MINISTÈRE
DE LA TRANSITION
ÉCOLOGIQUE,
DE LA BIODIVERSITÉ,
DE LA FORÊT, DE LA MER
ET DE LA PÊCHE

Liberté
Égalité
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Ce document a été présenté dans le cadre du groupe de travail « modèle économique et garantie des crédits biodiversité » relatif aux SNCRR. Vous retrouverez l'ensemble des productions du groupe de travail sur la page dédiée aux SNCRR.

Attention, d'autres outils peuvent exister et ceux présentés peuvent être proposés par d'autres organismes.

De-risking restoration projects in the Ocean

AXA Climate's marine insurance and consulting offer

2025

Climate change is increasing pressure on Ocean resilience

Marine conservation projects are long-term and need years to reach maturity, exposing the asset to multiple climate hazards.

- 20% of Corals

According to the IPCC, 20% of reefs have already disappeared ; 25% are in critical conditions.

-50% of Mangroves

It is recognized that half of the world mangroves are already gone ; 2% is lost each year.

Tropical cyclone, extreme marine temperature, storm surge, …

…Climate threats impact all ecosystem-based projects.

Coral restoration and nurseries

Blue Carbon

Aerial photographs of Forida mangrove forests taken before and after the hurricane that show the extent of the damage to the forest canopy.
NASA / G-LiHT science team

Bleaching recorded in coral reefs of National Marine Sanctuary of American Samoa between 2014 and 2015.
Photo: XL Catlin Seaview Survey

Discover AXA Climate's offer to de-risk your ocean conservation project !

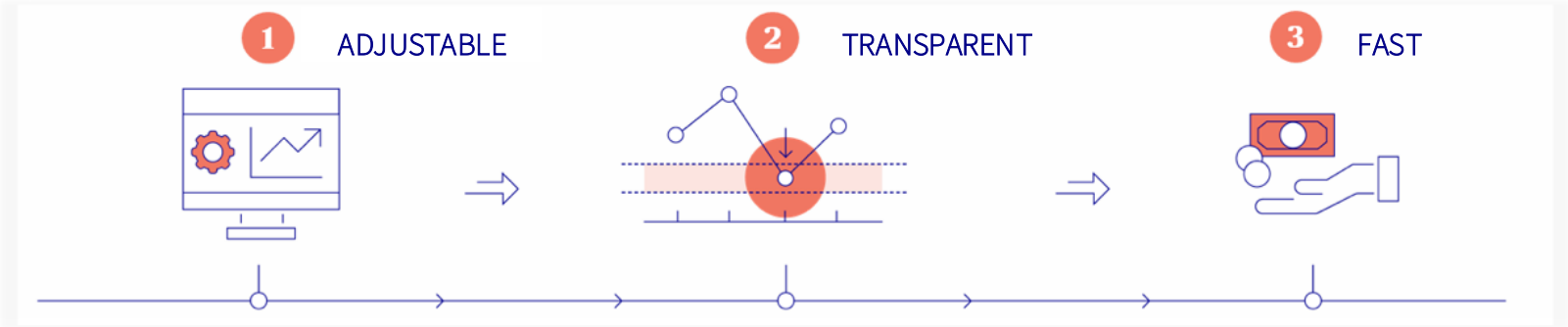
Parametric covers are useful to protect reefs and mangroves

A disruptive modelling based on science that get rid of the loss assessment process, allowing to receive an emergency pay-out very fast after the disaster and limit the damages on living ecosystems.

1 Protecting coastal ecosystems for a quick recovery after a cyclone

2 Limiting damages of corals bleaching after an extreme marine heatwaves

The key advantages of parametric insurance :



We structure your coverage with a relevant index and selecting pre-defined thresholds and payout amounts

We monitor the climate index and if it is above or below the pre-defined threshold…

… You receive a payout within a few days.

1 CYCLONE Protection: « Cat-in-a-circle » design

A parametric insurance that can cover coastal ecosystems against tropical cyclones all over the world.

1

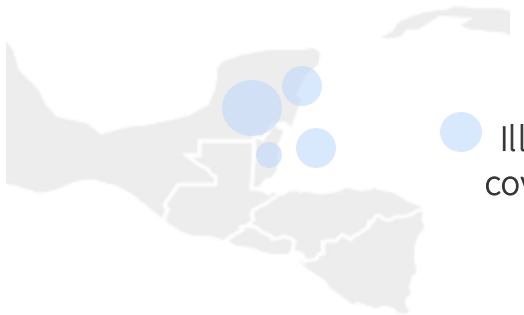
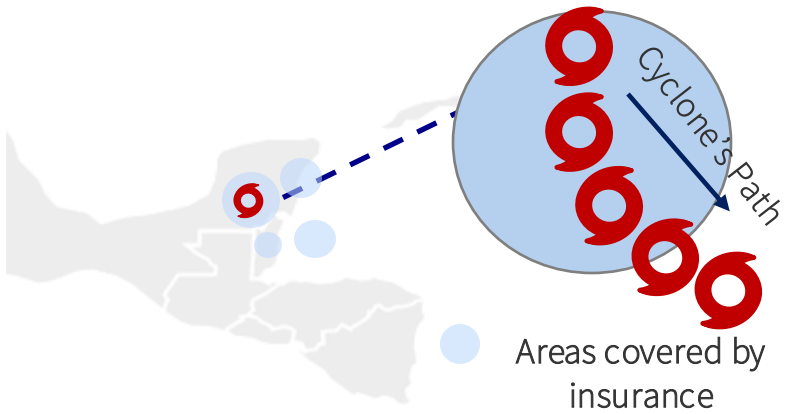


Illustration of areas covered by insurance

The client chose **pre-determined areas covered** by the insurance

2



If a cyclone goes **through those areas**, which is measured by satellite data (NASA data / Copernicus data)…

3

… **a pay-out is triggered** within days.

Getting the pay-out quickly allows for **rapid restoration actions before corals die**, among which:

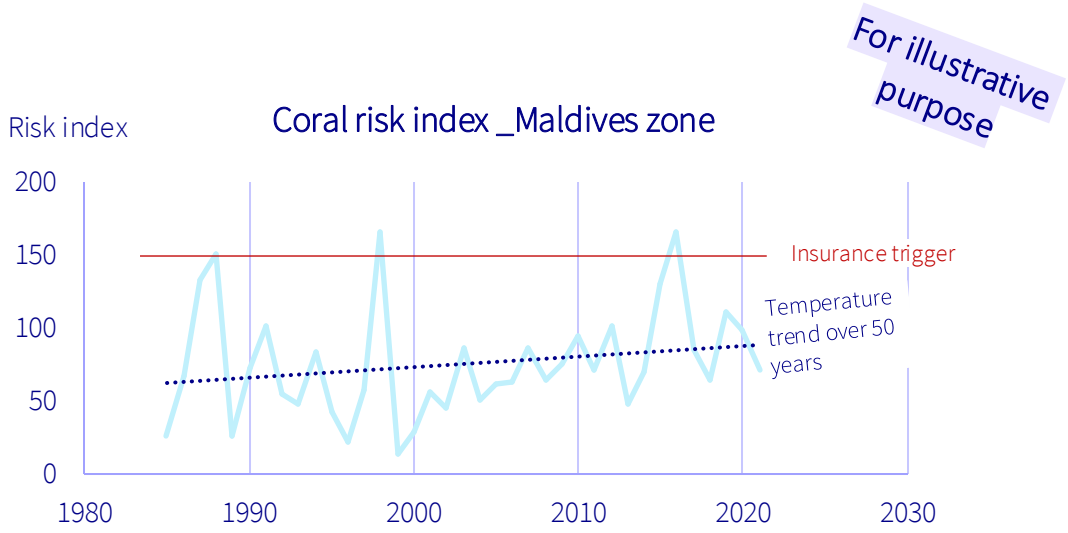
- ✓ Cleaning **debris** which might damage the reefs
- ✓ **Gathering and re-attaching** toppled coral heads
- ✓ Financing **business interruption**

➢ Another guarantee possible with a cat-in-the box design: Earthquake cover.

2 Parametric insurance to protect reefs from heatwaves

A parametric insurance that covers coral reefs and nurseries against extreme marine temperature.

The pay-out is triggered within days when sea temperature exceeds a pre-defined threshold for a pre-defined number of days, measured by satellite data (NOAA index, Copernicus data, other).



The pay-out can be used to **accelerate coral resilience for future extreme heatwave :**

- ✓ Replant damaged coral in **nurseries**.
- ✓ Assess the **damages,** define a **resilience scheme.**
- ✓ Save the most vulnerable corals in above-ground pool systems for **conservation purpose.**
- ✓ Finance experts to deploy coral **nurseries growing corals resistant** to higher temperatures.

- In 2024, a feasibility study done with UNDP Maldives to build a parametric product against marine heatwaves causing coral bleaching
- This model could be also relevant for seagrass and seaweed, as quite sensitive to temperature variations.

AXA Climate

Our insurance use cases

Parametric insurance to protect the Mesoamerican reef

On the coast of Central America, AXA Climate is supporting one of the first coral insurance schemes worldwide, using hurricane data to quickly payout for rapid coral restoration.

A first trigger in November 2022

🕒 **22/11/01**, the Prime Minister of Belize declared a **hurricane warning** for the entire coast of Belize

🕒 **22/11/03**, Hurricane Lisa made landfall just south of Belize City as a Category 1 storm passing through the coral coastline

🕒 **22/11/03 at midnight**, the Belize National Emergency Management Organization issued the "all clear" for the entire country - Hurricane Lisa was no longer a threat.

📅 **22/11/09**, AXA Climate proceeded with the payment of the claim. The funds reached the MarFund within 10 days of the disaster! **$175K were sent to the MarFund** ($87K from AXA).

The insurance cover

MAR Fund, a coral conservation trust fund active in 4 countries, **is our first nature-client in the Caribbean**. Following a competitive placement process executed by WTW, **AXA Climate** was selected as the **capacity provider**.

The first policy was underwritten in 2021, then was **renewed four time until 2024** with an enlarged perimeter. **TASA** is the local NGO in charge of coral restoration activities.

The partners involved

AXA Climate · Munich RE · MAR FUND · wtw · InsuResilience Solutions Fund · TASA Turneffe Atoll Sustainability Association

Objective

The parametric policy, underwritten by AXA Climate and placed by WTW, today covers **10 key coral reef sites** (vs. 4 the first year) has been design to ensure rapid reef response to limit the damages after a hurricane.

The **purpose** is to ensure the **perennity of the restoration**, protection and development measures related **to coral conservation.**

An index cover to protect MPAs against cyclone risk

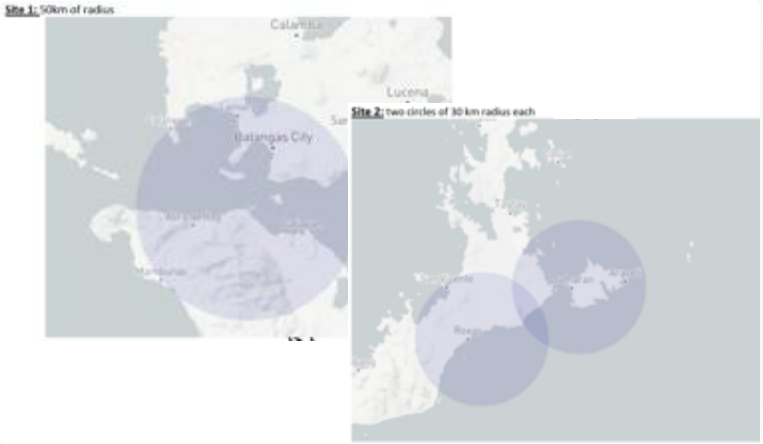
Blue Alliance is an NGO managing marine protecting areas with a business-oriented approach: the running costs to protect the ecosystems are financed by the sustainable blue economy. Most of the areas where the NGO is active are exposed cyclone risk, that can jeopardize the financial stability of the projects, throwing back in years the restoration and protection activities.

Expected benefits from the pay-out

- Ability to deploy fast restoration activities to limit the damages on mangroves, corals, other ecosystems.
- Continuity in paying salaries of the local communities employed by the MPA.
- Possibility to pay-back investors that lend money for deploying sustainable aquaculture.
- Deployment of a de-risking mechanism to increase investors trust and scale-up the financial facility in the future.

Insurance details

- AXA Climate is the **de-risking partner** of Blue Alliance, **doing insurance design, capacity providing, and also climate risk screening for its investors.**
- The first policy was underwritten in 2023 in the Philippines and Belize, then was **renewed in 2024** for the Philippines with an enlarged perimeter (from 64 to 88 MPAs).
- The cover will protect **both business interruption and damages** on site infrastructure with a “cat-in the box” design to fit the local costs (Limit : 250K$ per site).
- Insurance premium has been paid by the **Howden foundation** for the first years.



Methodology

- Understanding of the project insurance needs and vulnerabilities
- Analysis of historical events
- Computation of different options of risk structure, submitted to the MPA’s manager.
- Deployment of an innovative legal set-up to allow scalability.

Hurricane cover for a mangrove community

San Crisanto is a fishing community of 150 Mayan families located in Yucatán, Mexico. In 2002, the unusual torrential rains of Hurricane Isidore destroyed 99% of the mangroves in the area, jeopardizing local stability.

Deal partners

AXA Climate — Insurance design and capacity provider

ClimateSeed — Investor and distributor of the carbon credits

BIENVENIDOS EJIDO SAN CRISANTO — Policy holder and Beneficiary

reinventando los seguros / AXA — Fronter / Policy issuer

Centre of the cover : Latitude: 21.35188 / Longitude: -89.17901

Insurance details

This insurance program has been deployed to protect all economic activities of the community **oriented** toward **mangroves restoration and conservation**.

It covers repairing costs of gates, palapas, boats, cleaning, channel dredging, and business interruption linked to eco-tourism and fishery activities.

It was made possible thanks to the strong collaboration with ClimateSeed, seed investor and broker of the carbon credits generated by the community. **The carbon credits price sold by the project was increased in 2024, that covers the insurance premium and make it financially neutral for the Ejido. .**

Methodology

- Understanding of the project insurance needs and vulnerabilities
- Analysis of historical events
- Computation of 3 different options of risk structure, submitted to the community's choice
- Deployment of an innovative policy

Structure payout to historical events:

	Name	Category	Payout
2020	DELTA	Cat 1	10%
2005	EMILY	Cat 1	50%
2002	ISIDORE	Cat 3	100%
1988	GILBERT	Cat 3	100%

Find more about the project here : https://climateseed.com/mangrove-conservation-and-restoration-in-san-crisanto

AXA Climate

Our consulting use cases

Impact Study for Ocean related investments in SIDS

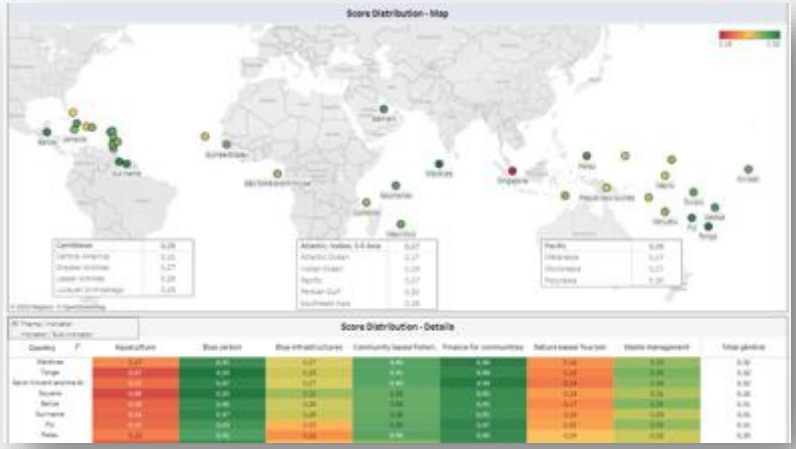
For a new impact fund, creation of an impact framework with qualitative and quantitative assessment. AXA Climate proposes a methodology based on desk studies and expert interview on specific sectors and we studied the specificities of Ocean investing.

The Challenge and methodology

- To address the challenges faced by **Small Island Developing States** (SIDS), sustainable impact investments in the Blue Ocean are essential.
- The **main ESG issues** at the SIDS level were identified and relevant clusters were established.
- A **benchmark of existing impact frameworks** was conducted to determine key impact indicators and areas for the fund to tackle, complemented by an impact heatmap and an impact assessment of eight activities of interest.
- An **impact valuation study using the SROI** methodology was also conducted, revealing for instance that plastic recycling has a positive SROI of 15%, while aquaculture showed a negative SROI of -4.4%.

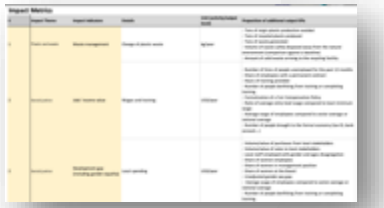
Impact heatmap

A qualitative assessment allowed to build an Impact Heatmap to **visualize the potential** in SIDS.



Impact KPI

Impact indicators with both qualitative and quantitative metrics (incl. PAI) have been identified as relevant for the fund.



Objective

- Estimate the potential impacts driven by the targeted activities supported by the fund
- Test a methodology of **Impact Valuation** as a guidance to develop the impact framework of the fund
- Estimate the key steps to be recognized as an **impact fund** compliant with **Article 9 regulation**

Performing ESG Risk Assessments of Marine Protected Areas

For a social enterprise (Blue Finance) managing for governments several Marine Protected Areas (MPA) around the world for marine biodiversity and local livelihoods we conducted an ESG risk analysis. We help them to define clear targets and develop processes to understand how climate change is affecting their portofolio operations.

The Challenge and methodology

The TCFD provides a logical and undisputed framework for integrating climate risks and opportunities into a business strategy, so we used the same building blocks.

- Step 1: diagnostic of existing framework
- Step 2: design framework and climate strategy
- Step 3: Climate Risk portfolio assessment
- Step 4: Training on climate strategy

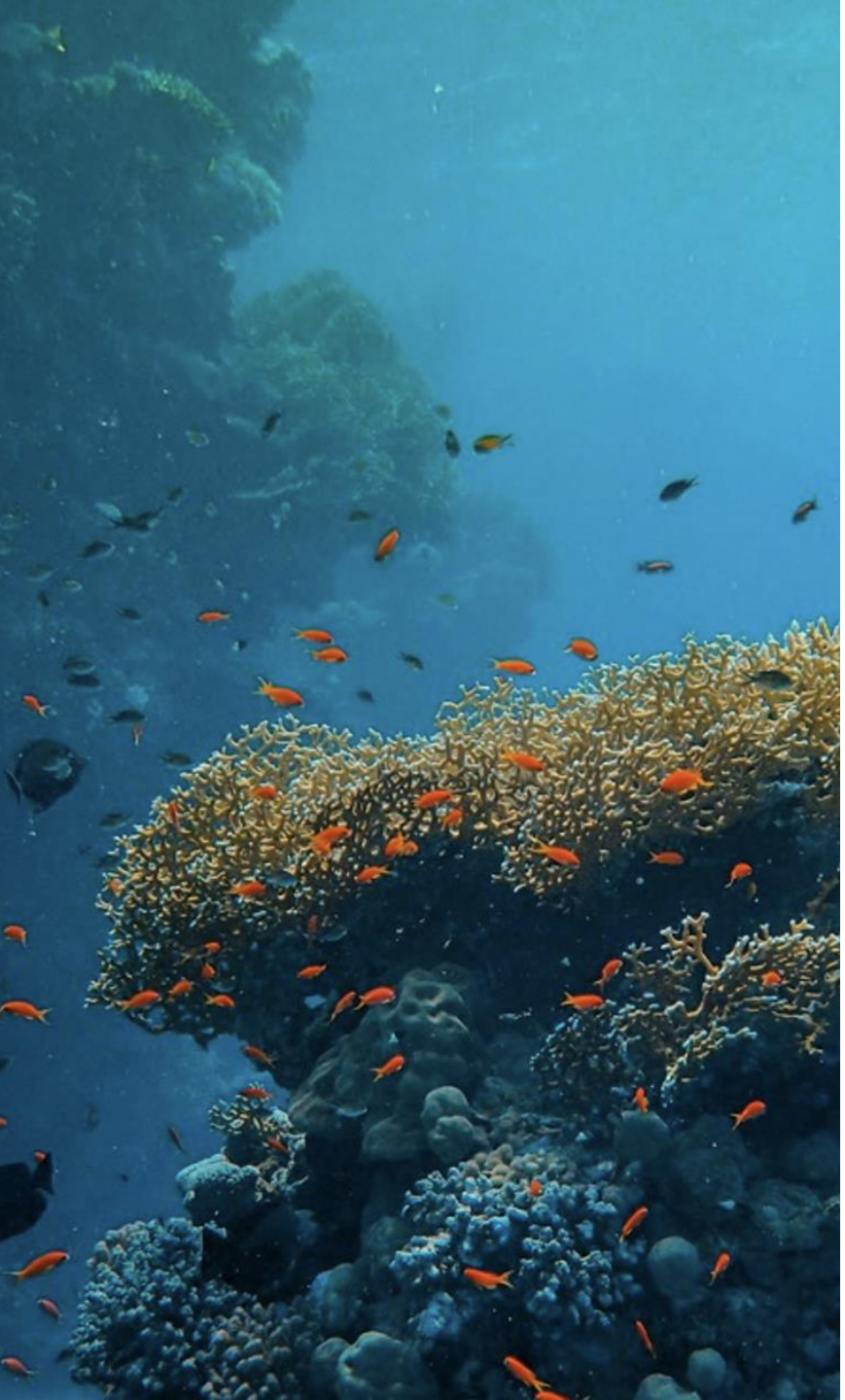
In addition, most of the areas Blue Finance is active are exposed to climate risks. In particular for the most mature MPAs, cyclone risk can jeopardize the financial stability of the area, hence throwing back in years the restoration and protection activities deployed on sites. So, we covered 2 MPAs with our insurance product.

Blue Finance's MPA

Expected results

With our insurance and ESG risk assessments:

1. Ability to deploy fast restoration activities to limit the damages
2. Possibility to pay-back investors in case of catastrophic events
3. Deployment of a first use-case to build trust and scale-up in the future (more MPAs, more perils)
4. Provide an additional guarantee for future investors



We conducted a coral reef insurance feasibility study in the Maldives

THE NEED

UNDP Maldives and the Maldives Monetary Authority (MMA) wanted to assess the potential for a parametric coral reef insurance or other financing mechanism for the conservation and restoration of coral reefs in the Maldives

The assignment included a complete feasibility study, including insurance product design.

OUR SOLUTION

We conducted the feasibility study, including a benchmarking study of existing coral insurance schemes, study of alternative risk management mechanisms, stakeholder engagement, landscape analysis in the Maldives including threats assessment and their insurability potential. The second part of the study included an insurance product and scheme design.

A first of its kind insurance cover insuring corals against marine heatwaves leading to coral bleaching was deemed technically feasible, and validated through an in-person workshop in the Maldives.

Our business model

The creator
of positive value

Science To infuse scientifical knowledge into all business decisions.

Data To quantify physical and financial risks.

Insurance

We protect people, nature and economic activities from climate risks.

Training

We enable companies to upskill and engage all employees to succeed in the sustainable transition.

Consulting

We support organizations in their adaptation and transformation journey.

Finance

We build new mechanisms and strategies to finance the shift to regeneration.

Let’s talk!

Consultation offer to learn more about any of the solutions

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