animals and rehabilitating strays to find new forever homes.

Progress



We established a TNR (Trap Neuter Release) program back in 2013 and increased the number of cats in care and sterilisation every year since then. In order to identify which cats have been undergoing the sterilisation process of Cats of Gili, there is a V-shaped cut in the cats' left ear. This is what is called "tipping". Programmes similar to these are run internationally to help keep stray cat populations under control and it tells us the cat is already neutered and therefore cannot breed.



Cats of Gili runs regular volunteer vet clinics to help run this TNR programme on the islands whilst improving relations with local families who increasingly buy cats from Lombok without knowledge of their diets or proper care. Working closely with these families creates trust and positive rapport so similar to the horse owners, they will come for help rather than leaving their animals to suffer.

Since being founded in 2013, we've organized 21 large clinics such as this. In total 4,483 cats visited those clinics, and of those 3,855 were spayed or neutered.

Year	Cats seen by vet	Cats sprayed or neutralized
2020	559	523
2021	199	192

ECO EDUCATION

Local Community

Problem

The education system for the local, Indonesian community has been lacking continuity ever since: Obligatory daily primary school attendance is limited to 2 hours with a high dropout rate. Also, there is only limited access to secondary education. Besides the lacking general education, environmental, and animal awareness and education are none existing:

Local families burn mixtures of plastic piles, glass and packaging and often drop litter around the island. Also, illegal anchoring and fishing is taking place, along with turtle poaching and egg selling. Tropical wild birds are kept in small cages, horses are not taken care of properly and stray cats are often treated with cruelty.

The pandemic isolation and economic crisis deteriorated all of the above issues.



Approach

We tried to **implement regular education** in the local primary school. This includes English lessons that were conducted throughout 2020 & 2021 when the schools were allowed to open. This ensured they had at least one regular class during the day.

Education workshops and green days in the local school took place through crafts, games, songs and hands-on learning between primary and high school children. Conversations about the integration of environmental education into their curriculum took place.

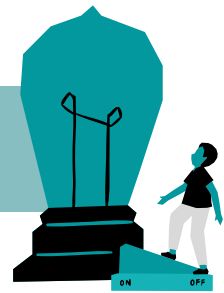
Socialisation with the local Ibu's (respected island female elders) and islanders, running market stalls at the night food market and the vegetable market took place and should help them to understand how to separate organic wet/dry waste.

Progress

We have been doing a pilot study since 2020 to educate the "local Ibu's" market holders on the issues and importance of organic waste separation, composting opportunities and proper bins set up in the night market and food bazaar.

We are constantly engaging in multiple methods and way of education (e.g. F2F, educational flyers, workshops, new bins installed, pictorial bin labels and similar). We will continue trial and error projects concerning local educational and have seen a progress through some locals engagement in beach clean up initiatives and waste separation. It is still a long journey and we are always appreciating help, advice and ideas along this way.

OUTLOOK TO 2022



Marine Protection

We aim to create a **sustainable biorock-powered reef and coral park at Halik.**

Therefore, we are working with engineers YouTube artist Von Wong, to create an Eco Marine park, as a new dive site, including an ocean throne for eco-tourism. The biorock art marine park installation will be powered by ocean current turbines (donated by DynoRotor) and generate energy. We are eager to promote this project internationally, and therefore want to engage social media influencers for our course. Also, we are planning to invite regional scuba-/ocean-/conservation influencers, dive shops and promotion teams to visit the new dive site in a mass campaign to get this as one of Gili T's 'Must See' highlights (snorkelling and diving!)

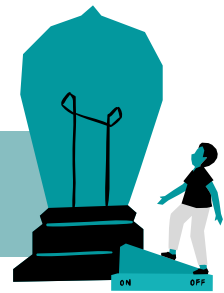
Further, we are planning to **establish a scholarship program for biorock training** and initiate local engagement for the restoration projects around Gili Trawangan: local communities should be empowered and trained about biorock and renewable energy. We will conduct workshops in dive shops with local dive guides and then in the schools to increase knowledge of local reef conservation tactics and to mobilise more eco-warriors amongst the community. We will need to conduct several repairs of all biorock sites around Gili Trawangan with the addition of new structures to extend the reefs (this includes purchasing new underwater cables, rebar, anodes and materials to repair the damage that 2 years of theft and damage brought with it, whilst the island has been closed). The focus will be also set on finding trained dive guides and initiating them into a 2 week coral restoration program.

In terms of **coral protection**, we aim to add new structures to increase the surface area of the coral's rehabilitation zone, giving them resilience in times of bleaching and environmental stresses like storms, swells and waves. Therefore we will create:

- an emergency quick response mechanism in case of coral destruction (storm, boat, anchor)
- an action and education pack to create a rapid response in case of an environmental emergency witnessed on a dive site or on a house reef which includes training in broken coral identification and management, reporting techniques, contact numbers and examples in photo form of how to report illegal fishing, anchor damage, illegal activity.

Also, we are planning to fix the existing **moorings** and replace stolen ones to reduce the daily illegal anchors dropped on the rehabilitation park. More than 80 new mooring blocks are to be deployed across the critical spots of illegal anchoring to reduce the number of daily anchors dropped. We will invite the community, and snorkel companies to help sink the moorings to better educate why and how they should be used.

OUTLOOK TO 2022



MARINE PROTECTION

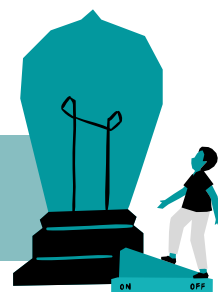
We are excited about the progress on creating a **turtle hatchery and conservation centre** and are targeting its completion in late 2022 or early 2023. This will be a joint partnership with the local resort *Hotel Lumi* and the Jakartan company *Glitch*. The incubation centre and hatchery will be built behind the Hotel Lumi resort on their spare, peaceful land 100m long road access direct to beach. It'll include a sand egg incubation hatchery, a seminar room (for exhibitions, talks and education) and a treatment room (for any sick or wounded turtles).

The incubation center will be a sandy area cordoned off, where trained rangers will be recovering eggs from the beach in high-risk areas and translocating them to the incubation centre for 50-60 days. Within the first 12 hours of hatching, the turtle eggs will be brought back to area of nest and will be released naturally. The reason for creating such an incubation center in the first place is to eliminate any threats from poachers, beach erosion, waves and storms, trampling, predators, parties and tourists, which have increased within the last two decades.

We've partnered with Turtle Foundation and want to **recruit two, local turtle rangers/ managers** (preferably from Gili T) who will act as supervisors to train new rangers, monitoring the turtle landings, nests and can train in effective egg translocation to the nursery. Sian will conduct the proper training to two supervisors on Indonesian standards, as per training from hatcheries in Malaysia and East Kalimantan. Additionally, we want to collaborate with **beachside businesses about turtle landings** through a 15-minute workshop on effective strategies for nesting, landings and hatchings of endangered turtles. Set up effective monitoring and reporting and lessen the need/thoughts that captive head-starting is ethical. This will extend to other sustainability education (SUP plastic in bars, takeaway items, anchoring etc) once we have the relationships secured

You can find more of the progress here: <https://www.globalgiving.org/dy/v2/pe/progress-report/edit-progress-report.html?project.projId=53173&progressReport.id=192324>

OUTLOOK TO 2022



WASTE MANAGEMENT

In 2022, we will focus on **re-establishing the proper waste separation techniques for businesses**. Therefore we are aiming to:

- Return to our revised waste separation strategy that collapsed in 2018 after the earthquakes, with about 50% recovery of businesses being retrained before the end of 2019. This will all need to be started from scratch, starting with glass bottle pick-ups from bars, followed by organic (wet/dry waste) and finally with recycling/residue.
- Sea cleaners partnership to be confirmed with the program set for the island dump and a pyrolysis machine for incineration and energy generation.

We are looking for an organization that will provide the funding for pyrolysis machines suited to the size & waste generation of Gili T. We require incineration of certain unrecyclable materials such as soft plastic wrappers and polystyrene.

Additionally, we will need to **fix the glass upcycling projects** by finding a new work location for our glass artist Zul and getting the crushing machine fixed (the machines were all broken beyond repair or stolen in the 2 years of pandemic closures. Thus, we are aiming to fundraise for new equipment, rebuild the glass workshop in a safer environment and recruit an apprentice for Zul to train and take over).

ANIMAL WELFARE

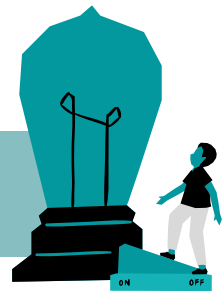
We are aiming to establish **two or three free horse health clinics** (2 will be completed up until June 2022 and 2 more are planned to be established within the next 1.5 years).

We are working with teams of vets from international organizations to create regular and sustained health care clinics to normalize regular check-ups to prevent injury and overworking rather than costly treatments.

Additionally, we are aiming to also open up at least **three cat clinics** and help to bring basic health care to the cats on the island through the Cats of Gili organization. We will work on creating a safe and trusting community for the island cats and continue educating the local population, who purchase cats from Lombok, to get better care routines and treatments when they are sick. Also, we will continue to host TNR clinics to sterilize and vaccinate all-island strays and pets to control the population on the island.

Eventually we'll be working towards setting up a full-time local vet in the surgery.

OUTLOOK TO 2022



MARKETING & COMMUNICATION

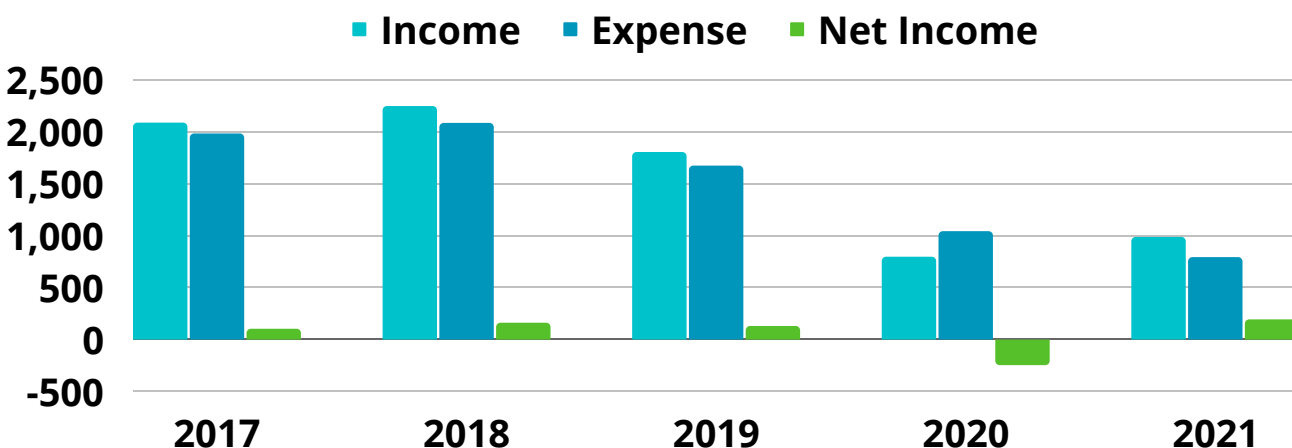
We aim to get all our different marketing campaigns online through Global Giving. We want to expand our partnership with Global Giving to also generate recurring donations, to particular environmental projects that we are running and increase international awareness for our waste management projects (e.g. glass-, biorock- and marine projects). We will also try to increase mechanisms to receive digital remote communications help, and establish a 2month program for content creators, remote fundraisers and social media interns who can assist our work, and expand our team.

Moreover, we have a strong desire to establish more partnerships with waste logistics companies locally in Indonesia and are searching for even more "*bank sampahs*" and recycling facilities that accept our hard-to-recycle materials.

FINANCIALS

GILI ECO TRUST 5-YEAR FINANCIALS (2017-2021)

in million Indonesian Rupiah (million IDR)

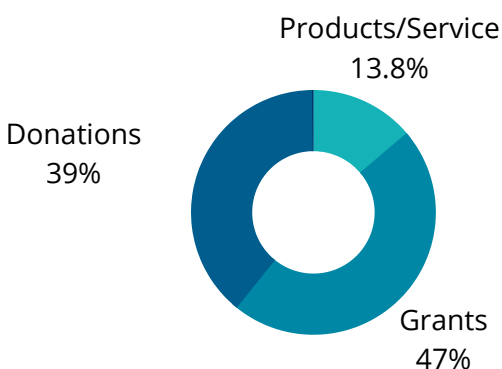


GILI ECO TRUST INCOME AND EXPRENS E BREAKDOWN

for the year 2021

Income

IDR 982.0 million



Products/Service Income

Includes revenue generated from trainings, presentations, or sale of products by Gili Eco Trust.

Grants

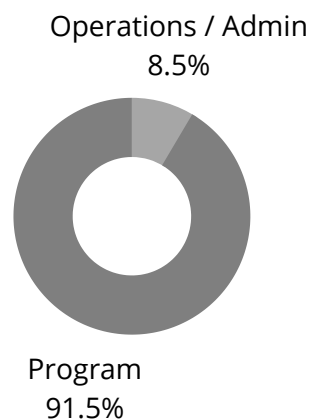
Funding received from grants

Donations

Includes amounts donated by individuals and organisations

Expense

IDR 788.8 million



Program Expense

Includes cost of staff working on our programs and projects; cost of providing services and maintaining the equipment in our programs

Operations / Admin Expense

Includes utilities, professional services fees, and office expenses

OUR PEOPLE



Pak Malik
Director



Delphine Robbe
Managing Director



Pak Cahyo
Director FMPL



Susanna
Founder Cats of Gili



Ibu Susi
Accountant and Finance FMPL



Sian Williams
Chief Marketing Officer



Sabri
Waste Logistics



Ramli
Glass Brick specialist



Ismael
Waste Logistics



Tedi
Waste Logistics



Hamdan
Waste Logistics



Pak Antok
Waste Logistics



Erwin
TPA (Landfill) supervisor



Gafur
Waste Logistics

OUR PEOPLE (CONT)



Abdul Halim
Waste Logistics



Yahya
Waste Logistics



Safar
Waste Logistics



Zainudin
Waste Logistics



Sahnun
Financial supervisor



Ilham
Waste Logistics

OUR PARTNERS



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Bank Sampah Director, Lombok



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Head Volunteer Vet



Dr. Peni
Equine Vet



Superman
Treevolution Project Manager



Dr. Misha
Equine Vet



Kimberley Gross
Advisor



Nicky Lim Yong Hao
Advisor

ACKNOWLEDGEMENTS

These projects and progress would not have been possible without the tireless energy and motivation from the respected project leaders, our director Delphine Robbe, CMO Sian Williams, the authors and our advisors of this impact report, Cimberley Gross and Nicky Lim Jong Hao. Along with a wealth of volunteers of the Eco Trust, remotely and on the ground, and the dedicated islanders that found themselves unemployed for 2 years who helped us continue our projects to the best of our ability.

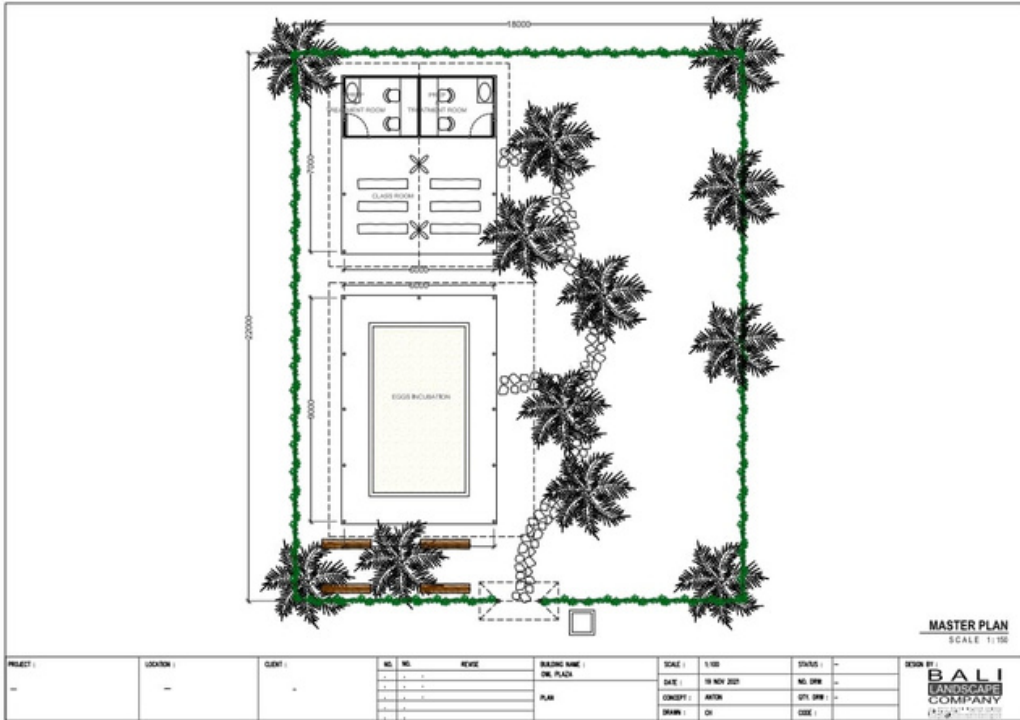
Thank you /Terima Kasih



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APPENDIX



Ariel view of the Gili Way/Eco Trust Turtle incubation centre (bottom) and seminar room (short rectangles) and treatment centre (top)

