The Swiss Re Foundation in 2018

Joining forces

Why we’re training locals to protect coral reefs with The Nature Conservancy

page 4
Teaming up to protect fragile coasts

The Swiss Re Foundation and The Nature Conservancy (TNC) have developed the first training programme for coastal dwellers who want to help conserve the coral reefs that shield their communities from erosion, flooding and storms. As described in the Focus Report starting on page 4, we’re piloting the approach on Mexico’s Caribbean coast near Cancun (pictured here), a hub of tourism and fishing as well as home to the endangered Mesoamerican reef.
Coral reefs in peril

IN DEPTH

Coral reefs in peril

page 7
When the Board of Trustees reviewed the Swiss Re Foundation’s strategy to discuss its direction for 2019–2021, we were pleased to note that all its major objectives for the previous three years had been met. Working with partners in 41 countries, the Foundation strengthened its emphasis on entrepreneurship, supported more research and engaged Swiss Re employees more extensively in its efforts to build resilience.

The strategy for 2019–2021 will continue on this path. But the Board of Trustees also decided to reduce the Foundation’s focus areas to three, as now reflected on its website, and to align its key initiatives even more closely with topics related to Swiss Re expertise.

This year’s Focus Report on coastal resilience illustrates what this alignment can look like. The photos seem to tell a story of a sunny holiday on a beach near Cancun, Mexico. In fact, the beach is threatened by erosion and flooding, and the coral reefs that protect it are deteriorating fast. The Swiss Re Foundation has collaborated with The Nature Conservancy (TNC) on a project that engages coastal residents to help conserve the reefs on which their communities depend. It funds disaster preparedness planning and a programme that teaches local volunteers how to assess and repair the reefs after a storm.

At the same time, Swiss Re’s Public Sector Solutions division is working with TNC and regional governments to develop a parametric insurance solution that covers the reefs near Cancun. Whilst this effort is distinct from the Swiss Re Foundation project and will take more time to unfold, the exchange of knowledge among TNC, the Foundation and Public Sector Solutions has been vital to both collaborations – as the interview in this report with two senior executives from Public Sector Solutions makes clear.

I wish to conclude by thanking the Foundation’s partners in Cancun and elsewhere, the Swiss Re colleagues who support its many projects and, last but not least, the Swiss Re Foundation team for their engagement.

Walter B. Kielholz
Chairman of the Board of Trustees
Swiss Re Foundation
Teaming up to protect fragile coasts

The Swiss Re Foundation helps communities stand up to the winds of risk and get back up should they fall. We do this by joining forces with complementary partners, from universities and NGOs to social enterprises and Swiss Re itself.

No threat to human well-being requires teamwork more than environmental degradation and climate risk. Both make disasters more likely and more destructive even as they weaken natural and artificial defences. Coral reefs dramatically reduce the force of hurricanes and tropical storms and mitigate erosion and flooding. But they’re also dying from overfishing, development and pollution and are vulnerable to climate risk.

For reefs to protect coasts, humans must protect reefs. With The Nature Conservancy, the Swiss Re Foundation is helping people on Mexico’s Caribbean coast preserve and restore their reef for generations to come.
Local volunteers in Puerto Morelos, Mexico, enter the water as part of their training to examine damaged reefs.
Before there were bulkheads and seawalls, coral reefs shielded shorelines. Today reefs face an existential threat, as do the hundreds of millions of people whose lives and local economies depend on healthy coastal ecosystems. The Mesoamerican reef, a magnet for tourists and fishers alike, is one of the world’s most endangered.

Focused on the portion of the reef near Puerto Morelos in Mexico, the Swiss Re Foundation’s partnership with The Nature Conservancy (TNC) grew out of our commitment to help vulnerable communities increase their resilience to natural catastrophe. To help turn the tide on coastal flooding and erosion, we agreed with TNC to focus on two areas of action: developing disaster preparedness plans and training volunteers in reef repair and rehabilitation methods. Our support has enabled TNC to develop and pilot an immediate response protocol as well as a training curriculum for local residents who volunteer to perform reef rescue operations right after a hurricane or tropical storm.

This project complements an innovative collaboration between TNC and Swiss Re’s Public Sector Solutions division that has two main aims. One is to show that nature-based coastal defences are often more cost-effective at protecting coastlines than man-made infrastructure. The other is to explore financing mechanisms that will support the long-term protection and restoration of nature-based defences. As explained in our interview with two representatives of Public Sector Solutions on pp. 32–34, the ambition is that pooling Swiss Re’s and TNC’s expertise will increase coastal communities’ appreciation of nature’s role in safeguarding their people and economies.

On the following pages, we explain how reefs protect coasts and why they’re in trouble, describe the Swiss Re Foundation-funded training that TNC and its local partners are providing to residents of Puerto Morelos who volunteer to join “response brigades” and invite three brigade members to share their fears and hopes for the reef.

**WHY THE NATURE CONSERVANCY?**

With nearly seven decades of experience, TNC is a leading advocate for natural and nature-based approaches to protecting coastal infrastructure and livelihoods by mainstreaming the use of dunes, mangroves and reefs. It designs and tests innovative strategies and recognises the important role the private sector has to play in conservation. The Swiss Re Foundation values TNC’s evidence-based approach to better integrating adaptation planning, emergency preparedness and recovery efforts.

In 2016, TNC teamed up with Swiss Re, local partners and scientific experts in Cancun and Puerto Morelos, Mexico, to design the first-ever insurance mechanism for protecting coral reefs. This public-private collaboration aims to bring new private capital to reef conservation and restoration and to show the tourism industry a replicable way to monetise the services that the local reef and beaches provide.
Coral reefs cover less than 1% of the Earth’s surface, yet they’re home to 25% of all marine fish species. They form highly diverse and productive habitats that provide food, shelter, livelihood and medicine to a large fraction of the world’s population. In Asia alone, millions are employed in reef-dependent industries, including tourism and fisheries. The economic value of coral reefs globally is an estimated USD 9.9 trillion.

Reefs play a critical role in protecting coasts from tropical storms and hurricanes and in generating sand for beaches. Healthy coral reefs reduce vulnerability by providing coastal protection, food security and income to coastal communities at risk from natural disasters and economic hardship.

By reducing exposure to strong waves, flooding and erosion, and by providing social, economic and ecological benefits before, during and after catastrophic events, coral reefs act as a first line of defence for coastal communities. Mexico is one of the countries estimated to have the most to gain from reef management to reduce the risks of living at sea level; the others are Indonesia, the Philippines, Malaysia and Cuba.

Coral reefs act as natural breakwaters, dissipating wave energy that would otherwise reach the shoreline and possibly cause coastal erosion and flooding.

According to TNC’s research, well-developed reef crests can protect coastlines more cost-effectively than artificial breakwaters. However, overfishing, pollution, coastal development, habitat degradation and climate risk threaten to expose coastal communities to higher wave energy and the hazards of flooding and shoreline erosion. Lack of awareness of coral reefs’ protective roles poses urgent challenges and may quicken the pace of reef deterioration.
Reef guardians

The “guardians of the reef” are brigades of volunteers from Puerto Morelos who preserve and protect the coral reef off Mexico’s Yucatan Peninsula. As first responders after a tropical storm or hurricane, they rapidly assess the reef damage and debris produced. If needed, they then clear the debris, perform reef repairs and collect coral fragments for relocation and reattachment to improve the reef’s chances of survival. The Swiss Re Foundation supports their training and local disaster preparedness.

Alejandro Chan’s story
Brigade member

“Years ago, when hurricanes hit, we all saw how the reef was destroyed. I would have liked to help. Now I can.”

“Part of my job is to engage with visitors to Puerto Morelos Reef National Park and explain the park’s rules and recommendations and why it’s a protected area. I make sure visitors don’t touch the coral or use sunscreen, which damages the reef’s health.

The most valuable thing I can contribute is my local knowledge. I know where the most damaged areas are, and I don’t get lost. I snorkel to facilitate and guide the divers. This is my role, sharing what I know about the reef. And constantly being in the water helps me easily identify the species of coral and fish, even though I don’t know their scientific names.

Creating a healthy reef for future generations

I’m a brigade member because I want to take care of the reef, so that when my daughter grows up, I can leave her something better to enjoy. There used to be more support for the National Park. I feel that the culture of taking care of our reef has somehow been lost. So I want to create some courses to teach children to leave the reef in good hands and with knowledgeable people. The reef’s function is to protect us from hurricanes. Years ago, when hurricanes hit, we all saw how the reef was destroyed. I would have liked to help. Now I can. There are no more excuses.

What I most enjoy as a brigade member is being surrounded by highly knowledgeable people. Perhaps there was a time when they corrected me on the scientific names for the coral. But gaining more experience in other areas, such as how to tie knots underwater, has been very cool. And being able to share that knowledge is even more satisfying. At the beginning, I felt out of place. I was surrounded by biologists and researchers. But I soon gained in confidence knowing that my intimate knowledge of the coast is important too.
If the broken corals are not treated in time, they’ll be lost forever. A few years ago, I wasn’t aware that fragments of coral can be collected and made to regrow. Now that I know this, it makes me want to help. People say we’re fighting a losing battle to save the reefs because violent storms and hurricanes are happening ever more frequently. I don’t agree. We are making a difference, if only little by little.”

Alejandro’s story has been translated from Spanish.

Above: Alejandro eats at a local restaurant with his wife and daughter.
Top: Taking tourists on a snorkeling tour of the reefs off Puerto Morelos.
Left: Alejandro guides brigade members on their dives.
The Swiss Re Foundation in 2018

“I am the lead researcher for the INAPESCA reef restoration project. INAPESCA stands for the National Institute of Fisheries and Aquaculture. One of its regional centres here in Puerto Morelos is responsible for developing coral cultivation techniques and restoration actions in sites with damaged reefs. We cultivate coral colonies in our laboratories, which can help drive reef restoration programmes.

My job entails coordinating and participating in the training given to the brigades, both in theoretical sessions and practical sessions at sea. The brigades are at the sharp end of the project in that they swing into action immediately following storms and hurricanes. They visit the reefs to assess damage, help rescue colonies of coral and other marine organisms and gather up debris and rubbish that may have accumulated at the site. The brigades make a direct contribution to strengthening the resilience of the reef by helping to reduce the loss of coral cover and avoid greater damage. The faster these actions are carried out, the greater the efficiency and efficacy of these rescue operations. Being able to transfer my knowledge to brigade members to enable them to do an effective job gives me a great deal of professional satisfaction.

The highs and lows
My most encouraging experience as a brigade member? That would have to be in October 2018 after hurricane Michael passed by Mexico’s Caribbean coast, damaging colonies of Acropora palmata on the Tanchacte reef in Puerto Morelos. A simple WhatsApp message in the brigades’ chat group was enough to form a group of eight people ready to go to the site. Following a hard day’s work, it was hugely satisfying for us to count seven large colonies of the Acropora palmate coral species that were returned, reaccommodated and cemented.

On the other hand, I also get disheartened when I see how diverse the threats are to the reef. For example, we recently found a brain coral colony of the Pseudodiploria strigosa species that had been affected by an emerging white band disease. We know that this disease is infectious and progresses very quickly. So far, we’ve not found a way to stop or control it. When these

Claudia Padilla’s story
Trainer and brigade member

“Being able to transfer my knowledge to brigade members to enable them to do an effective job gives me a great deal of professional satisfaction.”
HANDS-ON LEARNING TO HEAL REEFS

To succeed in the long run, any effort to conserve a natural resource needs a systematic, practised approach, not just enthusiasm. A key agency in ensuring this in efforts to protect the Mesoamerican reef has been TNC in Mexico, through its Coastal Risk and Resilience (CRR) initiative. CRR ensures that government institutions, scientists and the private sector are on the same page in their collaborative effort to conserve the reef.

The CRR initiative began its work in 2014, when it realised the need to clearly define the best course of action following a storm. It then came up with a post-storm protocol for repairing corals, allotted funding and hired staff and consultants to develop a plan of action.

Part of this plan, naturally, has also been to structure trainings for brigade members, which includes both theoretical instruction, for example, on the principles of coral biology, and underwater lessons focused on how to assess storm damage to the reef as well as so-called “primary response” actions. The purpose of the latter is to reduce the storm damage to the reef and mitigate further damage that could occur. Without help, broken and buried corals can die within 45 days.

Primary response actions include:

- **Reef clean-up**, where divers remove debris left by the hurricane which may harm coral colonies.
- **Coral stabilisation**, where divers reattach displaced coral colonies. Sometimes they need to install a supportive structure, which involves drilling, before the colony can be safely reattached.
- **Coral consolidation**, where divers collect and reattach coral fragments to the original colonies. Fragments too small to survive are taken to a nursery and allowed to grow for a few months before being reattached to the reef.

Each brigade includes four to six certified divers to inspect and work on the reef, two to four snorkelers to ferry materials to and from the divers, a boat captain, a sailor and one to two other people on board to pick up debris and prepare cement for reattaching corals.

Events occur, it feels like our efforts to recover the reef are insignificant compared to the speed at which it is deteriorating.

**Collaboration is the way forward**

Having said that, I strongly believe that the collaboration between conservationists and business interests will, at the end of the day, enable us to achieve our goal of preserving a healthy coral reef that provides ecosystem services of benefit to all parties. For example, the hotel industry is now much more aware of the importance of conserving the reefs and willing to implement specific actions towards this end.

In the short term, the challenge is to maintain the specific biodiversity and biomass of species, and above all coral cover, as far as possible. And further down the road, we’ll need to develop innovative technologies that involve genetics to develop more resistant organisms better adapted to the changing conditions.

We have to trust that the corals, as living beings that have been in this world for several million years, will have the adaptive capacity to respond to the changes that are occurring on the planet.”

Claudia’s story has been translated from Spanish.
Tamara Adame’s story
Brigade member

“We’ll have accomplished our mission when we no longer need to get in the water after a hurricane.”

“I’m a diving instructor and a communications consultant. I became a brigade member because Puerto Morelos is my hometown and I want to be part of the effort to conserve our natural resources. Our town has a history of community efforts, and the brigade is a formal way of organising the process. What used to be spontaneous action is now a structured and practiced plan. I have experience diving in zero-visibility conditions, which will help if we conduct dives immediately after a tropical hurricane, when the water is murky.”
Even though this effort is all about building resilience, I sometimes find it hard to talk about this concept because humankind has done the most to destroy it in the first place. And all the while we’re trying to strengthen the resilience of reefs, our way of living points in the opposite direction.

Respecting instead of protecting
The idea of ‘protecting’ the environment or the reef perhaps gives us humans pride we don’t really deserve. How can we be protectors or saviours if we’re partly to blame? I would use the term ‘respecting’ the reef instead.

I’ve learned a tremendous amount through my involvement in the brigades’ work. Most importantly, I’ve come to appreciate the importance of traditional and local knowledge. Scientific and technical expertise are part of the mix too – that goes without saying. But this kind of project wouldn’t get off the ground without the insights of local people.

What will happen if we don’t do anything? We don’t know. And by the same token, we don’t know, either, what will happen if something is done. Are we sure if our efforts today will turn out to be enough tomorrow? Still, I couldn’t live without doing something, even if that something is so little that it won’t show. I believe we’ll have accomplished our mission when we no longer need to get in the water after a hurricane. For now, the mission of bringing us together and training us has been achieved. And for this successful effort, we should also thank The Nature Conservancy and the Swiss Re Foundation for their support.

There are, of course, multiple hurdles facing our conservation effort. These include a lack of education – for example, making people aware that we need to change our ways if the reef is to survive. We need to move to more action-oriented approaches. By this I mean more concrete public policies supporting conservation and stronger government support of environmental research.

I also believe that there needs to be greater willingness on the part of hotel developers to compromise and concede that uncontrolled expansion of tourism is part of the problem.”
During training, brigade members receive instructions before heading out to assess the reef in Puerto Morelos Reef National Park.
Our trainers use satellite images to show how our coast has changed in recent years.

Erosion is a growing problem on the beach in Cancun.

We’re finding more and more plastic waste, which harms the local ecosystem.
Healthy reefs reduce wave energy and storm surge. Degraded reefs don’t offer the same protection.

After a hurricane, we rely on this first-response kit, which includes brushes, diving gloves, and a cement dosing device.

Reefs reduce a wave’s energy by up to 97% before it hits the shore.

Practising how to load heavy debris into an inflatable mesh bag for a buoy to lift to the surface.
Corals are cultivated in the lab at the National Institute of Fisheries and Aquaculture for later use in reef restoration.
A diver practises using a drill underwater as part of a reef repair training course. The holes will support a substrate to which corals can be reattached.
The Swiss Re Foundation sees climate risk and environmental degradation as caught in a vicious cycle, with each reinforcing the other and making disasters more likely and more extreme. Hurricanes, mudslides and floods not only endanger the lives and property of directly impacted individuals. They harm the physical infrastructure and economies of whole communities and societies.

The dilemma of the millions of people worldwide who depend on coral reefs highlights the urgent need for action. Whilst coastal communities are especially likely to experience a hurricane or tropical storm, they are also among the least well equipped to withstand and recover from such events.

We at the Swiss Re Foundation want to help countries and communities build their capacity to plan for, prepare and respond to natural disasters and sees promise in ecosystem-based approaches to mitigating disaster and climate risk. We also know that any approach requires collective effort to succeed. That’s why we teamed up with TNC in Mexico.

An engaged community
TNC has rallied diverse groups that have a stake in the health of the reefs around Cancun and Puerto Morelos – from fishers and hotel owners to government representatives, coral specialists, and academic researchers – to a common cause. Together they’re finding and committing to new ways of preserving and protecting this precious shared resource. With help from Swiss Re Public Sector Solutions, the collaboration has led to an effort to develop a financial arrangement that aligns private and public interests with natural protection – a first of its kind.

The Foundation’s partnership with TNC complements this ambitious initiative by systematically involving private individuals in conservation too. The popularity of TNC’s brigade training demonstrates the willingness and ability of local volunteers such as Alejandro, Claudia and Tamara (see pp. 8–13) to do the hard work of repairing and restoring reefs after storms. And their successful restoration effort in Puerto Morelos after Hurricane Michael in 2018 highlights how teaching the right skills can empower community members to conserve a natural asset. The brigades’ engagement has likely broadened public awareness of the reefs’ importance to the local economy and way of life too.

What’s next?
We’ve seen in this project how one small, collaborative step can help society master much larger challenges and how nature can assist in its own protection. This promising start has emboldened us to do more at the Foundation both to build local capacities and to support nature-based solutions for coastal resilience. The world’s mangroves and wetlands, for example, might benefit from an adapted version of the model being used in Puerto Morelos. Our experience in Mexico has also highlighted other possible financing mechanisms for coastal protection, such as municipal bonds, that we intend to explore in future.
Tourism generates billions of dollars for the local economy in the Mexican state of Quintana Roo, but erosion is putting the beaches in danger.
In 2018 the Swiss Re Foundation expanded its collaborations with academia, Swiss Re employees and business partners as well as its support of entrepreneurial approaches to building resilience.

With the 2018 Entrepreneurs for Resilience Award, we aimed to help promising enterprises that improve access to renewable energy in low-income communities scale up their solutions. All three finalists honoured at the award ceremony in May 2018 in Accra, Ghana – which was attended by Swiss Re executives and topic experts as well as 80 Swiss Re clients – have since joined the Foundation’s project portfolio. A venture in the Democratic Republic of Congo called Altech Group, which offers pay-as-you-go financing to make solar-powered devices accessible in underserved communities, came out the winner.

A growing number of Swiss Re Foundation partners receive not only grants but also coaching and know-how from Swiss Re employees. In 2018 we quadrupled the number of spaces in our Learning Partnerships programme, in which employees team up with local entrepreneurs to exchange ideas and know-how for tackling societal challenges. Our Global Atlas Challenge saw employees from Swiss Re offices worldwide join forces to help young people in Africa maximise their learning and earning potential.

The Foundation’s 2018 ReSource Award programme attracted 161 applicants from 51 countries with entrepreneurial solutions for water resilience. The top contenders received coaching to further develop their approaches over six months. CASSA won for its success in putting housing that provides clean water, clean energy and sanitation within reach of Guatemala’s poorest families.

For a detailed overview of projects supported by the Swiss Re Foundation, visit our website: swissrefoundation.org
FOCUS AREAS

CLIMATE
We help people adapt to climate change and adopt climate-friendly practices.

NATURAL HAZARDS
Disasters hit poor communities hardest. We help them prepare for, prevent and bounce back from the worst.

SOCIETY
We address the big challenges facing the world today, from migration and urbanisation to rising longevity.

WATER
Water and sanitation are as central to our work as to the survival of the planet and the people living on it.

REGIONS

AMERICAS
- Commitments (in CHF): 1,613,000
- Number of projects (above CHF 30,000): 15
- Number of Community Days: 22

AFRICA
- Commitments (in CHF): 1,888,000
- Number of projects (above CHF 30,000): 13
- Number of Community Days: 0

APAC
- Commitments (in CHF): 1,216,000
- Number of projects (above CHF 30,000): 16
- Number of Community Days: 33

EUROPE
- Commitments (in CHF): 1,017,000
- Number of projects (above CHF 30,000): 9
- Number of Community Days: 58

WORLDWIDE
- Commitments (in CHF): 823,000
- Number of projects (above CHF 30,000): 6

TOTAL COMMITMENTS
- Climate: 47%
- Natural Hazards: 18%
- Water: 17%
- Society: 18%

TOTAL COMMITMENTS
- Americas: 29%
- Africa: 13%
- APAC: 15%
- Europe: 18%
- Worldwide: 25%

6,557,000
TOTAL COMMITMENTS
IN CHF

1,778
SWISS RE
VOLUNTEERS

18,096
VOLUNTEERING
HOURS

113
COMMUNITY
DAYS

The Swiss Re Foundation in 2018
Entrepreneurs for Resilience Award 2018

Building resilient societies is a challenge too vast for any sector to tackle alone. We dedicated the 2018 Entrepreneurs for Resilience Award to giving a boost to young enterprises that put renewables to work in low-income communities.

Electricity makes the modern world go around. It’s the safest, most efficient way for communities to power businesses, schools and hospitals and for individuals to earn income and feed their families. Many of the more than 1 billion people worldwide who lack reliable power grid access rely on kerosene, charcoal and firewood to power their homes. So much of their time and money goes toward procuring these expensive, dirty fuels that there’s little left to invest in education, healthcare or livelihoods.

In low-income areas of the Democratic Republic of Congo, over 90% of people aren’t connected to the power grid. Growing up there, the founders of Altech Group experienced the resulting problems firsthand and found the inspiration to solve them. After just five years in operation, this enterprise is the country’s largest distributor of solar solutions. It offers its core product, a high-quality certified solar kit, through three pay-as-you-go payment plans. It also employs local youths as “solar ambassadors” to handle sales, payment collection and servicing.

The Swiss Re Foundation spent 18 months identifying and getting to know Altech and other promising ventures that bring sustainable energy to low-income communities. Swiss Re experts and the Entrepreneurs for Resilience Award jury – including Swiss Re senior executives, Swiss Re clients and an academic – helped us select the award theme and Altech as the winner. The award ceremony was held in Accra, Ghana during the annual meeting of the African Insurance Organisation, an NGO that promotes the development of a healthy insurance and reinsurance industry in Africa.

As the award winner, Altech will receive coaching and technical advice from Swiss Re experts and a grant to increase its product range, inventory capacity and sales, and to develop new tools for collecting payments and activating solar kits. The company has already sold about 27,000 solar kits, 120,000 solar lanterns, 1,000 solar home systems and 1,000 clean cookstoves, improving more than half a million people’s lives.
ReSource Award
Winner 2018

The Swiss Re Foundation wants to see more communities gain access to clean water, sanitation and hygiene and to foster fair distribution and sustainable management of water – particularly where it’s scarce. Our International ReSource Award helps social enterprises test or scale up novel approaches to advancing these goals.

The winner of the 2018 ReSource Award aims to stem Guatemala’s worst health and environmental problems at their source. Due to an acute shortage of affordable housing, half the country’s population live in dwellings that lack clean water, clean energy or sanitation – often all three. Such accommodation wastes resources and creates pollution that harms the local environment as well as public health.

CASSA designs, builds and retrofits sustainable social housing in rural and urban areas of Guatemala using local, natural raw materials. Its customers not only enjoy clean water, clean energy and full-service sanitation but also save money and help protect local forests and water bodies.

CASSA homes feature flush toilets, black water treatment and adjoining gardens. More remarkable, they are self-sufficient, with built-in technologies for capturing, storing and filtering rainwater for drinking and bathing and for reusing grey water in the garden. They’re also equipped with solar panels and efficient, smokeless stoves. Together, these solutions eliminate many of the main causes of disease and premature death in Guatemala, especially indoor smoke and contaminated drinking water.

The average house in Guatemala sells for USD 12,500. The typical CASSA customer has an average annual income of USD 300 to USD 600 for a five-person household. By offering long-term micro-mortgages in partnership with local and international financial institutions, CASSA makes its houses accessible to this market segment. Its customers also save a monthly average of USD 50 thanks to higher energy and water efficiency.

CASSA partners with providers of water filters, water pumps, solar panels, smokeless stoves and building materials to ensure uninterrupted supply. To take its business model to scale, it’s using the ReSource Award grant to hire more personnel and launch a wide-ranging marketing campaign.

Apart from offering direct benefits to customers, CASSA spurs economic development and the provision of ecosystem services in whole communities, improving local income, health and psychological well-being. Over the next 15 years, it plans to build 75,000 new homes and retrofit 50,000 existing ones. This will benefit an estimated 700,000 household members, create 50,000 jobs and cut carbon emissions by 700,000 tonnes per year.
EMPLOYEE ENGAGEMENT

On the move
for mobility in Africa

Every day Swiss Re employees help make the world more resilient through their work at Swiss Re. And every year more of them get involved in the Swiss Re Foundation’s efforts to help vulnerable communities build resilience. In 2018, they took a virtual trip together around the world to broaden the horizons of young people in Africa.

We challenged Swiss Re employees and their friends and families to walk, run or cycle 40,000 kilometres – that’s one trip around the globe – in 40 days or less. In return, we pledged to give USD 40,000 to a Swiss-based charity called Velafrica to open a new training centre in Burkina Faso. Velafrica collects disused bicycles and ships them to eleven African countries for people who would otherwise have to walk prohibitively long distances to reach the nearest school, health clinic or job. The bikes are made roadworthy again at repair hubs in Switzerland or at vocational training centres in Africa that employ local youth.

With the theme “fast legs for smart youth,” the challenge literally mobilised 1,530 Swiss Re employees from 36 offices in 19 countries. Participants found creative ways to spur one another on, for instance, by holding work meetings on the go and organising themselves into more than 300 local and international teams. Nearly 1,000 of them also shared their experiences by posting updates and “sweaty” selfies of themselves moving toward their shared goal.

Since the original target of 40,000 kilometres was reached in just 13 days, the Foundation topped up the originally promised grant with another USD 10,000 – enough to pay for 500 refurbished bikes. By the 40-day mark, an eye-popping total of 113,957 kilometres had been travelled. Along the way, participants improved not only their fitness but the prospects of 500 young people who now have their very own bikes, and of future learners at Velafrica’s new training centre.

For more information, visit: swissrefoundation.org/our-work/key-initiatives/employee-engagement/
“Initiatives like this bring added relevance to our work and help us build deeper connections with colleagues. Although I’m based in Zurich, I joined an Atlas Challenge team in Singapore, which was a great way to unite with employees across the globe for a higher purpose.”

Alicia Montoya
Senior Solutions Manager, Zurich

“The cause was very compelling. As an active person, nothing pleases me more than the opportunity to help others become more resilient and independent through an athletic challenge like this one.”

John Pfeffer,
Actuary, Toronto

“Having worked on a project in Malawi, I’ve seen how much owning a bicycle means to people in African villages. The Atlas Challenge was an opportunity for me not only to support their personal mobility but to get out and do more biking, my favourite sport.”

Becky Grant
Pricing Methodology Actuary, Zurich

“At first I participated in the Atlas Challenge alone, but I was soon joined on my walks by my wife and kids on the weekends and by my colleagues during the week. It seems my enthusiasm was contagious!”

Kiran Keshavamurthy,
Senior Technical Accountant, Bangalore
Swiss Re Public Sector Solutions works with governments and cities to **strengthen their resilience** to major shocks.

**Nikhil da Victoria Lobo**
Regional Leader Americas
Public Sector Solutions

**Rubem Hofliger**
Head Public Sector Solutions
Latin America
Underwriting nature

Nikhil da Victoria Lobo and Rubem Hofliger, senior executives in Swiss Re’s Public Sector Solutions division, explain how Swiss Re has teamed up with the Swiss Re Foundation, The Nature Conservancy and regional governments to help protect the Mesoamerican coral reef off the coast of Mexico’s Yucatan Peninsula.

Q Tell us about the insurance product Swiss Re developed to help protect the reef.

Rubem Several years ago, The Nature Conservancy (TNC) approached Public Sector Solutions asking whether we could support their efforts to conserve the Mesoamerican coral reef near Puerto Morelos. Prior to our involvement, TNC had already been working on this project in collaboration with the regional government and the local community. Their research had shown them that there was a clear connection between a healthy coral reef and the region’s ability to sustain itself economically. In other words, if the reef were allowed to die, it would no longer be able to prevent beach erosion, which in turn would threaten the region’s key income source, namely, the tourist industry. So the problem was how best to combat the dangers to the reef, which included pollution through uncontrolled development along the coast and the destructive force of storms and hurricanes.

Consequently, TNC enquired whether we could design an insurance solution that would ensure a rapid disbursement of financial resources to enable trained community members to deal with reef damage following a severe storm.

Q You mention “rapid disbursement of resources.” So what you offered must have been some sort of parametric solution. How does this work?

Rubem In contrast to normal indemnity solutions, parametric coverage pays out quickly without the need for a local damage assessment process, which can be time-consuming. It’s based on wind speed as measured by the National Hurricane Center. This is publicly accessible information. Basically, if the hurricane or storm has impacted an area predefined in the contract and if the associated wind speed exceeds a specified level, a payout is automatically triggered. The money flows into a trust fund to be created and managed by the state government. It then authorises disbursement of the funds the local community needs to initiate reef repair work.

“When bad things happen to the reef, the impact is felt on every level and the burden often borne by those least able to cope. If we’re to help the public sector build up the reserves of strength it needs, multi-stakeholder projects are the way to go.”
But the proposals Public Sector Solutions put to the government went beyond offering an insurance product, right?

Rubem Yes, we put forward a whole risk management strategy, of which the insurance solution was just one part. We advised them on how they can best administer the trust fund resources, not only from the viewpoint of paying out insurance money, but also of managing those resources in a transparent, efficient way that helps maintain the reef on an ongoing basis. As I’ve mentioned previously, it’s not only about dealing with major hurricanes but also about fighting ever-present pollution and tourism overload.

So this new trust fund will have three main purposes. The first is to have money available for maintenance of the reef and the beaches. The second is to manage less severe but more frequent weather events, which – although they impact the reef and the beaches – shouldn’t necessarily be covered by insurance. And the third is to fund the premium payments for parametric insurance coverage of major storm events that can have a significant impact on the reef and beaches. The trust fund has already been set up by the state government, and it is now the trust fund technical committee’s responsibility to assess the insurance proposal.

Can you tell us about how Public Sector Solutions’ mission dovetails with this collaborative effort to save the reef?

Nikhil In the end, this is all about Swiss Re’s overall vision, which is to make the world more resilient. And we in Public Sector Solutions simply have the privilege of trying to execute this mandate for our particular client group – public sector entities. As Rubem has already said, when bad things happen to the reef, the impact is felt on every level that matters to the public sector, on tax revenues, on the vital hotel industry and on employed people. And the burden is unfortunately often borne by those least able to cope. Thus if we’re to make the world more resilient and help the public sector build up the reserves of strength it needs, then these kinds of unique multi-stakeholder projects are the way to go.

Can you talk in general terms about the role of the insurance industry in protecting the natural environment?

Nikhil Let me respond with an anecdote. When I first bought life insurance, I was very surprised at the cost. I was fortunate to have an agent who gave me a sense of what I was doing right and wrong with my lifestyle. I made a commitment to change my ways. I was able to swap my policy a year later for one at a much lower cost. My experience highlighted the three things insurance does. One, it puts a price tag on risk. So in this case we’re talking about the risk of climate impact on reefs, nature and the economy. Two, insurance provides a financial safety net if a crisis occurs. And third, this combination of price tagging and providing a safety net creates incentives that improve behaviour. So, insurance does what it’s been doing for the last 250 years, namely, it makes proposals designed to encourage people to make changes they know they should make – in this instance, to make their natural environment more sustainable and resilient.

Tell us about the Swiss Re Foundation’s role in supporting the effort to conserve the reef.

Nikhil What I want to say is not just about this project. It’s about all the work I’ve had the privilege of doing with the Foundation over the last ten years. The Foundation has been there to unlock change when others just didn’t have the vision.

There are two other points I’d like to make as well: Swiss Re’s various units are allocators of capital. The Foundation is among these in that it allocates scarce resources to ventures in the field of risk transformation and world resilience. It just generates a different kind of return than, say, our Reinsurance, Corporate Solutions or Life Capital businesses do.
New faces

2018 brought changes in our leadership and a sharper focus on making measurable impacts in areas related to Swiss Re’s expertise.

On becoming the new Director of the Swiss Re Foundation in April 2018, Stefan Huber Fux assumed responsibility for leading our operations and management as well as the coordination of the quarterly meetings of our Board of Trustees.

Our Board has changed too. After six years of enthusiastic engagement, Jean-Jacques Henchoz stepped down as Trustee upon leaving his position at Swiss Re. Swiss Re’s Board of Directors appointed Guido Fürer, Group Chief Investment Officer at Swiss Re, to succeed him in November.

In its last two quarterly meetings in 2018, the Board reviewed and adapted the Foundation’s strategy to reflect our now sharper objectives, which include moving closer to Swiss Re’s core topics and building resilience in a measurable, sustainable way. In all our work, we aim to strengthen our partners’ capabilities in capacity building, entrepreneurship, leadership and risk management.

“Our Foundation is not only about making financial contributions, but really capitalises on our people’s passion and expertise to create real and lasting impact.”

Guido Fürer
Trustee

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