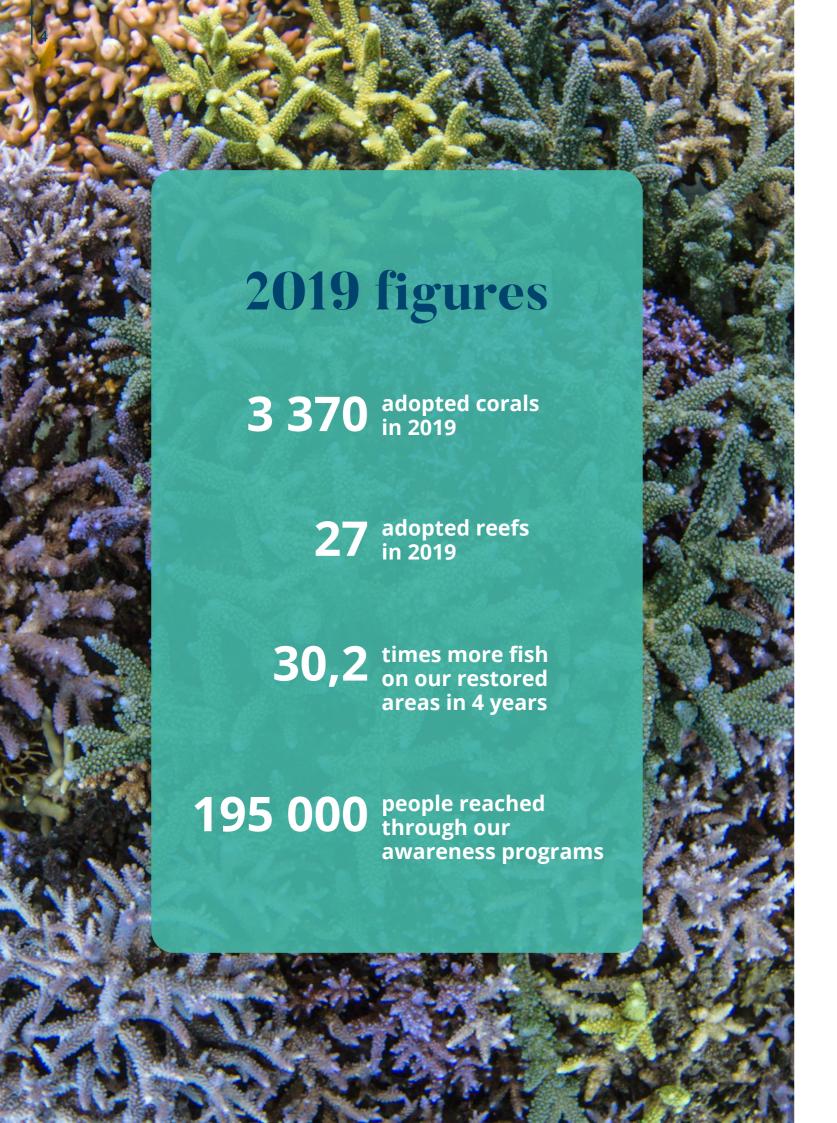




Coral Guardian at a glance

Preserving coral ecosystems for the benefit of coastal communities that depend on it. Through environmental restoration and protection, the association raises the awareness of local populations and offers them a model of responsible, sustainable and replicable economic development.

The association is currently active in Indonesia and France.



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Editorial

by Jonas Murdini - Local Director at Hatamin island, Coral Guardian's pilot project



n 2019, our team mainly focused on transplanting new coral reefs and monitoring them using a new methodology that was slightly different to previous years. In addition, we also raised awareness among the local community around the importance of coral reefs and the survival of the underwater ecosystem. Coral Guardian also officially launched its Blue Center program which is a training program for people who want to develop a coral reef restoration program anywhere in the world. The main purpose of the Blue Center program is to prepare skilled workers who are ready to become leaders for coral reef conservation.

In general, in 2019, the project at Hatamin was successful. The coral reefs are healthy and, based on data our team collected, the number of fish around the coral reef restoration area also increased significantly.

Our transplantation and monitoring techniques also improved. With the use of new scientific transplantation and monitoring methods, our team has improved its understanding of methods and knowledge around coral reefs and this has made the team more motivated to work. People around Hatamin (people from the village of Seraya Besar and people from the town of Labuan Bajo) have expressed their appreciation for the coral reef restoration project carried out at Hatamin island. For the people at Seraya Besar, they have started to feel the benefits of the coral reef restoration: it is now easy for them to find fish in the vicinity of Hatamin island. As for the people of Labuan Bajo, they are very impressed with the beauty of the coral reefs at Hatamin. This became interesting for them because in many other places in Labuan Bajo they found many coral reefs were damaged due to human activities such as ship anchors and tourism activities.

However, we still have problems at Hatamin island, especially about how to raise the awareness among people who visit the island. It is still quite common to find tourists who treat coral reefs poorly (touching coral reefs with their hands, standing on coral reefs, swimming in a way that is harmful to coral reefs). Another problem is we also still find many boats crossing the area that has been protected by the buoy line. With regard to these matters, the Coral Guardian team continues to build dialogue with tourists and boat captains so that they can raise awareness on the conservation of coral reefs. We also work with the

government (Department of Marine Affairs and Fisheries) to help us protect the restoration area.

In 2019 a massive effort was made to improve English language skills for the local Coral Guardian team. We consider this important in order to improve communication between our local team and tourists who come to the island. This communication is mandatory so that the team can explain the coral restoration program carried out at Hatamin to the tourists. We believe that if the local team can make good dialogue and communication with the tourists about corals and coral restoration, we will be able to raise awareness among more people.

As a new person on the team, of course in the early days of work I faced many difficulties. The difficulty was caused by my lack of knowledge about this work. But then as time passed, I began to learn a lot from the team members, discussing with many people who have knowledge about coral reefs, also reading articles and other references about coral reefs that made my work easier. Of course

the Coral Guardian helped me adapt were very supportive support to be able to local team in Indone-

I would like to thank dian team, both in sia, who have worked the success of the project on Hatamin "It's not too late!

If we all keep acting as one entity, on behalf of coral reef ecosystems, we will be able to restore what we have destroyed."

team in France really to this work. They and gave me a lot of lead Coral Guardian's sia.

the entire Coral Guar-France and in Indonevery hard towards coral reef restoration island. Thank you

also to the local communities on the island of Seraya Besar who have worked with us for the success of this project. Thank you also to the Government of the Republic of Indonesia (Ministry of Marines and Fisheries), The Government of East Nusa Tenggara Province, The Government of Manggarai Barat Regency, and Seraya Village Government who have supported us in their ways. Thank you also to the donors and to all those who have helped us finance this project.

It's not too late! If we all keep acting as one entity, on behalf of coral reef ecosystems, we will be able to restore what we have destroyed.



The team

2019 was a good year for turnover for both the French and the Indonesian teams!



Our team in France



Our team in Indonesia



Our volunteer team in France



MARTIN COLOGNOLI

CO-FOUNDER

AND DIRECTOR



IMACULADAENGLISH TEACHER



JONASLOCAL DIRECTOR



SUHAR CAPTAIN



RUXANDRA TODERASC

PROJECT MANAGER AND

CO-SCIENTIFIC DIRECTOR



COCO TAMLYN
COMMUNICATIONS
MANAGER



AUDREY MAILLARD

PARTNERSHIPS

MANAGER



SAHRILCORAL

TRANSPLANTOR



VALENTINA TOURISM MANAGER



DR. OLIVIER
DETOURNAY
PRESIDENT



DULARESPONSIBLE FOR
MEDIATION WITH FISHERMEN



MURDI CORAL TRANSPLANTOR



MUSLIM CORAL TRANSPLANTOR



CAROLINE BOURGEOIS

GENERAL

SECRETARY



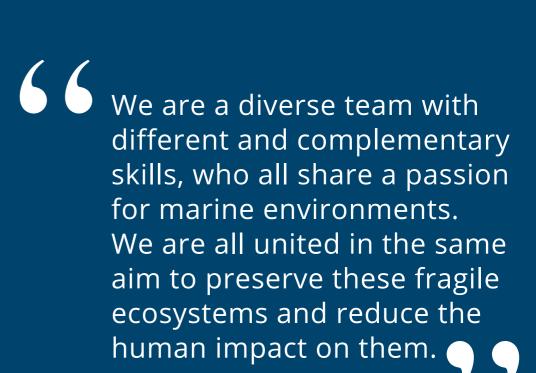
JULIEN HOLLEVILLE
TREASURER



BRUNO BRETON

MEMBER OF THE

EXECUTIVE BOARD



- Coral Guardian

2019



MARCH 24TH TO 30TH

MONACO OCEAN WEEK

Speech on current actions of restoration and our suggested solutions.

MARCH 28TH - 29TH

MEETING FOR RESTRUCTURING THE ASSOCIATION

Two days of discussions and presentations between team members to restructure the association and develop the new strategy for 2019.

MAY 23RD

SCIENTIFIC CONFERENCE AT SUP'BIOTECH

Speech on 'The protection of coral reefs' as part of the 'Transitionning towards a more sustainable world' conference at Sup'Biotech Engineering School.

JULY 2ND

LA MER XXL - NANTES

Conference in Nantes on the subject of our activities for raising awareness in France around the theme "The sea that feeds".

APRIL 10TH

WEPHARE CONFERENCE

Presentation of our actions to other non-profits and entities related to environmental protection in Paris.

WEPHARE



JULY 4[™]

'H2O AT HOME' ANNUAL SEMINAI

Conference on coral reef conservation as well as on the actions and results of the restoration work realized in Indonesia.



SEPTEMBER 23RD

CONFERENCE AT LA BASE

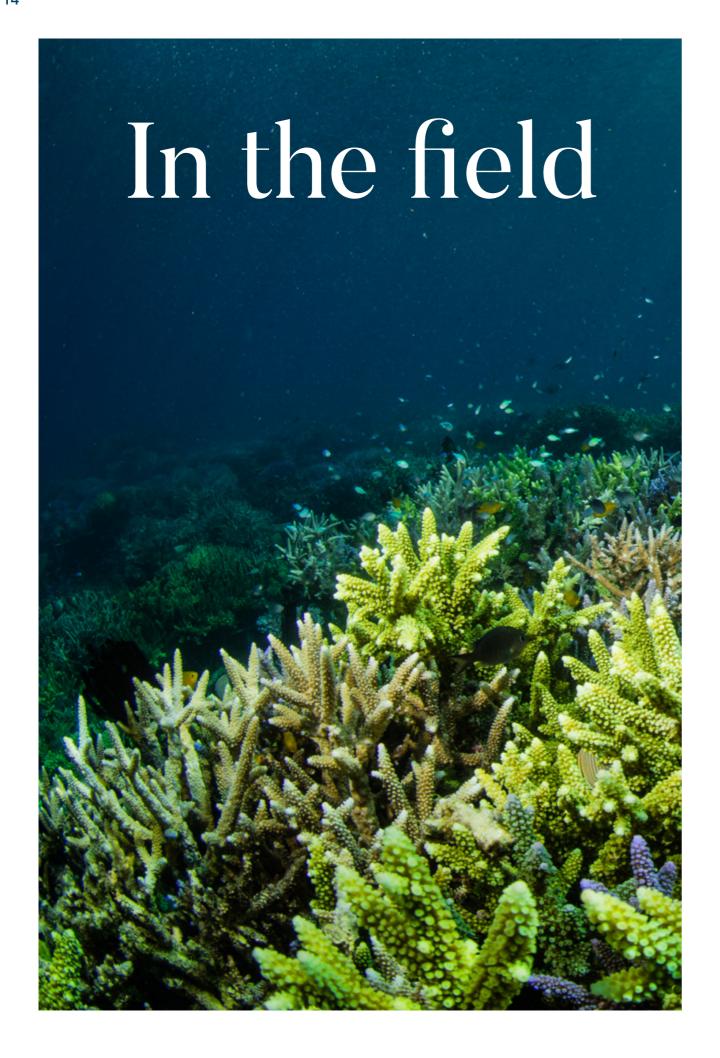
Presentation during the event of La base "How to commit to climate when we come from tech?" where we were able to discuss the role of tech in coral reef protection.



DECEMBER 17TH

LAUNCH OF THE CORAIL EXPO

Launch of the first CORAIL expo at Morning Coworking République in Paris: 7 easels with 14 photos by Martin Colognoli describing our restoration work on Hatamin Island in Indonesia.





Project on Hatamin Island

fifth year, has seen many twists and turns, but is stronger than ever.

Many improvements have been made on Hatamin Island during 2019. There is a definite willingness of Coral Guardian to contribute to scientific research. This has prompted action in Indonesia including the establishment of a scientific zone and rigorous, monthly, biological monitoring.

Local teams needed to be trained up to be ready for this year's launch of the Blue Center training program, particularly a leader to train up other project leaders. The project leader training was both theoretical and practical and was able to

he project, now in its be carried out in Indonesian up, as well as fact sheets explai-Papua.

> "The team had to pay a lot of attention to raising awareness among tourists and boat captains coming to the island."

local team has had to adapt. Greater vigilance has been implemented. The team had to pay a lot of attention to raising awareness among tourists and boat captains coming to the island. In order to improve the communication between tourists and the local team, weekly English classes have been set

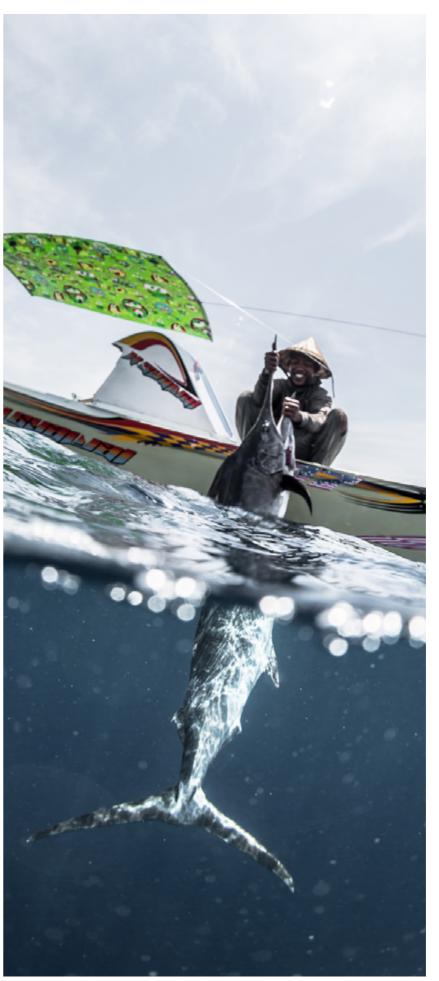
ning the project.

In August 2019, the Coral Guardian France team went out to Indonesia to follow up on the legal and scientific aspects of the project on Hatamin Island.

This also allowed supervision of the first training of the Blue Center and to develop new awareness-raising projects With the rise in tourism, the for tourists and locals. The results on site and, in particular, the commitment of the local population are very favorable; and it further reinforces Coral Guardian's willingness to support other local structures around the world in the development of coral restoration programs.







Legal structure 011 Hatamin Island

he desire of the owners of Hatamin Island to conti-I nue to protect this coral sanctuary, and then to allow the return of biodiversity in all its surroundings - thus benefiting neighboring island communities - has led to the implementation of legal actions for the restoration project carried out by Coral Guardian in the area.

In order to ensure administrative and legal responsibility locally, the owners of the island have founded a local associative entity: YAYASAN WAKA ELING SEMETON. Coral Guardian and the local organization are working closely together on the project around Hatamin island, ensuring all aspects necessary for its successful completion.

This has enabled the project to file applications with the relevant government authorities in order to obtain a reinforcement of the protections of the area, and an official recognition of the marine protected area. 🖇

Our restoration techniques

new techniques in reef restoration. By selecting the oldest fragments in damaged areas, more inclined to resist a second stress. they created nurseries for transplanting onto new structures. This technique was actively In order to best follow the evolution of our restoimplemented in 2019. Since then, the local team ration area, a rigorous monthly scientific moni-

has exclusively been using our oldest structures as nurseries. "[...] we also hope As the corals are in very good to develop a new health and highly developed, generation of corals, this gives us a solid base for future restored reefs. Moreomore resilient to global ver, it allows us to alleviate the warming." old tables, and thus allow the corals already transplanted to

By using the nursery technique, we also hope to
This monitoring also helps to shed light on cer-

n 2018 the team in Indonesia was trained in certain scientific studies, corals that have undergone a first stress and have resisted it, would be

toring is in place. This year, the scientific monitoring has been reinforced, and allows us to monitor on a monthly basis the bleaching rate, the mortality rate and the biodiversity return rate for a representative sample of transplanted structures. The local team

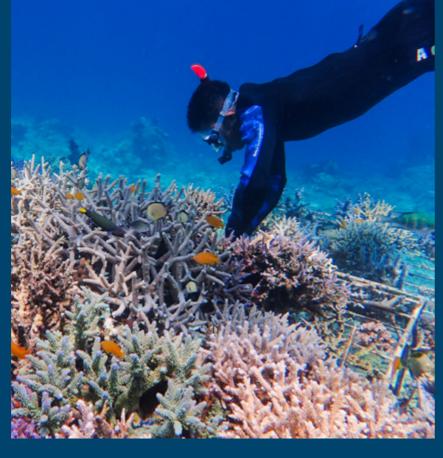
continue to grow in the best conditions, with follows a specific protocol for the old and new implemented tables.

develop a new generation of corals, more resitain phenomena observed on the field by linking lient to global warming. Indeed, according to them to meteorological data.



less competition for space.





Biological monitoring,

Hatamin Island - Coral Guardian Coral Sanctuary

n the restored sites, namely Coeur de Corail (CC) and Terrasses de Corail (CT), there has been a constant evolution since 2015 on the family-related and specific diversity of fishes, with an average 17.5% increase in the number of species in the restored areas since 2018. The control zone shows a slight decrease in 2019 but follows a constant pattern since 2015.

Each year, the complexity and diversity of fish communities 30 increase at restored sites.

Numerous bio-indicative species of healthy coral reefs, such as the butterfly fish (Chaetodonidae) or blue damselfish (Chromis viridis), are present in high numbers in our restoration area. The raise in their quantity and variety from year to year are undeniable parameters of the effectiveness of our actions.

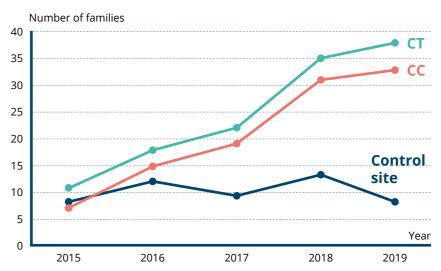
The presence of herbivorous fishes such as the surgeonfish (Acanthuridae), rabbitfish (Siganidae) and parrotfish (Scaridae) is also essential for the proper development of a coral reef. Indeed, they facilitate the colonization of the area 30 by coral larvae by preventing algae from establishing themselves on the different substrates.

By restoring coral reefs, an entire ecosystem regenerates: **Control site:** 16 fish species for 8 families represented at the time of the census.

Site Coeur de Corail (CC): 81 species for 33 families.

Site Terrasses de Corail (CT): 99 species for 38 families.

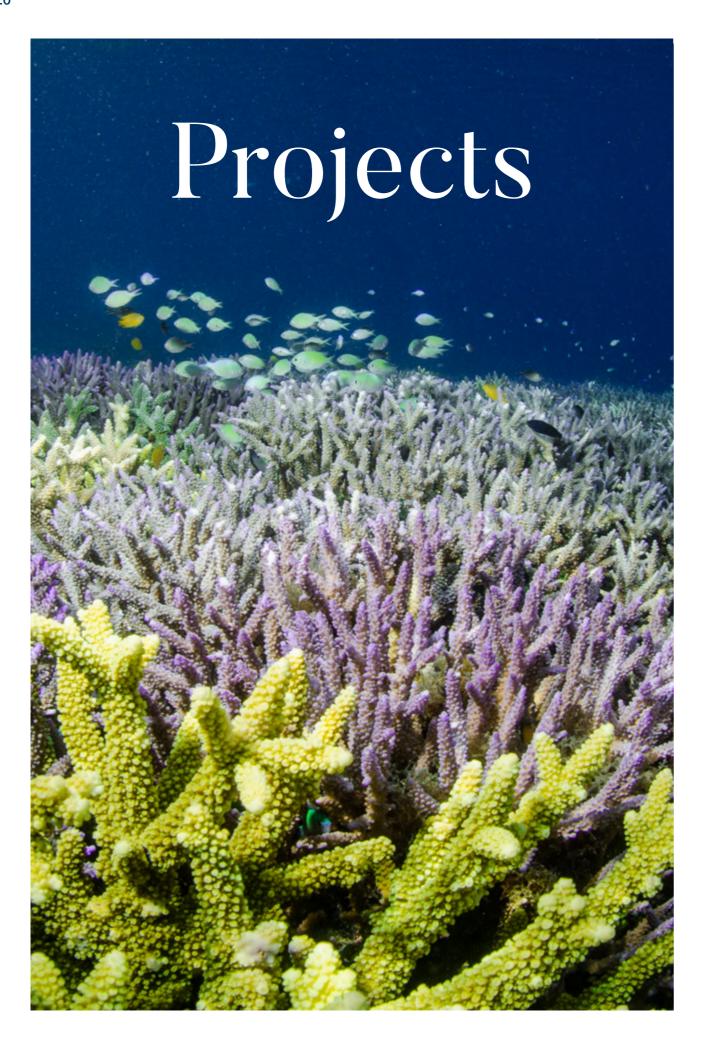
Evolution of the number of families observed on the sites



Evolution of the diversity specific to the sites



each entity regains its place as an ecosystem regulator, year after year. 🌞



Awareness kit

n response to a growing climate emergency, Coral Guardian felt the need to engage in raising awareness internationally. To this end, the association has developed an awareness kit available for anyone wishing to raise awareness on the importance of coral reefs and the dangers they face. The kit includes a quiz with 8 questions/answers, a speech already written, a fact sheet on corals and restoration techniques, videos, as well as various supports to give a mini conference in one's surroundings. To date, the kit has been used by people of all ages in colleges, diving centers, youth hostels and companies.



MOANA

oral Guardian has launched its partnership with skipper, Lomano Takasi, for its MOANA project. Indeed, the association supports Lomano in his mythical race off the Mini-Transat 2021 as well as during a Trans-Pacifika in 2022.

Through MOANA, the goal is to support the preservation of coral reefs around the world, but more specifically in the Pacific. This project, led by Lomano, aims at highlighting this resource in his communication in order to raise awareness and contribute to its preservation. Coral Guardian is also assisting Lomano in the development of an awareness kit on the importance of coral reefs, which he will use to raise awareness in schools on islands of the Pacific. Coral Guardian and Lomano share the motivation to advocate for coral reefs in the Pacific by proposing realistic and optimistic solutions.



Social data analysis

he social aspect of the project initiated on Hatamin Island is fundamental. Indeed, the involvement of the local population is a driving force for the success of the project. This project was initiated, hand in hand with the fishermen of the village of Seraya Besar, in order to enable them to meet their needs. Some of them have even integrated the local team as coral gardeners and are ensuring the protection and restoration of the area on a full-time basis.

In order to better monitor the impacts of the coral restoration project on Hatamin Island and its surroundings, and more precisely on the life of the people of Seraya Besar, Coral Guardian has implemented a social monitoring system since

he social aspect of the the beginning of the project in project initiated on Hata- 2016.

This monitoring consists in questioning 10 fishermen from the village about their fishing habits and the eating habits of their families. This gives a more global vision of the impact of Coral Guardian's missions, on fish-stock management, but also on their evolution.

"[...] the involvement of the local population is a driving force for the success of the project."

In order to obtain these answers, an in-depth analysis of these data began this year.

Thanks to a partnership set

up with the MARRES master's degree program from the Côte d'Azur University, we were fortunate enough to collaborate with a student, Florina JACOB. This collaboration, between 2019 and 2020, has enabled us to understand and analyze the data obtained since 2016.

These data will be the subject of specific publications and will allow the local team to concretely show and quantify the interest of this type of conservation program to the people of Seraya Besar.

The fishermen themselves reported a better fishing rate, with larger species. Hopefully concrete results will support their feedback thus helping us spread awareness among more people in the region.



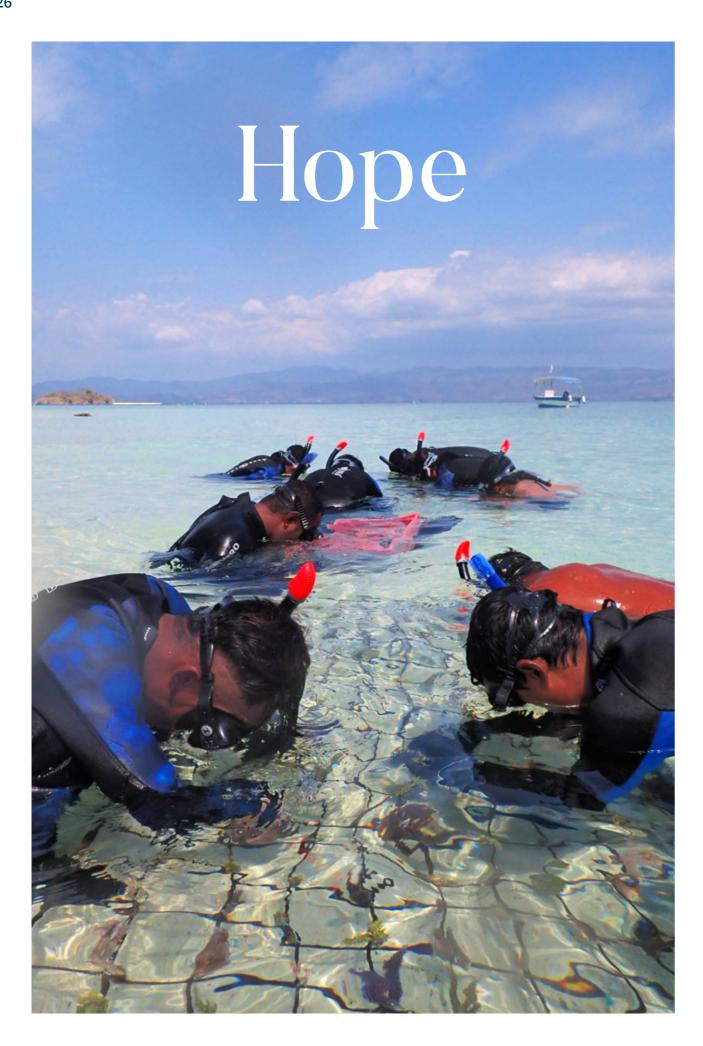


I wanted to be part of the Coral Guardian team because I admire their efforts to promote the value of coral reefs both locally and internationally by explaining the link between these ecosystems and the local communities that depend on them.

The social data analysis internship allows me to remotely discover how traditional fishing has evolved thanks to coral restoration and the involvement of the fishermen of Seraya Besar; I find this very exciting and in line with my ideas of scientific development.

- Florina Jacob





The Blue Center

The Blue Center is an initiative that aims at spreading Coral Guardian's model of participative marine conservation around the world. In order to have an effective societal and environmental impact adapted to the ecological crisis we are going through, Coral Guardian has felt the urgency to transmit its knowledge and experience gained in the field over the years. Thus, it is with this objective in mind that the Blue Center was born, aimed at project leaders responding to environmental issues regarding coral reefs.

Coral Guardian's Blue Center assists local structures with the development of projects and theory and practice training sessions. Theoretical teaching is carried out using a training manual which contains all the information needed for the development of a marine restoration project. Practical teaching takes the form of field training carried out in the various regional training centers. During training, instructors share their on-hand experience of a coral reef restoration project that has already been developed. Students can practice all the theory they have previously learnt. The only Blue Center currently active is in Indonesia and benefits projects in the Indo-Pacific region. In the long term, each developed project will in turn become its own regional training center thus benefitting its own surrounding area.

In June 2019, Coral Guardian launched its call for applications to encourage all coral initiatives to apply for one-off or long-term support from the association.

In September 2019, the first Blue Center practical training took place with project leaders coming from Raja Ampat. The local team took in interns for two weeks and trained them in all the activities necessary for the development of a coral restoration program.





A new scientific perimeter

team we have established a zone of scientific exploration allowing us to test and optimize restoration techniques. We use this zone to observe and understand various phenomena and to give the local team the opportunity to try out different ideas and thus develop their scientific curiosity.

In 2018, many structures with different shapes were tested (concrete hexagons, metal domes, metal bars, bi-material structures). One year later, the results show a better growth

ogether with the local rate on the metal tables, which have been tested from the beginning of the project. Concrete hexagons and metal bars are subject to sedimentation due to their proximity to the substrate, thus preventing the proper development of coral fragments.

> "[...] to give the local team the opportunity to try out different ideas and thus develop their scientific curiosity."

Metal domes have a good growth rate and corals grow in various directions.

In a process of constant improvement, Coral Guardian has also decided to continue its research on supports, while reducing its ecological impact as much as possible. In 2019, the association has decided to work more and more with organically-sourced materials.

As a result, new bi-material structures are currently being tested and should be fully implemented in 2020. 🎄





Partnership with the association Bio Campus

Ith the aim of making marine science more widely accessible and scientific articles on coral reefs more widely read, Coral Guardian has linked up with the ecological association Bio Campus for students from Sup'Biotech school. Each month, students from this association produce scientific litera-

ture addressing a current or fundamental subject relating to coral ecosystems. These articles then get published on different platforms and help raise international public awareness of the importance of these threatened ecosystems, which are essential to the survival of our oceans. 🌺







The goal of Bio Campus is to promote sustainable development on the Sup'Biotech campus and its surrounding area. One of our main focus points is 'water'. We are therefore delighted to form a partnership with Coral Guardian. This collaboration aims to raise public awareness of the (need for?) protection of oceans and, more specifically, the conservation of coral ecosystems. We raise awareness through events for all ages organized by Bio Campus. I also write at least one scientific article per month for the readers of the Coral Guardian newsletter. Producing articles for the newsletter helps me learn more each month on this fascinating subject, whilst improving my writing and syntheticthinking skills. I am fascinated by coral ecosystems and passionate about their symbiosis with microalgae. I am therefore eager to participate in this partnership in order to contribute my part to this vital task of raising awareness for the future of the planet.

- Elise Viau



Gratitude and acknowledgment

t is important for us to thank our employees for their support, without whom nothing would be possible.

Volunteers, graphic designers, media, former eco-volunteers, biologists, students, dive centers, sponsoring networks, foundations, translators, PMO experts, developers, scientific organizations, oceanographic institutes, cosmetic and textile brands, consulting companies, SMEs, sales companies, etc.

Many thanks to each and every one of them for their involvement, ideas, support, loyalty and friendship.

34 35

They support us

PARTNERS





































































ILESS

and media

Le Parisien

LE PARISIEN

Les lycéens veulent sauver les coraux



FRANCE INTER

Extinction : nouvel Atlas des espèces menacées



MEDIUM

Pour adopter un récif et contribuer à la préservation des océans



PLANET ADDICT

Sauvegarder les coraux avec Coral Guardian



PODCAST TECHOLOGIE

Agir pour la biodiversité marine en adoptant un corail



TOPITO

Un don pour adopter un corail



FUN & FLY

Investissez dans le corail et protégez-le



FEMME ACTUELLE

Adopter un corail - Coral Guardian



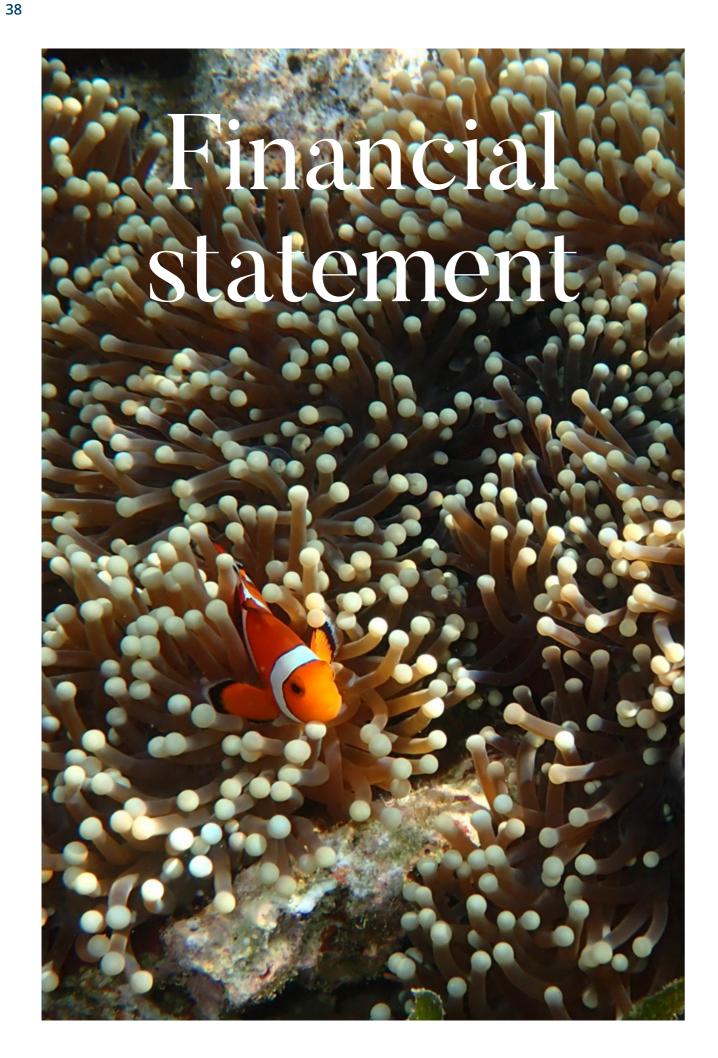
FÉMININ BIO

Adopte un corail!

LE FIGARO

LE FIGARO

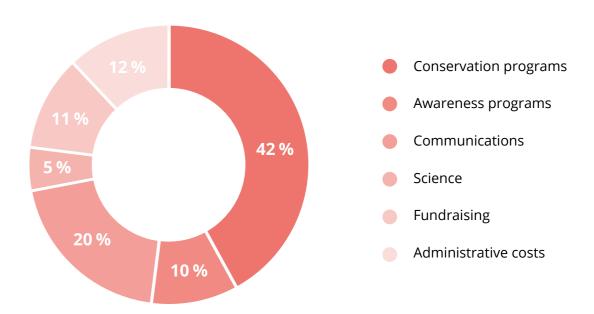
Un graffiti de corail pour sauver les récifs



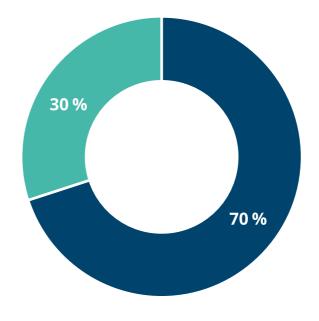
Fiscal responsibility

iscal responsibility is important to us because we know it's important to you. We remain committed to full financial transparency. We hope that our continuous work, commitment and growth validates and honors the generous investments you have made in Coral Guardian.

BREAKDOWN OF COSTS BY PROGRAM



ORIGIN OF THE FUNDS



- Resources collected from the public: manual donations collected mainly from individuals through the website, social networks and newsletters.
- Private funds, including philanthropic foundations: earmarked or un-earmarked patronage, often contractual.

FINANCIAL PRODUCTS

		2019	2018
	Interest and related income	1,19	153,48
	TOTAL FINANCIAL INCOME (A)	1,19	153,48
FINAN	NCIAL COSTS		
		2019	2018
	Negative exchange rate differences	186,68	20,82
	TOTAL FINANCIAL EXPENSES (B)	186,68	20,82
	FINANCIAL INCOME (A) - (B)	-185,49	132,66

OPERATING REVENUES

		2019	2018
	Production sold (goods and services)	5 520,00	-
	Operating subsidies	-	31 476,44
	Other products (excluding contributions)	286 107,41	253 872,02
	TOTAL OPERATING INCOME (C)	291 627,41	285 348,46
OPER	ATING COSTS	2019	2018
	Other purchases and external expenses	116 505,10	110 813,52
	Taxes, duties and other levies	580,00	741,00
	Salaries and wages	98 245,49	95 929,93
	Social security	33 296,50	30 823,20
	Depreciation of fixed assets	7 951,57	7 692,53
	Other expenses	10,71	90,18
	TOTAL OPERATING CHARGES (D)	256 589,37	246 090,36
	OPERATING INCOME (C) - (D)	35 038,04	39 258,10













CORALGUARDIAN.ORG

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