

# CORAL REEF RESCUE - BUILDING CLIMATE CHANGE RESILIENT REEFS AND COMMUNITIES

Submitted by the World Wide Fund for Nature (WWF) International and University of Queensland to the UN SG Climate Summit  
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## Context and rationale

Half the world's coral reefs have already been lost, and those that remain are under greater pressure than ever before. Local threats – including pollution, overharvesting and destructive extraction of fish and corals, and unsustainable coastal development – are compounded by global climate change. We're seeing the most rapid decreases in the extent of coral cover ever recorded. Climate models project that, even if the average global temperature rise is limited to 1.5°C, 70-90 percent of tropical coral reefs will be lost by 2100. At 2°C or above, almost none will survive. This is a humanitarian crisis for the hundreds of millions of people who depend on coral reefs for their food, livelihoods and security.

We need to address climate change in order to save coral reefs, and linked systems such as mangroves and seagrasses, and all they provide to people and nature. Without strong action to eliminate greenhouse gas emissions and achieve the Paris climate agreement, coral reef conservation interventions will be in vain. But at the same time, we need to focus on protecting those reefs that have the greatest potential to survive in a warming ocean and to act as source reefs from which corals can regenerate in the future.

## Overview of the contribution.

This is an ambitious initiative focused on coral reefs (and linked systems) that seeks to create mechanisms and mobilize resources to conserve low vulnerability reefs that have potential to reseed to other regions once the climate has stabilized. The initiative will also connect vulnerable reefs with resilient reefs through an ambitious adaptation plan. In particular, the initiative will be supporting the handful of developing countries where the most climate-resilient reefs are found, and especially the communities on the frontline.

The partnership will apply this approach to building reef productivity and resiliency around the world with a target of safeguarding the food security and livelihoods of over 120 million reef-dependent people over the next decade.

## How the contribution leverage living natural systems as a solution to avert climate change?

Coral reef ecosystems are the most important ecosystem in the ocean providing food, livelihoods and ecosystem services such as coastal protection. They also provide a habitat for one in four species in the ocean. Unfortunately, they are disappearing before our eyes with potentially devastating consequences for life in our ocean. A recent global analysis, however, has revealed that some reefs are less vulnerable to climate change impacts. Interlinked by ocean currents which transport coral larvae and fish, these refuges of resilience could have a central role in helping coral reefs to regenerate when the climate stabilizes.

Close to 70 per cent of these climate-resilient coral reefs are found in just seven countries: Working with experienced partners and local people in these countries, we'll support communities on the frontline to safeguard their reefs and livelihoods today – and begin recovering the coral reefs of tomorrow.

## How might the contribution support both climate, mitigation and adaptation as well as other important co-benefits and social, economic and environmental outcomes in coming years.

This initiative will contribute towards increasing climate change resilience of coral reefs, linked ecosystems, and the communities dependent upon these for their futures. It will also support food security and reduce the loss of biodiversity and ecosystem function of these vital reefs while supporting, in particular, SDGs 1,2,13, and 14. Fundamental to this approach is to slow and cap global warming at 1.5°C, and so the initiative will advocate for reduction of CO2 emissions.

## Which countries and organisations are involved in the contribution?

A new global partnership - Coalition for Climate Resilient Reef Communities - has been convened to apply the latest science-based understanding of what it takes to protect and reinforce the productivity and resilience of coral reefs and communities who depend on them. The partners include WWF, University of Queensland and Blue Ventures.

On the ground work will be done in partnership with government and communities in Indonesia, Philippines, Cuba, Fiji, Tanzania, Solomon Islands and Madagascar.

How have stakeholders (for example local communities, youth and indigenous peoples, where applicable) been consulted in developing the contribution?

This is occurring now as we are running the regional and national co-design and planning workshops in the selected geographies. Working with experienced partners and local people in the focal countries, we'll support communities on the frontline to safeguard their reefs and livelihoods today – and begin recovering the coral reefs of tomorrow.

Where can the contribution be put into action?

The project is focused on building reef productivity and resiliency with an initial focus on projects in Indonesia, Philippines, Cuba, Fiji, Tanzania, Solomon Islands and Madagascar.

How the contribution will be delivered? How will different stakeholders be engaged in its implementation? What are the potential transformational impacts?

The world's leading coral reef conservation and development NGOs are using their collective convening power to take on the coral reef crisis. By identifying the most resilient coral reefs (regeneration reefs) and protecting them, we can ensure that the larvae they produce can benefit nearby reefs that can 'bounce back' as a result. Our goal is that reef-dependent people can benefit from resilient reefs for their food security and livelihoods.

Success of this approach relies firmly on strong local leadership, good governance, and engagement backed by clear community ownership and capacity to manage coral reef resources. Each of these partners has extensive experience in delivering conservation in close collaboration of local communities.

Is this initiative contributing to other Climate Action Summit workstreams (industry transition; energy transition; climate finance and carbon pricing; infrastructure, cities and local action; resilience and adaptation; youth and citizen mobilization; social and political drivers; mitigation strategy)?

Yes, at least to: cities and local action; resilience and adaptation; youth and citizen mobilization; social and political drivers; and mitigation strategy.

How does this contribution build upon examples of experience to date? How does the contribution link with different ongoing initiatives?

The initiative is based on rigorous science and the extensive experience of partners, in delivering conservation in close collaboration with local communities.

What are the mechanisms for funding (with specific emphasis on potential for partnerships)?

Funding is sought from foundations, government agencies, multilateral banks and facilities, private philanthropy, etc. Partnerships are central to both the funding, development and execution of this initiative.

What are the means of stewardship, metrics for monitoring?

The key to success of this initiative will be its integrated approach to monitoring the human and ecological outcome. Potential metrics include living coral cover and diversity, fish biomass (abundance) and fish diversity, coral bleaching, and the health and status of associated ecosystems (e.g. mangroves and seagrasses), household income, fisher income, tourism revenues, and fish consumption. Additionally, we will use high tech means to monitor ecological health including methods being developed at the University of Queensland and other partners to process images, satellite and drone imagery, and novel data management and sharing.

What is the communication strategy?

We will mobilise target citizen audiences and influencers to motivate key decision makers to support a strong new global policy agenda on coral reef conservation with meaningful and ambitious targets, scaled-up investments for local interventions in priority coral reef regions and strong locally relevant policy commitments. This will be achieved using both mass consumer and leadership-tuned communications approaches. It would quickly establish a new cultural baseline in leaders' constituencies and relevant media that business-as-usual for coral reefs and climate change is unacceptable.

WWF will complement this with communications and advocacy that show how coral reef conservation is also an investment in community health and economic well-being. Building off WWF's and partners' work on the influential Sustainable Blue Economy approach, the strategy will deliver new analyses to major influencers that will help position coral reef conservation and the nexus with climate mitigation and adaptation on the global leadership agenda.

What are the details of proponents (indicating the degree of commitment among the countries and organizations that are named).

The partners in the Coalition for Climate Resilient Reef Communities are committed to working in partnership with governments and communities to address the coral reef crisis and safeguard food security and livelihoods into the future. We are in the inception phase of the Initiative, and are currently planning with partners and countries in the focus geographies listed. Update will be available once these co-design workshops have occurred.

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