



MALDIVES UNDERWATER INITIATIVE by Six Senses Laamu

ANNUAL REPORT
2020

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OUR MISSION

To lead the tourism industry in the Maldives through meaningful marine conservation efforts based on research, education and community outreach.

OUR VISION

A local and global community of marine stewards that will create a culture of positive action for our oceans in Laamu and beyond.

Photo credit © Matt Porteous



OUR STORY

2020; what a year. It was an incredibly hard time for so many around the world, and the tourism industry was, and continues to be, especially affected. For us, the pandemic, and temporary closure of the resort due to the Maldivian border closure, brought hardship to our hosts, our local community, Six Senses as a management company and our owners, the HPL Group, who have all been incredibly supportive. Saying that, with all the difficulties 2020 brought, I am extremely proud of everything the MUI team was able to achieve in that challenging year.

Where most people saw only closed doors, the MUI team saw opportunity. Just days after the resort entered its temporary closure, the team announced they would like to develop a free online education program for children around the world battling lockdowns. The ten-week Junior Marine Biology online course was done to an incredibly high standard consisting of 99 beautifully developed, entertaining and insightful videos which brought joy to families all around the world.

Whilst other hosts headed home, many members of the MUI team opted to stay on island to pursue their goals in the realms of marine research. This included the most in-depth study ever of Six Senses Laamu's protected seagrass meadows, reef recovery surveys on the resort's house reef and thorough analyses of datasets from the past three years. The results of these were presented in seven presentations at the 2020 Maldives Marine Science Symposium, the most of any resort-based team, and are also being used for the lobbying of marine protected areas and a Hope Spot in Laamu.

Even with the resort reopening, for the safety of Laamu's population, MUI's community outreach events could not occur. When the decision was announced to postpone the annual Laamafaru Festival physical event, the MUI team came together again to find alternatives. The #LaamafaruFestival2020 campaign highlighted Laamu's incredible natural resources and provided a voice for school children, community members and local content creators to share their passion for their atoll on a national level.

For me, MUI's greatest achievement in 2020 was these acts of passion, resilience and collaboration in the face of the pandemic. As you read this report, I hope you too are inspired by the steps that were taken and the motivation that was found.

As we look towards 2021 and onwards, I am incredibly excited support the team in doing more, giving back and making certain that the impact we have in Laamu is a positive one. Our mission has always been to leave a legacy in the Maldives, to leave this beautiful and unique part of the country

better than how we found it. If there is anything that this year has shown me, it is that MUI's determination to make this vision a reality cannot be halted, even in the face of hardship, and with that I know they will continue to achieve incredible things in the years to come.

On behalf of the entire MUI team, thank you for your support on our journey thus far and we look forward to reconnecting with you soon.

#WithLoveFromLaamu

Marteyne van Well

General Manager, Six Senses Laamu

Photo credit for above © Justin van Jansen
Front cover photo © Neil Emmerson

WHO IS MUI?

The Maldives Underwater Initiative (MUI) is a multiple award-winning marine conservation initiative based at Six Senses Laamu, a 5-star resort in the Maldives. MUI consists of staff from the resort, as well as its three partner non-

governmental organizations (NGOs): The Manta Trust, Blue Marine Foundation and The Olive Ridley Project, all of whom work together to reach research, guest education and community outreach goals.



The home base of the Maldives Underwater Initiative, Six Senses Laamu sets itself apart from the 100+ other resorts in the Maldives with its dedication to sustainability and marine conservation. MUI is an initiative by Six Senses Laamu, providing the team with a base, funding, and the resources required to achieve research, education and community goals.



The Manta Trust is a UK-registered charity that coordinates global mobulid research and conservation efforts. Their mission is to conserve mobulid rays and their habitats, through research, education and collaboration. Since 2014, the Manta Trust has been working in Laamu to study the local manta ray population and to educate guests and the local community about the importance and vulnerability of manta rays in the Maldives.



Blue Marine Foundation (BLUE) exists to combat overfishing by delivering practical conservation solutions, including the creation of large-scale marine reserves. Since 2016, the BLUE team at Six Senses Laamu has been working closely with the local community in Laamu Atoll to improve local fisheries management and create marine reserves. BLUE believes this is best achieved if efforts are locally led. A key aspect of their work focuses on building local capacity for marine resource management.



OLIVE RIDLEY PROJECT

The Olive Ridley Project (ORP) works to protect sea turtles and their habitats in the Indian Ocean through research, rescue and rehabilitation, education, and outreach. Since 2018, ORP has worked to increase scientific understanding of foraging and nesting sea turtle populations in Laamu, and has actively removed ghost nets found in and around the atoll. Guest education and community outreach - communicating the importance of sea turtles and the threats that they face - are key aspects of their work in Laamu.



10 years of sustainable tourism



6 years of partnership with Six Senses Laamu



4 years of partnership with Six Senses Laamu



2 years of partnership with Six Senses Laamu

A glass bottle with a metal clasp is pouring water into a glass. The background is a soft, out-of-focus blue. The bottle is on the left, tilted, and the glass is on the right, partially filled with water. The water is captured in mid-pour, creating a dynamic splash.

SIX SENSES SUSTAINABILITY FUND

All Six Senses properties worldwide have Sustainability Funds, which are allocated towards projects that benefit local communities and ecosystems. The fund consists of 0.5% of total resort revenue, 50% of water sales, 100% of soft toy sales, and any guest donations. External donations made to Six Senses Laamu's partner NGOs also make specific research, education and community projects in Laamu Atoll possible.

In 2020, Six Senses Laamu spent USD128,661 of the resort's sustainability fund on projects that positively impacted Laamu's community, wildlife and habitats. The majority of this expenditure was invested in furthering MUI's research, education and community projects.

MILESTONES OF 2020

JANUARY

Nine reef fishermen and Six Senses Laamu signed a fishing code of conduct designed by BLUE which ensures both parties fish and trade in a sustainable way.



FEBRUARY

The Hello Hallo education program first sessions for 2020 began at schools in Laamu Atoll.



MARCH

Seagrass monitoring protocols designed by Six Senses Laamu and BLUE were adopted as the national protocol by the Maldives Government.



Due to the development of the COVID-19 pandemic, travel restrictions hit the Maldives and Six Senses Laamu entered a temporary closure. The MUI team remained on island, utilizing this time to further research projects and develop innovative ways to continue educating remotely.

APRIL

In response to global lock-downs and travel restrictions, the MUI team launched the Junior Marine Biology online program.



The team conducted the annual survey of Six Senses Laamu's seagrass meadows. A total area of 116,695m² of seagrass was calculated, which was a 20% increase over 12 months.

MAY

In an effort to engage with the millions stuck inside, the MUI team produced a vast range of content for social media, including weekly classes for Junior Marine Biology online, instructional videos for the #AtHomeWithSixSenses campaign and a drone tour of the island's marine ecosystems.



BLUE hosted a webinar together with the Maldives Marine Research Institute to teach stakeholders how to monitor seagrass meadows using new national protocols.

JUNE

The Six Senses Laamu team conducted their biannual coral reef monitoring surveys on Six Senses Laamu's House Reef.



JULY

At Six Senses Laamu's organic garden, 14 raised beds were created to maximize yield from the garden in preparation for the resort's reopening.



AUGUST

With the ease in restrictions, Six Senses Laamu reopened and welcomed guests back to the resort on August 1st, 2020.



48 staff from 24 schools in Laamu Atoll were trained to maintain drinking water filtration systems. These systems were donated to all schools in the atoll through the Six Senses Laamu Sustainability Fund and the Zero Waste Plastic Initiative at Schools (ZePWIS) project.



SEPTEMBER

Celebrated the first ever World Manta Day with the Manta Trust through guest and host activities at Six Senses Laamu.



OCTOBER

BLUE painted a Napoleon Wrasse wall mural together with the local community on L. Mundoo Island to highlight the importance of the area's reefs for this endangered coral reef fish.



NOVEMBER

Six Senses Laamu signed an MoU with Maamendhoo Women's Development Committee to provide reusable bags to the L. Maamendhoo community.



DECEMBER

Seven papers on MUI's research in Laamu were presented orally at the Maldives Marine Science Symposium 2020.



#LaamafaruFestival2020 was launched as an online alternative to the physical event. Under the theme "Eku Eky Dhas kerama" (let's educate together), 14 videos were created by local schools, NGOs and other community groups, and were shared with Laamu community via MUI's social media channels.



Adam Tholhath, Six Senses Laamu's Sustainability & Community Outreach Manager, won Stelliers Sustainable Hotelier of the Year 2020.



OUR RESEARCH



CORAL REEF ECOLOGY

National Coral Reef Monitoring Program

Since 2018, Six Senses Laamu's House Reef has been established as a permanent reef monitoring site under the Climate Change Adaptation Program (CCAP) launched by the Maldivian Ministry of Fisheries, Marine Resources and Agriculture. The program was launched following the catastrophic mass coral bleaching event in 2016, where a rise in sea surface temperature resulted in an average loss of 75% of Maldives' shallow corals. Three years worth of data from the Six Senses Laamu's site has been reviewed to give an indication of the reefs' recovery up to December 2020. The results showed that total live coral cover increased from just 12% in March 2018 to an impressive 25.9% in June 2020. However, due to temperatures exceeding 30 degrees celsius, 16% of coral that year were recorded as bleached, and this likely resulted in the drop in live coral cover to 18.4% recorded in December 2020. The data proves the reefs are recovering from the 2016 mass bleaching event, but the rate of recovery is hindered by continued smaller scale bleaching events.

Coral Spawning Observations

The best way for reefs to recover from any disturbance is to repopulate through natural sexual reproduction, thereby increasing genetic diversity and abundance of corals on the reef. Coral spawning occurs when male and female gametes are released, fertilized and then settle on the reef to become a new coral colony. However, in the Maldives, little is known about the exact timing of this event, which is often species specific. In 2019, the Six Senses marine biology team had started surveying Six Senses Laamu house reef for spawning activity around the full moon in March and two species (*Diploastrea heliopora* and *Porities lobata*) were observed releasing male gametes 3 nights after the full moon. On the same day in 2020, a third species (*Goniastrea retiformis*) was observed releasing gamete bundles on this same day. Despite these observations, with 36 different coral genera have been recorded on Six Senses house reef, and 47 in Laamu, there is still much more research needed to understand this critical event. Now with a clearer idea of when spawning occurs, the Six Senses marine biology team will conduct a more detailed and targeted research project into coral spawning and recruitment success in 2021.



47 species of coral identified in Laamu atoll



6.4% increase in live coral cover over three and a half years at Six Senses Laamu's house reef



REEF FISHERIES MANAGEMENT

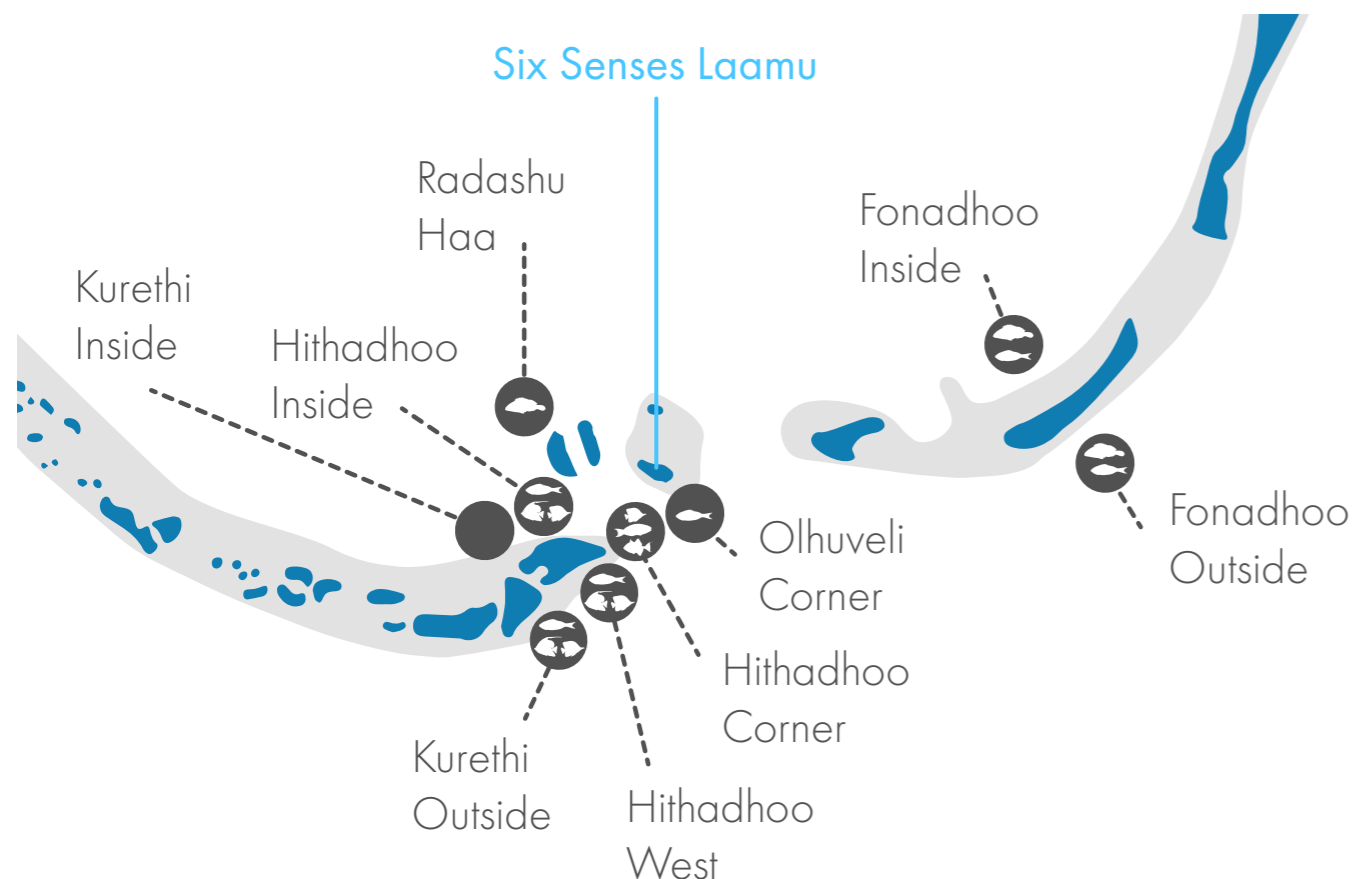
Fish Abundance and Diversity on Laamu Atoll

In 2019, marine biologists from BLUE and Six Senses Laamu, surveyed 21 reefs in Laamu Atoll. In 2020, BLUE did further in-depth analyses of the fish composition on 14 reefs closest to the resort which are used for diving, fishing and other activities. Analyses looked at the abundance and diversity of key fish groups on reefs to identify if specific sites require improved management.

The results of these analyses showed that fish assemblages were most diverse and abundant at Hithadhoo Inside, Kurethi Outside and Hithadhoo West and lowest at Hithadhoo Corner, Kurethi Inside and Olhuvelli Corner. Further analysis at these sites revealed that the most commonly found fish groups at Hithadhoo Corner were parrotfish, trigger fish and butterfly fish while assemblages at Hithadhoo Inside, Hithadhoo West and Kurethi Outside were all mostly characterised by snappers, moorish idols and butterflyfish.

Interestingly, Fonadhoo Inside, Fonadhoo Outside and Radashu Haa were the only sites where groupers (except *Epinephelus* species) were considered to be an abundant group. Snappers were also considered to be in abundance at Fonadhoo Inside and Outside as well as Hithadhoo Inside, Hithadhoo West, Kurethi Outside and Olhuvelli Corner.

Using this data, BLUE has gained a basic understanding of the abundance and diversity of functional groups at these sites used by the resort. In 2021, BLUE will build on this knowledge and work with Six Senses Laamu to conduct surveys that incorporate fish length. This will provide an indication of the abundance of adult fish as well as enabling us to calculate fish biomass. This additional information is needed to better manage local fishing efforts.



Reef Fish Landing Data

After the 11 fishers in the Laamaseelu Masveriya program (read more in 'Our Home') signed the responsible fishing code of conduct with the resort in January 2020, BLUE began working with them to collect fish landings and spatial information to identify what fishermen are catching from which sites on the Atoll. COVID-19 prevented the program from operating for periods of the year, but despite challenges BLUE worked hard to collect data when they could.

Fishermen targeted a total of 20 specific sites across Laamu in 2020 and initial size data collected has proven to be very interesting. Across all sites the commonly caught fish in 2020 were trevallies, long-nose emperors and green jobfish. For some species like long-nose emperors, green job fish, bonito and red snapper the average size of fish caught across the year was close to the size at which they mature. This

suggests that there are fewer larger individuals available to catch which could be due to overfishing of these larger predatory species. However, for other species like the rusty jobfish, humpback snapper and rainbow runner, the average size of individuals was larger than the size at which they mature. This suggests that larger individuals are more available and easier to catch and these populations may be healthier. In 2021, BLUE plans to work with local communities and other tour operators on Laamu Atoll to collect additional landings data to identify what could be driving these patterns.

With just one year's worth of data, the fishing seasonality patterns are not conclusive yet, however trends are starting to show for species such as red snapper. The continued gathering and analysis of this data will allow BLUE to better understand the health of fish stocks on surrounding reefs and implement adaptive management accordingly, whilst still protecting the livelihoods of local fishers.



11 fishers signed a fishing code of conduct



600+ fish landing records collected

MEGAFAUNA SIGHTINGS

Collaborative Megafauna Surveys

Megafauna sightings are recorded on every single Six Senses Laamu dive and snorkel accompanied by a guide from the Deep Blue Divers (DBD) dive center or the MUI team. The data is used to help understand the distribution of megafauna across Laamu which can aid management planning, helping to extend protective measures not only to the animals themselves, but the areas they use. This data also helps advise the resort's excursion site choices, thus helping increase the likelihood of encounters, enhancing guest experience, and increasing the value of marine megafauna in Laamu Atoll.

Endangered Species

Despite the four month gap in data during the resort's temporary closure, the MUI and DBD teams completed 1,176 surveys in 2020, resulting in over 10,000 sightings. The most commonly sighted taxa were sharks accounting for more than 40% of encounters. Nine species of shark were sighted, the most common of which were whitetip reef sharks (*Triaenodon obesus*), grey reef sharks (*Carcharhinus amblyrhynchos*) and blacktip reef sharks (*Carcharhinus melanopterus*). These species are classified as threatened under the IUCN Red List, with grey reef sharks recently reclassified as endangered. There were 882 sightings of critically endangered hawksbill sea turtles (*Eretmochelys imbricata*) and 1,339 sightings of endangered green sea turtles (*Chelonia mydas*). Unique and rare sightings were also recorded of threatened species such as ornate eagle ray and whale sharks, as well as the critically endangered scalloped hammerhead shark. Knowing these species with globally declining populations are some of the most frequently sighted megafauna in Laamu is encouraging, and gives even more prevalence to this research and keeping their populations safe.

In-Depth Data Analysis

In comparison to 2020, 2019 was a colossal year for data collection. With other activities restricted in summer 2020, the research team had time to thoroughly analyze the 2019 data. In addition the data was further reviewed by Hannah Kennedy, a student from James Cook University, Australia, as part of her Masters degree. Six Senses Laamu's Head Marine Biologist then presented the findings from this at the Maldives Marine Science Symposium in December 2020. Key findings showed differences in species distribution between the monsoon seasons, in addition to significant habitat preferences for various species, for which reef passes, or channels, were found to be significant areas for megafauna abundance. Hannah found that at least one megafauna species was sighted on 88% of all excursions, two species sighted on 70% of all excursions, and three species sighted on 51% of all excursions.



1,009 hours of megafauna surveys



10,010 megafauna sightings



61 different survey sites



2,221 sightings of turtles



4,083 sightings of sharks



1,060 sightings of Napoleon wrasse



2,646 sightings of rays



SEAGRASS ECOLOGY

The Launch of the Maldives National Seagrass Monitoring Network

Despite the success of the #ProtectMaldivesSeagrass campaign in raising awareness of the importance of seagrass meadows in Maldives, there is still little known about their distribution, diversity and status. BLUE and Six Senses Laamu, in collaboration with TropWater at James Cook University and Murdoch University, developed a standardised monitoring protocol for Maldives seagrass meadows. The protocol consists of three tiers, accommodating the varying capacity of participating organisations or individuals. In March 2020, the Ministry of Fisheries, Marine Resources and Agriculture adopted this as the Maldives National Seagrass Monitoring Network (MNSMN) protocol, and incorporated it into their CoralDatabase, an online data entry portal. The inclusion of seagrass in a national monitoring system for the first time demonstrates the Government's recognition of the importance and value of seagrasses for the Maldives.

Surveys at Six Senses Laamu

At Six Senses Laamu, the seagrass meadows have been protected for four years, and with the resort's temporary closure in 2020, the marine biology team had the opportunity to conduct the most in-depth survey of the resort's meadows to date. Using the third tier of the MNSMN protocol, the team found the total seagrass area had increased by 20% over the 12 months, reaching 116,695 m². However, it was found that different meadows had increased by varying amounts, likely due to the different available substrate and species composition. The Six Senses Laamu team will continue to monitor how the resort's meadows change over time in the first study of its kind in Maldives.

A National Database

Six Senses Laamu may have been the most in-depth survey conducted in the nation, but it certainly wasn't the only one. In 2020, through the online community developed from the #ProtectMaldivesSeagrass

campaign and the Maldives National Seagrass Monitoring Network, BLUE and Six Senses Laamu have received seagrass photographs from various other organisations and individuals, seeking identification verification. This has resulted in identifying two species which have never recorded in the Maldives, bringing the total of seagrass species found in the country to eight, double what was previously reported before the MUI team started their survey efforts. The team will continue to encourage participants from across the country to contribute towards a better understanding of seagrass in Maldives.

Mapping Seagrass Food Webs

In 2019, Six Senses Laamu was invited to establish a monitoring site for the Smithsonian Institution MarineGEO Network's Global Seagrass Survey, titled "Seagrass Ecosystems Energy Fluxes: A Global Collaborative Survey". The aim of the study was to understand the fundamental support seagrass meadows provide to the marine food web, and identify drivers of productivity. The results showed that Maldives meadows had a high abundance of fish, almost twice the global median, with 13 different species observed throughout the survey transects. In all species observed, the majority were found to be juveniles, indicating Maldives meadows provide a valuable nursery habitat. Secondly, a low abundance of invertebrates, yet a high abundance of their predators, and meso-predators, indicates that these seagrass meadows directly support multiple levels of the marine food web, and are therefore highly productive, and thriving, ecosystems.

Turtle Grazing Pressure

Within Six Senses Laamu's seagrass meadows, three turtle exclusion cages were placed as part of a study in collaboration with the Olive Ridley Project. These structures are designed to prevent green turtles from grazing on areas of seagrass, allowing the team to compare inside and outside the cages, thus studying the grazing pressure and effect of grazing on the health of Six Senses Laamu's meadows. In August 2020, one of the control areas was found to be heavily grazed, with only one species of seagrass (*Halodule pinifolia*) being cropped and the other two species present left alone, showing a species preference by the turtle. This grazing reduced the average canopy height by a third, from 15.1 cm to 5.3 cm. The study will continue to measure any longer term effect of seagrass grazing from the turtles within Six Senses Laamu lagoon.



401 data points recorded



20% growth in Six Senses Laamu's meadows



116,695 m² of seagrass meadows at Six Senses Laamu



5 species found in Six Senses Laamu's lagoon

SEA TURTLE CONSERVATION

Photo Identification

Photo ID is a non-invasive technique used to determine individual movements and reveal changes in population size and structure. It is also a great way to involve the public in scientific research- anyone with a camera can participate and submit data. Sea turtles possess unique patterns of facial scales, similar to human fingerprints, which can be used to reliably identify individuals. The Olive Ridley Project (ORP) has used photo ID to study Laamu's foraging and nesting sea turtle populations since 2018. Two species are frequently spotted here in Laamu- green sea turtles (*Chelonia mydas*) and hawksbill turtles (*Eretmochelys imbricata*). A total of 656 encounters (sightings with accompanying ID photographs) were recorded in 2020, which resulted in the identification of 63 new individuals. This brought the total number of identified turtles in Laamu Atoll to 547, making it the fourth largest atoll database in the Maldives.



37 new hawksbill turtles identified



26 new green turtles identified

Nesting at Six Senses Laamu

When a mature female Green sea turtle is ready to nest, she migrates large distances from her feeding grounds to the general area where she hatched from. During this nesting period, she can lay between 2-8 nests with eggs fertilized from multiple partners in the area. Her remigration to nesting ground occurs only every 2-4 years, so there's a natural fluctuation in nesting frequency across the years. On Olhuveli island (where Six Senses is located), only 9 nests were recorded in 2020 - which is significantly fewer than recent years. However, this is most likely due to natural fluctuation of nesting frequency. Of the three photo-ID of nesting turtles taken during this time, two of the nesting events was by the same turtle, G266, enabling the team to estimate her inter-nesting period (the period of time between consecutive nesting events by an individual turtle) as ten days.

Nesting on Gaadhoo Island

Gaadhoo, an uninhabited island 4.5 km east of Six Senses Laamu, has long been identified as one of the most significant green sea turtle nesting hotspots in the Maldives. In 2020, ORP conducted four bi-weekly nesting surveys before the COVID-19 travel restrictions were enforced, and an additional two surveys at the end of the year. As Gaadhoo is a year-round nesting location, the data is not representative of the full number of nests laid on Gaadhoo last year. During these surveys a total of 18 suspected nests and 10 suspected false crawls were recorded. Although prohibited under Maldivian law, egg poaching unfortunately remains a prevalent issue on Gaadhoo and 16.7% of the nests surveyed showed signs of poaching activity. In 2020, ORP also worked with the Environment Protection Agency (EPA) on a plan which includes various measures to increase research and protection of Gaadhoo's nesting beach.

Ghost Gear and Entangled Turtles

Ghost gear refers to fishing gear that has been lost, abandoned or discarded at sea. Ghost gear is one of the most harmful forms of marine debris and is responsible for killing countless numbers of marine animals - including sea turtles. ORP was established to help rescue and rehabilitate sea turtles found entangled in ghost gear. In 2020, ORP recovered five ghost nets in Laamu, amongst which two turtles were found entangled- one hawksbill and one olive ridley. Thankfully, both of these turtles had no major injuries and could be released immediately.



547 turtles identified in Laamu



2 turtles rescued and released



5 ghost nets recovered



9 nests laid at Six Senses Laamu



9 false crawls at Six Senses Laamu



346 hatchlings at Six Senses Laamu

MANTA RAY CONSERVATION

Photo Identification

Each manta ray has a unique spot pattern on its belly allowing manta researchers to identify individuals and track population dynamics. Despite restrictions on diving due to the pandemic, manta ray surveys were conducted by the Manta Trust and Deep Blue Divers teams on 192 days of 2020, totaling 610 surveys and an impressive 378 manta ray encounters. 118 of these encounters were captured on camera, enabling the team to identify 58 different manta rays throughout the year, many of which were sighted more than once. Of the manta rays identified in 2020, two had never been seen before, bringing the manta ray population of Laamu to 134 individuals.

Manta Ray Pups and Growth Rates

Both of the new manta rays seen in Laamu in 2020 were pups (small juveniles). Very little is known about how fast manta rays grow, so the Manta Trust team uses a Stereo Video Photogrammetry system to measure their sizes. This technology works by using two cameras mounted on a bar at set distances apart, which are calibrated to take accurate 3D measurements of the rays. With this information, the team can better inform the scientific community about manta ray growth rates.

Manta Ray Aggregation Sites and Drone Surveys

In Laamu Atoll, two major cleaning stations (areas where manta rays gather to be cleaned by reef fish) have been identified. To investigate if there are more areas like this, and also if there are other areas that manta rays may be using as a nursery or for feeding, the Manta Trust team introduced drone technology into their surveys this year. Drone technology has the ability to capture essential footage of wildlife in non-invasive ways and can offer an incredible insight into their habitats and behavior. In 2020, 23 drone surveys were conducted by the Manta Trust team in Laamu, with two confirmed manta sightings. The most memorable drone survey recorded three mantas swimming alongside dolphins during the resort dolphin cruise just nearby Six Senses Laamu.

Remote Underwater Sensing

In 2020, the Manta Trust team further developed their remote sensing project, in which they deploy Remote Underwater Video cameras (RUVs) at manta aggregation sites. This year they introduced the 'Eyes on the Reef' (EOTR), an extended life camera that takes continuous time-lapse photographs of the area for up to 7 days at depth, from sunrise until sunset. Whilst the older RUV cameras provided the team with 128 hours of footage, the EOTR cameras photographed an impressive 343 hours of data at the manta cleaning stations. These cameras have allowed the Manta Trust team to significantly extend their survey time and provide essential insights into manta behavior and habitat use, without the presence of divers.



378 encounters with manta rays



610 in-water surveys



118 confirmed IDs of mantas



23 drone surveys



58 individual manta rays sighted



471 hours of remote underwater video and photo surveys



2 new manta pups identified



35 sightings on remote surveys



SEDIMENT DYNAMICS

The Maldivian islands are historically and naturally dynamic in morphology. However, this instability proves to be a problem if islands are developed, particularly in densely populated islands and resorts. To sustain the beaches and prevent damage to infrastructure, beach nourishment and placement of groynes, seawalls and Geo-tubes are standard practices. However, these often prove to be ineffective, can shift the issue elsewhere and can have consequent negative ecological impacts.

Similarly to many other resorts in the Maldives, Six Senses Laamu has encountered recurrent sediment shifts across its beaches for the past decade. In the past, several beach erosion mitigation measures were put in place to tackle the issue. However, the seasonal changes in monsoonal winds and currents still result in seasonal beach erosion at different shorelines around the island.

In October 2019, MUI launched a year-long research project to understand the sediment movement around the island, with the aim of implementing better informed mitigation methods, whilst keeping the shoreline as natural as possible. 16 permanent benchmarks were established around the whole island, with a focus on the areas that experience the most change. The beach profile was measured at these markers every month, creating the first ever annual baseline of how Six Senses Laamu's beaches and sand move around the island.

Identifying these trends at different points along the shoreline has helped advise when to expect erosion. Thus, giving the resort team the opportunity to better prepare and execute measures with minimal ecological impacts.



16 permanent benchmarks established



192 survey transects conducted



12 month monitoring period





OUR
EDUCATION

OUR GUESTS

MUI believes being a marine biologist at a resort is about more than just being a snorkel guide; above all, it's about science communication. Every single guest interaction is an opportunity to inspire others, creating a community of global marine stewards who return home with greater knowledge and the tools to help protect our oceans. Different people engage with conservation messages in different ways, which is why a range of activities are offered by MUI, including hands-on workshops, presentations, kids club, dolphin cruises, guided snorkels, reef clean ups, and more. In each, the key messages are tailored to the audience and there is always opportunity for guests to get more involved.

2020 has been a time of change and new beginnings. There is a global consensus that the pandemic has left people all around the world placing a higher value on our planet and the impact we have on it. MUI witnessed this first-hand in August 2020, when Six Senses Laamu reopened after a four-month closure and the resort began welcoming travelers who had a far greater sense of purpose. In the first three months of 2020, the MUI team interacted with an average of 22.71% of guests staying at the resort each day, an impressive number and significant increase from years previous. However, after the resort reopened, this number grew to an all time high of 29.13% of guests. After battling lockdowns, MUI's activities provided travelers with opportunities to reconnect with nature and fill the void so many had felt after months indoors.

1,790 guests joined MUI on their daily snorkels in 2020 where they learnt about Six Senses Laamu's incredible house reef, and also got involved in citizen science through assisting the team in megafauna surveys. On Sundays, this snorkel brings guests into the seagrass meadows, a new initiative launched in 2020 which continues to be one of the most sought after snorkel experiences at the resort. 665 guests encountered Laamu's spinner and bottlenose dolphins on sunset cruises, where a marine biologist

is present to collect data on the pod's daily migration, as well as answer any questions guests may have. Members of the MUI team, most frequently the marine biologists from the Manta Trust, joined 382 guests on dives to provide further information on the animals they encountered. This is also an opportunity for guests to see, first-hand, ongoing research the MUI team is conducting on the marine habitats and animals in Laamu. Perhaps a presentation isn't the first on travelers lists for activities to do on holidays, yet 386 guests came to learn more about MUI's projects during their nightly talks, which often go over their scheduled 30 minutes, due to the curiosity and enthusiasm from those watching.

Ensuring marine protected areas have sustainable revenue streams is key to their long-term success. In 2020, BLUE designed a 'Willingness To Pay' survey which the MUI team conducted with guests at the resort. The surveys asked guests how much they would be willing to contribute to enter and enjoy forthcoming marine protected areas on Laamu Atoll. The surveys will allow the team to better understand how valuable tourism can be for local conservation. In 2021, BLUE will use this data to design a financial strategy for marine protected areas on Laamu.

"An additional and unexpected point that made our stay more valuable was to know that this resort... is immersed in sustainability and involved in marine conservation by doing research, education and it is in permanent contact with the community. ... The reef around Six Senses Laamu is healthy and protected by MUI initiatives, and marine fauna is abundant."

-Jesus on TripAdvisor



5,573 educational moments with guests



27% of guests at Six Senses Laamu engaged with MUI activities



1,170 guests joined MUI on guided snorkels



382 guests joined MUI on dive excursions



273 guests encountered manta rays with the Manta Trust



386 guests attended the daily presentations provided by MUI



665 guests encountered dolphins on dolphin cruises

LAAMU STORIES

When Six Senses Laamu reopened in August 2020, the MUI team found themselves interacting with guests who were evidently more curious and passionate about nature, and amongst the crowd one couple left a significant mark on the team. Neil and Mandy have been visiting the Maldives and other incredible reef ecosystems for countless years, so when they arrived at Six Senses Laamu for their third time, they made it clear they were coming to witness the best snorkelling experiences the resort had to offer. A MUI team member accompanied Niel and Mandy on a private boat each day, as they discovered reefs the team had never snorkelled on before, including this reef pictured here which was since named "MANY reef". The reef was named using the initials of those who discovered it- Mandy, Ali (their daily guide from MUI), Neil and Yamin (their boat captain). Neil is also an extremely talented photographer and has gifted the resort a selection of his pieces, including this drone shot featuring Mandy and Ali snorkeling, as well as the cover photo for this annual report.

JUNIOR MARINE BIOLOGY

Since its conception in 2018, the Junior Marine Biology program offered by the Six Senses Laamu Marine Biology team has gained international press and a steady stream of enthusiastic budding conservationists visiting the resort primarily for the program. Six Senses Laamu's temporary closure provided the team with an opportunity to launch a free online version of the program (read more in 'Our Voice'), as well as update the in-person experience for when the resort reopened.

In August 2020, the team were delighted to welcome guests who were determined to travel and reconnect with nature again, the most enthusiastic of which came in the form of the Little VIPs. That month, a group of nine Junior Marine Biologists joined the MUI team, two of whom were alumni who had already completed the previous version of the course. This international group of budding marine conservationists created valuable friendships, explored incredible habitats around Laamu, conducted group surveys and overcame any fears they had about being in the ocean. The entire adventure was equally as rejuvenating for the MUI team, who had spent months without any guests or Junior Marine Biologists to educate, as it was for the kids who had spent months indoors. In the following months, Junior Marine Biologists continued to arrive at Six Senses Laamu, often scheduling their sessions around home school requirements and sometimes even using the program as a temporary field trip away for their normal zoom class.



20 certified Junior
Marine Biologists



240 hours of
education sessions



OUR HOSTS

The Maldives Government stipulates that a minimum of 45% of resort staff must be Maldivian. However, Six Senses Laamu has set their own target of at least 55% Maldivian hosts. There are currently 324 staff on Six Senses Laamu's payroll, including 190 Maldivians and 125 of these are from Laamu Atoll. With such a large proportion of the team at the resort being from the atoll, education for hosts is vital in helping develop a local community of marine stewards who are empowered to conserve Laamu's natural resources.

Six Senses Laamu believes hosts are their greatest assets and thus the team's wellness is of utmost priority for the resort. Mission Wellness is an internal initiative which helps hosts be mindful of their personal and collective wellbeing and take steps towards being their best selves. Through regular activities and workshops hosts are provided with opportunities to develop their wellbeing across the Eight Dimensions of Wellness: Emotional, Environmental, Financial, Intellectual, Occupational, Physical, Social and Spiritual.

Mission Wellness provides the MUI team with regular opportunities to provide education and inspiration to fellow hosts at Six Senses Laamu. In 2020, the team facilitated 468 moments of education with hosts through 24 different events. These included events in international days of celebration, such as World Seagrass Day, World Fisheries Day and the first ever

World Manta Day, as well as opportunities for hosts to join on activities which guests often enjoy such as dolphin cruises and guided snorkels.

Through Mission Wellness, the team also provides hosts with the opportunity to 'Pay it Forward' during volunteering opportunities with the local community. With travel restrictions due to the pandemic, the team were only able to visit local islands in the first quarter of the year. However, in only three months, 39 hours of volunteering was conducted by hosts, during a school painting event, a mosque clean and another event at a school where glass was recycled into bricks and used to create a pavement. When the resort reopened, hosts also attended an activity on the island where they planted seedlings to donate to 30 students at the neighboring island of L. Maamendhoo for their school nursery. Through these activities, Six Senses Laamu's hosts directly benefited 438 members of Laamu's community.

The MUI team also works closely with the resort's Human Resources team to conduct regular sustainability-related training for hosts and, in 2020, 80 hours of training was delivered by MUI. Every new host at the resort is provided with an orientation training, and amongst the three day program all partners within the MUI team present about their organization, goals and how hosts can get involved. When the resort re-opened in August 2020, the team were presented with an opportunity to refresh hosts on various essential topics such as the resort's sustainability goals, best practices for waste management and biomagnification in plastic.



468 moments of education with our hosts



80 hours of training sessions conducted for hosts



24 activities hosted by MUI for hosts



39 hours of host volunteering



OUR COMMUNITY



EKU EKY LAAMU



19,000
people of Laamu
Atoll represented



2 community
meetings held



1st ever virtual
Eku Eky Meeting

Eku Eky, meaning 'together' in the local language of Dhivehi, is an initiative that began, in 2016, as a resort-based meeting to bring stakeholders of the local community to Six Senses Laamu to discuss sustainable development in the atoll. In 2019, the meetings moved into the community with quarterly gatherings happening in different schools across the atoll. Each meeting brings together representatives from the atoll council, 11 island councils, women's development committees, 13 schools, 5 police stations, and active local NGOs, who represent the voices of Laamu's 19,000 residents.

In 2020, due to the pandemic, only one face to face meeting was possible in the first quarter of the year. The event took place in Laamu Fonadhoo where conservation initiatives, school curriculum and development plans were all highlighted. A local NGO was funded to provide catering and all 40 participants were invited to explore the island's cultural and historical sites in an island tour. At the event, one of two educational sign boards, created by BLUE and funded through the Six Senses Laamu sustainability fund, was unveiled at Velires public beach. This board helps to raise awareness of the importance of local seagrass meadows to the 3,000 community members of Fonadhoo.

When the pandemic hit, Six Senses Laamu maintained direct contact with all 11 local islands through the Eku Eky mailing list, ensuring they could continue to check in with the community despite travel restrictions. Like the rest of the world, Eku Eky was moved online and in the fourth quarter of 2020 the first ever virtual Eku Eky meeting was conducted. In this meeting the MUI team tabled the idea of turning the annual Laamafaru Festival online and, thanks to the support and feedback from those in the meeting, the campaign was brought to life (read more in 'Our Voice').



HELLO HALLU



125 students in local schools provided with educational sessions



15 hours of teaching time



390 sets of snorkeling gear, sponsored by Blue You, to donate to schools in the atoll

Photo credit: © Leanna Crowley

Hello Hallu (meaning 'Hello Solution'), MUI's outreach initiative in Laamu's schools, took place in the first quarter of 2020 whilst inter-island travel was still safe. During these first three months, the team delivered four educational sessions to 20 students in Laamu Atoll Education Center and 16 of this school's students also visited the resort to see, first-hand, eco-tourism practices in action. The MUI team celebrated World Seagrass Day, on March 1st 2020, with L. Hithadhoo School through a guided snorkel of the seagrass meadows just meters away from their school. The MUI team also facilitated an education session by Horizon Fisheries complex for 22 students from L. Hithadhoo school to learn about sustainable fishing practices.

Due to the pandemic, schools in the Maldives, like those all across the world, experienced unexpected closures and were forced to transition into online learning. As they adapted to this new normal, school resources were pooled into ensuring students received the full years curriculum to the best possible standard given the circumstances. As a result, extra-school activities such as the Hello Hallu program were temporarily put on hold, allowing teachers to focus on the core curriculum. With the understanding of the pressures being placed on schools, the MUI team are now developing an online Hello Hallu portal which students will be able to access in their own time, so that any child in Laamu who is interested in marine education can learn from the team, despite the pandemic.

With the change of school routines, an opportunity to provide children with a live online class was presented to the team. In November 2020, 'The Islanders Association' (a local NGO), Six Senses Laamu and BLUE ran educational sessions about Zero Waste and Fisheries Management to 40 students from Hamadh and Ihahdhoo School via Zoom. These sessions were focused on advocating zero waste lifestyles and how they benefit the marine environment of Laamu Atoll.

A very exciting delivery arrived for the Manta Trust team in December 2020 - an additional 195 sets of snorkelling gear to be distributed to the 13 schools in Laamu. These will be donated during snorkelling lessons that will be provided to the school children

in 2021. Blue You, a consultancy firm for sustainable aquaculture, sponsored this, following their previous sponsorship of the same donation and program in 2019. This equipment provides children with access to snorkeling equipment once they have received lessons on water safety, thus enabling them to explore marine ecosystems in their own time. The sets are adjustable so that children of different sizes can use the same equipment.

In addition to providing marine and sustainability education, MUI is always looking for other ways in which they can assist schools. In 2020, through Six Senses Laamu's sustainability fund, 30 old fans were replaced in one of the local schools, providing 583 students with a comfortable environment to learn in.

International Day of Women and Girls in Science is held every February 11th, to celebrate the achievements females have made in the world of Science Technology Engineering and Mathematics. In 2020, the MUI team celebrated this day with 25 students and teachers from two local schools in L. Gan. Their aim was to inspire more young girls to choose science studies and careers. The day-long celebrations included a beach clean where data collected from the trash was sent to Project Aware, and educational sessions were run on coral spawning, manta ray research and turtle entanglement. Students left with reusable bags and water bottles - all of which were donated by Six Senses Laamu guests.



Photo credit for all © Megan O'Beirne

LAAMASEELU FARADHUN

Achieving effective management of marine protected areas is challenging and is dependent on the local people of Laamu understanding the science underpinning MUI's conservation strategies. To achieve this, training is needed so that they can play a key role in the management of marine areas. Crucially, they must experience life in marine ecosystems first-hand so that they can love and appreciate the underwater natural world surrounding their islands.

In 2019, BLUE launched the 'Laamaseelu Faradhun' program to strengthen the capacity of Laamu's citizens to monitor their local habitats. The first program was run in November 2019 and taught participants how to monitor their local seagrass meadows. In January and February 2020, BLUE organised seagrass monitoring sessions with the local NGO, Laamu Tour, in L. Fonadhoo and L. Kunahandhoo with eight participants. A total of 36,000 square meters of seagrasses were mapped in Kunahandhoo providing the first baseline assessment of seagrasses on the island. In 2021, BLUE will organise additional sessions of some of the other inhabited islands on Laamu Atoll. BLUE will also expand the program to include mangroves and coral reef citizen science training.



36,000 m² of seagrass mapped by citizen scientists



2 seagrass monitoring citizen science sessions conducted on two local islands

PLASTIC FREE LAAMU ATOLL

Fifty percent of water sales in all Six Senses Laamu's restaurant outlets goes into a fund providing clean, reliable drinking water to local communities in need.

Until 2019, this fund had contributed to a reverse osmosis water plant at the regional hospital, all 23 schools and preschools, all five of police stations and the national university campus in the atoll. On one island an additional thirty households were fitted with water filters in their homes. In 2020 the project was expanded as water purifiers were donated to four mosques, two council offices and a health center. This brings the total number of filters donated, as of 2020, to 97, providing clean, plastic-free drinking water to the entire atoll, and avoiding an estimated 6.8 million single-use plastic water bottles annually.

The ZePWIS (Zero Plastic Waste in Schools) project was initiated in 2019 by Laamu Atoll Council in partnership with Six Senses Laamu. The aim of the project was to provide water filters, and therefore clean water, to all schools in Laamu Atoll and to raise awareness about single use plastics among the young students. By the end of 2019, whilst all schools and kindergartens had water filter systems installed, the schools were challenged to provide reliable clean water due to maintenance issues with the filters. Therefore, in 2020, Six Senses Laamu and Bhaaru Pvt Ltd initiated a maintenance project for all water filters in schools along with training two members of staff at each school. The aim was to fix any issues and empower a local team to carry on the task in the future.

With every booking confirmation at Six Senses Laamu, the reservations team sends a 'Packing Tips' infographic informing guests of Six Senses' goal to be #Plasticfree2022 and asking for their kind support for the resort's Zero Waste philosophy during their stay. This includes suggestions to leave goods that produce plastic waste at home, or should they have to bring them they are kindly asked to take them back home with them too, such as batteries. In this document guests are also informed as to how they can donate items to local schools.

In 2020, despite a reduction in the number of guests normally welcomed due to the pandemic, Six Senses Laamu received many amazing donations, including reusable bags, water bottles, marine educational books and school supplies. 100 reusable bags were donated to nearby Kunahandhoo School in November 2020. Students received the bags after holding a silent stand against single use plastics at the school. At the event, Kunahandhoo School teachers explained the purpose of the donation and encouraged the fellow students to be plastic free ambassadors by spreading the word around the island. In addition, all children who participated in #LaamafaruFestival2020 (read more in 'Our Voice') received a gift including a bag, water bottle, book, color pencils and clothes.



Photo credit © Leanna Crowley & Six Senses Laamu



95 water filters donated to the community over the last 5 years



19,000 people with access to clean drinking water



6.8million plastic water bottles avoided each year



40 people trained to maintain the water filters

OUR VOICE



MUI ONLINE

2020 was a catalyst for individuals and organizations to harness the power of digital communication, and MUI was no exception. Mid-2020, the MUI website was launched as a platform to host reports, updates, and contact details of the team and their achievements. After the success of Junior Marine Biology online (read more on page 56), the MUI team partnered with Endagare and Talisman, two luxury travel agents both looking for innovative ways to connect with their clients during this period of restricted travel. The MUI team developed personalized experiences for both agencies including private marine biology classes and virtual guided dives in Laamu, the participants of which included corporate teams, families and grandparents looking to bond with their grandchildren.

In the press, MUI's work and achievement was written about in 50 publications around the world and the work of the team's Sustainability and Community Outreach Manager, Adam, was rewarded when he was named Sustainable Hotelier of the Year in 2020's Stelliers Awards.

On social media, the MUI brand continued to grow with a 15% increase in followers across all channels, and an impressive reach of almost 655,000 accounts over the year. Highlights on social media include MUI's involvement with the #AtHomeWithSixSenses campaign where they produced educational videos about the island's marine ecosystems and the resort's famous marine animal pancakes so that Six Senses Laamu could be brought into anyone's home. The team also launched several small scale campaigns throughout the year including a #ProtectMaldivesSeagrass challenge, #LaamafaruFestival2020 (read more on page 58), #DiveIntoLaamu to celebrate the atoll's biodiversity and #MUIMasterMind quizzes on Instagram stories.



654,893
accounts reached
across MUI's social
media



50 publications
written about
MUI's work and
achievements



LAAMU STORIES

MUI is connected to a global network of professionals who help the team achieve their goals, including researchers, business professionals and storytellers. One of these storytellers, Matt Porteous, visited the MUI team at Six Senses Laamu in February 2020 with the aim of capturing the projects the BLUE team were leading on in the community including Laamaseelu Masveriya and Laamaseelu Faradhun. The beautiful stories he captured have since been published in Oceanographic Magazine and were highlighted in the Ocean Culture Life online community. This photograph features Saud, one of the fisherman in the Laamaseelu Masveriya program, who invited Matt to his home so he could capture his family life and how he processes his fish. Matt also donated all his content to the team and many of his captures feature throughout this annual report.



JUNIOR MARINE BIOLOGY ONLINE

Two years ago, the Junior Marine Biology program was launched. The program pairs one-on-one mentoring from the MUI team with practical, hands-on learning. In 2020, as borders shut and travel became restricted, the MUI team came together to think of alternative ways they could provide marine conservation education without guests at Six Senses Laamu. There was a general consensus that lockdowns were especially affecting families, so, in light of this, the MUI team decided they could contribute through an online adaptation of the Junior Marine Biology program.

The aim of Junior Marine Biology Online was to provide free, engaging and stimulating online content for children, adults and families across the world. The target audience was not only the community of young Six Senses guests interested in marine biology, but also any budding conservationists who perhaps wouldn't usually have access to a marine biology education, or be able to visit the resort.

In April 2020, the first episode of Junior Marine Biology online was released. Each episode was produced in the form of a webpage with several 5 to 8-minute-long videos featuring members of the MUI team as well as graphics, underwater footage and animations. At the end of every video was an activity which could be done at home, such as creating a life-size manta out of household items, identifying turtles from photos and writing letters to school children in the Maldives. The Junior Marine Biologists were encouraged to email their work to the MUI team who individually marked and gave feedback to every student.

10 episodes, made up of 99 videos, were released over 10 weeks from April to July 2020, with an additional special episode released for Halloween in October. Each weekly episode covered a different topic such as seagrass, manta rays, turtles and marine protected areas. MUI's network of international experts we're invited to co-present and scientists from Australia and content creators from the UK featured in two different episodes.

88 children from 20 different countries participated in the program by sending their work to the team. The videos received over 34,000 views and the webpages where the program was hosted on received over 10,000 views. 23 international publications wrote about the program including a feature in The Guardian online.

When reading the feedback from children and parents, it is evident that the Junior Marine Biology Online program had a substantial effect on their lives. One mother mentioned "my boy follows your course independently and with bright, sparkling eyes and a positive attitude... know you are the brightest spot during this lockdown" and another told the team "you have produced a world-class series of online lessons for our young people."

The Junior Marine Biology Online program will remain online and accessible for anyone to do in their own time. The team are still receiving new pupils and, despite the resort reopening, are always delighted to read and reply to their messages.

LAAMU STORIES

Alaana, pictured here, is a Maldivian living in Sri Lanka who took part in the program. Whilst she has treasured memories of the ocean and her home, she had not received any marine biology education and was desperate to learn more about her country's natural resources. Not only did Alaana complete every piece of work, she also created her own videos to share her work with the team. As the weeks went on, she developed into a passionate and talented science communicator. Receiving Alaana's videos were a weekly highlight for the MUI team, inspiring them to develop more engaging content as the weeks went on.



88 participants from
20 different countries



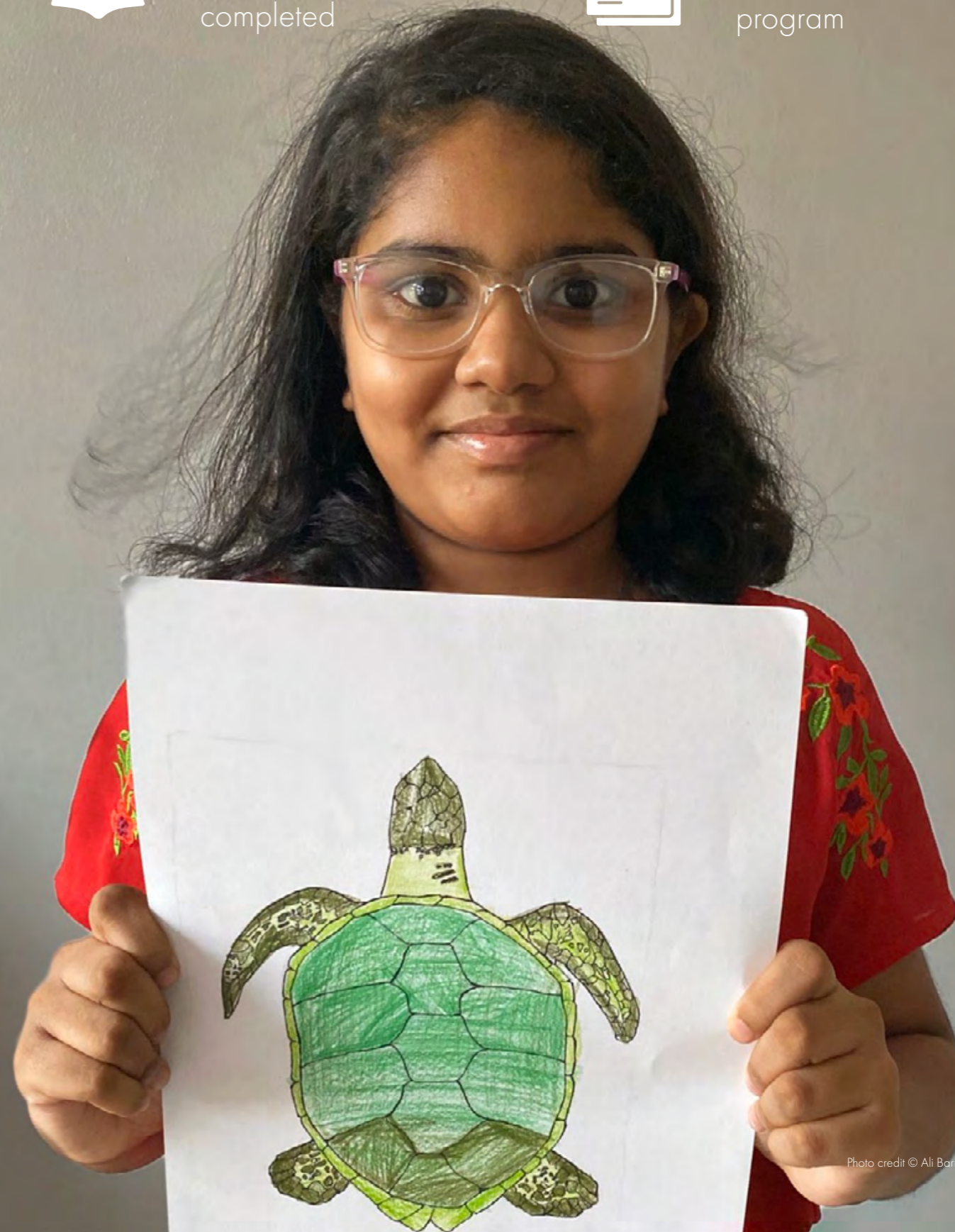
34,000 views of
99 videos



314 pieces
of homework
completed



23 publications
wrote about the
program



THE DIGITAL

#LAAMAFARUFESTIVAL

For the past four years, MUI has organized the Laamafaru Festival. This day-long community event has raised awareness about ocean protection and has brought thousands of people in Laamu together to pledge 'Our Ocean – Safe and Protected'.

Due to the pandemic, 2020's physical event was postponed; however, the MUI team believed this was a crucial time to adapt as a community and find new ways of coming together, educating each other and keeping marine conservation as a priority. Thus, in December 2020, MUI decided against canceling the festival and instead launched a virtual alternative through a community-driven social media campaign under the theme 'Eku Eky Dhas Kerama', which translates to 'learning from each other'.

The #LaamafaruFestival2020 campaign aimed to empower Laamu Atoll's community to utilize digital communication for educating and inspiring one another, despite the uncertainty and travel restrictions. Each island in the atoll is unique and home to incredible biodiversity, cultural sites and local stories. This campaign served as an opportunity for Laamu's community to learn more from each other about their surroundings and how they can better protect them.

The MUI team reached out to key stakeholders through emails and phone calls, seeking their involvement and providing guidance through a detailed toolkit which highlighted videography, editing and storytelling advice. For stakeholders with less experience in campaigning, extra support was provided through brainstorming, training and feedback sessions. In doing so, community members were given the opportunity to not only research and discover more about their islands, but also learn how to become communicators and effectively spread messages to drive change.

The primary focus of Laamafaru Festival over the past four years has been school children with all 13 schools in the atoll being invited to attend and participate in the event each year. Thus, for this campaign, the MUI team invited them all to feature as a highlight through videos created by the students themselves. Besides schools, local NGOs and passionate content creators also submitted content, totaling 14 videos which we're shared across 3 different channels over 4 weeks.

The stories included a fabric bag initiative which was launched by a Women's Development Committee, a school's pledge to protect their island's mangrove (pictured here) for its biological, cultural and economic importance and the importance of protecting endangered species such as sea turtles, manta rays and parrotfish.

#LaamafaruFestival2020 successfully reached over 38,000 people and had over 11,000 views. 80% of the audience which interacted with the campaign were local, thus it successfully reached the audience the team was aiming to address. Six local news websites also published articles about the campaign and its successes, hopefully inspiring other atolls in the country to follow suit.

During a time when so many other educational events we're being canceled or postponed in the conservation industry, this campaign highlighted the importance of innovation and resilience in a time of uncertainty.



14 videos produced for the community, by the community



80% of viewers were a local audience



38,000 people reached



11,000 video views

OUR HOME

ISLAND

PERMACULTURE

Six Senses properties, where possible, have their own organic farm, facilitating the production of high-quality and fresh products, with low environmental costs. Six Senses Laamu's Leaf Garden is run by an on-site permaculture specialist and is organically fertilized using compost produced from the resorts' food waste and irrigated using recycled waste-water. The produce of this is used in both the kitchens and the spa to create fresh dishes and juices packed with vitamins and antioxidants.

During 2020, Six Senses Laamu's 'Heart of House' (behind the scenes) received a face-lift which enabled the resort to become even more self-sustaining. At the organic garden, the mushroom hut received a complete renewal, the banana garden and sugar cane area were expanded, and the team introduced microgreens, beans, ginger and other new produce into the garden. With the help of the culinary team, who would have normally been busy cooking for guests, 14 raised beds were manufactured and installed so that tree roots would no longer interfere with the produce and gardeners could more comfortably tend to the harvest. At the Earth Lab, a new Aquaponics system was designed and implemented. The closed system works using a tank and piping system so that the water is continuously recycled, and waste is minimized.

This year, with the help of a visiting permaculst, the garden team at Six Senses Laamu also mastered the art of turning the island's food waste into compost. Thanks to the resort's Venoya compost machine, all of the island's food waste is now turned into a rich compost within 24 hours. The industrial compost machine can also treat 'compostable packaging', which is a process only possible with these machines. In 2020, almost 7,500kg of compost and 646kg of coco peat was produced and used in the garden as natural fertilizer.

Whilst the resort was closed, the sustainability team was also provided with the opportunity to innovate new guest experiences for the reopening, allowing guests to have hands-on experiences and learn valuable sustainability tips they can incorporate into their lives at home. At the Earth Lab, guests are now able to attend coconut oil workshops, in the same way the resort produces it for the Spa and culinary teams. The workshop covers the entire process from opening your own coconuts to extracting the beautiful aromatic oil. Through this experience, guests learn about the many different stages of a coconut's life and all of the different uses for them at Six Senses Laamu and in Maldivian Culture (spoiler alert: everything is used). Also launched was a soap making workshop and a microgreens experience which sees guests planting, harvesting and dining on their own sprouts over four days.



7,496 kg of
compost produced



1,736 kg of
organic greens harvested



160 kg of
mushrooms produced



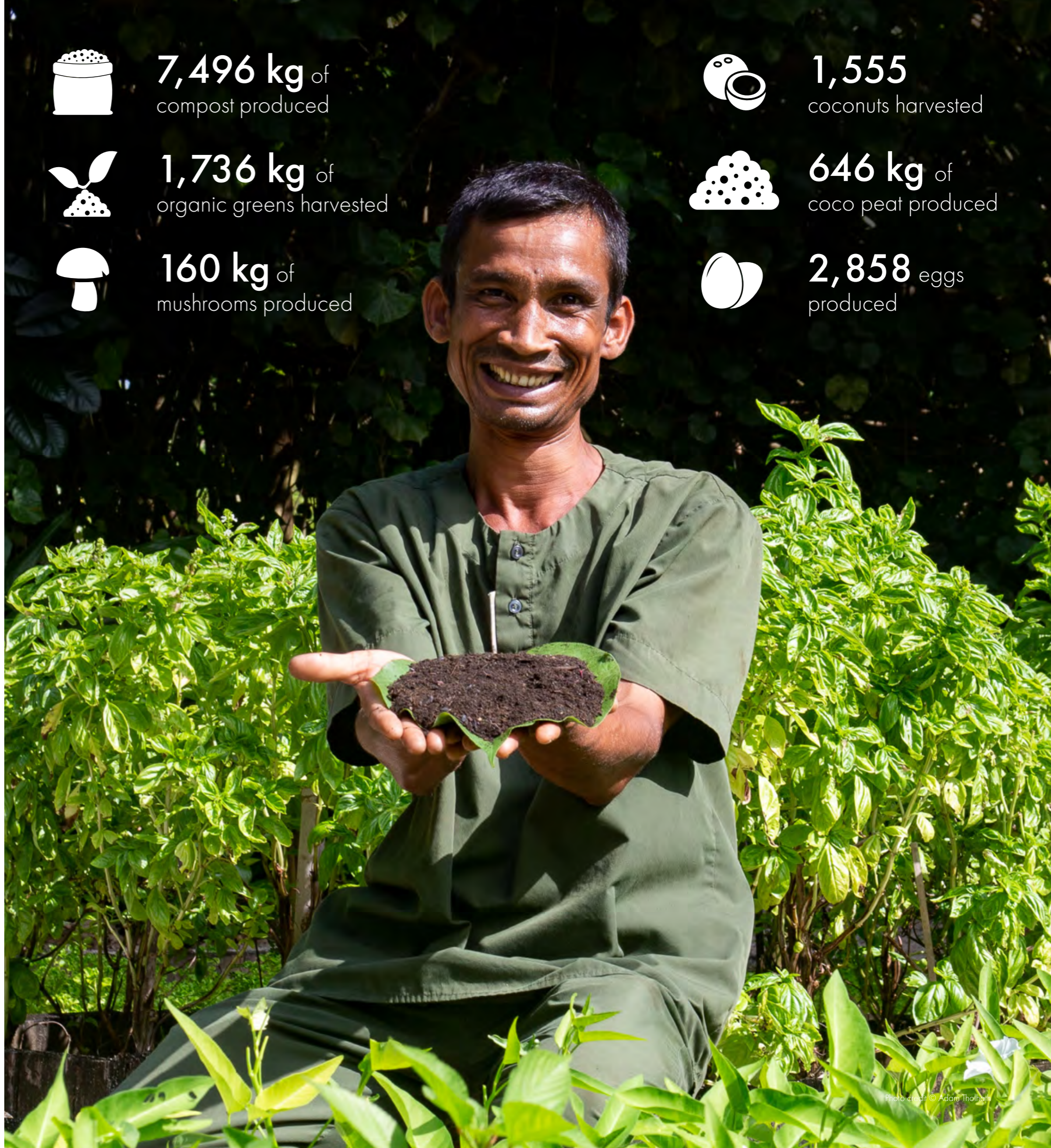
1,555
coconuts harvested



646 kg of
coco peat produced



2,858 eggs
produced





11 local fishers signed the code of conduct



600+ sustainably caught fish sold to the resort



18 participants joined
2 biannual meetings



1 boat equipped with a VMS tracking device



LAAMASEELU MASVERIYA

Six Senses Laamu is the location for the pilot project of the Laamaseelu Masveriya program, a sustainable reef fishing code of conduct developed by Blue Marine Foundation (BLUE). The code of conduct was developed by the BLUE team stationed at the resort who, in 2019, spent months analyzing historic fish purchasing data, jumping on local fishing boats and organizing meetings with fishers and the resort's culinary and purchasing teams, to come up with a solution that works for everyone.

In early 2020 their hard work was rewarded when nine local fishers gathered at the resort to sign the proposed code of conduct. This seemingly small number of fishers represents a significant milestone, as collectively they provide almost all the fish for the resort. By mid 2020, this number had increased to 11 fishermen with two more signing the code of conduct after a successful few starting months.

The code of conduct that the resort and fishers have signed stipulates rules that the both parties agree to follow to ensure they fish and trade in a sustainable way. It ensures that, within permitted areas, fishers focus on catching resilient species, of a mature size using non-destructive fishing methods. Each fish is caught one at a time and the use of nets is prohibited. In exchange for their compliance, the resort supports these fishers, not only by purchasing their fish at a competitive price, but also through a points-based benefits scheme. Fishers can obtain points through various initiatives, such as attending the biannual meetings where updates and training sessions are provided. The points can then be redeemed for supplies such as new lights for their boats, rain jackets, new reels etc.

At the second bi-annual Laamaseelu Masveriya meeting, BLUE proposed the idea of Vessel Monitoring Systems (VMS) which would help the team gather more accurate data on fish landings and also ensure the code of conduct is being honoured. The fishermen responded positively to the idea and so a VMS was installed on one of the resort's, and subsequently a local fisher's, boat for trialing.

In the first year of the program's launch, the COVID-19 pandemic hit, resulting in travel restrictions and a temporary halt of the Maldivian tourism industry. However, due to the program, Six Senses Laamu was able to support the livelihoods of local fishers throughout the pandemic, and in return ensure the resort staff who remained on island were fed locally-sourced fresh fish.

For the fishers, their livelihoods are protected, not only during these tough times but also for generations to come as Laamu's reefs become more resilient and juvenile fish populations are safeguarded. In return, the resort is able to promise guests their products are locally and sustainably sourced, they are able to give back to the local community and they are able to have guaranteed supply of fresh, local and packaging-free fish on a daily basis.

It is BLUE's hope that, by using Six Senses Laamu as a pilot project for this program, other resorts across the Maldives will be inspired to follow suit. BLUE is seeking to partner with others to replicate the Laamaseelu Masveriya model to protect coral reef fish in the Maldives for the benefit of all.



*"It's important not to fish
what we don't need"*

- Abdul Latheef, L. Maamendhoo

LAAMU STORIES

Abdul Latheef (commonly known as Latheebe) has been selling his catches to Six Senses Laamu for over 9 years. Latheebe is from the neighboring island of L. Maamendhoo. He is truly the jack of all trades; in addition to supplying freshly caught snappers, jobfish, wahoo, barracuda, and emperors to the resort, he is also a carpenter and toddy tapper. Toddy tapping is the process of harvesting sweet nectar from the blossom of coconut palms. Over 40 years ago, Latheebe's father taught him how to fish at an early age and he has continued this tradition since. He now focuses on sunset handline fishing for sustainably caught snappers and emperors. He says nothing is better than being on a boat with his fishing line sunk to the bottom while the red sun sets on the horizon.

PLASTIC

FREE 2022

Six Senses properties global have a goal of becoming plastic free by 2022 and Six Senses Laamu is very close to achieving this target.

A significant step was made in 2020 when the host shop at the resort was revamped to include plastic free alternatives for employees living on the island. This includes refillable bottles for bathing products, bamboo toothbrushes and glass dispensers for healthy snacks. The resorts' culinary team also introduced homemade ice cream, usually only available in the guest ice cream parlor, which are for sale in paper cups. Following this, the Earth Lab team seized the opportunity to up-cycle the paper cups to plant seedlings in their nursery where many of the ice cream ingredients are grown, thus completing the cycle. Through this initiative, the team successfully eliminated all plastic nursery seedling containers from the property.

During the resort's temporary closure, Six Senses Laamu's organic garden was renovated to increase the amount and variety of greens produced on island, thus eliminating the need to import them and reducing any packaging entering the island. A specific highlight of this renovation was the introduction of microgreens (pictured here). These spouts which are used for garnishing were previously imported from the Netherlands in 1 kg plastic packets. Now, eight different types of microgreens are grown in the garden and harvested daily by the culinary team.

In November 2020, Six Senses launched the 18 most unwanted items which are unnecessary items of plastic that can be substituted for compostable alternatives. Through working with suppliers, Six Senses Laamu eliminated ten of the 18 items on this list in 2020 including the likes of substituting plastic syrup bottles with glass ones, replacing plastic hair combs with wooden ones and receiving goods in cardboard packaging instead of plastic.



18 'Most Unwanted' plastic items was launched in 2020



10 items from the 18 Most Unwanted list were eliminated from the resort

WITH LOVE FROM LAAMU

The conservation efforts of the Maldives Underwater Initiative are made possible by the generous contributions and donations of our supporters.

We would like to say a special thanks to Six Senses, our owners, the HPL Group, and our dedicated guests who visit us year after year, always curious to learn more. Our general manager, Marteyne, who's passion for marine conservation drives and empowers us. Six Senses Laamu's partners, the Manta Trust, Blue Marine Foundation and the Olive Ridley Project; through our collaboration we will continue to achieve incredible things for Laamu. We are thankful for Laamu's community, especially the Atoll Council, who have welcomed us into their home, continuously inspiring and facilitating change. Thank you to you, our supporters from around the world who continue to read and share our stories. And finally, we would like to thank our international network of renowned scientists, storytellers, research institutions and other organizations who have dedicated their expertise towards making MUI's goals a reality.



VISIT US AT SIX
SENSES LAAMU

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