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The participatory food system workshop was held in Noumea

Assessing and developing strategic frameworks for strengthening food system sustainability

The PROTEGE Steering Committee requested the project team to work on food systems – a major issue for the territories. The project is rallying its resources to help OCTs strengthen their food systems against a backdrop of major disruptions following on from the global crisis caused by Covid-19 and of a need to adapt to climate change. PROTEGE seeks to more effectively showcase food products, identify new opportunities, increase benefits to the farming, aquaculture and coastal fisheries sectors by promoting healthy food and helping to

keep communities living on their land and by adapting to climate change.

The project will carry out an assessment and baseline study of how food systems work in each territory and map the stakeholders. Territorial food plans will then be developed in a participatory manner. Calls for projects will then be issued so initiatives or helpful, concrete action can be funded in territories

where such initiative and actions will have lasting effects on agriculture, food, health and the environment beyond PROTEGE's term.

An initial participatory workshop to present the methodology and the assessment of past and current food system strengthening initiatives was held in Noumea on 6 July. ■

“Showcasing foodstuffs”

Regional Water Observatory

The New Caledonia Animal Health, Food and Rural Affairs Department (DAVAR) is working on building hydrometry capacity in New Caledonia, French Polynesia and Wallis & Futuna. In the first six months of 2021, DAVAR consulted the three territories and uncovered a need for technical co-operation between their departments, as skills often existed in one territory but not in others. Such skill vulnerability requires technical guidelines to be developed so as to bolster the departments' capacity. PROTEGE will be funding surface and ground water gauging equipment and a common platform for storing and using data.

An anthology of poems and pictures on Wallis & Futuna

Pooling knowledge for better fishing

*Ki he lelei age o te faiva gelú, tou fakatahi'i'atou ma'u ki ai
Kile malie ake ole fai feua tou fakatasi'i fuli a tatou a ma'u kiai*

This anthology of poems is part of a campaign entitled “The Sea, Our Source of Life”. It celebrates the bond Wallis and Futuna Islanders have with the sea, illustrates fishing past and present and marine resources, their interdependence and the balance that needs to be struck for sustainable fisheries. The high point was a photography and poetry competition and exhibition held on Wallis & Futuna in 2020 as part of “Sustainable Fisheries Fridays”. The anthology was compiled in partnership with the WF Fisheries Department, Vaimoana Junior Secondary School children in Lavegahau, WF state senior secondary school students, Subl'Image Association and the Pacific Community. ■



Check online



Upcoming activities

- **September:**
 - PROTEGE presentation at the IUCN World Congress, Marseille and the mirror session held at SPC Noumea
 - Committee meeting on progress made on watershed restoration action (NC),
 - PROTEGE presentation at the Southern Province headquarters
 - Organic World Congress (France)
 - Food System Workshop (WF)
- **October:** Food System Workshop (FP)
- **November:** Sustainable Fisheries Workshop (WF)



PROTEGE agroecology demonstration farms get underway

Agroecology demonstration farms

The eight farms in the Wallis & Futuna organic demonstration farm network have now been fully assessed using FAO's TAPE method (tool for agroecology performance evaluation). These assessments can be used to produce ready-made materials that are adapted to the territory. The action plans will be implemented in the second half of 2021, once the trial protocols are completed

and the farm network equipment currently on order has arrived. Mme Bichon has been recruited to provide support for this initiative as a volunteer tasked with assisting farmers conduct the various trials.

Mr Raphael Breuil, an intern, has also been entrusted with conducting market-garden pest trials. The results will be forwarded to the network's farmers. ■

Towards improved water management



The water development policies in the Wallis Island clean water resource development plan were approved by the Wallis & Futuna Territorial Assembly public works commission on 6 July this year. A PROTEGE-funded study

showed there was a shortage of storage capacity and that the supply network needed refurbishing and strengthening to meet the public's clean water needs and provide fire protection. The required investment is initially estimated at XPF one billion over 15 years. Meanwhile, the drinking water safety plans currently being developed on Wallis & Futuna are expected to enhance the safety of clean water distribution. Participatory workshops facilitated by GEOs4D and Thétis WF consultants were held on Futuna from 21 to 23 July to work on quality management and monitoring protocols and a water supply safety enhancement programme. ■

Feasibility study and aerial deer abundance index trial by drone – NC

A study was initiated to define ways of detecting and counting deer in a given area. The resulting aerial index will be used for monitoring variations in deer abundance and then assessing the effectiveness of culling. Early results from open country show deer can be identified using heat sensors. An automatic processing system for the videos acquired will be developed and areas with denser plant cover will be included in the trial.

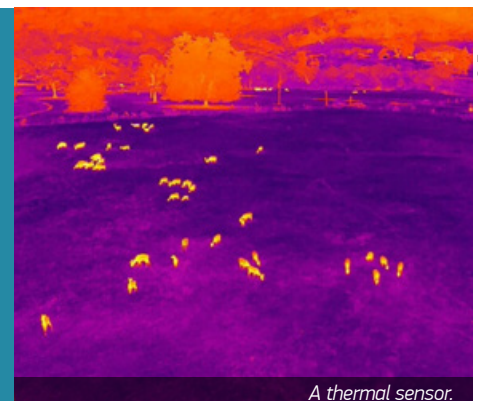


French Polynesia

Estimating aquaculture waste volumes and types



At the request of the Department of Marine Resources (DRM), Raromatai Environnement, Fenua Environnement and Blue Eco consultants carried out a study on waste from 11 aquaculture farms in these islands. The study identified the types of organic and inorganic solid waste produced by the existing aquaculture farms, excluding pearl farms, and estimated current quantities, including those produced in the short and medium terms, so as to define initial ideas for potentially processing and marketing such waste. The study noted that most aquaculture farmers repurposed broken equipment, thus reducing its impact on the environment. It also noted that the prospects were favourable for developing a recycling sector for organic pond-bred prawn-farm waste. ■



A thermal sensor.

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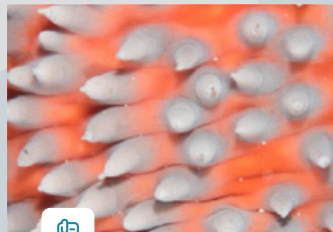
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Plan de Sécurité Sanitaire des Eaux - Actu PF

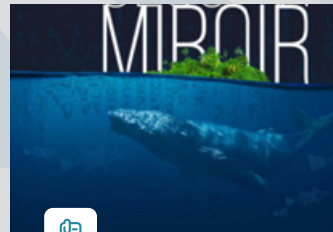
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Poursuite de l'évaluation des stocks d'hotosurmes sur Lifou

Lifou, au cœur de l'évaluation de stocks d'hotosurmes - Actu NC

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SAVE THE DATE

Session miroir pour le Pacifique de l'UICN Marseille, du 6 au 8 septembre 2021 au siège de la CPS à Nouméa

[Lire l'article](#)



"Garde la pêche durable" - Wallis et Futuna

Challenge Facebook du 19 août au 20 novembre - Actu DSA WF

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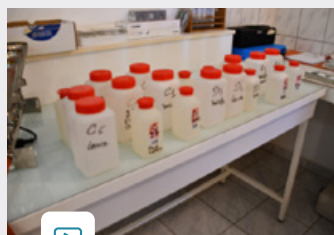
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Découvrez en vidéo les 7 agriculteurs membre du...

Vidéo sur le réseau Fermes démonstration - Actu PF

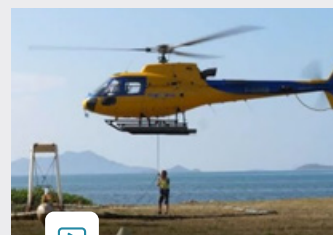
[Voir la vidéo](#)



Amélioration de la qualité de l'eau à Futuna - Actu STE WF

Analyse physico-chimique et microbiologiques au sein du laboratoire LARA

[Voir la vidéo](#)



Géophysique aéroportée sur la ressource en eau à Poum

[Voir la vidéo](#)



FEEDBACK FROM THE FIELD



AGRICULTURE AND FORESTRY

Agroecology trophies



Magali VUILLOD

Agricultural Education Officer, Agricultural Training Unit, French Department of Agriculture, Forestry and the Environment (DAFE) in New Caledonia.

For the first time ever in New Caledonia, DAFE held “*Les Trophées de l’Agroécologie*” (Agroecology Trophies), a nationwide contest run by the French Ministry of Agriculture and Food to reward farmers for their efforts towards agroecology. With support from local contest sponsors, namely the Chamber of Agriculture, Crédit Agricole Mutuel bank,

Groupama Pacifique insurance, Southern Province Government, IAC agricultural institute, *Agence Rurale* disaster compensation agency and Michel Rocard Senior Secondary School, the New Caledonia prize (XPF 200,000) was awarded to René Marlier (SCAPG) cattle company for its efforts in preserving the environment, animal welfare and meat quality. At the same time, through a partnership with the Pacific Community (SPC) related to PROTEGE objectives, a special PROTEGE prize was created for the most climate-change resilient project. It was awarded to Baptiste Hnawaja Ihage for his traditional food crops and work in promoting agriculture with young people on Lifou (XPF 200,000 and a batch of 12 fruit tree seedlings). See you in 2022 for the next contest!



Baptiste-Hnawaja IHAGE

Loyalty Island Province Department of Education Officer and 2021 “*Trophées de l’agroécologie*” prizewinner

I would first like to thank the organisers and sponsors of this project for giving us the opportunity to show off our skills and our uniqueness in terms of agroecology [...] Seen from the outside, we are amateur market gardeners for some and self-reliant farmers for others, but we are simply practising ancestral methods that were bequeathed to us and which we are duty-

bound to pass on to the next generation [...] We clearly have to review, refocus and realign our methods because of threats to our environment, such as sea-level rise, soil depletion and global warming [...] It’s a struggle that needs to be waged throughout the planet with everybody doing their bit. And we need to start yesterday [...] Humans truly have their work cut out for them [...] Thank you for recognising the contestants’ efforts through these prizes. Congratulations, Mr Marlier, for winning first prize and special acknowledgments go to the Higher Technician Diploma students from Pouembout Senior Secondary School. We’ve got to do this again to generate more awareness in the community, particularly among young people, about the country’s agriculture and environment. Thank you. ■



Awards



PROTEGE



Pacific Community
Communauté du Pacifique



SPREP
PROE



Funded by
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NOUVELLE
CALÉDONIE



POLYNÉSIE FRANÇAISE



WALLIS ET FUTUNA



PITCAIRN ISLANDS



Teaching kits on water for the children of Wallis & Futuna



Karine Brunet

Head of the laboratory for analysis and applied research, Territorial Department of the Environment of Wallis & Futuna

As part of the Water Theme activities on Wallis & Futuna, the Territorial Department of the Environment (STE, the lead agency) decided to assemble a teaching kit to educate the Wallis & Futuna communities on water management issues on both islands, one, Wallis, a low island that depends on a freshwater lens, and the other, Futuna, a high island with a vast network of watersheds. The teaching kit was developed with PROTEGE support and is nearing completion. It will be inaugurated during the science festival organised in partnership with the Catholic Education Office (DEC) and scheduled for 5 to 10 November. STE teams will be holding an awareness week at that time in the all the territory's primary schools on water, waste and biodiversity. It will be an opportunity for us to show our islands' children this highly appealing teaching aid and for them to have fun learning about preserving vital water resources. Coconut and water legends will also be told through a *kamishibai* play produced under the project. Karine Brunet, Head, Testing and Applied Research Laboratory (LARA), Wallis & Futuna Department of the Environment. ■



Sea cucumbers, a major issue for the Fisheries and Aquaculture Theme in New Caledonia

Under PROTEGE, several jointly funded activities with New Caledonia's provincial fisheries departments are attempting to improve knowledge about the stocks being fished, enhance control and management capacity and drive economies based on sea ranching these invertebrates.



Paul Chabre

Project Officer, Aquaculture Development, Aquatic Environments and Resources Department, Northern Province Department for the Economic Development of the Environment

Sea cucumber farming is an environmental must, if we're going to preserve reefs and keep them productive and environmentally rich. PROTEGE has enabled us to take action locally in the Northern Province, and we are fortunate enough to have friendly relations with the Touho community.



Marie Renée Pabouty

A commercial fisher in the municipality of Touho

My aim was to innovate locally in the hope that my project would be an example for others to follow, thereby broadening our economic resources. I want to devote myself now to sustainable objectives so as to diversify operations in the lagoon and look beyond fishing.



FEEDBACK FROM THE FIELD



COASTAL FISHERIES AND AQUACULTURE



Georges Remoissenet

Engineer responsible for Aquaculture Programmes, French Polynesia Department of Marine Resources

The PROTEGE “Aquaculture Waste Recovery” action programme aims to recycle sludge from prawn ponds located on land and prawn waste from lagoon cages. Prawns do not eat all their feed and emit waste, which prawn farmers try to keep as low as possible so as to reduce their operating costs and the impact on the environment and keep

their farms healthier and yields high. Prawn farmers aim at dispensing the most efficient feed so as to reduce the amount of feed per kilogramme of prawns produced.

The organic waste from prawn farms was, therefore, quantified and qualified by tests carried out in collaboration with the Department of Agriculture (DAG). As a follow up to this assessment, a recovery method will be proposed and approved by the organic farmers on PROTEGE’s demonstration farms. The results will be shared with prawn farmers and growers so as to encourage them to work together (something they are already doing to some extent) and reduce their cost overruns from waste disposal and their chemical import needs so as to turn out high-quality products in a more circular economy.



Toa Vivish

A prawn farmer on Tahiti Peninsula

My name is Toa Vivish. I’m from this island and have always taken an interest in aquaculture. I set up my prawn farm at Toahotu and would like to run an innovative and sustainable operation.

Prawns have traditionally been cultured in ponds on land, but I chose to farm mine in floating cages off Tahiti Peninsula. My 36 cages now provide me with an annual yield of eight or ten tonnes of prawns cultured in their natural environment. In order to reduce my impact on the environment, I have laid liners at the bottom of the cages to hold organic waste from the prawns. Managing and analysing the waste takes up a large part of my day. The waste from cage bottoms is a reliable indicator of the animals’ quality and health.

For some years now, I have been collecting and recycling some of this natural fertiliser for my own household kitchen garden. As my operation expands, it will create an opportunity for farmers on the peninsula to benefit from a rich and natural fertiliser to improve their soil.



Coralie Brefi

Technology Development Adviser, Food Industry Unit, ADECAL-TECHNOPOLE

At the behest of ADECAL Technopole, a call for projects was issued under PROTEGE in March 2021 to identify and financially support innovative and sustainable seafood marketing initiatives. It targeted New Caledonian fisheries and aquaculture businesses.

A selection committee made up of Agence Rurale, the Northern, Southern and Loyalty Islands Provinces, ADECAL Technopole and the Pacific Community selected three winning projects:

- a lagoon fish filleting, packing and deep-freezing plant located in Koumac and submitted by the company Daily Fish (Jérôme Clément, Annamaria Selvaggi, Karil El Ménaouer),



> Daily Fish (Koumac)
Jérôme Clément,
Annamaria Selvaggi,
Karil El Ménaouer



> Pacifique Fumoir
(La Foa)
Loïc Maréchaux



> Syndicat des Pêcheurs
(Ouvéa)
Daniel Estieux

- a fish smoking plant located at La Foa and submitted by Pacifique Fumoir (Loïc Maréchaux),
- a rock lobster storage and conservation unit on Ouvéa submitted by the Ouvéa Fishers’ Guild (Daniel Estieux). The projects are now up and running and will eventually diversify processed fish products.

Congratulations to the winners!