GEF-8 REQUEST FOR MSP (1-STEP) APPROVAL

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GENERAL PROJECT INFORMATION

Project Information

Project Title:	Improving Stewardship and Sustainable Livelihoods in Belize		
Region:	LAC	GEF Project ID:	
Country(ies):	BELIZE	Type of Project	Medium-sized Project one-step
GEF Agency(ies):	WWF-US	GEF Agency Project ID:	G0058
Project Executing Entity(s) and Type:	Belize Fund for a Sustainable Future		
GEF Focal Area(s):	Climate Change	Submission Date:	
Type of Trust Fund:	SCCF-A	Project Duration (Months)	36
GEF Project Grant: *(a)*	2,652,294	GEF Project Non-Grant *(b)*	
Agency Fee(s) Grant: *(c)*	238,706	Agency Fee(s) Non-Grant: *(d)*	
Total GEF Financing: *(a+b+c+d)*		Total Co-financing:	4,172,209
PPG Amount *(e):*	100,000	PPG Agency Fee(s) *(f)*:	9,000
Total GEF Resources (a+b+c+d+e+f)	3,000,000		
Project Tags:	☐ CBIT ☐ NGI ☐ SGP ☐ Innovation		
Project Sector (CCM only)	Climate Change Adaptation Sector		
Rio Markers			
- Climate Change Mitigation	☐ No Contribution (0) ☒ Significant Objective (1) ☐ Principal Objective (2)		
- Climate Change Adaptation	☐ No Contribution (0) ☐ Significant Objective (1) ☒ Principal Objective (2)		
- Biodiversity	☒ No Contribution (0) ☐ Significant Objective (1) ☐ Principal Objective (2)		
- Land Degradation	☒ No Contribution (0) ☐ Significant Objective (1) ☐ Principal Objective (2)		

Project Summary*

As a Small Island Developing State (SIDS), Belize is highly vulnerable to climate change impacts[1]. With a population heavily reliant on coastal and marine ecosystems for food security and livelihoods - especially through small-scale fisheries and tourism - the country faces increasing

[1] World Bank: Belize - Vulnerability | Climate Change Knowledge Portal (worldbank.org)

risks from ecosystem degradation and declining fish stocks. Limited national resources further constrain Belize's ability to implement effective climate adaptation responses, particularly in the targeted highly vulnerable coastal communities.

This GEF-SCCF project builds on Belize's GEF 8 BGI Integrated Program Child Project, contributing to SCCF Targets 1, 3, 4, and 5 by supporting transformational adaptation benefits for approximately 9,146 people (80% of the 10,646 total population of the climate-vulnerable coastal communities) including 3,434 artisanal fishers. The project adopts a gender-responsive approach, ensuring equitable participation of women and youth in climate adaptation planning, livelihood development, and leadership training.

Component 1 strengthens the adaptive capacity of fisher associations to support inclusive, climate-resilient fisheries, improving representation in fisheries governance, and promoting climate-smart and safe fishing practices and the participation of women as association members.

Component 2 expands access to resilient, nature-based livelihood opportunities by building climate-smart business and financial skills, prioritizing the participation of women and young people. It includes educational and vocational scholarships to support inclusive economic diversification beyond fishing.

Component 3 improves coordination, communication, and knowledge-sharing across associations and government stakeholders, integrating diverse voices into adaptive decision-making and supporting peer learning through regional exchanges.

The project is aligned with Belize's national climate policies and is embedded in the country's innovative Project Finance for Permanence (PFP), ensuring long-term sustainability beyond the initial three-year implementation phase.

Project Description Overview

Improving Stewardship and Sustainable Livelihoods			**TA/ INV**	***GEFTF***	***Co-Financing***
The objective is to strengthen the resilience of fisherfolk and fishing communities most vulnerable to climate change on Belize's Coast.					
Component	Outcome	Outputs			
COMPONENT 1: STRENGTHENED ADAPTIVE CAPACITY OF FISHER ASSOCIATIONS TO PROMOTE MORE PRODUCTIVE, CLIMATE	**Outcome 1.1:** Re-establishment and strengthening of fisher associations	1.1.1 Application or re-application of Fisher Associations to formally register with the Government, including with up-to-date MOA and Articles of Association 1.1.2 Training and financial capacity for management and administration to comply with each association's memorandum of understanding 1.1.3 Campaign drive to engage local fishing-dependent individuals as fisher association members, especially women 1.1.4 Training for associations to access and implement available grants and programs for fishing and livelihood diversification	TA	1,496,553	2,354,166

RESILIENT FISHERIES	**Outcome 1.2:** Increased transparency and confidence in national fisheries management strategies lead to increased adoption of climate-smart fishing practices by fisher associations	1.2.1 Meetings and dedicated fisher association liaison for climate and catch data sharing between Fisheries Department and Fisher Associations 1.2.2 Training and equipment for climate-smart fishing practices and fishing safety measures 1.2.3 Training and monitoring equipment for fisher associations to collect and report catch data in a digital logbook application			
COMPONENT 2: IMPROVED RESILIENT CLIMATE SMART LIVELIHOODS	**Outcome 2.1:** Increased climate resilient opportunities for livelihood diversification	2.1.1 Trainings to improve climate-smart businesses and financial management in target communities 2.1.2 In partnership with local NGO partners, fund existing successful youth engagement programs outside of fishing that provide entry points to potential employment. 2.1.3 Educational scholarship funding for fisher association families to attend vocational training and continued education	TA	519,500	817,674
COMPONENT 3: KNOWLEDGE MANAGEMENT, COORDINATION AND COMMUNICATION	**Outcome 3.1** Strengthened coordination, knowledge sharing, and communication between fisher associations	3.1.1 Gender responsive project communications strategy and plan 3.1.2 Project lessons captured and disseminated through knowledge management products 3.1.3 Peer–to-peer exchanges for associations at national and/or regional events 3.1.4 Exchange trips for fisher association members to other countries for sustainable fishing learning opportunities		368,899	564,568
Monitoring and Evaluation	Consistent project monitoring and evaluation allows for adaptive management	ME 1: Annual project reflection meetings ME 2: Timely project progress and implementation reporting ME 3: Project evaluations		141,082	237,859
Project Management Costs	PMC			126,260	198,615
TOTAL PROJECT COSTS				2,652,294	4,172,209

PROJECT OUTLINE

A. PROJECT RATIONALE

The proposed project will strengthen the climate resilience of the fisheries sector and vulnerable coastal livelihoods with an integrated, gender-responsive approach that addresses urgent adaptation needs while laying the foundation for long-term sustainability as part of Resilient Bold Belize: Belize's Project Finance for Permanence (PFP) initiative. The PFP is a significant private-public partnership to deliver systematic change in the conservation and sustainable management of marine and coastal ecosystems through building long-term financial support for Belize's marine and coastal protected areas. This initiative is led by the Government of Belize through the Blue Bond and Finance Permanence Unit (BBFPU) and World Wildlife Fund (WWF). There are five pillars within the PFP and the proposed SCCF GEF project delivers on two pillars: 1. Fisheries Management, and 2. Livelihoods and Stewardship. A GEF Blue and Green Islands Integrated Program Child Project in Belize implemented by WWF GEF Agency and executed by the BBFPU catalyzes all 5 PFP pillars and will be delivered in collaboration with this proposed SCCF project. The executing entity for the SCCF project will be the Belize Fund for a Sustainable Future (hereafter the Belize Fund), a Belize-based Conservation Trust Fund (CTF). The Belize Fund is a non-profit organization, formally incorporated on 8 March 2022 and established to undertake charitable and scientific activities that provide funding and other forms of support for conservation and climate change adaptation activities in Belize, focused on our marine resources. These activities are identified and prioritized by relevant stakeholders including the Government of Belize, and include other activities that align with the achievement of the conservation commitments of Belize arising from or related to the Blue Bond Agreement, to help the people of Belize steward a sustainable future for the country of Belize.

The Belize Fund will also be responsible for the execution of the larger PFP initiative. The funds for this project will flow through and be executed by the Belize Fund, and be dedicated to a defined scope of work to achieve the set targets, as summarized in this project proposal.

Belize Environmental Context and the Climate Vulnerabilities the project will address:

Belize has a nature-based economy with a high dependence on natural capital – particularly the marine environment. Marine products, primarily lobster and conch, are the fourth highest contributor to Belize's exports based on a non-industrialized, artisanal fishing industry, with coastal fishing communities heavily dependent on the marine resources. These communities are facing significant climate change issues – degraded reef ecosystems, declining fish resources and are directly in the path of tropical storm events. With this high dependence on the natural resources, Belize is extremely vulnerable to environmental and economic shocks. It is also challenged by economies of scale, with a population of under 400,000, and a high youth component (39.7% of the population is under 20, and 57% under 30).[2] The primarily rural demographic profile is faced with high poverty rates, and

[2] Statistical Institute of Belize, Census data, 2022 (Released 2024)

approximately 50% of Belize's population is concentrated along coastal areas, with some coastal communities lying less than 1m above sea level.

As a Small Island Developing State (SIDS), Belize suffers disproportionately from the effects of climate change, rating as 8th out of 167 countries for climate risk[1]. It is a highly vulnerable coastal, low-lying country in the Caribbean, with a pronounced susceptibility to climate change, and in 2022, was ranked the second country (relative to GDP) most affected by climate change impacts, experiencing exceptionally high economic losses and widespread disruptions to coastal communities[3]. Sea level rise, increasing sea temperatures, ocean acidification, increasing air temperatures, and the increasing intensity and unpredictability of tropical storms and droughts are already being experienced in the coastal communities and fishing sector, and are affecting coastal and marine-based livelihoods.

Belize's reef and coastal ecosystems are critical for human safety and resilience to climate change, with the Belize Barrier Reef, a UNESCO World Heritage Site, breaking the force of oceanic waves, creating the sheltered coastal waters used by the majority of free-diving artisanal fishers, as well as protecting the coastline from erosion and storm impacts. Mangroves, too, play a critical role in the protection of the coastline and coastal communities, breaking the force of storm waves and winds before they reach the coast. Mangroves also support the fishing industry, providing important fisheries nursery areas as well as contributing to the national carbon-sequestration targets under Belize's NDC. Increasing climate events coupled with unsustainable development threaten the nature-based protection of people and impact the rich biodiversity, reducing the resilience of both fishers and the communities most dependent on fishing.

Climate change impacts are reflected by coral bleaching, increased coral disease, and decreasing fish stocks, with the movement of lobster and conch (Belize's primary marine export products) into deeper, less accessible waters. Climate change projections demonstrate that Belize's fisheries will continue to degrade if anthropogenic impacts and high dependence on natural resources by both fishing communities and the tourism-based economy increasingly pressure these resources. Currently, there is insufficient national budget and planning to enhance the adaptative capacity of these coastal fishing communities, which are directly exposed to the impacts of extreme climate projections (Annex 3). Belize urgently needs investment into effective fisher- and community-led adaptation strategies that can increase the resilience of these vulnerable coastal communities heavily dependent on fisheries and most exposed to the impacts of climate change.

Belize's climate vulnerability is based on its geographic location in an area at high risk from tropical depressions, storms and hurricanes and high susceptibility to a number of hazards, including hurricanes and associated storm surges, increasing water temperatures, ocean acidification, and unpredictable flood and drought events. The country's long coastline and low-lying topography make it extremely vulnerable to flooding and sea level rise. Additionally, Belize faces risks from extreme temperature events, with an increasing number of extreme heat days per year - historical records

3 Germanwatch. (2022). Global Climate Risk Index 2025 https://www.germanwatch.org/en/cri

show that between 1960 and 2003, the frequency of hot days and hot nights increased by approximately 67 days.

Belize supports a **national fishing industry** which provides direct employment for over 3,400 commercial fishers[4], generating over US$17.6 million in annual export earnings (Table 1)[5]. A further 1,000 people are involved indirectly in processing and export of fisheries products - cumulatively, the industry indirectly supports more than 15,000 people through household incomes nationally[6].

In 2024, marine exports were primarily based on lobster and conch[7]. Lobster exports (tail and meat) were valued at approximately US$10.8 million, with conch valued at US$6.6 million, and ranked 4th in national export earnings[8] .

Product	*2020 (US$ thousand)*	*2024 (US$ thousand)*
Lobster Tail	10,534.77	9,622.41
Whole Lobster and Meat	2,380.33	1,246.30
Conch	4,846.40	6,682.58
Whole Fish / Fish Fillet	-	14.53
Total	**17,761.50**	**17,565.82**

Table 1: National fisheries product export (SIB, 2025)

Fishing is non-mechanized and ~~is~~ focused primarily on seasonal extraction of Caribbean spiny lobster (*Panulirus argus*) and the Queen conch (*Strombus gigas*). The Belize fishing industry is composed of artisanal fishers, either free diving or using traps / shades for conch and lobster, for sale to the two national fishing cooperatives or three private companies for export. Fish, whilst not a major export, are caught to supply the tourism industry and local markets, and to provide food security in the coastal communities.

Fishing is managed through traditional use zones, with users licensed to fish only in specific areas based on their customary use patterns. Fishers originate primarily from coastal communities, fishing from small sailboats or open skiffs. 4.2% of the national population are direct beneficiaries of the shallow water fisheries with ten coastal communities identified as having a high dependency on the fisheries. However, increasing climate change impacts and decreasing fish stocks are disproportionately affecting these fishers. The proposed project addresses the risk of future decline in catch and the susceptibility of vulnerable fisherfolk to climate change impacts. This represents a total population of 9,146 (4,624 male, 4,522 female).

4 Belize Fisheries Department, September 2024 data
5 SIB, 2025
6 Belize Fisheries Department, 2022
7 SIB, 2025
8 SIB, 2025

The traditional artisanal fishers that form the foundation of Belize's fishing industry are seeing the impacts of climate change on their lives, the way they fish and on the health of the reef that supports their industry, with their perceptions supported by national vulnerability assessments.[9][10] They are reporting reduced catch as a result of climate change impacts, but currently have limited input into the governance and management of the fisheries resources, and no guidance on strategies to increase climate resilience of the fishery and their livelihoods. In the most vulnerable coastal fishing communities, there have been both national and local efforts to improve fisher families' awareness of the implications of climate change and ways in which they can adapt - the local protected area managers are actively engaging youths in the communities and implementing livelihood diversification opportunities to reduce pressures on the protected areas they manage. However, they themselves face a significant gap in institutional knowledge of climate change impacts, actions that can be taken to increase resilience and resources for consistent presence and coordinated messaging.

The proposed project will strengthen the climate resilience of the fisheries sector and vulnerable coastal livelihoods with an integrated, gender-responsive approach that addresses urgent adaptation needs while laying the foundation for long-term sustainability as part of Resilient Bold Belize, Belize's Project Finance for Permanence (PFP) initiative. The PFP is a significant private-public partnership to deliver systematic change in the conservation and sustainable management of marine and coastal ecosystems through building long-term financial support for Belize's marine and coastal protected areas. This initiative is led by the Government of Belize's Blue Bond and Finance Permanence Unit (BBFPU) and World Wildlife Fund. There are five pillars within the PFP, and the proposed SCCF GEF project delivers on two of these: 1. Fisheries Management, and 2. Livelihoods and Stewardship. A GEF Blue and Green Islands Integrated Program Child Project in Belize implemented by WWF GEF Agency and executed by the BBFPU catalyzes all 5 PFP pillars and will be delivered in collaboration with this proposed SCCF project. The executing entity for the SCCF project will be the Belize Fund (the designated Conservation Trust Fund), which will also be responsible for receiving, managing, and distributing donor funds dedicated tothe larger PFP initiative. The funds for this project will flow through a transition fund managed by the Belize Fund. These funds will be dedicated to a defined scope of work to achieve set targets as summarized in this project proposal.

The fisheries increasingly struggle to secure coastal community livelihoods and food security

Climate change impacts are degrading Belize's natural capital, both inside and outside the marine and coastal protected areas. Belize's economic reliance on nature-based tourism and fisheries industries is dependent on climate-sensitive natural assets, which are at high risk as climate change impacts increase. Belize's coral reefs, vital to the fishing industry, provide essential habitats for commercially significant species such as the Caribbean spiny lobster and queen conch and support approximately 3,400 fishers directly and over 15,000 Belizeans indirectly, contributing around $28 million Belizean dollars annually to the economy (Oceana, 2022). However, with climate change impacting the health

[9] IDOM, 2025: Gap, Vulnerability and Risk Assessment for the Development of Belize's Multisectoral National Adaptation Plan: Third Stage: Vulnerability and Risk Assessment Analysis', validation draft (IDOM, draft, October 2025)

[10] IISD, 2025. Climate Risk Profile: Belize CAPA Report IISD (April 2025).

of the reef ecosystems, fish populations are declining, threatening livelihoods linked to the tourism and fishing industries. The 2024 Mesoamerican Reef Report Card indicates that most of the 286 monitored reef sites in Belize are in "poor" or "critical" condition, with significant declines in coral cover and fish biomass (HRI, 2024), with more recent feedback following the 4th global bleaching event (2023-2024) suggesting that there has been significant reef mortality in response to the high sea surface temperatures[11]. A recent assessment suggests that key commercial species, including groupers and snappers, have experienced a 60% decline, signaling overfishing and a need for strengthened management (Sea Around Us, 2024). This has led to highly vulnerable coastal fishing communities that are not only dependent on declining fisheries resources for income security, but are also exposed to, and experiencing, increased climate change impacts.

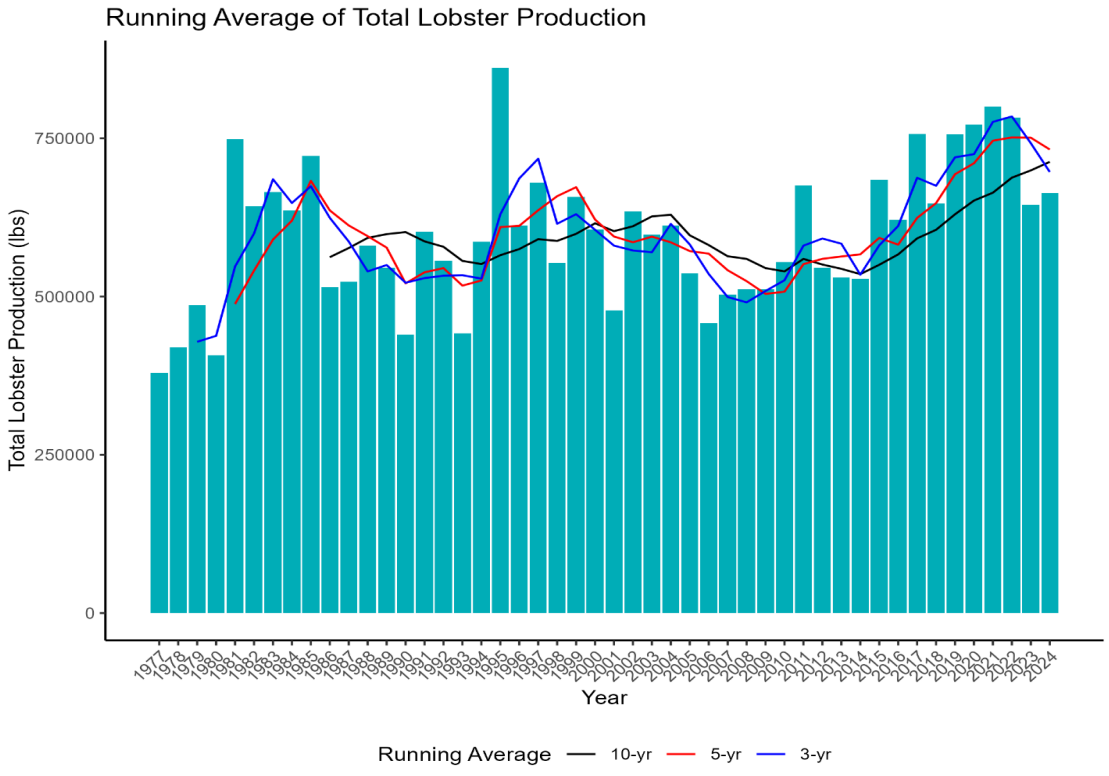
[11] Walker, Z. 2025 (draft). National Coral Reef Resilience Plan / National Coral Reef Monitoring Workshop Outputs (August, 2025)

Status of Belize Fisheries

Caribbean Spiny Lobster Status

Belize's Caribbean spiny lobster fishery remains one of the country's most valuable marine resources, providing critical income and employment for coastal communities, and accounting for 67% of capture fishery export earnings. The spiny lobster fishery in Belize is regulated through harvest controls measures such as closed seasons, size restrictions, gear prohibitions, and no take-areas. Free diving using hook sticks, and wooden traps and shades are the most common gear types used in harvesting lobster, accounting for over 90% of extraction.

The commercial lobster fishery in Belize started in the mid to late 1950s. Catches have increased rapidly with major fluctuations since 1977 (Figure 1). The Belize Fisheries Department (BFiD) is currently updating a national baseline assessment for this fishery and preliminary results show that the fishery has remained stable or increasing over the past decade with only a modest 7% decline in total catch in recent years[12]. That is, in the past decade, the average lobster catch has increased, however total catch has declined in the past 2 years from a 10-year running average of 712,824 lbs to 663,553 lbs in the 2024 lobster season. Most of the catch is exported, mainly to the United States.



12 Belize Fisheries Department (2025): Baseline National Assessment of the Caribbean Spiny Lobster (*Panulirus argus*) Fishery in Belize. *Draft under review*

Figure 1: Total spiny lobster production (lbs) from 1977 to 2024 with 10-year, 5-year, and 3-year running averages (BFID 2025).

The BFID's most recent assessment combined fishery-dependent data from cooperatives with fishery-independent monitoring to evaluate key indicators of the Caribbean spiny lobster fishery in Belize, including total production, catch-per-unit-effort (CPUE), size structure, and Spawning Potential Ratio (SPR). Results show a relatively stable fishery over the past decade, with only a modest decline in total catch in the past years. The average carapace length of landed lobsters has increased to 86.6 mm, reflecting both market demand and improved compliance with U.S. import regulations (BFiD 2025).

However, there are emerging signs of concern. National CPUE has declined gradually, largely due to rising fishing effort without proportional increases in catch. Length-based estimates suggest reproductive capacity in some areas is approaching or below precautionary thresholds, while long-term production models (1977–2024) indicate possible overexploitation. In addition, inconsistencies in effort reporting and gear use highlight the need for standardized monitoring. These findings underscore the importance of maintaining precautionary management measures to sustain the long-term health and productivity of this valuable fishery.

Queen Conch Fishery Status

The queen conch fishery is a cornerstone of Belize's coastal economy and food security, providing livelihoods for thousands of Belizeans and contributing significantly to national exports13. Conch production has been increasing since 1977 (Figure 2). In 2023 alone, ~ 904,900 pounds of conch meat were exported, generating an estimated USD $6.6 million in revenue. Conch are harvested mainly by free-diving fishers and measured to ensure compliance with national size regulations before export. The Belize Fisheries Department (BFID) conducts annual stock assessments to determine population abundance and set the Total Allowable Catch.

13 Belize Fisheries Department (2025): Baseline National Assessment of the Queen Conch (*Strombus gigas*) Fishery of Belize. *Draft under review*

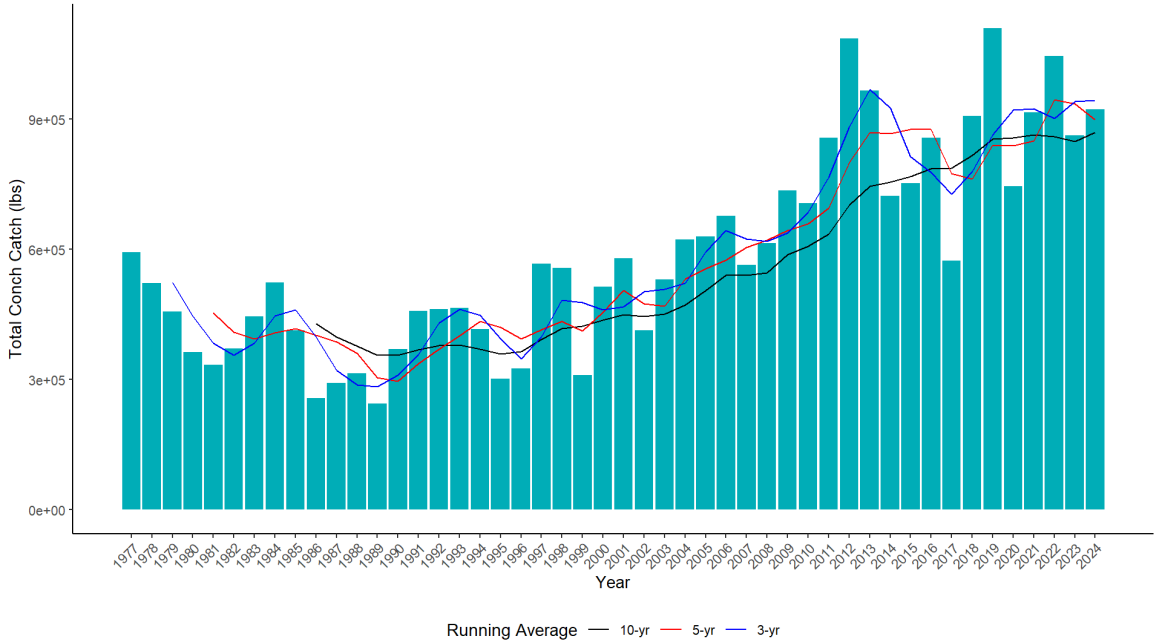


Figure 2: Total catch production (lbs) from 1977 to 224 with 10-year, 5-year, and 3-year running averages (BFID 2025).

Using fishery-dependent data from cooperatives and fishery-independent surveys across Belize, the BFiD also analyzed multiple indicators to assess the status and performance of the queen conch fishery. These included fishing mortality estimates from length-based Spawning Potential Ratio (LBSPR) models, surplus production modeling and trends in size structure and density. The models indicate that fishing mortality in 2024 exceeded sustainable levels, while biomass was near or slightly below equilibrium. Without management adjustments, continued high harvest rates could reduce future yields and reproductive capacity. Length-based assessments support these findings, indicating limited reproductive escapement. The 2024 mean shell length (144 mm) was below the legal minimum of 178 mm, with 78% of individuals undersized. However, these results may overestimate fishing pressure, as national surveys do not include known spawning aggregation sites where adults are concentrated.

This indicates persistent fishing pressure and reduced reproductive potential for conch. As with the lobster fishery, continued precautionary management is warranted, including strict enforcement of size limits, protection of spawning habitats, and expanded fishery-independent monitoring to improve spatial coverage and data quality to rebuild and sustain this culturally and economically important fishery in Belize.

Finfish Fishery Status

Healthy finfish populations are critically important to Belize. Finfish have traditionally been of economic importance for local consumptions for Belizeans and tourists, as well as supporting dive and ecotourism, especially in major coastal communities. However, overfishing is threatening fish communities throughout Belize waters. Maintaining healthy fish populations is critical to preserving the ecological balance and reef functions that support Belize's coral reef resilience amid increasing stressors, including ocean warming and climate change.

A multi-indicator assessment, conducted by the Belize Fisheries Department, integrating fishery-dependent (2017–2025) and fishery-independent (2006–2023) data reveals sustained pressure on Belize's commercially important finfish species, with clear differences by gear type, species, and community[14] (Figure 3). Based on fisheries dependent data, there was a clear decline in total reported catch (in lbs) for 26 commercially important reef-associated species between 2017 and 2025. Most species have shown sharp declines in landings after 2019 or 2020, indicating a contraction in harvest volumes. Species such as gray snapper, lane snapper, crevalle jack, and yellowfin mojarra has some of the highest historical landings with annual catches over 100,000 lbs in peak years. However dramatic declines have been seen in recent years for most species.

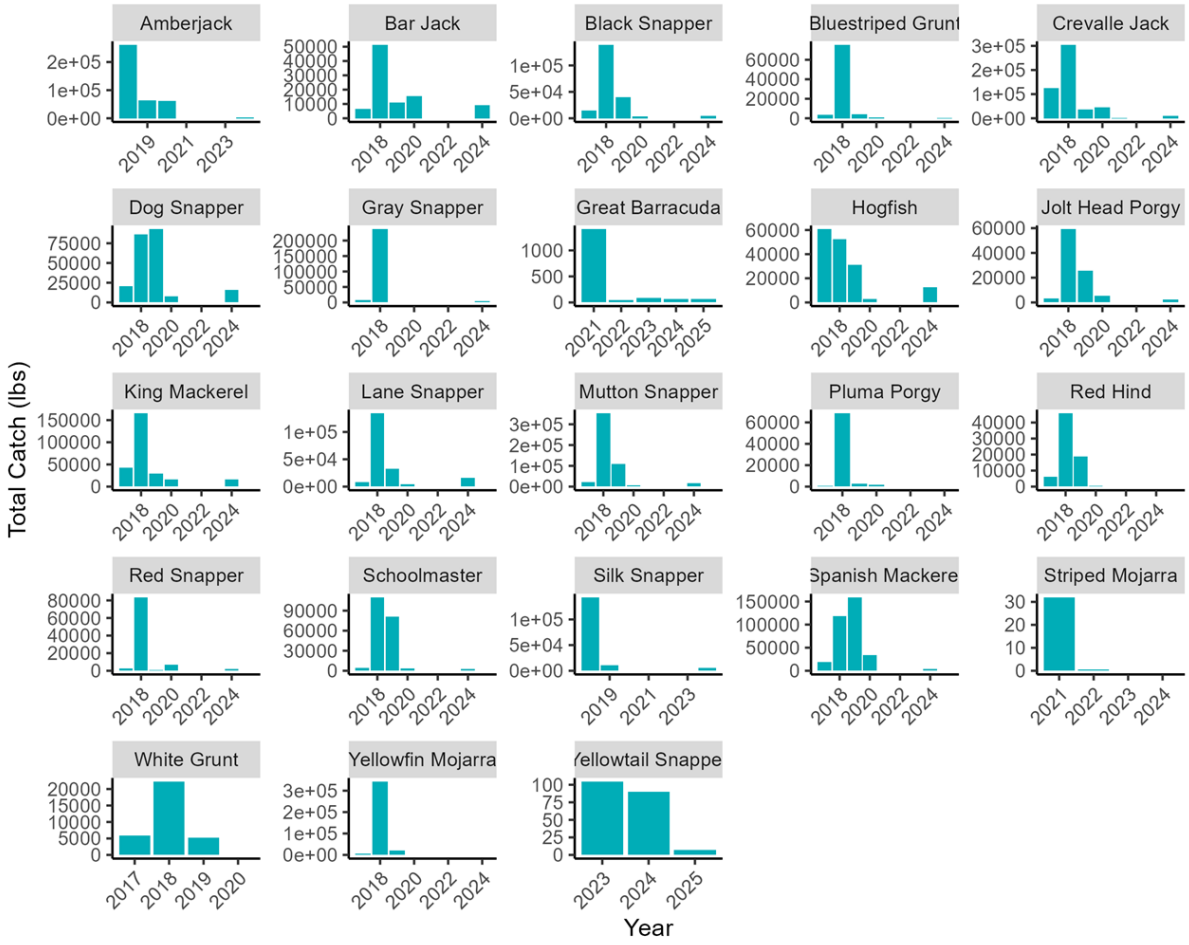


Figure 3: Total catch (lbs) of several finfish reported from beach traps (BFID 2025).

Despite regional and temporal data gaps, consistent evidence from landings, CPUE, size-based indicators, and visual census data points to biological and recruitment overfishing across much of the fishery. For example, fishery-independent surveys (AGGRA, 2006–2023) confirm persistent declines in

14 Belize Fisheries Department (2025): Baseline Assessment of the Belize Multi-species Finfish Fishery. *Draft under review*

high-value species such as mutton snapper, gray snapper, black grouper, and cubera snapper in the last 20 years, with limited recovery signals in a few species.

Climate Change Impacts on Belize's Fisheries

Climate change is having a significant impact on Belize's marine ecosystems. Belize's reef has experienced unprecedented mortality during the recent 4th global bleaching event, and whilst the data is still coming in, the indications are that the remaining structural corals in some reef areas have been lost, after years of impacts from increased sea surface temperatures and disease such as the stony coral tissue loss disease**.** The global tipping point for ocean acidification has just been exceeded, with concerns on how this will impact mollusks and crustaceans such as the Queen conch and spiny lobster. The spiny lobster fishery is increasingly vulnerable to rising sea temperatures, which impose physiological stress, reducing growth and compromising reproduction. The degradation of complex coral habitats through bleaching and storm damage further threatens lobster populations, reducing reef rugosity, eliminating critical shelter[15]. Ocean acidification presents an additional long-term risk, potentially impairing exoskeleton development, while shifts in ocean currents may disrupt the delivery of planktonic larvae, leading to unpredictable recruitment.

The Queen Conch fishery, however, confronts a more immediate and severe risk due to the species' specific biological constraints. This commercially and culturally significant mollusk is exceptionally sensitive to elevated sea temperatures, which can cause direct mortality and, most critically, lead to catastrophic reproductive failure by halting spawning activity[16]. Shifts in spawning and nursery sites have already been observed, and conch populations are increasingly using deeper waters. Ocean acidification directly attacks the conch's aragonite shell, making it energetically costly to grow and leaving juveniles with weakened protection[17]. This is compounded by increasing degradation of essential seagrass nursery habitats from coastal development and watershed pollution.

For commercially important finfish such as snapper and grouper, the impacts cascade through the entire reef ecosystem. Underlying this is the threat of the collapse of the complex coral architecture, which provides essential shelter, foraging areas, and recruitment habitats. Indirect effects, such as the disruption of the calcifying prey base by ocean acidification and sensory impairment in larval fish, further undermine population stability. These species also face direct physiological stress from warmer waters, while more frequent and intense storms cause immediate habitat destruction[18]. For those species dependent on spawning aggregation sites, potential spawning habitat was projected to decline[19] and the finely tuned environmental cues that trigger these aggregations are being disrupted, and changes in the strength and direction of major currents risk sweeping the planktonic eggs and

[15] Ross E, Behringer D. Changes in temperature, pH, and salinity affect the sheltering responses of Caribbean spiny lobsters to chemosensory cues. Sci Rep. 2019 Mar 13;9(1):4375.

[16] Aranda, D. A., & Manzano, N. B. (2017). Effects of near-Future-Predicted Ocean Temperatures on Early Development and Calcification of the Queen Conch Strombus Gigas. Aquaculture International, 25(5), 1869-1881

[17] Parker, L.M., P. M. Ross, H. O. Pörtner, E. Scanes and J. M. Wright (2013). Predicting the Response of Molluscs to the Impact of Ocean Acidification. *Biology* 2013, *2*, 651-692;

[18]Coffill-Rivera, M. E. A Review of Grouper Fisheries Management in the Southeastern and Caribbean U.S.: Challenges, Successes, and Future Directions https://www.preprints.org/frontend/manuscript/4e20af3b93279ea09a9fddb56e567aba/download_pub

[19] Asch RG, Erisman B. Spawning aggregations act as a bottleneck influencing climate change impacts on a critically endangered reef fish. *Divers Distrib*. 2018; 24: 1712–1728.

larvae far from their intended settlement areas. This larval disconnect could render even successful spawning events biologically ineffective, not only for the local population but for regional fish stocks dependent on these source sites for replenishment. The cumulative result is a forecast of declining catches, smaller average fish sizes, and increased volatility, challenging both traditional fishers and the health of the reef ecosystem itself.

The combined impacts of unsustainable fishing pressure and climate change may well be more than the commercial marine species can withstand, especially if the fishers themselves don't understand the implications of the intangible threats of climate change to the fishing industry, or identify ways in which they can reduce their pressure on the marine resources and increase their resilience.

Project Target Areas

The Target area is defined as the fishers and their families in the ten most vulnerable coastal fishing communities, using the fisher associations as the primary intervention points in each community. The communities were identified through a socioeconomic and climate analysis conducted at a workshop with government representatives from the fisheries and tourism sector, protected area managers, NGO representatives and coastal community members to determine which coastal fishing communities are most vulnerable to climate change. Out of 19 coastal communities that include fishing as a livelihood, 10 were identified as the target for the proposed project interventions based on their: i) Level of Direct Dependence on commercial fishing, ii) lack of opportunities for employment beyond fishing, iii) Accessibility, iv) Socio-economic vulnerability, and v) Vulnerability to climate change (Map 1, Tables 2 and 3)20. These coastal communities have also been highlighted in a vulnerability assessment in preparation for the development of a National Adaptation Plan.21 Whilst the assessment is not yet complete, it has reached the validation stage and so has been included.

20 PFP Livelihoods and Wellbeing Workshop, 11th October, 2023

21 Whilst the assessment is not yet complete, it has reached the validation stage and so has been included.

Map 1: targeted fishing-dependent communities

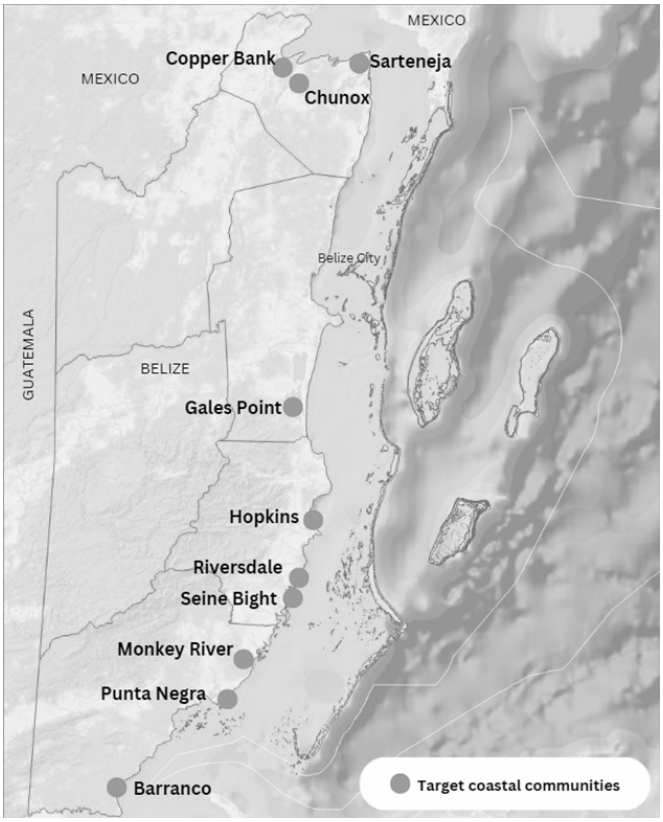


Table 2: Scoring Matrix for Coastal Community Vulnerability Criteria (PFP Workshop, 2023)

Community SELECTED	Direct Level of Dependence on commercial fishing (A)	Opportunities for employment beyond fishing (B)	Accessibility (C)	Socio-economic vulnerability (D)	Climate change Vulnerability (E)	Average
Chunox	3	3	2	2	3	2.5
Sarteneja	3	3	2	2	3	2.5
Copper Bank	3	2	2	2	3	2.3
Riversdale	3	3	3	2	3	3.0
Punta Negra	1	3	3	3	3	3.0
Barranco	1	3	3	3	3	3.0
Gales Point	1	3	3	3	3	3.0
Monkey River	2	3	3	2	3	2.8
Hopkins	2	3	2	2	3	2.5
Seine Bight	1	3	1	3	3	2.5

	High (Score = 3)		Medium (Score 2)		Low (Score = 1)

Table 3: Criteria for identification and selection of target fishing communities (See Annex 4: Site Selection)

CRITERIA	1	2	3
Level of Direct Dependence on Commercial Fishing	<25% of households primary income from fishing	25 - 50% of households primary income from fishing	>50% of households primary income from fishing
Opportunities for employment beyond fishing	Multiple opportunities exist in other sectors	Some employment opportunities exist in other sectors - e.g., tourism	Very difficult to find an alternative employment in the community
Accessibility	The community is easily accessible, with options for daily travel for employment	The community is accessible but not for daily travel for employment	Access is challenging to community development and daily travel for employment outside the community is not feasible
Socio-economic vulnerability	Only a small number of households are considered vulnerable (lack of education, cultural limitation, language, crime)	Some number of households are considered vulnerable	A significant number of households are considered vulnerable
Climate change vulnerability	The community is considered to be resilient to climate change impacts	The community is considered to be somewhat resilient to climate change impacts but with some vulnerability	The community is considered to be very vulnerable to climate change impacts

Target Communities	Total	Male	Female	# House holds	# commercial fishers 2024	% of pop that are fishers	% of men who have fishing licenses	% women who have fishing licenses
Chunox	1,820	937	883	381	236	13.0	25.2	
Copper Bank	593	294	299	113	113	19.1	38.4	
Sarteneja	1,873	961	912	530	324	17.3	33.4	0.003
Gales Point	449	285	164	126	16	3.6	3.9	3.05
Hopkins	1,767	801	966	572	86	4.9	10.2	0.41
Riversdale	79	38	41		16	20.3	39.5	2.439
Seine Bight	1,895	991	904	465	12	0.6	1.2	
Punta Negra	13	7	6		4	30.8	28.6	33.3
Barranco	139	62	77	50	4	2.9	6.5	
Monkey River	193	95	98	42	41	21.2	41.1	1.0
	9146	**4624**	**4522**		**852**			

Census Data, 2022: Statistics Institute of Belize, 2024
Community and fishing license data, Belize Fisheries Department, September 2024

These coastal communities are considered the most vulnerable to climate change impacts,[22] with sea level rise posing the most acute threat. Observed increases already exceed 3.7 mm per year, with NCCPSMP projections of +9.1 cm by 2050 and up to +1.03 m by 2121 under high-emission scenarios. These figures mirror regional analyses from the Caribbean Community Climate Change Centre (CCCCC, 2021), which warn that SIDS in the region could face over 1 m of sea level rise within the century. In Belize, where six of the ten project target communities are situated below 2 m above sea level, this translates into chronic flooding, coastal erosion, and salinization of groundwater aquifers that provide coastal communities with potable water[23]. The IPCC AR6 has also highlighted that as sea levels rise and extreme events intensify, "coastal communities face limits due to financial, institutional, and socioeconomic constraints and a short timeline for adaptation implementation, reducing the efficacy of coastal protection and accommodation approaches and resulting in loss of life and economic damages". For coastal communities reliant on nature-based coastal protection, 'limits to adaptation' are projected to begin at 1.5°C of warming – a tipping point that has already been passed - making the solutions proposed in this grant even more important.[24,25]

Climate-driven hazards compound socio-economic vulnerability. Projected rainfall declines compound this vulnerability. Belize has already experienced a 3.1 mm/month/decade decline in rainfall since 1960, and NCCPSMP scenarios forecast a further ~50% reduction in annual rainfall by 2100, with longer dry seasons punctuated by intense rain events. The IPCC AR6 Caribbean assessment projects increased drought frequency, with cascading effects on food security and freshwater supply. Reduced rainfall undermines fishers' ability to diversify into small-scale agriculture, limiting adaptation pathways. With fisheries already showing declines of up to 60% in key commercial species such as groupers and snappers, climate change will significantly undermine household income security, food sovereignty, and Belize's national export earnings from lobster and conch.

The proposed project will strengthen community-level adaptation capacity, helping fisher associations and vulnerable households respond effectively to quantified risks that will otherwise accelerate over the coming decades. Collective organization through fisher associations transforms adaptation from an individual survival strategy into a coordinated community resilience system, enabling Belizean fishers to anticipate, plan for, and recover from climate-related shocks more effectively while sustaining marine ecosystem health and livelihoods (Table 4). The proposed project strategy strengthens the fisher associations as the recognized intervention points in these fisheries-dependent communities, to build community-wide resilience. This aligns fully with Belize's National Climate Change Policy, Strategy and Action Plan (2021) and the National Determined Contributions (NDCs 3.0),

[22] Climate Risk Profile: Belize (2025). International Institute for Sustainable Development, Wildlife Conservation Society, and World Wildlife Fund for Nature

[23] National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize,

[24] United Nations Secretary General's Climate Action Team (2024). Surging Seas in a warming world. Technical Brief

[25] IPCC AR6 WGII Technical Summary (2022). https://www.ipcc.ch/report/ar6/wg2/chapter/technical-summary/

which recognize that community engagement, awareness and capacity building will be of fundamental importance towards the attainment of the national mitigation and adaptation goals, with an emphasis on local action.

TABLE 4: Adaptive Advantage of Collective Organization

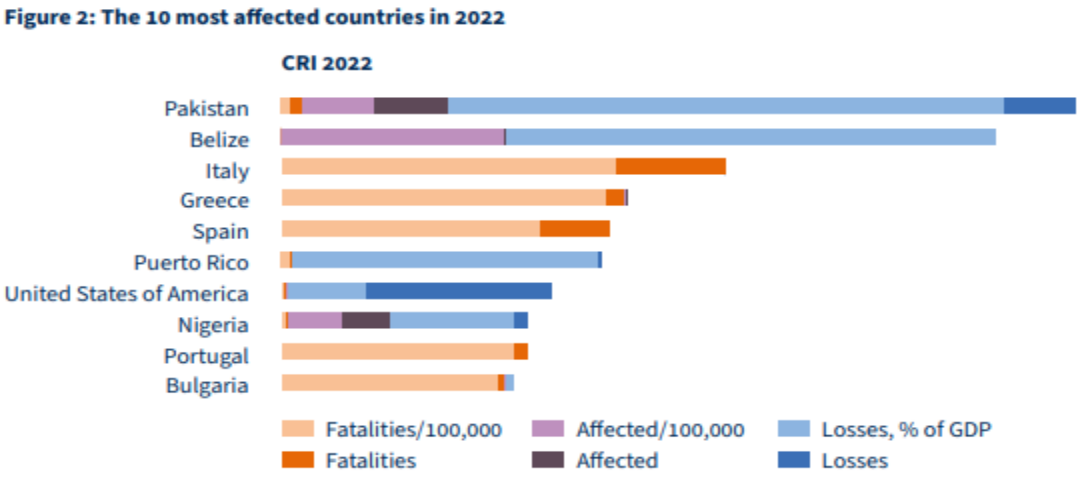
Dimension	Individual (Fragmented) Approach	Collective (Organized Association) Action	Adaptive Advantage of Collective Organization
Access to Information & Early Warnings	Limited awareness of climate forecasts, bleaching alerts, or policy updates	Shared access through association training, communication networks, and partnerships with agencies (e.g., Fisheries Dept., Met Service)	Timely, coordinated decision-making based on accurate climate information
Decision-Making & Adaptive Planning	Reactive, individual coping strategies (e.g., illegal fishing in conservation zones)	Collective development of adaptation plans, seasonal closures, and input into national policies and regulations	Increases coordination and compliance with adaptive measures
Economic Resilience	Highly vulnerable to income shocks and resource declines	Pooling of resources, access to financing, and livelihood diversification through associations	Reduces individual risk and stabilizes household income during climate events
Governance & Policy Influence	Limited voice in fisheries governance and policy processes	Recognized representation in national fisheries and adaptation planning	Enhances inclusion in decision-making and equitable policy outcomes
Knowledge & Skills Sharing	Informal, fragmented exchange of experience	Structured peer learning, mentoring, and institutional training	Strengthens capacity (and engagement) to adopt climate-smart practices across members
Social Cohesion & Support Networks	Weak social capital; limited safety nets	Stronger trust, solidarity, and mutual aid within association	Builds social resilience and collective response capacity during crises

Climate Trends

Belize was ranked second as one of the countries most affected by extreme weather events in 2022[26] (Figure 4), reflecting the passage of Hurricane Lisa (Category 1), and its extreme exposure to temperature rise, sea level rise, and intensified hurricanes. Hurricane Lisa caused significant damage to houses, property, roads, and loss of livestock. 5,000 homes were damaged, with more than 172,000 people affected, and an economic loss estimated at over US$104 million[27].

[26] Germanwatch (2025). Climate Risk Index
[27] Germanwatch (2025). Climate Risk Index

FIGURE 4: BELIZE RANKING: 10 COUNTRIES MOST AFFECTED BY EXTREME WEATHER EVENT IN 2022 (GERMANWATCH, 2025)



An analysis of climate risk for the land use, human settlement and infrastructure sector reveals a spatially heterogeneous but increasingly concerning pattern of vulnerability for communities in Belize under both current and future climate conditions[28]. National modeling under the NCCPSMP (2021) projects that Belize's mean surface air temperature will increase by +1°C within 100 years under mid-range scenarios, with potential extremes of up to +8°C under pessimistic projections. These findings align with IPCC AR6 projections for Central America and the Caribbean, which anticipate continued warming above global averages, with heat stress and marine temperature extremes becoming increasingly frequent (IPCC, 2021). For fishing communities, this means greater health risks from prolonged exposure at sea, rising spoilage rates for catch, and shifts in lobster, conch, and finfish populations into deeper waters, exacerbating safety risks for divers.

Belize is already experiencing negative impacts of climate change on both ecosystems and livelihoods, as observed through increased sea surface temperatures, air temperatures, ocean acidification, increased frequency and intensity of tropical cyclones, sea level rise and decreased levels of precipitation (Figure 5).[29],[30]

[28] IDOM (Validation Draft, 2025). Gap, Vulnerability and Risk Assessment for the Development of Belize's Multisectoral National Adaptation Plan `

29 National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize, 2021

30 IDOM, 2025: Gap, Vulnerability and Risk Assessment for the Development of Belize's Multisectoral National Adaptation Plan: Third Stage: Vulnerability and Risk Assessment Analysis', validation draft (IDOM, draft, October 2025)

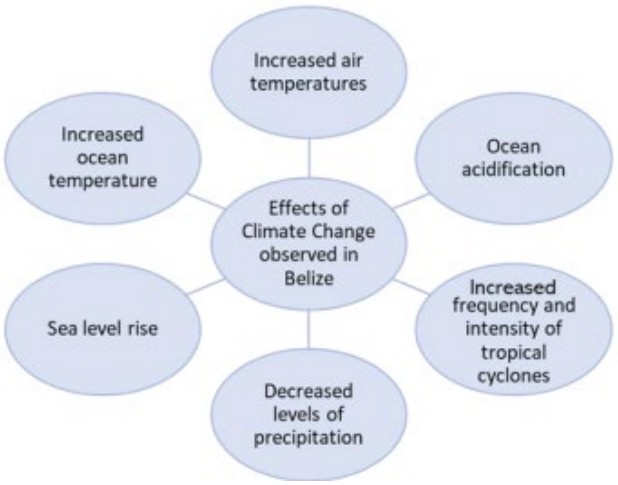


FIGURE 5: IMPACTS OF CLIMATE CHANGE OBSERVED IN BELIZE (NCCPSMP, 2021)[31]

The following Representative Concentration Pathways (RCPs) (IPCC) will be used to describe the potential impacts of climate change (Table 5):

- **Optimistic Scenario:** RCP4.5. This scenario assumes a future where global greenhouse gas emissions continue to rise but at a slower rate compared to the high-emission scenario. Climate change impacts of highest national concern in Belize are sea level rise, and the increased frequency and intensity of tropical cyclones, disrupting economic activities, damaging infrastructure, and severely impacting coastal fishing communities. This is compounded by the impacts of increasing sea surface temperatures and ocean acidification on marine ecosystem health – particularly the coral reefs, of critical importance in supporting both the fishing and the tourism industries, and the national economy.
- **Pessimistic Scenario:** RCP6. This scenario assumes that global greenhouse gas emissions continue to rise significantly without any substantial efforts to mitigate them. There will be extreme climate change impacts in Belize, including more frequent and intense natural disasters, significant sea-level rise leading to the potential for displacement of the most vulnerable coastal communities in the long term, and widespread ecological and societal disruptions.

31 National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize,

Climate Parameter	50 years	100 years
Sea Level Rise 2021: 0	RCP 2.6: +16.40 RCP 4.5: +20.40 RCP 6.0: +21.50	RCP 2.6: +35.00 RCP 4.5: +91.30 RCP 6.0: +103.90
Sea surface temperature 2021: 28.19°C	29.20°C	30.06°C
Ocean acidification Mean: 0 Peak: 0	Mean: -0.020 Peak: -0.032	Mean: -0.020 Peak: -0.032
Increased air temperature **Max (2021):** 24.68°C **Min (2021):** 19.96°C **Mean (2021):** 22.93°C	RCP 2.6 Max: 25.16°C Min: 19.96°C Mean: 23.20°C RCP 4.5 Max: 26.11°C Min: 20.15°C Mean: 23.32°C	RCP 2.6 Max: 26.42°C Min: 19.96°C Mean: 23.61°C RCP 4.5 Max: 32.65°C Min: 14.11°C Mean: 23.92°C

TABLE 5: Climate Predictions for Belize (Adapted from NCCSPMP, 2021)

Evidence and predictions for the climate change impacts on fishing and fishing communities[32,33] is supplemented by local community surveys conducted in the most vulnerable coastal communities, providing local data on climate change perceptions and impacts already being experienced by people[34]. To identify climate change impacts seen in communities and the level of understanding of climate change, consultations were held with community members across the coastal communities from 2021-2023. 66.7% of 201 coastal community residents interviewed identify climate change as an increasing issue[35]. For fishers reliant on seasonal fish runs along the coastline, the seasonal changes are causing the timing of the runs to be less predictable and is now considered to be a month later than normal. At sea, fishers are exposed daily to increased heat, with risks of dehydration, heatstroke and associated impacts, and often fish far from drinking water sources. Heat was also identified as an increasing risk to the health of residents in the communities, particularly with the associated impacts on those with diabetes.

There is also a high level of recognition in the coastal communities of the impacts on agriculture, with unpredictable shifts in growing seasons resulting in crop failure – reducing the options for fishers wanting to shift to agriculture to diversify their income base[36].

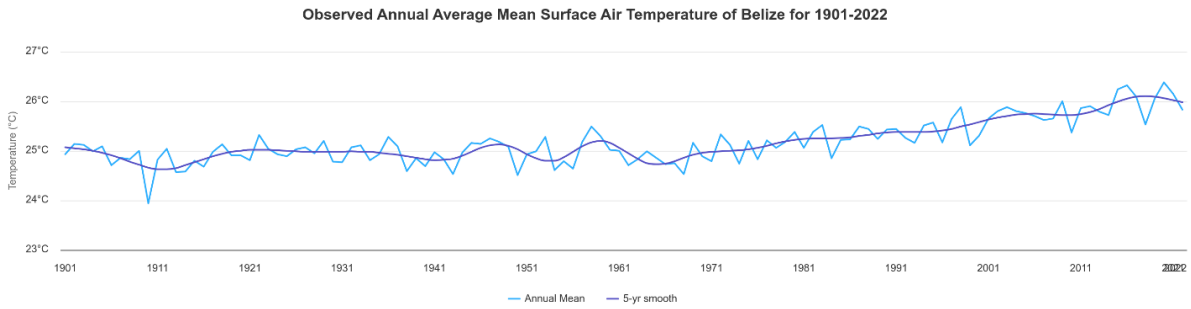
[32] IDOM, 2025: Gap, Vulnerability and Risk Assessment for the Development of Belize's Multisectoral National Adaptation Plan: Third Stage: Vulnerability and Risk Assessment Analysis', validation draft (IDOM, draft, October 2025)
[33] Climate Risk Profile: Belize CAPA Report IISD (April 2025).
34 WWF Climatecrowd.org. 201 interviews in 2023
35 WWF Climatecrowd.org. 201 interviews in 2023
36 WWF Climatecrowd.org. 201 interviews in 2023

AIR SURFACE TEMPERATURE

In Belize, temperatures follow seasonal patterns, with cooler temperatures from November to February and warmer months from May to September. The mean **annual surface air temperature** has increased by 0.45°C since 1960, an average rate of 0.10°C per decade, with a gradual warming from 1901 to 2022 (Figure 6). The average number of 'hot' days per year in Belize (days exceeding 10% of current average temperature) has increased by 18.3% between 1960 and 2003[37], with 50 extreme heat days forecast for 2024[38]. The projection for Belize under the more optimistic 4.5 scenario is of a maximum increase of 1.14°C increase in the next 50 years, but with more intense temperature extremes – heat waves and cold spells. The more pessimistic scenario would result in an increase of 8°C over the same time frame (Table 6).

MODEL	PARAMETER	2021	25 years	50 years
RCP4.5	Max	24.68°C	25.23°C	26.11°C
	Min	20.15°C	20.15°C	20.15°C
	Mean	22.93°C	23.23°C	23.32°C

Table 6: Surface air temperature projections for Belize (NCCPSMP, 2021)



___ annual mean temperature; ___5-year smoothed average

FIGURE 6: ANNUAL AVERAGE MEAN SURFACE AIR TEMPERATURE OF BELIZE
Source: World Bank Climate knowledge Portal, Country Belize.

37 World Bank, accessed 2025. https://climateknowledgeportal.worldbank.org/country/belize/climate-data-historical?utm_source=chatgpt.com
38 Belize Meteorological Centre, 2024

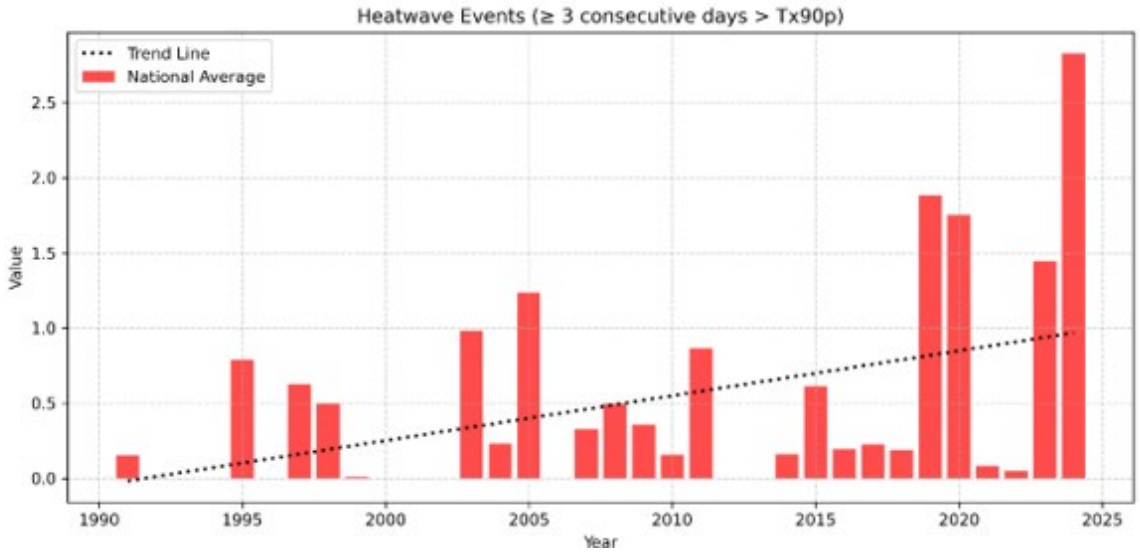


FIGURE 7: ANNUAL MEAN NUMBER OF HEATWAVE EVENTS (HWN) IN BELIZE (1991–2024). The frequency of heatwave events shows a rising trend, peaking in 2024, reflecting increased risk of extreme heat affecting Human Health, Tourism, and Infrastructure sectors *Source: IDOM, elaborated with NMS data, 2025*[39]

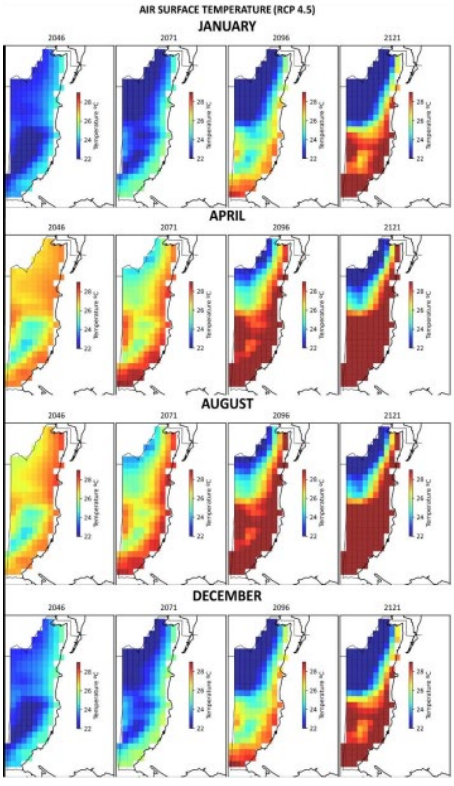


FIGURE 8: PREDICTED AIR SURFACE TEMPERATURES IN BELIZE PER SEASON (JANUARY, AUGUST AND DECEMBER) AND YEAR (2046, 2071, 2096 AND 2121) UNDER THE 4.5 RCP SCENARIO (NCCSMP, 2021)

Heatwave Events (HWN) and Very Hot Days (TXx) show pronounced upward trends, especially after 2010, peaking in

[39] IDOM, 2025: Gap, Vulnerability and Risk Assessment for the Development of Belize's Multisectoral National Adaptation Plan: Third Stage: Vulnerability and Risk Assessment Analysis', validation draft (IDOM, draft, October 2025)

2024 (Figure 7)[40], reflecting a growing risk of heat-related stress, impacting the health of both fishers and their families. The increasing heat is already directly impacting fishing effort for catching conch and lobster (the primary fisheries products), with free diving fishers identifying the need to return the catch to the boat more frequently to deposit their conch and lobster catch on ice, to avoid the catch spoiling in the warmer air temperatures. The heat also increases the heat stress on the fishers, who are unprotected from the direct sunlight and temperatures whilst on the sea for up to 20 days at a time, with increased health risks.

SEA SURFACE TEMPERATURE

Sea surface temperatures have shown increases of 0.5 to 1.0°C since the mid-20th century (Figure 9), leading to increasing coral bleaching and coral susceptibility to diseases (most recently, Stony Coral Tissue Loss Disease), causing high mortality in structural corals across Belize. Coral reefs have been impacted by climate change for more than 25 years, with the first significant regional bleaching event occurring in 1998. The fourth global event, the most intense to date, started in 2023 and is ongoing. For coral reefs, “the global tipping point thresholds have already been exceeded, and therefore these systems are in an overshoot state and are reliant on policy actions to bring stressor levels back within tipping point limits[41][42]. For Caribbean coral systems, projections from 2013 suggest "maximum habitat loss of 43% by 2100 in RCP4.5 and 82% in RCP8.5" with Caribbean/Atlantic-trained models showing "83% of global habitat lost by 2100 for RCP4.5 and 88% for RCP8.5[43].

Fishers are experiencing the impacts of **increasing water temperatures** , with fish, lobster and conch moving to deeper, cooler water further from the coast as a result of warming waters. This is forcing fishers to go further out to sea and for longer periods of time for ultimately less product and income. Those who free dive for lobster and conch are having to dive an additional 20 feet deeper (to 90 feet), with increased risk to health and life, as lobster and conch seek cooler waters.[44]. 95% of fishers report that they consider that climate change is contributing to it being harder to catch fish now compared to 20 years ago, and 92% of fishers report that they now catch fewer fish than they did 20 years ago[45].

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[40] IDOM, 2025: Gap, Vulnerability and Risk Assessment for the Development of Belize's Multisectoral National Adaptation Plan: Third Stage: Vulnerability and Risk Assessment Analysis', validation draft (IDOM, draft, October 2025)

41 P. Pearce-Kelly, A. H. Altieri, J. F. Bruno, C. E. Cornwall, M. McField, A. I. Muñiz-Castillo, J. Rocha, R. O. Setter, Charles Sheppard, R. M. Roman-Cuesta, and Chris Yesson (2025). Considerations for determining warm-water coral reef tipping points. Earth System Dynamics, 16, 275–292, 2025

42 The IPCC (2022) defines a Tipping Point as “a critical threshold beyond which a system reorganizes, often abruptly and/or irreversibly”. For corals, this would be a shift to first weedy coral species, and then to an algal dominated reef

43 Freeman, I., Kleypas, J, Miller (2013) Coral reef habitat response to climate change scenarios. PLoS one 8(12): e82404. doi:10.1371/ journal.pone.0082404

44 Validation Workshop for Vulnerability and Livelihood Assessment for Chunox and Sarteneja Villages. September 2024. Ministry of Blue Economy and Disaster Risk Management

45 WWF Climatecrowd.org. 201 interviews in 2023

Climate change scenarios show sea surface temperatures in Belize continuing to rise at a rate of approximately 0.5°C every 25 years, with an increase of 1°C expected within the next 50 years[46] (depending on greenhouse gas emission scenarios and global climate policies.[47] (Figure 10). The impacts on the health of the reef, marine life and fisher and tourism livelihoods it supports are already being observed, with increasing coral bleaching and disease, and will increase in the future. National live coral cover has already declined from 43% (from historical records)[48] to an average of 15% in 2023[49], with increased sea surface temperatures reducing the resilience of coral reefs to other factors such as coral disease and anthropogenic impacts (overfishing, pollution etc.).

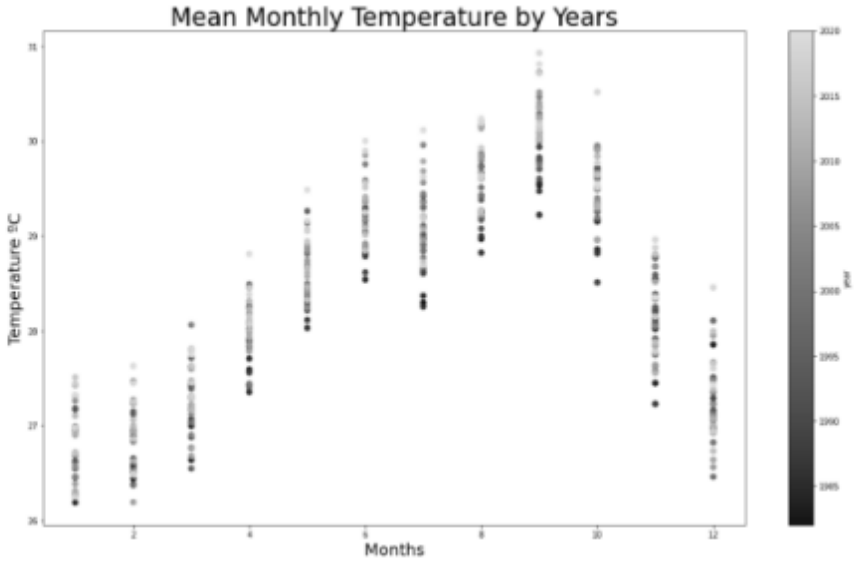

FIGURE 9: SEA SURFACE TEMPERATURE VALUES PER MONTH AND YEAR (NCCSMP, 2021)

46 Belize's National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize, 2021
47 IPCC. (2019). Special Report on the Ocean and Cryosphere in a Changing Climate
48 Jackson, J., M. Donovan, K. Cramer and V. Lam; Status and Trends of Caribbean Coral Reefs 1970-2021. Global Coral Reef Monitoring Network
49 M. McField, M. Soto, R. Martinez, A. Giró, C. Guerrero, M. Rueda, P. Kramer, L. Roth, I. Muñiz (2024). 2024 Mesoamerican Reef Report Card. Healthy Reefs for Healthy People. www.healthyreefs.org

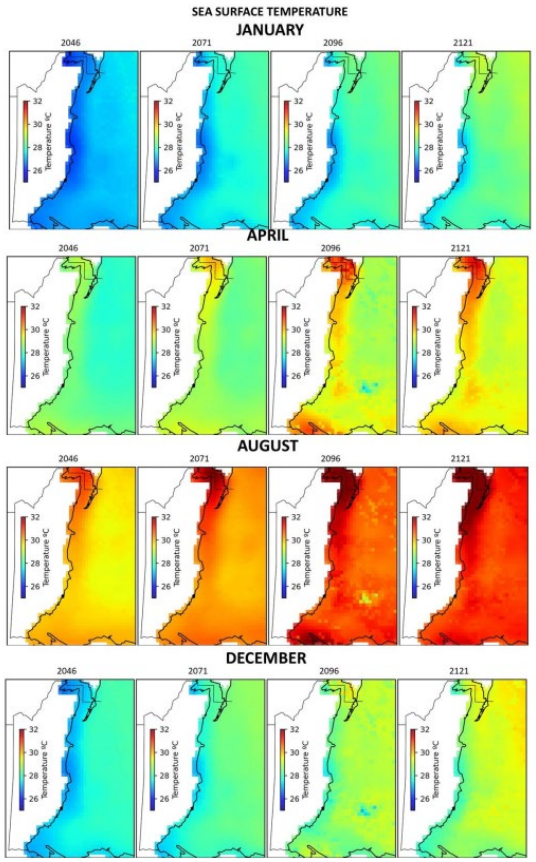

FIGURE 10: PREDICTED SEA SURFACE TEMPERATURE VALUES PER SEASON (JANUARY, AUGUST AND DECEMBER) AND YEAR (2046, 2071, 2096 AND 2121) UNDER THE 4.5 RCP SCENARIO (NCCSMP, 2021)

INTENSITY OF STORMS

The warmer sea surface temperatures in the Caribbean Sea are resulting in more **intense storms**, with stronger and potentially more devastating hurricanes disrupting economic activities, damaging infrastructure, and severely impacting local communities, particularly in the northern districts, where three of the key vulnerable fishing communities are located (Figure 11)[50]. Between 1864 and 2024, 76 storms (Hurricane categories 1 to 5 and Tropical Storms) were recorded either passing through Belize or within 60 nautical miles (Figure 12)[51]. Coastal community interviews with fishers have also identified an increase in 'rough water' days, with stronger winds and currents affecting the number of days fishers can be active in the water, impacting their income.[34]

50 Belize's National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize, 2021

51 https://coast.noaa.gov/hurricanes

Zone	Exposure	Trend
Zone A	Low	Decreasing
Zone B	Medium	Increasing
Zone C	High	Increasing

FIGURE 11: HURRICANE EXPOSURE IN BELIZE BY ZONE (NCCSMP, 2021)

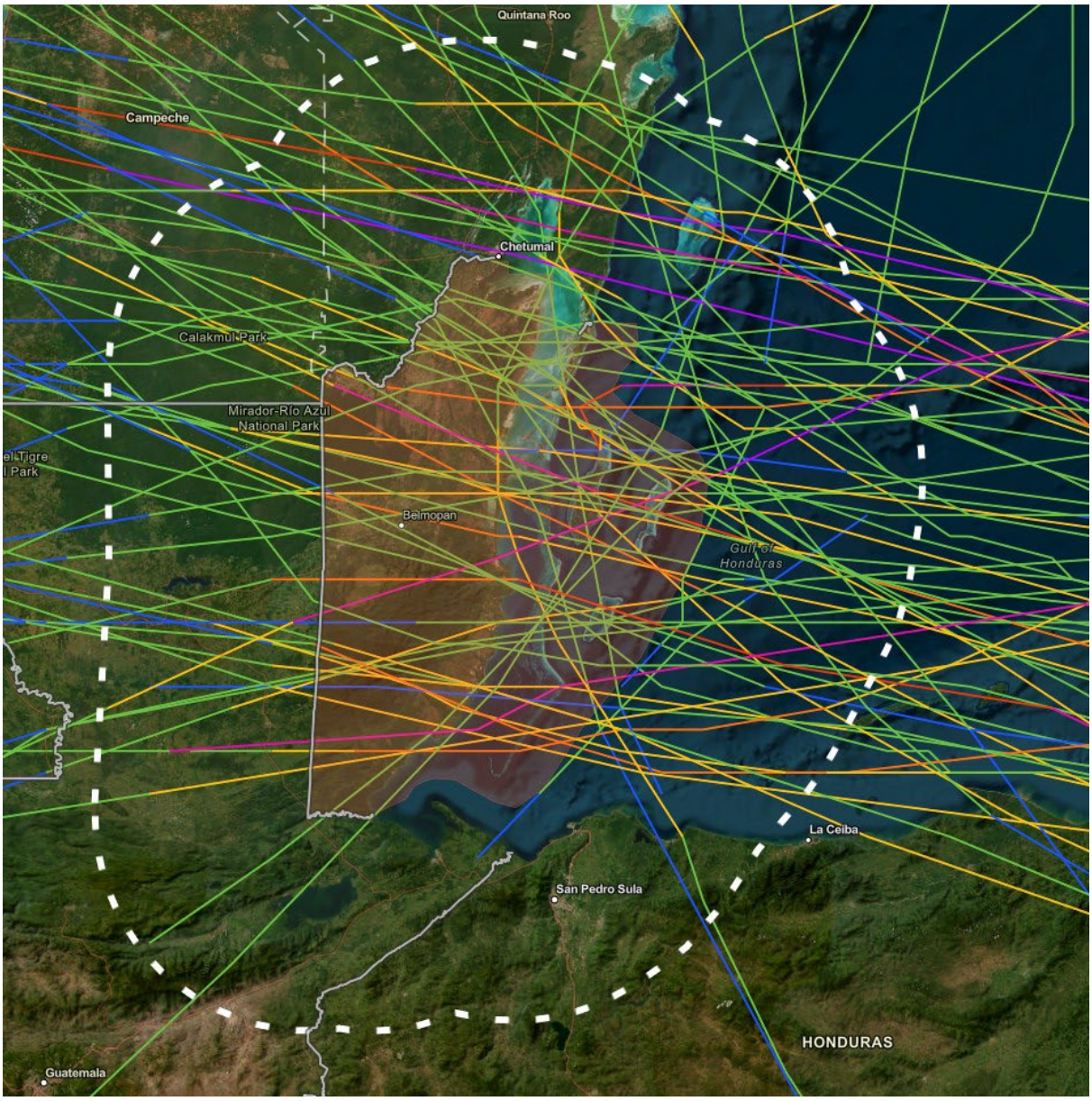

Figure 12: Tropical Storms and Hurricanes impacting Belize (passing within 60 nautical miles of Belize) between 1864 and 2024 (https://coast.noaa.gov/hurricanes)

Since 2011, the increasing water temperatures, shifts in winds and changing currents have also been bringing sargassum in increasing quantities to the pristine sandy beaches of the tourism destinations, resulting in inaccessible water for tourism activities, strong odors as the sargassum rots, added to by fish and turtle hatchling mortality in the shallow waters, and mangrove mortality in areas where the sargassum collects[52].

52 Elizabeth M. Johns, Rick Lumpkin, Nathan F. Putman, Ryan H. Smith, Frank E. Muller-Karger, Digna T. Rueda-Roa, Chuanmin Hu, Mengqiu Wang, Maureen T. Brooks, Lewis J. Gramer, Francisco E. Werner, The establishment of a pelagic Sargassum population in the tropical Atlantic: Biological consequences of a basin-scale long distance dispersal event, Progress in Oceanography, Volume 182, 2020,

Over the next 50 years, the increasing storm damage to critical coastal and marine ecosystems (particularly the barrier reef and mangroves) will reduce the nature-based coastal defense and carbon sinks, and impact both local fisher's food security and commercial fishing incomes. Intense storms impact the reef by overturning coral heads, causing structural damage to species such as the critically endangered elkhorns, depositing sand on the reefs, smothering coral polyps and reducing the reef rugosity that shelters fish. Because fishers are restricted to two fishing areas, if both are impacted by storms, it can be months before fishers are able to return to the sites to fish, and years before the areas are back to full production[53]. With limited options for transferring to other fishing areas, the long-term cumulative impact of increasingly destructive storms on their livelihoods will be significant.

RAINFALL

Mean annual rainfall over Belize has decreased at an average rate of 3.1mm per month per decade since 1960[54]. This trend of decreasing average rainfall will increase into the next 25 years, with the 107.4 mm mean of 2021 declining to a predicted 89.9 mm in the next 25 years, and to a further 74.7 mm by the end of the next 50 years.

Coastal areas will become drier, particularly where coastal development and urban expansion already removes the natural vegetation. Belize is predicted to experience shorter rainy seasons, with rainfall that will be less predictable and more intense[55].

RISING SEA LEVELS

Rising sea level (an average of 3.7 mm/year, with predictions that this will exceed 9.13 cm within the next 25 years) is a significant concern for Belize, with its extensive low-lying coastal areas, high risk of coastal erosion, damage to infrastructure, and impacts on fisheries from changes in mangrove nursery abundance and distribution. In the long term, remote coastal communities will face potential isolation and displacement, as well as groundwater salinization. The latter is of particular concern as over 95% of Belize's potable water is extracted from underground aquifers.[56] Six of the ten target fishing communities lie on very low coastal lands, between 0 and 2 m above sea level, and are considered at high risk of inundation by sea level rise (Figure 13). 38.8% of interviewees (90 people) across all coastal communities identified coastal erosion as a current impact, and in some communities has resulted in the loss of houses, and the migration of some people to higher ground, further inland[57].

53 Northern fishing community interviews 2022 – 2024, Wildtracks
54 Belize's National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize, 2021
55 Belize's National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize, 2021
56 Belize's National Climate Change Policy, Strategy and Master Plan Belize. Ministry of Sustainable Development, Climate Change, and Disaster Risk Management, Belmopan, Belize, 2021
57 WWF Climatecrowd.org. 201 interviews in 2023

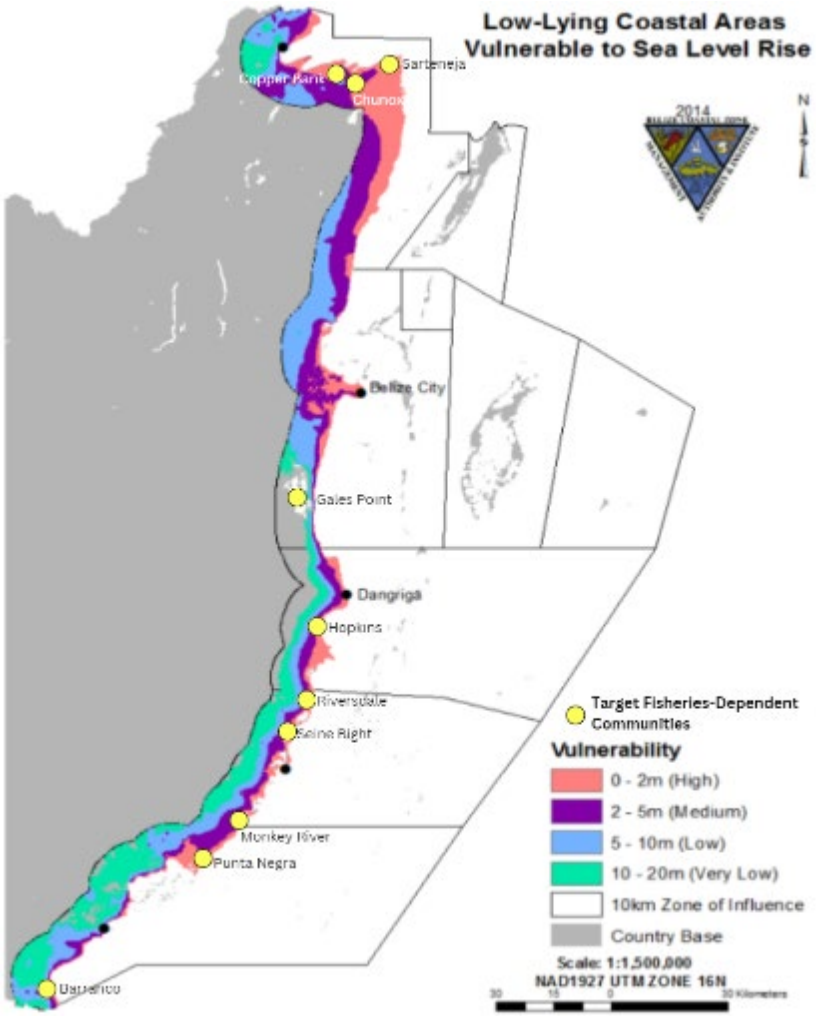

Figure 13: Target coastal fishing community vulnerability to sea level rise (Adapted from: Analyzing Vulnerability of the Belize Coastal Tourism Sector, data origins: BTFS, CATHALAC, INEGI, IGN-Guatemala, LIC, UK Ordinance Survey, USGS, 2014)

OCEAN ACIDIFICATION

Whilst difficult to quantify, ocean acidification is expected to have significant negative impacts on Belize's fishing industry and reef health. The rising acidity of seawater, caused by increased carbon dioxide (CO_2) absorption, threatens the structural integrity of coral reefs, leading to reduced ability to grow at a rate that will keep pace with increased sea level rise. Coral reef degradation due to acidification, bleaching and increased disease weakens their role as storm barriers, accelerates coastal erosion, reduces fish habitat, with impacts on the diversity and abundance on key commercial species like conch, lobster grouper and snapper, threatening marine ecosystem integrity and functionality, and fisher livelihoods in Belize. Ocean acidification will also impact shell-forming organisms such as the commercially important conch and lobster, and overall marine biodiversity. Research suggests that the "tipping point" for ocean acidification, the safe planetary threshold at which the ocean system undergoes irreversible and catastrophic changes has already been passed.[58]

Consultation Outputs on Community Climate Change Perspectives

85 interviews (38 female, 47 male) across Belize's coastal communities have also provided insight into the impacts being experienced (Figure 14) and the impacts they are seeing on both their communities and the marine biodiversity they rely on (Figure 15). The ten target coastal communities are particularly vulnerable,

58 Findlay, H.S., Feely, R.A., Jiang, L.-Q., Pelletier, G. and Bednaršek, N. (2025), Ocean Acidification: Another Planetary Boundary Crossed. Glob Change Biol, 31: e70238.

with fish stocks being depleted and reduced fish availability for subsistence fishing. Fishers are finding it harder to meet the minimum catch threshold required to support their families, with lobster and conch moving deeper into cooler waters, an increase in strong currents and storm events that prevent fishing. This is further exacerbated by unsustainable fishing, with no cap on the number of fishers, illegal fishing activities (undersized / out of season product), fishing in conservation zones and transboundary fishing incursions.

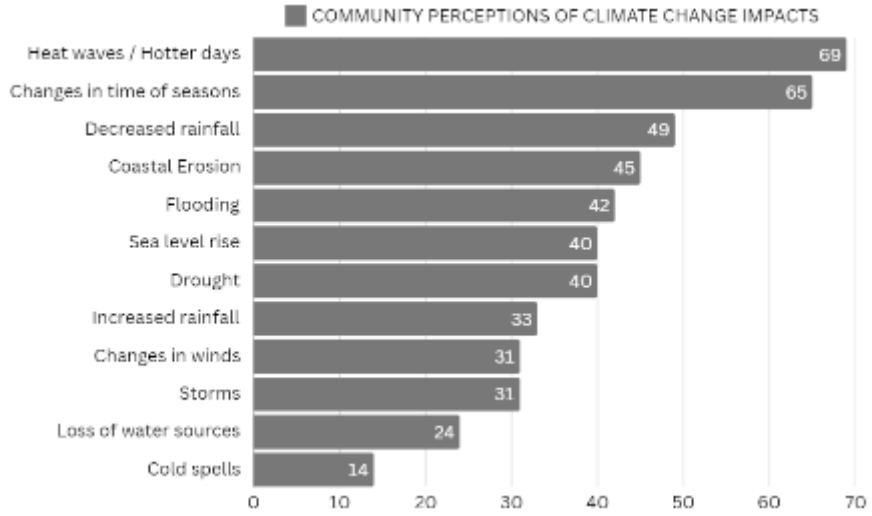

Figure 14: Reported changes in weather and climate - WWF Climate Crowd (Details in Annex 5) Belize data summary for coastal communities (Based on 85 interviews (38 female, 47 male) across Belize's coastal communities. WWF, 2024).

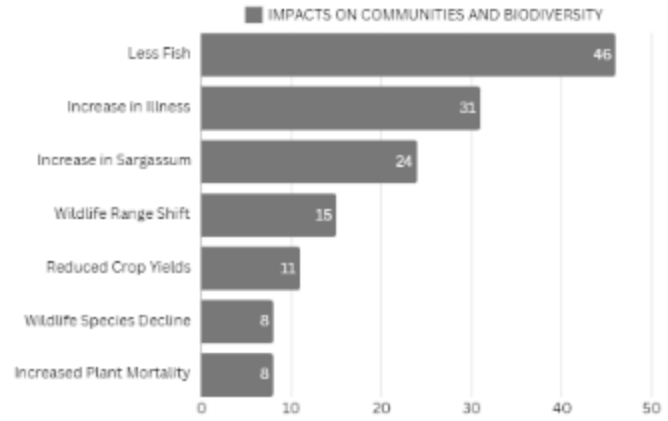

Figure 15: Impacts on coastal communities and biodiversity - WWF Climate Crowd Belize data summary for coastal communities (Based on 85 interviews (38 female, 47 male) across Belize's coastal communities. WWF, 2024**).**

Gendered impacts of climate change

In Belize, climate change disproportionately impacts women as a result of their socioeconomic roles and vulnerabilities. Women, particularly in coastal communities, are often primary caregivers and play key roles in fish marketing, diversifying household income streams through small businesses, and household and community health and well-being. Limited access to financial resources, landownership, and decision-making

power exacerbates their vulnerability, making it harder for them to recover from climate-related disasters. Additionally, climate-induced displacement and resource scarcity can lead to economic instability and, as a result of the stress caused, increased gender-based violence. Addressing these gendered impacts requires policies that promote gender-inclusive climate resilience strategies, ensuring women's participation in decision-making and access to financial resources. The proposed project will aim to include women in discussions on fisheries management as well as consider the climate impacts that are affecting women more than men. For additional information, please refer to the gender analysis and gender action plan developed for this project.

For further details and images on climate projections see Annex 3: Detailed Climate Analysis and Context

BARRIERS

Barriers to management of Belize's fisheries for climate resilience

There is currently limited integration of climate resilience into fisheries management and weak institutional linkages with fishing communities. Belize's fisheries are not managed for climate resilience. The absence of adaptive management measures, coupled with limited regulation of fishing effort and ongoing unsustainable harvesting, is contributing to declining fish stocks and reduced catches reported by fishers. This undermines the long-term viability of the industry, threatening incomes and livelihoods dependent on marine resources.

Adherence to climate-smart and sustainable fishing practices remains low, constraining the recovery and adaptive capacity of fisheries. While fisher associations have previously proven effective in organizing and educating small-scale fishers, serving as key entry points for outreach, they have weakened over time and require re-establishment and strengthening. The limited coordination between the Belize Fisheries Department (BFiD) and fishing communities further hampers participatory management and communication of adaptive measures. Addressing these institutional and capacity gaps is essential to enhance fisher preparedness, promote climate-resilient practices, and ensure the sustainability of Belize's fisheries under changing climatic conditions. There is an urgent need to build fisher capacity to improve resilience through the identification of climate-smart fishing practices towards increasing long-term sustainability of their fisheries, and improved day-to-day safety of fishers, strengthening their preparedness for the increasing ecosystem declines and natural disasters linked to climate change.

The **limited awareness of the long-term impacts of climate change** on their fisheries among emerging fisher leaders. Their understanding is shaped by a shifting baseline, focusing only on the current state of the fishery without recognizing the gradual ecosystem decline and fishery depletion that has occurred over the past 20 years due to climate change. This limited perspective hinders their ability to make informed decisions that address the broader, long-term challenges facing their industry, including strengthening their participation in national efforts to ensure climate adaptation and resilience strategies that promote sustainability of fish stocks and the ecosystems that support them.

Barriers to fisher Association participation in fisheries management decisions

Barrier 1: A lack of trust between fishers and the Belize Fisheries Department (BFiD) has created a significant barrier to fisher buy-in and collaboration for improved climate smart, sustainable fishing practices. Fishers are often reluctant to adhere to policies and regulations because they do not fully understand the rationale behind them or see their benefits. This distrust and perceived lack of transparency due to limited sharing of stock assessment and catch data, hinders the ability of fishers and government entities to work together effectively to manage fisheries based on current data. Without clear communication and shared understanding, compliance remains low, further compromising the health of marine ecosystems and the livelihoods dependent on them

Barrier 2: Communication barriers between the Belize Fisheries Department, the fisher associations, and their members were highlighted by fishers as key gaps. These challenges have contributed to a sense of insecurity in their livelihoods, particularly following the dissolution of Manage Access Committees. Fishers report feeling that their concerns such as the requests to cap the number of licensed fishers have not been adequately addressed. This sentiment is particularly prevalent in northern fishing communities, where the primary language is Spanish. Additionally, there is a perception among fishers that the government prioritizes other industries, such as sugar cane farming, over their needs, and that they are not fully engaged by the Belize Fisheries Department. This has eroded trust and weakened stakeholder participation.

Barrier 3: Inconsistent leadership in the fisher associations due to volunteer-based leadership structures, poses a significant threat barrier to effective member engagement and association management. Multi-day fishing trips (for the Northern Fishers, this may be as long as 20 days) create delays in decision-making and hinder successful meetings of the fisher association committee and general meetings, as association leaders are often not all present in the community at the same time. In southern communities, fishing trips tend to be shorter, up to 4 to 5 days, but these areas still face many of the same challenges as northern communities.

Barrier 4: Where fisher associations are now dormant, **understanding and meeting the legal requirements** for the association re-registration process and steps that need to be taken each year to remain in good standing are beyond the capacity and budget of the fisher leaders. There are few incentives for fishers to join the associations or contribute towards the running costs.

Barrier 5: Fishers have **limited incentives to join fisher associations,** as many perceive no tangible or immediate benefits from membership. Without clear advantages such as access to resources, financial opportunities, training, or other support, fishers often view association involvement as an unnecessary commitment. Additionally, a lack of visible success stories or concrete outcomes from existing associations further discourages participation, leading to a perception that membership offers little value in addressing their immediate needs or long-term challenges.

Barriers to Future Livelihood Diversification:

Barrier 1: Poorly coordinated youth engagement activities across the target coastal fishing communities, resulting in inconsistent participation, fragmented messaging, and duplication of effort. Protected Area co-management NGOs and other organizations often operate independently, implementing similar activities in the same schools and communities without aligning or harmonizing their strategies. Stakeholder consultations and reports, particularly those focused on northern fishing communities, have consistently highlighted these barriers. A review of recent community and youth engagement initiatives underscores these challenges and are identified in Belize Audubon Society/SACD Student Engagement and Awareness Strategy.[59]

Barrier 2: The literature review and community consultations conducted during project development also identify the barriers, **challenges and skills gaps** that communities face in preparing for and accessing livelihood diversification opportunities. These opportunities, often offered through grant or loan funding for small-scale business development, are typically integrated into short-term projects that fail to allocate sufficient time or resources to build the necessary capacity of potential recipients. As a result, community members struggle to navigate the grant application process, develop strong, climate-smart business proposals, or effectively understand and target their markets. This lack of preparation frequently leads to weak proposals, underfunded or misaligned initiatives, and ultimately, failed businesses, underscoring the urgent need for long-term, capacity-focused approaches to livelihood diversification. Without addressing these barriers, communities remain ill-equipped to capitalize on available opportunities, limiting their resilience to climate change and economic shocks[60] .

Barrier 3: A **lack of understanding and awareness of climate change** among community members leads to the development of business ideas and designs that are not resilient to the impacts of a changing climate. This knowledge gap results in ventures that are poorly adapted to withstand increased droughts, floods, and other climate-related challenges, making them highly vulnerable to failure. This is seen in previous agricultural projects, for example, that have failed because of drought conditions in northern Belize. Maladaptation through irrigation in these agricultural areas further exacerbates the issues of water security and salinization of the aquifer, with wells drying up or the water becoming too saline. Without incorporating climate-smart principles into business planning and design, these initiatives are unlikely to succeed in the long term, further exacerbating economic instability and undermining efforts to build climate-resilient livelihoods.

Barrier 4: Fishers are increasingly reluctant to see their children pursue a future in the fishing industry, recognizing the challenges posed by climate impacts on marine ecosystems, declining fish stocks and the uncertain sustainability of the sector. However, Belize's coastal fishing communities are home to a growing youth population in need of meaningful employment opportunities. This creates a significant barrier, as there is a **lack of viable alternative livelihood options or structured exposure to diverse opportunities** for these youths. Without access to career pathways, vocational training, or targeted programs that promote skill-building for future employment, this youth sector faces limited prospects, exacerbating economic vulnerabilities and perpetuating reliance on the already strained fishing industry.

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59 Wildtracks, 2019; A Case Study of Belize Audubon Society's Community Outreach and Engagement Projects, Wildtracks, 2024.

60 BAS/SACD Community Engagement and Investment Strategy, Wildtracks, 2019; WCS Supplementary Livelihood Initiatives in Coastal Belize 2014-2024, Empowering Climate Solutions, 2024

Additional lessons were identified through exploration of project barriers which can be found in the **Lessons Learned Annex 6**

Future Narrative Scenarios

Without this project, in the 'business as usual' scenario, the combined climate change and anthropogenic pressures will continue to impact the fragile coastal and marine ecosystems, reducing their functionality and ability to support livelihoods and food security for Belize. Mangrove clearance, unsustainable fishing, development and tourism practices are adding to the already significant climate change impacts outlined above, undermining conservation efforts to build ecosystem resilience and sustainable livelihoods crucial for building resilience and safeguarding the economic and physical futures of vulnerable coastal communities in this unique coastal nation. The below Future Narrative Scenarios are a qualitative examination of exploratory futures in the project area driven by climate change, identified as an increasingly relevant threat to Belize as a SIDS, and tourism, as it drives Belize's economy, contributing to more than 60% of Belize's GDP.

Increased Rate of Climate Change – Reduced Tourism-based economic growth	**Increased Rate of Climate Change – Increased Tourism (Current Status)**
The increased rate of climate change (increasingly intense hurricanes, unpredictable drought and storm events, increasing air and water temperatures, ocean acidification and sea level rise) is contributing to the rapid deterioration of coral reef ecosystems, jeopardizing the lives of thousands of people who rely on these marine resources. A perspective of a 'dying reef' will promote a decline in tourism, negatively impacting the national economy and further decreasing the level of national investment available for ecosystem management. If employment in tourism is reduced, there will be pressure for marine-based tour guides to return to fishing (as seen during COVID-19). This will increase Belize's challenges in reducing anthropogenic pressures on the marine and coastal resources, with the very real risk of the collapse of the small-scale traditional fishery, impacting food security and livelihoods for coastal communities. Increased poverty in coastal communities will push users towards reduced compliance with marine resource regulations, further depleting fish stocks. Whilst reduced tourism may relieve some	Whilst national disasters may increase and absorb public attention and funding, a healthy tourism economy based on increased nature- and culture-based tourism has the potential to provide the finances for ensuring effective protected area and ecosystem management and restoration, with protection and restoration of resilient healthy reefs, and a continued focus on nature-based adaptation and solutions for improved resilience of coastal communities. Increased focus on support for ecosystem management to promote sustainable tourism will also improve regulation of fisheries and coastal development and provide alternative income opportunities for the fishing sector. The reduced number of fishers will reduce pressures on the reef from illegal and unsustainable fishing, increasing the reef's resilience to climate change. Increased tourism, however, brings its own impacts, with increased coastal development pressures and potential for direct impacts from increasing boat traffic and tourists on the fragile reef and marine species – with the need for improved management through increased surveillance of coastal developments

of the impacts on ecosystem resilience, reef health will continue to decline and Belize will become increasingly less popular as a tourism destination, creating a negative feedback loop that may be impossible to recover from.	for compliance with environmental standards and regulations, and a move towards adaptive sustainable tourism management.
Slower Rate of Climate Change – Reduced Tourism A slower rate of climate change would reduce the pressure on the coral reef ecosystems, potentially slowing their deterioration and providing more time for increased reef resilience and for adaptation strategies to take effect. Reduced tourism would significantly impact the national economy and the finance available to support protected area and ecosystem management. It would also impact livelihoods across the coastal communities, with reduced employment resulting in a return to fishing for those fishers who have moved to the tourism sector as an alternative or supplemental source of income, increasing pressures on the marine resources, towards the collapse of Belize's fisheries.	**Slower Rate of Climate Change – Increased Tourism (Optimal Status)** A slower rate of climate change would reduce the pressure on the coral reef ecosystems, potentially slowing their deterioration and providing more time for mitigation and adaptation strategies to take effect. Increased tourism will support the national economy and economic growth, with improved resources for marine and coastal nature-based solutions, improved community stewardship and protected area management. Increased opportunities for employment in the tourism sector will reduce the number of youths from fishing communities that have to enter the fishing sector, and provide alternatives for supplemental livelihoods for fishers, reducing pressure on the marine resources. Increased tourism, however, brings its own impacts, with increased coastal development pressures and potential for direct impacts from increased boat traffic and tourists on the fragile reef and marine species, and will need to be carefully managed through adaptive sustainable tourism management.

The SCCF project remains relevant, appropriate, and impactful across all four future climate and development scenarios as it is grounded in building local adaptive capacity, institutional resilience, and diversified livelihoods. Whether Belize experiences effective global climate action, delayed responses, fragmented local efforts, or worsening climate conditions, the project's focus on strengthening fisher associations, empowering coastal communities - especially women and youth - and promoting climate-smart practices will ensure long-term benefits. By embedding knowledge-sharing, inclusive governance, and sustainable income diversification into its core, the project supports systemic change that enhances community resilience and sustains marine ecosystems. This flexibility and grounding in community priorities ensure the project's adaptability and effectiveness regardless of how climate and socio-economic trends evolve.

BASELINE:

BUILDING ON PREVIOUS INITIATIVES: STRENGTHENING FOUNDATIONS FOR CLIMATE-RESILIENT FISHERIES AND FISHING COMMUNITIES

The project builds on past initiatives, including the Belize Fisheries Department-led Belize Marine Conservation and Climate Adaptation Project (MCCAP), and community projects (both livelihood diversification and environmental stewardship) implemented by the NGO protected area co-management partners in the target communities over the last ten years or more, providing lessons on what approaches have and haven't been successful. It also integrates current initiatives, such as the Vulnerability and Livelihood Assessment for Chunox and Sarteneja Villages under the Ministry of Blue Economy, with workshops conducted in September 2024.

The project is also complemented by several current pipeline projects approaching implementation, with an emphasis during project development on reducing any overlap or conflicts between projects:

- The project is aligned with the Government-led Inter-American Development Bank (IDB) project **Promoting Sustainable Growth in the Blue Economy Program** (Project Number: BL-L1042), which focuses on strengthening Government's ability to sustainably manage key commercial species in the fisheries sector, and the adoption of sustainable fishing technologies. The SCCF project focuses on the role of the fishers in fisheries governance to ensure a cohesive approach where national-level management reforms under the IDB project are matched with local-level engagement, capacity, and ownership fostered by the SCCF project—creating a more holistic and durable transformation of Belize's fisheries sector.
- It is also aligned with a second Government-led initiative - **Harnessing Digital Technology and Innovation for Belize's Smart Marine Initiative** (Project Number: BL-T1151), focused on developing and deploying innovative digital systems and tools to increase ecological and economic benefits for coastal communities. The SCCF project amplifies the impact of the IDB project, ensuring that the digital systems and tools introduced at the national level are accessible, understood, and utilized effectively by fisher associations and coastal communities—the very groups these innovations aim to benefit.
- Two large-scale projects are being implemented under the **Blue Action Fund.**
    - The **WWF Mesoamerica, WWF Germany, the Southern Environmental Association and Humana**, funded by the Blue Action Fund, and focuses on strengthening the ecological and livelihood resilience of stakeholders in four protected areas in the Southern Belize Reef Complex, and coastal communities in southern Belize. One component of the project provides livelihood options in linked communities, supported by other components that focus on strengthening enforcement within the protected areas, and mangrove and coral ecosystem restoration.
    - The five-year project, also under the Blue Action Fund, being implemented by the **Belize Marine Protected Areas Network** of NGO co-management partners that manage nine of Belize's marine protected areas (5,830 km²) and three of the coastal protected areas. The project seeks to promote and support improved stakeholder stewardship, livelihoods and coastal community resilience, as well as increasing management

effectiveness of target PAs to provide increased environmental sustainability and ecosystem health, sustaining biodiversity.

The SCCF project broadens the foundation laid by the Blue Action Fund, protected area focused projects, targeting traditional artisanal fishers and fisher associations that operate beyond the boundaries of protected areas, ensuring that broader fisheries governance and community resilience are strengthened across the national seascape. It will empower fisher associations to actively participate in national fisheries decision-making, complementing the stewardship goals of the Blue Action Fund through reinforcing community engagement and representation across the sector.

- An ongoing initiative by **Blue Ventures** has been focused on the re-establishment of fisher associations in three of the target communities – Chunox, Dangriga and Riversdale. This provides a successful model for the re-engagement of fishers in the other communities and re-establishment of the fisher associations. The Wildlife Conservation Society has been working with the National Women in Fisheries Association towards registration – this association will also benefit from the proposed project. The SCCF project builds on these existing efforts to create a national platform for fisher association empowerment, helping to scale localized successes into a coordinated and climate-resilient fisheries governance system, with particular emphasis on inclusivity, sustainability, and adaptive capacity.
- The project builds on and strengthens **community-based actions under the Belize Marine Protected Areas Network (BMPAN)** of NGO MPA co-management partners. These NGOs serve as an effective intervention point for Component 2, with a history of successful projects within the target coastal communities. The BMPAN is establishing a coordination hub, including a Community Coordinator position, that is well positioned to facilitate the scaling up and implementation of youth engagement and income diversification strategies. Building on BMPAN's existing structures and community relationships, the SCCF project can accelerate the adoption of climate-smart livelihoods, vocational training, and educational opportunities for youth, while strengthening community resilience. This synergy enhances the sustainability and reach of both ongoing conservation efforts, with investment in BMPANs successful coordination model and community-based action contributing to more resilient coastal fishing communities.

WHY TARGET BELIZE FISHER ASSOCIATIONS?

Belize's fishers are highly vulnerable to climate change with fisher associations playing a crucial role in advancing climate-smart adaptation in the fisheries sector. These associations are vital for effective marine resource management, linking fishers to sustainable practices and policy discussions. Fisher associations, initially formed to access grant funding and facilitate communication with the Belize Fisheries Department, largely became inactive during COVID-19 and several need support to be able to re-activate and re-register for recognition by Government as organizations that are representing fishers.

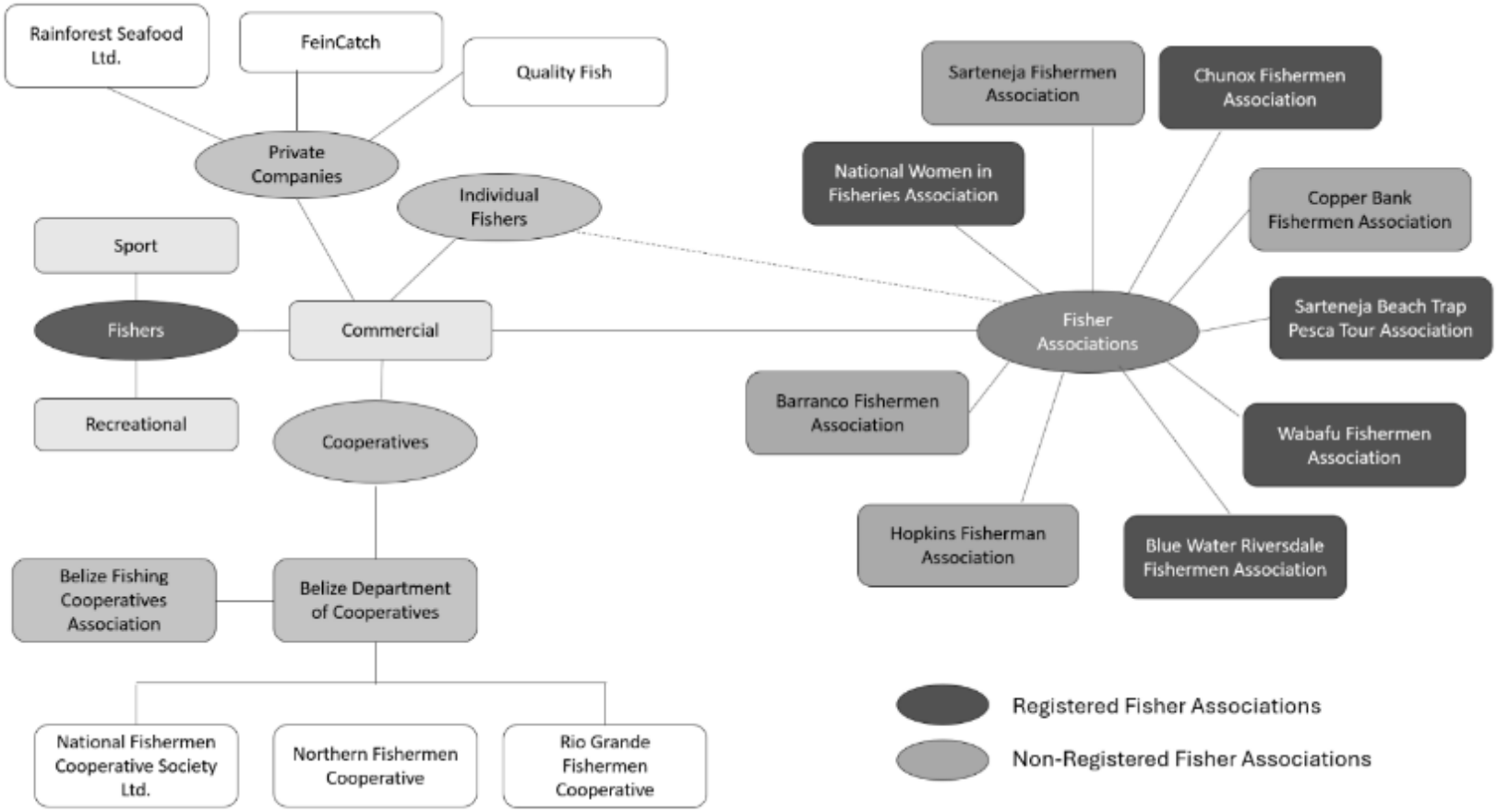
Fisher associations represent fishers' interests, support community project implementation, and promote sustainable fishing and diversified livelihoods. Their involvement in national fisheries

management will enable collective actions such as advocating seasonal closures and adopting climate-smart fishing practices that improve product quality and fisher safety amid changing environmental conditions. Based in vulnerable fishing communities, these associations can strengthen local governance and resilience to climate change, especially by engaging youth through programs such as Reef Protectors under the Belize Audubon Society (BAS) that build climate adaptation leadership. Consultations with fisher association representatives also demonstrated that these associations are interested in receiving support through this project.

Currently, four fisher associations - Chunox, Wabafu, Sarteneja Beach Trap Pesca Tour, and Blue Water Riversdale - are registered and supported by Blue Ventures. They have developed strategic plans, engage in fisher forums, and are enhancing their governance and influence to promote sustainable fisheries management (Figure 16).

The National Women in Fisheries Association is in the process of registration, with support for this process from the Wildlife Conservation Society. Once fisher associations are legally registered entities, they meet the criteria for accessing both national and international grant funding and technical support. They can act on behalf of their members, attempting to distribute grant funds effectively and equitably to support adaptation strategies such as income diversification initiatives and vocational trainings to helping reduce dependence on fishing as a sole source of income. This is critical for building resilience to climate-induced declines in fish stocks or other economic shocks. They can strengthen fisher families' ability to access supplementary income opportunities, fostering long-term economic stability for their families and for the communities. They can also partner with NGOs and government agencies to co-develop and implement projects, leveraging expertise and scaling up initiatives that promote climate-smart fisheries management.

Fishers interviewed during project development identified several ways that fisher associations can help in meeting their family's needs. For some, this is through scholarships, alleviating the need for increased fishing effort to ensure school and college fees can be covered. Fisher spouses are interested in supplementing their family's income through small business development, and fishers reaching retirement age or having to leave the industry due to poor health are seeking alternatives. The majority of fishers interviewed also stressed the need for alternative opportunities for their children, not wanting them to go into an increasingly pressured fishing sector where there is an increasing safety risk with increasing storm events. This is exacerbated by the disproportionate population of youth in Belize.



Fishing Cooperatives: Buy marine products for export; managed by a Board elected by fisher members
Private Companies: Buy marine products for export
Fisher Associations: Represent fishers from the target fishing communities
Figure 16: Fishing context and project target fisher associations, updated 2024 (Adapted from: *Marine resource management and fisheries governance in Belize exhibit a polycentric, decentralized, and nested institutional structure*[61])

[61] Catherine Alves,2021, https://www.sciencedirect.com/science/article/pii/S0964569121002258?via%3Dihub

Baseline for Livelihood Diversification Opportunities and engagement of youths as conservation leaders in the target coastal fishing communities

Belize's ten fishing-dependent communities targeted by this project are highly vulnerable to climate change impacts, with limited alternative livelihood opportunities outside of fishing. NGO co-management partners - including the Belize Audubon Society (BAS), Sarteneja Alliance for Conservation and Development (SACD), Southern Environmental Association (SEA), and Toledo Institute for Development and Environment (TIDE) - have successfully engaged these communities through programs aimed at reducing fishing pressures in marine protected areas while improving local livelihoods. These organizations have identified and supported community-specific income diversification initiatives, often focusing on women-led enterprises such as homestays and craft industries, some of which have remained operational for over a decade. However, in communities without a consistent NGO presence, these initiatives tend to be project-based, lacking sustained support and follow-up. The absence of continuous engagement and resources limits their long-term viability, highlighting the need for more structured and enduring approaches to income diversification [62].

This is supported by a recent national evaluation of marine and coastal protected area strategies towards community engagement, participation and socio-economic benefit, linked to marine protected area management. This was flagged as an area requiring significant strengthening, with an average rating of 64.4% across 24 protected areas[63].

In addition, a number of organizations (including BAS, SACD and TASA) provide presentations on various topics to classes throughout the school year, generally as project-based activities, or following requests from the schools (Table 7). Several events are scheduled throughout the year by different organizations, some tied into local events (Sarteneja Fisher Fair, Sarteneja Easter Regatta) and national celebrations (Reef Week) and are attended by multiple NGOs. Others are linked to organizational program activities (e.g. summer camps, school open days, World Wetland Day, Earth Day) and involve only the implementing organization.

Table 7: Existing organizations and established activities in the target communities

Organization /NGO	Targeted Project	Projects/Programs between 2010 and 2024	Key Strategies/Lessons Learned

62 Henri, C, R. Coleman, C. Oliver, N. Requena (2024). Supplementary Livelihood Initiatives in Coastal Belize 2014-2024. Prepared for Wildlife Conservation Society
Walker, Z. (2018). Community Engagement and Investment Strategy, Northern Coastal Communities, Belize. Prepared for Belize Audubon Society and Sarteneja Alliance for Conservation and Development.
Walker, Z and C. Matzdorf (2024). A Case Study of Belize Audubon Society's Community Outreach and Engagement Projects. Prepared for Belize Audubon Society

63 Walker, Z. Marine Protected Area Management Effectiveness Evaluation, 2023 – 2024 (draft). Prepared for the Oceans Conservation Partnership Programme

	Fishing Community Involved		
Belize Audubon Society (BAS) (BMPAN member)	Copper Bank, Chunox	▪ BAS Reef Protectors Program targeting 3rd and 4th form high school students (2012 – ongoing)	Identified need to develop a long-term, stratified Student Engagement and Awareness Strategy (SEAS) for inspiring, informing, and involving students in conservation throughout their school years. Developed strong programs that have evolved over time
Sarteneja Alliance for Conservation and Development (SACD) (BMPAN member)	Sarteneja, Chunox, Copper Bank	▪ Junior Mangrove Guardians targeting Standard 5 and Six Primary School (2024 – ongoing) ▪ Internship Program, focusing on 4th form graduates (2018 – ongoing) ▪ Community Researchers targeting youths aged 18+ from the communities (2016 – ongoing) ▪ SACD Volunteer and Internship program (VIP) focused on upper primary level students (2010 to 2012) ▪ SACD Scholarship Program, focused on 1st to 4th form high school students (2013 - 2018)	Based in Sarteneja, Belize's largest fishing community, ensuring consistent, ongoing presence in the schools and northern fishing communities. Identified need to develop a long-term, stratified Student Engagement and Awareness Strategy (SEAS) for inspiring, informing, and involving students in conservation throughout their school years. Has developed strong programs that have evolved over time
Turneffe Atoll Sustainability Association (TASA) (BMPAN member)	Sarteneja, Chunox, Copper Bank	▪ Occasional school visits ▪ Identified as a potential collaborating agency in the northern communities	Has identified the need to improve its community outreach over the next 3 years
Southern Environmental Association (SEA) (BMPAN member)	Hopkins Seine Bight	▪ Marine Ambassador Program	Established in 2022. Provides training on various topics such as: fish landing, coral bleaching, commercial species identification, water quality testing, etc. Students receive dive certification training.
Toledo Institute for Development and Environment (TIDE) (BMPAN member)	Punta Negra Monkey River Barranco (secondary stakeholder community)	▪ TIDE Saltwater Cup (annual volleyball tournament for coastal communities) ▪ Youth Environmental Groups ▪ Scholarship Program ▪ Community Researchers	Has developed strong programs that have evolved over time but now needs to re-strengthen its connection with its communities. Community Researchers program started in 2011, with CRs being integrated into TIDE's monitoring team for monitoring activities (e.g. commercial species, coral bleaching monitoring. Training includes PADI Open Water dive training, with those who remain committed to TIDE also

			receiving Advanced Open Water, Rescue Diver, and Divemaster training.
Wildtracks	Sarteneja, Chunox, Copper Bank	▪ Manatee awareness ▪ Capacity building (conservation leadership, strategic planning, project management, grant writing)	Has provided long-term on-site and off-site education on mangroves, climate change and manatees since 1998 for youths and adults. Outreach program closed during Covid, being restarted in 2025.
All organizations (including WCS, WWF, Oceana, Belize Fisheries Department, Belize Forest Department)		▪ Reef Week ▪ Earth Day ▪ World Water Day ▪ World Wildlife Day	

To address the barriers identified by the above organizations, structured, collaborative, and sustainable programs that integrate classroom activities with "learning by doing" through outdoor field experiences, such as the BAS Reef Protectors and SACD Volunteer Programs, deepen knowledge, build conservation leadership skills, and maintain student interest over time. These programs build useable skills such as dive training and biodiversity monitoring, increasing employment opportunities available to youths in the target fishing communities outside of fishing.

B. PROJECT DESCRIPTION

The 3-year Project seeks *to strengthen resilience of Belize's fishers and coastal fishing communities most vulnerable to climate change* by equipping fisher associations to identify, plan for, and respond effectively to specific climate risks (Table 8). Belize's small-scale fisheries are increasingly affected by marine heatwaves, coral bleaching, extreme storm events, sea-level rise, and salinization of coastal and lagoon systems, undermine both ecosystems and livelihoods. Fisher associations, as trusted community institutions, are the operational entry points for adaptive management, linking national climate information systems to household and community-level action.

At the institutional level, the project builds the capacity of associations to integrate climate information services and early warning systems into their governance and operational decision-making. Through training, partnerships, and access to NOAA marine heatwave and bleaching alerts, National Meteorological Service storm forecasts, and National Hydrological Service tide and salinity data, associations will be able to anticipate and manage risks to catch productivity, fisher and fisher family health and safety. This directly addresses institutional and knowledge-based vulnerabilities by enabling timely, evidence-informed responses, reducing exposure and loss while fostering proactive adaptation.

At the operational and livelihood level, the project supports associations and their members in the implementation of climate-resilient fishing practices and livelihood diversification measures. Complementary training will identify and promote climate-smart fishing practices, such as adjusting fishing effort during thermal stress events, and supports livelihood diversification to buffer income variability. These interventions enhance household and community resilience by reducing physical vulnerability, stabilizing incomes, and protecting ecosystem services that sustain fisheries productivity. This is particularly important as Belize's reef has reached, and potentially past, a critical tipping point that will impact the viability of the fishing industry into the future.

Fisher association participation in national policy discussions ensures that the most vulnerable coastal fishing communities are not forgotten, and that fisher households directly benefit from national adaptation measures - such as improved road access in flood-risk areas, eligibility for small business incentives, inclusion in disaster relief frameworks, and priority access to climate-resilient infrastructure. Overall, the SCCF project will ensure that climate interventions are risk-informed, context-specific, and community-led, embedding adaptive capacity within the governance and operational structures of Belize's fisher associations.

ALIGNMENT OF CLIMATE RISKS, FISHER ASSOCIATION VULNERABILITIES, AND SCCF ADAPTATION INTERVENTIONS

Climate Risk	Key Vulnerabilities	Targeted Interventions (via Fisher Associations)	Expected Adaptation Outcomes
Marine heatwaves & coral bleaching, high coral mortality; Extreme heat	Loss of commercial species habitat, reduced catch, limited awareness of ecosystem changes and how fishing impacts ecosystem resilience. Risks to human health	Capacity building for accessing and understanding NOAA marine heatwave and bleaching alerts, and NHC / National Met storm advisories; identification and adoption of climate-smart, safe and sustainable fishing practices	Informed decision-making; reduced fishing pressure on stressed ecosystems and reduced risks to fisher health
Extreme storms & flooding	Damage to vessels, gear, and fishing camps; reef destruction in fishing grounds; Impacts to community access and infrastructure; risks to lives and livelihoods	Understanding and implementation of coordinated extreme event early warning for fishers and fishing communities; improved capacity for coordinated emergency response and post-event assessment	Reduced asset loss; faster recovery post-storm
Sea-level rise & coastal erosion	Loss or inundation of coastal communities and fishing camps	Improved capacity for community planning for resilience built into alternative livelihoods trainings; planning for climate-smart alternative livelihoods; community-based capacity building through youth engagement	Sustained operations and livelihoods under changing coastal conditions

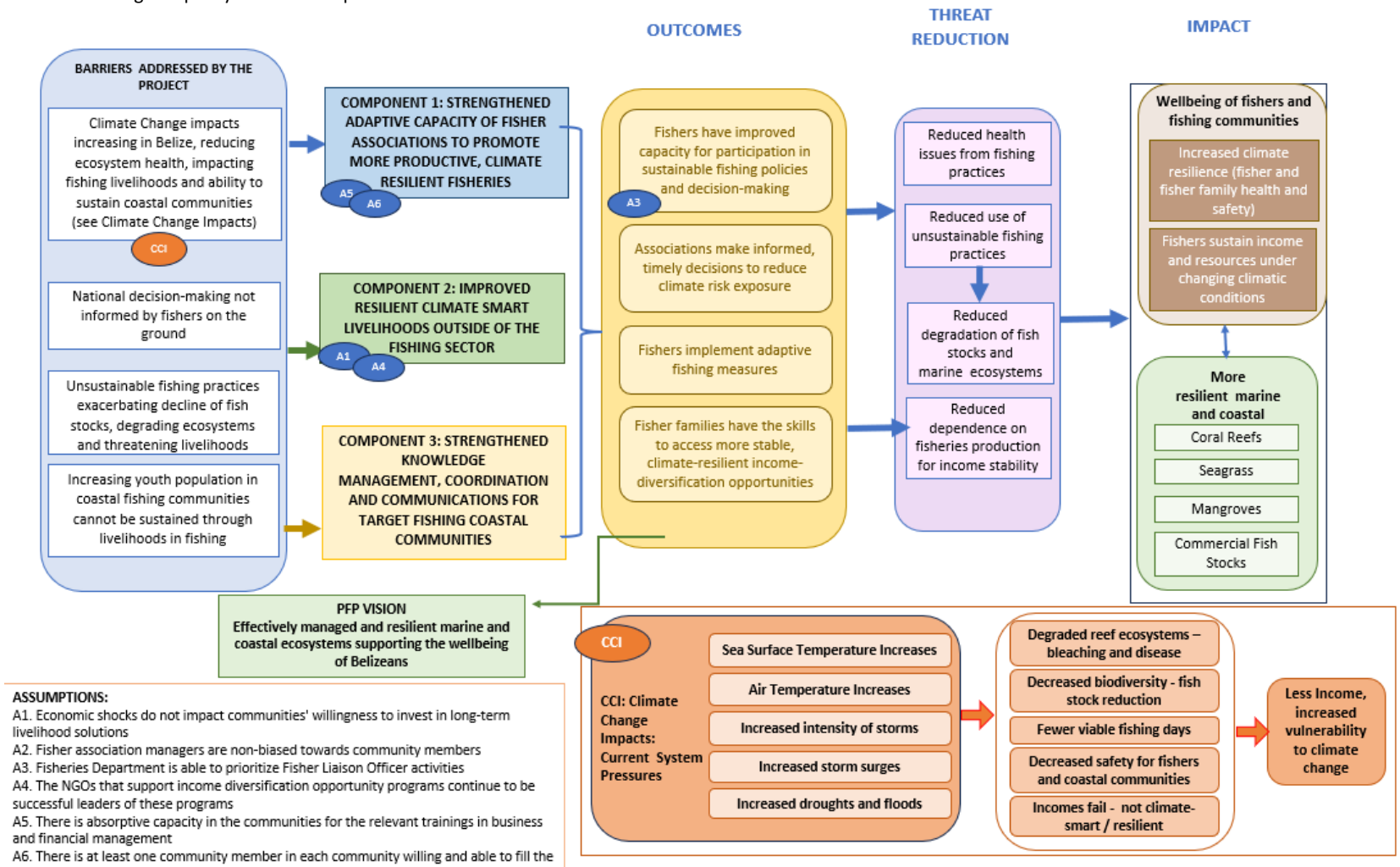
Climate Risk	Key Vulnerabilities	Targeted Interventions (via Fisher Associations)	Expected Adaptation Outcomes
Ecosystem degradation (reef, mangrove/seagrass loss)	Reduced coastal protection and fish nursery areas; reef	Fisher association recognition and adoption of national strategies to increase reef resilience; community-based capacity building through youth engagement (e.g. Reef Protectors, mangrove guardians);	Enhanced coastal protection and ecosystem resilience
Economic shocks from climate variability	Household income instability; high dependence on single fishery-related income	Training for improved access to climate-smart livelihood diversification and microfinance; Vocational training for entry-level fishers	Greater livelihood stability; strengthened household adaptive capacity; reduced number of entry-level fishers (reduced pressure on fish stocks)

TABLE 8: CLIMATE RISKS, VULNERABILITIES, INTERVENTIONS, AND ADAPTATION OUTCOMES

Project Theory of Change

Overview of the SCCF Theory of Change

Adaptation Logic: Fisher associations are strengthened to address specific climate risks (marine heatwaves, storms, sea-level rise, salinization, and ecosystem degradation) through improved governance, and access to climate information, enabling informed, coordinated responses and climate-smart fishing practices, reducing household and ecosystem vulnerability. Strengthened fisher association governance (Component 1) provides an intervention point and enables uptake of diversified, climate-smart livelihoods (Component 2) in the target communities, while improved communication and knowledge management (Component 3) sustains adaptive learning and policy feedback loops. See Additional Annex for a more detailed TOC.



The theory of change for the project is that:

If the project targets fisher associations as the primary intervention points in each community, the benefits will be reached by the coastal communities most vulnerable to climate change and most dependent on fisheries **THEN** the project interventions will be able to address their i) Level of Direct Dependence on commercial fishing, ii) lack of opportunities for employment beyond fishing, iii) Accessibility; iv) Socio-economic vulnerability; and v) Vulnerability to climate change.

IF fisher associations, strengthen their governance, administrative, and financial capacity, and achieve formal registration and recognition by the Government of Belize,

THEN fisher associations will gain legitimacy with both the Government and the association members, serving as effective platforms for representing their members' needs in national fisheries management, increasing communication and trust, with open data sharing, leading to increased inclusivity and equity

AND IF communication and data sharing between these associations and the Belize Fisheries Department is improved, with fishers understanding the way in which national fisheries data is collected and analyzed, and having opportunities to contribute valuable insights at national level for evidence-based fisheries management

THEN fishers will have increased confidence in the national data sets on which regulations are based, and take on greater ownership in fisheries management, with social pressure to adopt climate-smart fishing sustainable practices, reducing unsustainable or illegal methods,

THEN this will lead to improved compliance with national catch reporting requirements, and increased individual fisher catch value strengthening the immediate adaptive capacity of coastal communities

IF fishers are provided with the tools and training to improve their safety at sea and reduce climate impacts on their catch in the changing climate

THEN fishers will reduce the risk to their lives and health, reducing the uncertainties faced by fisher families when the fishers are at sea, and reduce catch loss and loss to income from climate factors

Governance training catalyzes a shift from reactive, individual decision-making to proactive, collective stewardship building the social and institutional capital required for long-term resilience. Through improved leadership, transparency, and participation, associations will become better equipped to implement adaptive measures such as seasonal closures or gear restrictions, interpret and act on climate and ocean data, and understand and promote sustainable fishing practices. Training will transition governance capacity into practical resilience, enabling fishers to plan collectively, respond proactively to climate risks, and align local practices with national adaptation and blue economy goals.

Collective organization among fishers strengthens adaptive capacity by pooling resources, knowledge, and influence in ways that individual efforts cannot achieve. Through associations, fishers gain coordinated access to information, training, and financial mechanisms, enabling faster, more organized responses to climate risks. Collective structures also enhance bargaining power and representation in policy processes, ensuring that adaptation measures reflect local realities and are implemented equitably. Moreover, organized groups foster mutual support and trust, creating social safety nets during crises. In contrast, individual fishers acting alone face limited access to information, finance, and institutional channels, resulting in them being more vulnerable to environmental and economic shocks. Fisher associations provide economies of scale in accessing climate information services, early warning systems and social protection mechanisms.

IF fisher families can increase capacity in essential business skills to improve the success of resilient, climate-smart diversified livelihoods across different sectors in the vulnerable communities

AND IF youths have access to educational and vocational scholarships for continuing education and skills development, increasing employment opportunities outside of fishing, while building their understanding of climate change and leadership skills

THEN the 10 targeted fishing communities will be less dependent on Belize's fisheries resources for income stability, with increased climate resilience of household livelihoods and reduced fisher family and community vulnerability.

In the **'Business as Usual'** scenario, in the absence of the interventions proposed under **Component 1**, fisher participation in national decision-making will remain limited and fragmented, and communication between fishers and government agencies will continue to be inconsistent, resulting in policies that do not adequately reflect the needs and realities of fishers and vulnerable fishing communities. Those fisher associations that are established will lack the resources and technical support to engage meaningfully in policy discussions, and those communities interested in reforming their fisher associations will be challenged by the financial and technical requirements for registration and internal capacities.

Without capacity-building and leadership training, fisher associations will struggle to organize, advocate for sustainable practices, or be able to assist their members in diversifying income streams. This will lead to continued over-reliance on unsustainable fishing methods, further depleting marine resources, and pushing fishers into non-compliance as they try to meet the financial needs for support of their families, further exacerbating their vulnerability to climate change. Ultimately, fisher livelihoods will remain fragile, and the current opportunities for building long-term resilience and sustainable fisheries management will be missed. Unsustainable fishing is identified as one of the biggest threats to the fishing industry and fisher livelihoods in Belize, and a significant exacerbating factor to the impact of climate change on Belize's reefs. The lack of collective action by fishers to support practices and improve compliance for a more sustainable fishery could reduce the effectiveness of protected areas and sustainable fisheries policies, and it will become increasingly difficult for the marine resources to sustain the livelihoods of the most vulnerable Belizeans.

If interventions under **Component 2** are not implemented, then fisher families and the target communities will continue to depend heavily on fishing as their primary livelihood, limiting their ability to adapt to changing environmental and economic conditions. If there are no other employment alternatives in the communities, and no assistance towards further education or vocational trainings, young men and women will have little alternative other than to join the fishing industry.

Opportunities for diversifying livelihoods and vocational trainings are available, but the capacity for uptake is limited, leading to a low absorptive capacity in the communities, where business development and financial management skills are underdeveloped, preventing community members from successfully diversifying income streams. As climate change impacts intensify, fisher families face greater economic instability and resource depletion, threatening long-term community resilience.

The engagement of youths in conservation will remain low, reducing the potential for future community conservation leaders to emerge, with no increased understanding of nature-based solutions for community adaptation or uptake of behavioral change as the next generation become community and fisher leaders.

If communication and coordination isn't strengthened under **Component 3**, fisher associations will remain isolated, leading to weak coordination among them and with the Belize Fisheries Department, resulting in their limited ability to advocate for fisher needs or influence decisions affecting the fishing sector. Fisher associations will continue to struggle with governance and leadership challenges. Without exposure to sustainable and climate-smart fishing practices and access to new knowledge and techniques, the associations will find it harder to identify mechanisms for reducing their fishing pressure and increasing resilience of the resources they depend upon.

PROJECT OBJECTIVE: STRENGTHENING RESILIENCE OF FISHERFOLK AND FISHING COMMUNITIES MOST VULNERABLE TO CLIMATE CHANGE ON BELIZE'S COAST.

COMPONENT 1. STRENGTHENED ADAPTIVE CAPACITY OF FISHER ASSOCIATION MEMBERS TO PROMOTE MORE PRODUCTIVE CLIMATE RESILIENT FISHERIES.

This project is designed to assist vulnerable fishers whose dependence on natural resources creates further vulnerability, and targets fishing communities in building their capacity to increase their resilience to climate change. There is a need for improved communication, engagement and facilitation of fisher participation in national fisheries management discussions, improving fisher understanding of the impacts of climate change on their industry, their voices in national decision making, the integration of climate considerations into relevant decisions. This will strengthen fishers' understanding of how their challenges connect to broader climate trends and national efforts to improve climate resilience in the fisheries sector. It will provide the basis for adopting sustainable fishing practices that are encouraged by the Belize Fisheries Department. The fishers need to be engaged as key partners in securing the future of Belize's traditional small-scale fishing industry.

Component 1 seeks systematic change to achieve an enabling environment in which fishers actively participate in national decision-making, take on ownership of their resources and improve the sustainability of climate-smart fishing practices. This will be achieved through strengthening community-based fisher associations and engaging them in the uptake of sustainable fishing practices that improve their safety in the changing environment and enhance their livelihoods. This will be through the re-establishment and support of fisher associations in the target communities, important in representing fishers and providing a two-way flow of information between the Fisheries Department and fishermen, and improved representation of fisher association leaders in national forums. The contracting of fisher association managers bridges the capacity gaps between the fishers and effective management of the fisher associations, providing continuity of an administrative and management presence of the associations within the fishing communities during fishing seasons. The outputs contributing to this component will strengthen the institutional structures and spaces for increased representation of fishers in the decision-making process for management of the commercial conch, lobster and finfish fishery in Belize. Improved governance and leadership capacity will also result in stronger climate smart outcomes for fishers and the fishing communities (Table 9).

Governance Capacity Element	Description / Mechanism	Climate-Smart Outcome
Transparent leadership and accountability	Democratic decision-making, equitable representation, and transparent financial management within fisher associations	Builds trust and compliance, enabling collective adoption of sustainable and adaptive fishing measures
Participatory decision-making processes	Inclusion of fishers in fisheries planning, protected area management planning and discussions on national fisheries regulations and climate adaptation planning	Promotes local ownership of national adaptive strategies (e.g., seasonal closures, gear regulations) aligned with building ecosystem and species resilience Improved integration of fishers into national adaptation planning
Access to and use of climate information	Training in interpreting NOAA heatwave alerts, meteorological forecasts, and ocean data	Enables proactive, risk-informed decisions on fishing timing, locations, and efforts to reduce exposure to climate hazards, identifying spatially relevant safe harbours
Participation in regulatory decision-making and coordination	Collaborative decision-making with Belize Fisheries Department and other agencies	Improves engagement and buy-in to the implementation of adaptive management measures, protecting critical habitats and fish stocks under stress
Financial and organizational sustainability	Strengthened record keeping, budgeting, and improved access to financing for adaptation	Ensures financial sustainability of fisher associations and continuity of climate adaptation actions, including diversification initiatives and emergency response planning
Peer learning and communication networks	Exchange of knowledge and best practices among associations	Facilitates dissemination of climate-smart innovations, enhancing collective adaptive capacity across communities

TABLE 9: Governance capacity and Climate Smart Outcomes

For Component 1, Stakeholders are the **Belize Fisheries Department** (Ministry of Blue Economy and Marine Conservation), and the existing and future **fisher associations and their members** in the coastal communities that have fishing-based economies.

For the long-term sustainability of what is achieved through Component 1 activities, at project completion, the hope is that fisher associations will emerge as financially self-reliant, institutionally recognized, and integrated actors within Belize's Blue Economy framework. Through strengthened governance, diversified revenue generation, and alignment with the Resilient Bold Belize Partnership for the Blue Economy, the associations will continue to deliver climate-smart fisheries management and livelihood support without dependence on GEF financing, ensuring durable adaptation outcomes for Belize's coastal communities. This is included as an overall goal of the PFP, long term sustainable financing.

Outcome 1.1. Re-establishment and strengthening of fisher associations

Fisher associations offer a scalable, community-led solution that aligns with SCCF's programming directions in strengthening climate resilience, promoting sustainable resource management, and improving socio-economic conditions in vulnerable communities. The target communities have been selected partly because of their high dependence on fishing, with the majority of the household incomes being linked either directly or indirectly to the fishing industry. Fisher associations serve as a platform for collective action, enabling these target communities to

respond more effectively to climate change threats such as coral reef degradation, shifting fish stocks, and extreme weather events. The fisher associations provide an organizational structure to enable their active participation in decision-making alongside government agencies and protected area co-management NGOs, as representatives of the fishers in their communities. By supporting them in registration as organizations, the SCCF creates opportunities for members to collectively apply for grants, and receive capacity-building support towards income diversification, reducing economic vulnerability and enhancing food security in these fishing communities. This strengthens long-term resilience, with these associations acting as intermediaries to channel resources effectively into community-led adaptation initiatives. This is further strengthened through the recognition of the importance of also engaging fisher spouses in the associations, who reside in the communities full-time.

Activities under the following outputs are to be defined in more detail under the PFP Conservation Plan.

1.1.1 Application or re-application of Fisher Associations to formally register with the Government including with up-to-date Memoranda and Articles of Association (MoA and AoA)

The project will assist at least 7 of the 9 identified potential fisher associations who expressed interest in the project to become legally registered, recognized by the Government of Belize and supported by this project, and beyond it by the PFP. Four fisher associations in the target communities are currently at various levels of organization and registration, as is the National Women in Fisheries Association (also included in this project). Another four are not organized as yet, and lack fisher engagement, clear short, medium or even long-term visions or objectives to guide their activities.

Activities to achieve this output include;

- Contract a consultant to assist the fisher associations in drafting organizational paperwork and finalizing organization registration (including fee for registration)
- Contracting a consultant to assist the fisher associations in developing basic strategic plans with well-defined direction and goals (to include support for meetings – hire of meeting venue, catering)
- Providing technical assistance to the Belize Fisheries Department to support development of criteria for recognition of fisher associations considered to be under sound governance and effective in representation of their members
- Support for annual general meetings per association to uphold good standing (hire of meeting venue, catering)

1.1.2 Training and financial capacity for management and administration to comply with each association's memorandum and articles of association

Critical support will be provided through the engagement (recruitment, hiring and salaries) of a paid Fisheries Association Manager for each of the registered fisher associations during the life of the project, improving stability and administrative capacity for the associations. The community-based managers will be engaged based on relevant administrative and financial management skills, and in-depth knowledge of the context in which the fishers are operating. They will be responsible for administration, financial management, and oversight while fishers are at sea as well as other activities included in their TOR (Annex 7: TORs for fisher association managers). Training will be provided where capacity gaps are identified, to ensure these managers can implement their responsibilities and capacity building to enable them to identify and access financial mechanisms for long-term financial sustainability of the associations. These trainings may also include areas such as basic governance and meeting management, financial management, and

capacity gaps that need to be addressed for implementation of the association strategic plans towards achieving the vision and strategies of each association. The Resilient Bold Belize (RBB) PFP will continue to fund these positions for 6 years after the end of the 3-year proposed project implementation to promote sustainability of the positive impacts that the association managers provide.

Activities to achieve this output may include:

- Contracting a fisher association manager from the target community for each association with administrative and financial management capacity, through a fair and equitable manager-hiring process supervised by the PMU.
- Purchase of office equipment and software for support of fisher association managers (e.g. computer, printer, laptop, accounting software, Microsoft office)
- Contracting a consultant to identify capacity gaps and needs, and implement trainings for the fisher association managers
- Fisher association meetings (venue, logistics, catering) required for implementation of the activities outlined in the TOR

1.1.3 Campaign drive to engage local fishing-dependent individuals as fisher association members, especially women

The fisher association managers will also be responsible for identifying and implementing strategies to increase the membership and active participation of men, women and youths from fisher families dependent on the fishing sector. Whilst fishers are often at sea for days at a time, women are resident in the community, providing the stability required for effective management of the fisher associations. By diversifying membership, with increased participation in decision-making and capacity-building activities, fisher associations also promote gender equity both locally and in national decision making, and enhance resilience across all targeted communities.

Activities to achieve this output may include:

- Communications and outreach materials distributed by the project manager to increase awareness of fisher associations and incentivize attendance at events / meetings

1.1.4 Training for associations to access and implement available grants and programs for fishing and livelihood diversification

The project will hire a consultant to provide trainings for fisher association managers in small grant proposal development, project management and implementation to improve access to livelihood opportunities for their members, linked to Outcome 2.1. Examples of funding opportunities in Belize available to fisher associations include Community Grants already being offered by the executing agency for the project, the Belize Fund, as well as the Protected Areas Conservation Trust (PACT), UNDP Small Grants Program, and the Artisanal Fisher Loan Pilot Program, all of which provide access to funding for sustainable fishing and income diversification.

Outcome 1.2: Increased transparency and confidence in national fisheries management strategies leads to increased adoption of climate-smart fishing practices by fisher associations

Improving open, transparent communication between fisher associations and the Belize Fisheries Department (BFiD) will foster greater trust and collaboration, with data sharing leading to evidence-based decision-making that enhances the resilience of the fishing industry to climate change. Providing fishers with opportunities to contribute their knowledge and insights, and participate in national discussions with the BFiD on the state of the conch, lobster and fin-fish fisheries and necessary interventions will strengthen their understanding and support for fisheries regulations and climate-smart fishing practices.

This strategy has proven successful in the past, with the ban on fishing parrotfish, with fishers adopting species-catch regulations within their practices as they were provided with logical scientific based reasons for these regulations through public campaigns This will result in fisher associations being more willing to advocate for adoption of sustainable practices, increasing their members adaptive capacity to climate change impacts on their livelihoods and improving the long-term resilience of Belize's fisheries sector in the face of climate change.

The SCCF project will also assist fisher associations in monitoring their fish catch through training and equipping for effective data collection, and investing in increasing the safety of the fishers out at sea, as they face increased threats to both lives and income from more intense, unpredictable storm events, and excessive heat, with the associated spoiling of fisheries products and reduced incomes.

1.2.1 Fisher associations participate in Fisheries Department discussions on fisheries management

Both the BFiD and the consultations with fishers and fisher associations identify establishing a position in the Belize Fisheries Department to liaise between the Department and the Associations as a key mechanism for strengthening the trust between the two. Improving consistent communication will provide a strong foundation for improved compliance with fisheries regulations and strengthened fisheries management. Through this project, the associations will be supported by the engagement of a Fisheries Liaison consultancy position within the Belize Fisheries Department, responsible for ensuring consistent communication of fisheries information to the associations, providing a point of contact for queries from the associations, and supporting the associations through regular site visits, as well as other activities included in the TOR (Annex 8: TORs for Fisheries Liaison Officer). The Fisheries Liaison Officer will be dedicated to, and responsible for, keeping the fisher associations updated on the latest catch data, changes to regulations and legislation, upcoming meetings and trainings, and promoting resilient, sustainable fishing practices. The post is also important for managing the requests to the Belize Fisheries Department for timely information and letters of support for association grant applications.

To deliver this output, funding will also be provided for fisher associations to attend national meetings that provide fishers with opportunities to participate in national discussions with the BFiD, with opportunities to contribute valuable insights to inform fisheries management and to improve fisher understanding of the use of relevant sector data such as stock assessments that drive fisheries management decisions.

Activities to achieve this output may include:

- Contracting of a Belize Fisheries Department Liaison consultant with a ToR that will include (but is not limited to):
    - Maintaining consistent communication with the fisher associations

        - Providing technical support and training for the associations in climate change impacts and fisheries management processes.
        - Hire and oversee consultants that build fisher association managers' capacity in financial and project management, basic governance and meeting management.
        - Assist fisher association managers in organizing regional and national meetings
    - Purchase of office equipment and software for the Belize Fisheries Department dedicated to support of the fisher liaison post (e.g. computer, printer, laptop, accounting software, Microsoft office)
    - Provision off a dedicated vehicle and fuel to support monthly meetings between the Fisher Liaison and each Fisher Association
    - Organization of 1 national meeting each year of fisher representatives from regional groups – 2-day meeting with an internal meeting on the first day of fisher association representatives, and with Belize Fisheries Department participation on the second day (venue hire, catering)
    - Support for fisher association representatives to attend regional and national meetings (meeting and travel expenses)

1.2.2. Training and equipment for climate-smart fishing practices and fishing safety measures

Fisher associations provide an intervention point for increasing fisher safety at sea in the face of increasing heat and storm events and uptake of sustainable, safe and climate-smart fishing practices. Using a 'train the trainer' approach, the project will provide training for fisher association managers to be able to provide their members with best practices and equipment use for increased safety and improved climate-smart fishing practices, enabling actual extraction-level adaptation, not just safety or post-harvest improvements. The fisher association managers will be supported by an expert consultant (funded under this project) to work with the association members to identify ways to climate-smart fishing practices for increased sustainability and value of catch, to improve the ability of fishers to maintain the quality of their product in the increased heat, and to pilot priority strategies identified by fishers (potential strategies may (or may not) include identification of ways to increase the insulation of ice storage boxes used to store the product on multiple-day trips, and ways to shade lobster and conch catch in canoes before reaching the sailboats and the ice storage box. This may also include identifying improved seafood handling practices to maintain the quality of the product during heat waves. Climate-smart fishing practices under this project go beyond safety gear and improved post-harvest handling to include concrete adaptations in **how fishers extract lobster, conch, and finfish in a warming, increasingly variable marine environment**. As sea temperatures rise and key commercial species shift to deeper, cooler, and more offshore areas, Belize's artisanal fishery, heavily dependent on non-mechanized free diving, must adjust extraction methods to maintain catch while reducing risk and ecological impact.

The project therefore supports the transition to a set of gear, techniques, and operational practices designed to sustain yields under climate-driven changes in species distribution and behaviour. It specifically seeks to work with fishers to identify adaptive fishing practices, as part of the Fisher Association activities focused on understanding and implementing climate change impacts and adaptation mechanisms, so has no prescribed activities. This approach is being used to provide a space where fishers can develop adaptive practices themselves, and have full ownership of the operational practices they identify, increasing their willingness to adopt these practices in their fishing. The following is a list of activities that may be deployed for fish extraction.

Ultimate practices utilized will be determined based on fisher knowledge of their fishing sites and resources, and their increased knowledge of climate change impacts, and may differ between fisher associations.

1. Depth-Adaptive Extraction Techniques
    - Training fishers in safe deep-sea diving protocols to allow access to lobster and conch moving into deeper refugia during warm-water periods.
    - Introduction of low-impact lift-bag systems to safely assist surfacing of heavier catches from deeper water without overexertion, reducing decompression-related incidents.
    - Guidance on seasonal depth-use maps generated from temperature and species-movement data shared by the Fisheries Department.
    - Equipping and training of fishers in use of dive watches to monitor their depths and surface times as they dive deeper
2. Climate-Smart Trap and Shade Modifications
    - Promotion of thermally adaptive traps (e.g., increased internal shading, modified entrances) that maintain attractiveness to lobster in higher-temperature conditions.
    - Gradual transition to biodegradable escape panels that reduce ghost fishing when storms intensify and gear loss increases.
    - Technical training on adjusting trap soak times to avoid hypoxic events that become more frequent in warming waters.
3. Spatial and Temporal Fishing Pattern Adjustments
    - Building the capacity of fisher associations to regularly access, interpret, and apply NOAA marine heatwave and bleaching alerts, NHC tropical storm warnings, and National Meteorological Office data to support timely communication and adaptive decision-making to increase safety for fishers at sea and fishing communities.
    - Using climate and oceanographic forecasts, fishers will learn to shift effort earlier or later within the season, targeting optimal windows for lobster and conch activity as warming alters behaviour and growth rates.
    - Adoption of climate-informed daily routing and timing, optimizing fishing paths based on predicted thermal refugia, reef-cooling zones, and local current shifts.
4. Reduced-Impact Extraction Techniques to Support Stock Recovery
    - Scaling up selective gear modifications (longer hook sticks, selective conch harvesting hammers) that minimize mortality of undersized individuals, which is increasingly critical as climate stress lowers recruitment.
    - Training in non-extractive species assessments (visual surveys, digital logbooks) to adjust effort before catch declines occur, thereby maintaining long-term yield.
5. Improved Finfish Harvest Adaptation
    - Introduction of hook-and-line modifications suitable for targeting finfish species shifting offshore or into cooler channels.
6. Climate-Informed Effort Management at the Association Level
    - Training on interpreting Fisheries Department temperature and catch-rate advisories to plan short-term operational decisions.
    - Associations supported in setting voluntary climate-adaptive effort caps during predicted thermal stress periods to prevent recruitment collapse.

7. Improved safety framework for fishers

- Developing a safety framework for members - a 'check out' log of member trips with basic information - Captain Name, Name of Vessel, Area of Departure, Destination(s), name of Crew, expected date of return and contact number on board the vessel
- Training of fishers in trip safety planning (including an emergency plan – emergency contact details for each step of the trip (e.g. Belize Coast Guard, Belize Fisheries Department, relevant NGO co-management ranger posts). Location of nearest hospital, equipment needed (e.g. first aid kit, fire extinguisher)
- Contract for training and certification of fishers in basic first aid to improve response in emergency health care.
- Equipping and training boat captains in the use of GPS devices and offline maps (e.g. Avenza) for improved navigation in bad weather and location of nearest safe harbours in storms.
- Contract for training and certification of fishers in basic first aid to improve response in emergency health care.

1.2.3 Training and monitoring equipment for fisher associations to collect and report catch data in a digital logbook application

Fishers have limited confidence in the information shared by BFiD on the state of the fisheries, and have expressed their interest in leading their own data collection efforts to be able to compare their perceived trends with the BFiD outputs. Alignment of the data will be a major step forward to building fisher confidence in the Belize Fisheries Department outputs, and improved understanding of how this is used to set quotas and develop regulations. The Belize Fisheries Department is also very keen to promote effective catch data collection by the fishers to better inform national policies.

With the right data, fishers and government can respond more quickly to environmental changes, reducing the risk of overfishing and preventing fisheries collapse. To support this adaptation, an electronic logbook (e-logbook) app is currently being tested and piloted in Belize as part of the PFP. This innovative tool will allow fishers to report fisheries data directly from their phones to the BFiD, improving data accuracy and timeliness. The app also provides fishers with access to their own production and revenue records, which can then provide them with cumulative data on fluctuations in commercial species per fisher association, leading to an improved understanding and trust in the results presented by the BFiD. Fisher Association managers will be trained in use of the application, to then be able to train their members. The project will also strengthen the capacity of the BFiD for data analysis. Data will then feed into the Belize Fisheries Department clearing house mechanism currently being developed under a parallel IDB project.

Activities to achieve this output may include:

- Training in use of the electronic logbook for collection of catch data
- Contracting of an expert consultant to work with the fisher associations to identify ways to improve climate-smart fishing towards increased catch value
- Investment in piloting the identified priority best adaptations for climate-smart fishing

COMPONENT 2: IMPROVED RESILIENT CLIMATE SMART LIVELIHOODS

In the target coastal fishing communities, the project seeks to address the high levels of climate vulnerability through promoting alternative future livelihood diversification for Belize's disproportionately large youth

population who will likely not be able to depend on the fisheries or natural resources for their livelihoods. It also addresses the need for fishing-dependent families to build their resilience through capacity building for climate-smart livelihood diversification. The rising costs of living in the target coastal communities is driving fishers to practice unsustainable and illegal resource extraction, exacerbating the impacts of climate change. This is compounded by limited financing to build capacity for effective natural resource management at the national level and a fragmented protected areas management policy and framework.

Component 2 takes a holistic approach to enabling coastal fishing communities to be better prepared to adapt to climate change impacts and seize new economic opportunities that promote a move to diversifying the income base. To achieve Component 2, educational scholarships provided through fisher associations will support continuing education for member families, and vocational training programs for pre-entry and entry-level fishers will equip youths with market-relevant skills and tools for income generation outside of the fishing industry. Youth engagement initiatives will foster climate change awareness, climate change adaptation and conservation leadership, and provide marketable knowledge and skills for opening increased employment opportunities in the marine resource management field while also nurturing future community leaders who understand climate change and adaptation needs and can lead action for building nature-based community resilience.

The **key implementing agencies** are the co-management NGO partners that hold agreements with the Government for marine protected area management and are reaching out to their stakeholder communities through well-developed outreach and income diversification programs, towards reducing fishing pressure on the MPAs. Strengthened collaboration between the organizations active in these communities will lay the groundwork for improved youth conservation leadership and livelihood diversification towards long-term community resilience. The NGOs are well established in the communities but currently have challenges in implementing strategies that successfully engage their stakeholder communities beyond individual projects, when longer-term interventions are needed for concrete outcomes and transformational change. Through this project, and then continuing through the PFP, these activities will be provided with consistent support across multiple years.

Additionally, private sector will play a central role in enhancing community resilience and stewardship in the larger Resilient Bold Belize – RBB PFP. Partners such as financial institutions and business development organizations will be engaged to co-develop and pilot tailored financial products that will increase resilience of coastal communities in Belize. These products could include retirement plans, savings schemes, and insurance for fishers and coastal communities. Private sector partners will also be engaged to deliver financial literacy and management training (also included in Component 1), embedding education into existing programs and adapting content to the needs of fishers, women, youth and disabled individuals. Additionally, private sector entities will be instrumental in establishing and operating entrepreneurship hubs to offer business advisory services, market access, and support for MSMEs through incubation and acceleration programs. Through these partnerships, the PFP, and this proposed project aim to foster sustainable economic opportunities and deepen community engagement in marine conservation efforts.

Sustainability of project achievements from both Component 1 and Component 2 will be supported through the project and the larger PFP's goals of **Institutional and Policy Integration, Capacity and Governance for Financial Independence,**

Institutional and Policy Integration: The project embeds fisher associations within the developing RBB PfP conservation plan, which aims for long-term institutional and policy continuity. This integration guarantees that fisher associations are not standalone entities but active contributors to Belize's PfP and Blue Economy financing model, promoting policy relevance and financial access beyond the project lifespan.

- Fisher associations will be formalized and registered, to be eligible for recognition as representing fishers by the Belize Fisheries Department's co-management framework, and eligible for technical and financial support from grant-giving agencies.
- The RBB PfP financing model unites government, NGOs, and private sector partners under a shared goal for sustainable financing.

Capacity and Governance for Financial Independence: During implementation, the SCCF project will prioritize the institutional strengthening of financial governance for transparency, accountability, and sound business management:

- Each association will develop and adopt a **Financial Sustainability and Business Plan** aligned with its adaptive fisheries and livelihood activities.
- A standardized financial reporting and auditing system will be established to maintain credibility with donors, banks, and the RBB PfP fund administrators.
- Partnerships with microfinance institutions and community banks will be leveraged to expand credit access for fisher-led enterprises long-term.

Outcome 2.1 Increased climate resilient opportunities for livelihood diversification

2.1.1 Training opportunities for existing/potential business owners in business planning and management

The project will strengthen the resilience of fisher families by providing equitable, accessible training opportunities in the communities in basic business skills (climate-smart business planning, budget development, grant development, marketing, financial management). The project will prepare both existing and planned business owners for access to future income diversification opportunities that can widen the economic base of the communities, improving employment opportunities and community resilience to both climate change and economic shocks by focusing on businesses that are likely to succeed given the realities of climate change. With improved access to climate-smart livelihood diversification opportunities, families will be able to reduce household dependence on fishing as the sole source of income, leading to stronger, more self-reliant communities that have increasing resilience to environmental, climate and economic shifts. The pressure fishers face to meet the economic needs of education and health for their children and families will be reduced with the development of a second supplementary household income, leading to reduced pressure on marine resources.

To prevent maladaptation, climate smart business planning and other livelihood diversification training opportunities will be guided by a framework identified by the Business/Bioeconomy expert with support from the Safeguards and Gender specialist. This framework will take a flexible, adaptive approach that takes into account lessons learnt (Annex 6) and will evaluate all proposed livelihood ventures, whether individual or

community-based, against climate vulnerability criteria to check they are viable under projected climate conditions in Belize's coastal zone. This framework will be developed during implementation but will include;

- Screening of potential projects for ability to contribute to improving the enabling environment for employment opportunities in the communities
- Screening of potential projects for environmental sustainability and resilience to climate change
- Identification of business opportunities that:
    - add value to existing farming / fishing products available in the communities, with potential for profit sharing;
    - are compatible with biodiversity conservation, excluding production or supply chains that promote exotic or invasive species;
    - Prioritize native species and incorporate sustainable agricultural and/or fishing practices

Examples of Livelihoods *Excluded* due to high climate vulnerability and to avoid fragile income streams;

- Rain-fed vegetable production
- Freshwater-intensive agriculture
- Livestock activities highly sensitive to heat stress
- Outdoor construction crafts dependent on dry-season predictability
- Unregulated river-based tourism prone to flood disruption

Note: The larger PFP initiative supported by this project has identified the potential for inclusion of support for three regional micro-enterprise development hubs / business incubation hubs to provide continuous support and mentoring to businesses in the target communities and facilitated access to grant and loan opportunities towards successful establishment of additional small businesses. This project will prepare community entrepreneurs for accessing the funding and mentoring support provided through these hubs and other initiatives.

2.1.2 In partnership with local NGO partners, fund existing successful youth engagement programs outside of fishing that provide entry points to potential employment

This project will provide funding to support the identified NGO partners in strengthening implementation of the well-established youth engagement programs in the target communities, particularly in the climate change components. The project will also be investing in replication / scaling up of successful engagement activities across the management seascape and building conservation leadership skills and understanding of climate-smart best practices in youths in these key fishing communities. As project implementation partners, NGOs will visit primary schools at least once quarterly to engage children in conservation education and activities. Co benefits will be seen through the increased youth leadership to utilize climate-smart best practices as part of the community adaptation and resilience process.

2.1.3 Educational scholarships for fisher association member families, targeting women and youths

Under this project, educational and vocational scholarships will be provided through the fisher associations through a fair, equitable selection process to be determined during project implementation. Consideration will be given to making the scholarship dependent on compliance with the association mandates, criteria will be clear, with scholarships that have the potential to include the cost of transport, book or accommodation support. The objective of the scholarships is to enable students to both reduce the financial burden on fishers from having to catch enough product to provide high school or tertiary

education funding, and to build skills for employment outside fishing to enable women and youths to explore opportunities in other sectors. Multi-year educational scholarships will be based on the educational performance of the students. Consideration will be given to incentivizing best fishing practices and compliance with the fisheries regulation by offering scholarships to fisher association family members only.

Activities to achieve this output may include:

- Education scholarships to youths (male and female) from fisher association member families for continuing education, with the potential to include associated costs (transport, books, accommodation)
- Vocational training and provision of set-up packages of 'tools of the trade' for successful vocational training graduates, prioritizing male youths moving into self-employment as an alternative to fishing

COMPONENT 3: KNOWLEDGE MANAGEMENT, COORDINATION AND COMMUNICATION

Component 3 provides the framework required for strengthening communication, and knowledge-sharing for project coordination facilitated by the development of a structured SCCF Project Communication Strategy and Plan, enhancing the coordination, management, and communication necessary for project execution by, among other actions: instituting effective day-to-day oversight and supervision of the project, providing support to project coordination teams in fulfilling their duties and obligations (including facilitating project audits), and devising and executing a comprehensive communication strategy for the project.

This component also recognizes the importance of communication in creating strong fisher associations and will strengthen communication and learning between associations through peer-to-peer exchanges and exchange trips to other countries, providing exposure to regional best practices in climate-smart, sustainable fishing. Through this, fishers will be better equipped to advocate for their needs, engage in policy discussions, and implement sustainable practices that will improve the resilience of the fisheries sector, their livelihoods and the marine ecosystems. The increased level of communication, collaboration and knowledge-sharing among the fisher associations and access to visual learning opportunities will build a more unified and informed fishing sector that can collectively address the challenges posed by climate change and unsustainable fishing.

By project close, fisher associations will have the technical and administrative capacity to manage funds, sustain operations, and mobilize new resources independently.
For the sustainability of Component 3 achievements, there will be systematic knowledge transfer and partnership continuity:

- Annual National Fisher Association Meetings will be supported and strengthened as a coordination and advocacy platform to continue capacity-building and peer learning.
- Lessons and financial models from SCCF will be captured and institutionalized through the RBB PFP's Knowledge Management materials, ensuring continued scaling of successful approaches across Belize's coastal communities.

- The project's governance and financial sustainability models will inform replication in other coastal sectors under the Blue Economy Strategic Plan.

OUTCOME 3.1 Strengthened coordination, knowledge sharing, and communication between fisher associations

3.1.1 Gender responsive Project communications strategy and plan

The Project Management Unit (PMU) will work with a consultant to develop a strategic gender-responsive SCCF Project Communication Strategy and Plan that aligns with the BGI IP RBB Child Project communications Strategy to be executed by the BBFP, WWF communications guidelines and GEF communications guidelines, to facilitate communication efforts for project coordination between all stakeholders and provide updates on project implementation.

A Communication Plan, to be embedded within the BFiD's broader communication strategies, will be developed at the start of the project by the Fisheries Liaison Officer and fisher association managers to guide communication between the Belize Fisheries Department, Fisher Associations and Fisher Association members, strengthening communication, coordination, collaboration, and knowledge-sharing among the fisher associations and between the associations and the BFiD. Clear and consistent communication will improve information flow, fostering greater cooperation between fisher associations and the Belize Fisheries Department towards support and collaboration for a more sustainable and climate-resilient fishing industry. Peer-to-peer exchanges and international exchange trips will provide fisher association members with exposure to global best practices in climate-smart, sustainable fishing, equipping them with the knowledge and skills required to strengthen the resilience of the fisheries sector.

Activities to achieve this output may include:

- Contract Consultant to develop the SCCF Project Communication Strategy and Plan
- Meeting for the Fisher Liaison Officer and fisher association managers to develop the Fishers Communication Plan for improved communication between the Belize Fisheries Department, fisher associations and association members venue, transport, catering)
- Communications materials identified in the Fisher Communications Plan (this should be one of the Fisheries Liaison consultant's outputs, based on the TOR).

3.1.2 Project lessons captured and disseminated

Utilizing available knowledge to apply best practices and lessons learned is important during both project design and implementation to achieve greater, more efficient, and sustainable results for stakeholders. Prior to finalizing the project design, existing lessons and best practices were gathered primarily from the PFP Guide "Securing Sustainable Financing for Conservation Areas: A Guide to Project Finance for Permanence," (Amazon Sustainable Landscapes Program, WWF. November 2021) and incorporated into the project design. (Annex 6: Lessons learned review)

All knowledge and communication products produced by the Project will be shared on an integrated website sharing information on the PfP, the Child Project, and the SCCF initiative, ensuring public accessibility for sharing knowledge and lessons learned during the implementation of the project while facilitating more efficient monitoring, reporting, and stakeholder engagement. If stakeholders participating in the project agree, documents related to lessons learned may be posted publicly on a website. The communications products will also consider the WWF GEF Project by ensuring materials produced are inclusive of both projects. Cost effective sharing of the dedicated communication specialist engaged under the BGI IP Child Project for support the Belize PFP, will provide high-quality and effective products that can strengthen the project implementation in Belize, and share best practices and key learnings with a wider audience.

Activities to achieve this output may include:

- Contract consultant for stories creation on project (Year 1: launch, Year 2: Progress, Year 3: Achievements) for public (national and international)
- Production of communications materials (e.g. printed, social media, presentations) identified within the project Communication Plan

3.1.3 Peer–to-peer exchanges between fisher associations at regional and national events will provide association members with opportunities to share best practices, discuss common challenges, develop collective solutions and promote knowledge exchange. The support of regional meetings of association leaders will provide spaces for regional exchange (north, central and southern Belize) – with elected representatives from these regions participating in a national annual fisher association meeting. These interactions will foster stronger networks, enhance problem-solving capabilities, and can bring the fisher voice to national fisheries management discussions, promoting inclusivity and providing true legitimate representation. The coordinated knowledge management and communication outputs will lead to strengthened collaboration, enhanced technical capacity, and a unified voice among fisher associations contributing to improved fisheries governance, and a more resilient fishing industry.

The project will provide funding for quarterly fisher associations meetings in each region (north, central and south), as well as an annual national fisher association meeting of representatives from the regional meetings.

Activities to achieve this output may include:

- 3 Regional meeting per annum of fisher association leaders (north, central and south)
- Costs include travel and meeting costs (venue, catering)

3.1.4 Exchange trips to other countries will allow fisher association members to learn from international experiences in climate-smart fisheries management and fishing practices, and community and individual income diversification strategies. First-hand exposure to successful sustainable fishing initiatives will help shape local adaptation efforts and inspire innovative approaches that can be applied in Belize's fisheries sector. To facilitate attendance at an international meeting each year attended by available fisher association managers, the project will provide funding for international flights, accommodations and meals to support

participation. On example of a program that the project could engage with is in Punta Allen, Mexico which is a helpful example of lobster fishing and tourism rotations.

Activities to achieve this output may include:

- 3 Regional meeting per annum of fisher association leaders (north, central and south), with costs include travel and meeting costs (venue, catering)

The link to the PFP and its multi-institutional structure also allows for the broad sharing of knowledge and resources across member organizations and through their respective networks. Collected knowledge will be analyzed alongside project monitoring and evaluation data at the annual Adaptive Management meeting. It is at this meeting that the theory of change will be reviewed, and modifications to the annual work plan and budget will be drafted. Lessons learned and best practices from the Project will also be captured from reports. External evaluations will provide lessons and recommendations. These available lessons and best practices will then be documented in the semi-annual project progress reports (PPR) (with best practices annexed to the report).

Monitoring and Evaluation:

The project Monitoring & Evaluation System will be delivered by the PMU in the Blue Bond and Finance Permanence Unit, led by the Monitoring, Evaluation & Knowledge Management Officer, working closely with the PFP stakeholders, and is composed of the following elements:

Annual Work Plan and Budget (AWPB) – Towards the end of each project year, the Belize Fund will work with project partners and in coordination with the executing partners, to develop a detailed AWPB that includes targets for key activities to achieve the outputs. When possible, the development of the annual work plan should consider suggestions for adaptive management and lessons learned, and attention to gender responsive activities and gender disaggregated targets will be made.

Project Results Framework (PRF) - The Project Results Framework includes core and additional indicators at the objective and outcome level, along with a methodology for data collection and analysis. It defines responsible parties and frequency of data collection, provides baseline information, outlines yearly or mid-term targets and addresses key assumptions or related risks that should be monitored or mitigated. Importantly, the monitoring and reporting framework also includes specific provisions for monitoring the gender dimensions of the project. Throughout the project's duration, the data collected on these indicators will be analyzed to determine if the project strategies are working towards achieving its expected results including gender-related outcomes. Progress against the indicator targets, including gender-related ones, will be reported at the end of each project year.

Project Progress Reports (PPRs) – The Belize Fund, in coordination with the executing partners, will complete a PPR after 6 months and 12 months of each project year. The PPR will report on the progress against the AWPB and the PRF. PPRs will also monitor achievements on the Gender Action Plan and the Stakeholder Engagement Plan. The 12-month PPR will include the project results delivered, tracked under the AWPB and the PRF. The PPR will inform the Project Implementation Report to be submitted by the WWF GEF Agency to the GEF, that reports on the implementation of the workplan, indicators, and the gender action plan.

Project Close Report (PCR) - The Blue Bond and Finance Permanence Unit will develop a PCR. The report will outline the same areas as the PPRs, but will be cumulative for the whole project period, and will also include information on project equipment handover, an assessment of WWF GEF Project performance, an exit and sustainability plan, and will focus on key lessons from the project. This report is due within one month after project close.

Mid-term and Terminal Evaluation Report - Independent Mid-term and Terminal Evaluation will take place at project mid-term and within six months of project completion, providing an external evaluation of the overall project effectiveness and efficiency. Terms of References for the terminal evaluation will be drafted by the WWF-GEF Agency and the Belize Fund in accordance with GEF requirements and the consultant will be contracted by the WWF-GEF Agency. The TORs will include that the Terminal Evaluation should report on gender-specific results and in particular the implementation of the GAP. The funding for the evaluations will come from the project budget.

Integration of the Gender Action Plan (GAP) – The recommendations of the GAP have been and will be incorporated into the above M&E elements. Development of the AWPB each year will be coordinated with the PMU, Protected area Managers and Co-manager to facilitate gender responsiveness across the planned project activities, and to include gender targets. The Project Results Framework includes specific gender indicators, and also indicators with targets disaggregated by gender. These will be tracked throughout the project implementation, and reported on as part of monitoring and evaluation. The six month and 12 month project progress reports will include subsections on implementation of the gender action plan, reporting on gender inclusion, and reporting against the specific gender indicators. TORs for the midterm and terminal evaluations will include specific provisions for evaluation of progress and results regarding gender inclusion in implementation of the project. Overall, the monitoring of the gender action plan has been accounted for through integration into the overall project and integration into the project's M&E systems and budget.

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

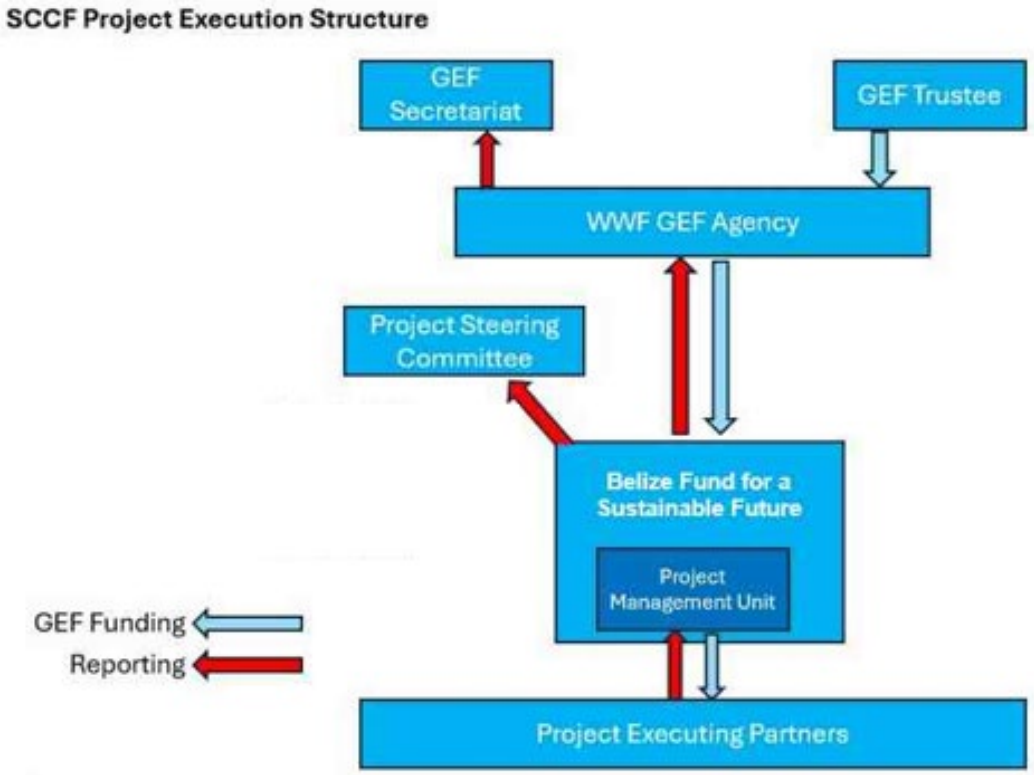


Figure 17. Institutional arrangements for project implementation

Executing Agency:

The Belize Fund for a Sustainable Future (the Belize Fund) has been selected to perform the role of the Conservation Trust Fund managing the transition fund of private and public funds for the Belize PFP, and also to perform the role of CTF Executing Entity for this SCCF project. The Belize Fund will therefore play the role of transition fund manager for the larger Resilient Bold Belize PFP when the PFP is launched, by receiving, managing, and distributing funds raised from private and public donors flowing through the transition fund, and will perform the role of Executing Entity as set out in this proposal. It has been selected according to the processes described below, applied by WWF which then recommended the Belize Fund to the Government of Belize. WWF and the Office of the Prime Minister of Belize agreed on the selection of the Belize Fund as the CTF, by mutual (unanimous) consent.

With respect to its role in the PFP as transition fund manager, among the criteria the Office of the Prime Minister of Belize and WWF applied in selecting the Belize Fund as the manager of the transition fund for the PFP are:

- The Belize Fund should have those capacities generally described in the Conservation Finance Alliance's Practice Standards for Conservation Trust Funds (https://www.conservationfinancealliance.org/practice-standards-for-ctfs-update), and must have

those capacities set out in the Practice Standards that WWF has determined are most necessary for its role as fund manager of the Belize PFP transition fund. In general, those priority standards relate to governance, administration, risk management and safeguards, and asset management.

- The Belize Fund must, either through its governing board or a steering committee governing a sub-account at the Belize Fund, be able to follow the directions of a body not controlled by government that will oversee the Belize PFP transition fund.
- The Belize Fund must meet the relevant GEF minimum fiduciary standards that apply to it as a subrecipient of GEF funds; must have adequate sub-granting, financial management, procurement, and risk management systems; and must have a history of successful and clean audits.
- Costs, net of all overhead, asset management fees, and the like, must be acceptable to WWF, as compared to similar funds for similar projects.
- After preliminary selection, the Belize Fund must enter into a grant agreement acceptable to WWF, which will incorporate the Conservation Plan, Financial Model, and Operations Manual for the PFP, and which will flow down all necessary requirements of the GEF and other donors. (In practice this will likely be achieved through more than one grant agreement.)

The Transition Fund will, in accordance with the PFP model, be governed by a Transition Fund Committee that is not controlled by Government. WWF will sit on that Transition Fund Committee. Once all closing conditions are met, the PFP closing agreement will be signed which will mark the start of PFP implementation and implementation of the proposed project, expected by mid-2026. Disbursement conditions and a Contingency Plan for the PFP can be found in Annex 9 for the GEF-SCCF funding to the Belize PFP transition fund.

With respect to its role as Executing Agency of this SCCF project, the Belize Fund has the capacity to lead the project reporting, formulating the annual workplans and budgets and ensuring the project activities are conducted as planned, and will execute all components of the proposed SCCF project. Currently, the Belize Fund has 9 staff members that include positions such as a Program Manager, two Project Officers, Finance Manager, Accounting Officer, Communications Officer, Communications Assistant, and Administrative Officer reporting up to the Executive Director.
After further Due Diligence is completed by WWF GEF , WWF US and the Belize Fund will enter into a grant agreement, for the disbursement of the SCCF funds for the project. The funding will be held in a designated account within the Belize Fund for specific SCCF Project Execution. A project Steering Committee will be established.

The steering committee will be a cross-sectoral, multi-stakeholder, decision-making body actively operational for integrating nature into the delivery of the SCCF project. This will include the adequate utilization of GEF-SCCF funding in accordance with workplans and budgets and WWF GEF Agency policies and procedures.

PSC members may include representatives from the following:

- Blue Bond and Finance Permanence Unit (Office of the Prime Minister)
- Ministry of Blue Economy and Marine Conservation
- Ministry of Sustainable Development, Climate Change and Solid Waste Management
- Ministry of Tourism
- Belize Fisheries Department
- Word Wildlife Fund-Belize Field Office

- Sarteneja Alliance for Conservation and Development
- Fisher Association Representatives

The project will be delivered in close coordination with the Blue and Green Islands Integrated Program Child Project in Belize that is being delivered by the Blue Bond and Finance Permanence Unit to support the PFP as well. The Executing Agency for the BGI IP Child project will sit on the Project Steering Committee for this proposed SCCF Project.

The below staff will sit within the PMU, for the detailed terms of reference for each of the below positions please see the additional Annex 10 Terms of Reference for Key Project Staff, including the Project Manager who will have a critical role to play in the technical delivery of all components.

Project Management Unit (PMU)

The Project Management Unit for the proposed project will sit within the Belize Fund for a Sustainable Future, the selected Conservation Trust Fund. The Project will consist of the following staff positions, with the graphic below representing which positions will sit within the PMU, be funded by the SCCF GEF Project, and which positions will be co-financed by the PFP (Figure 18).

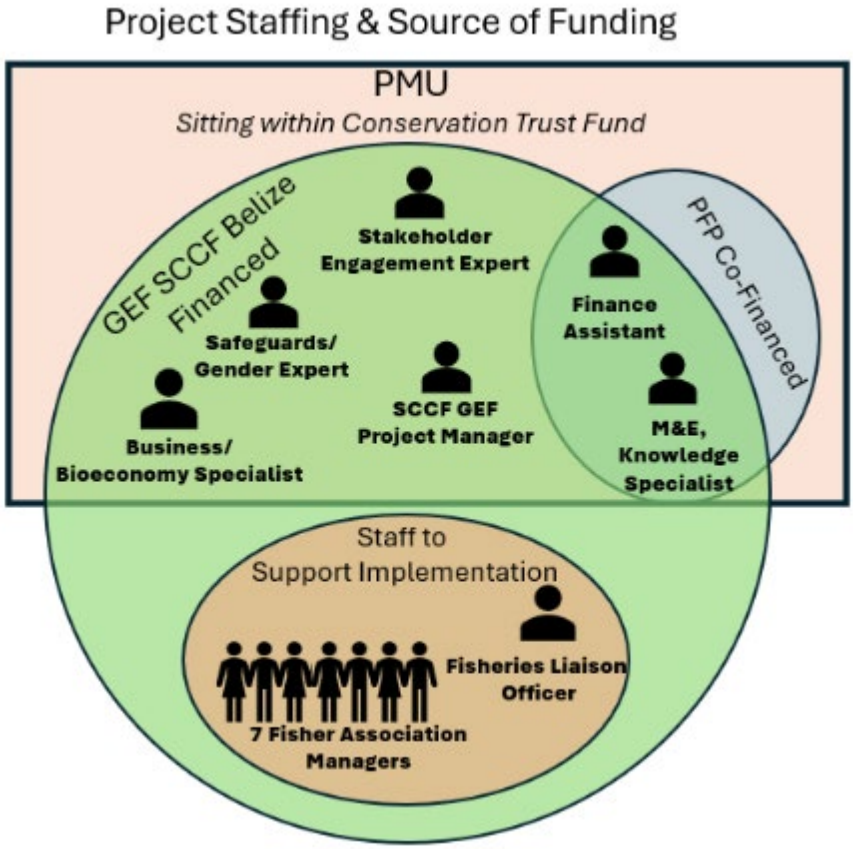


Figure 18: Staffing Structure

Project Manager *(100% time allocated to SCCF Project Delivery)***:**

The PM will be hired by, and sit within, the Belize Fund and report to the Belize Fund in addition to coordinating with the Blue Bond and Finance Permanence Unit BGI IP GEF Project Manager. The PM will be responsible for the overall management of the Project, including the mobilization of all project inputs,

reporting to the WWF GEF agency, supervision over project staff, consultants and sub-contractors. The PM will report to the Belize Fund lead for all of the Project's substantive and administrative issues. From the strategic point of view of the Project, the PM will report on a periodic basis to the Project Steering Committee. The PM will perform a liaison role with the government, CSOs and project partners, and maintain close collaboration with other donor agencies providing co-financing. The project manager will raise all concerns during project implementation to the WWF GEF Agency with the goal of adaptively managing project implementation.

Business/Bioeconomy Expert

This role is largely responsible for delivery of Component 2 of this project. The stakeholder engagement expert and the safeguards and gender specialist will work with the Business/Bioeconomy expert to deliver Component 2 with the aim of avoiding maladaptation in livelihood diversification opportunities and trainings. One method of doing so will be to work to define a "climate-smart" business in the context of Belize and developing a framework for assessing identified opportunities and their resilience to climate change. This expert will bolster the PFP at large and guide communities in developing their businesses that will need to be resilient in the face of worsening climate change, emphasizing low environmental impact, resource efficiency, and adaptability to shifting conditions. By offering training in business development, financial management, and market access, the expert will help build local capacity while ensuring long-term viability. Ultimately, they will foster innovative, nature-based enterprises that support community well-being, environmental stewardship, and economic resilience in an increasingly uncertain climate. The expert will communicate closely with the PMU and report to the project manager for the proposed project. After the project closes this position will continue to be funded by the PFP and sit within the Belize Fund.

Stakeholder Engagement Expert

The stakeholder engagement expert will be responsible for ensuring that meetings and trainings held in the target coastal communities in Belize are inclusive, participatory, and culturally appropriate. They will be assisting with on-the-ground project implementation, to facilitate meaningful dialogue among diverse community members, including women, youth, elders, and marginalized groups, to ensure that all voices are heard and considered in decision-making processes. The expert will design and lead engagement strategies that build trust and foster collaboration, using clear communication and locally relevant approaches. They will also coordinate logistics, support local fisher associations in their objective of being more inclusive, and ensure that training sessions are accessible, relevant, and responsive to the needs and priorities of the community. After the project close, this position will continue to be funded by the PFP and sit within the Conservation Trust Fund. The stakeholder engagement expert will coordinate closely with the safeguards and gender specialist and report to the project manager.

Safeguards and Gender Specialist

This position will be sitting within the Belize Fund, the Conservation Trust Fund, to provide capacity for the delivery of the project through the transition funding mechanism. This specialist will work in close coordination with the BGI IP Child Project which has a full-time safeguards and gender specialist as part of the PMU sitting within the BBFPU.

The importance of social equity, gender inclusion and safeguards mitigation are paramount to the delivery of this project and the PFP at large. The SCCF GEF Project Safeguards and Gender Specialist will manage the delivery of the Environmental and Social Safeguards Management Plan and Gender Action Plan (GAP) for the PFP as well as the GAP for this specific project. Safeguards and Gender Specialist will coordinate closely with the project Stakeholder Engagement Expert in delivery of relevant plans and report to the project manager.

Monitoring, Evaluation & Knowledge Management (MEK) Officer (40% funded by GEF SCCF- Co-financed by the PFP)
Under the guidance and supervision of the Project Manager, the MEK Officer will be responsible for project monitoring and evaluation activities including tracking and reporting project implementation against project work plans, which will be implemented by the Belize Fund and a diverse group of partner organizations, and reporting progress towards outcome indicator targets. The MEK Officer's time will be split between this project and the monitoring and evaluation of the larger PFP on behalf of the Belize Fund. This position will work in tandem with the BGI IP Belize GEF Child Project Monitoring and Evaluation Officer.

Finance Assistant (40% funded by GEF SCCF- Co-financed by the PFP)
The Finance Assistant will manage all financial and operational aspects of the Project including project budgeting, contracting, subrecipient monitoring and evaluations, financial tracking and reporting, and administrative functions in accordance with WWF GEF and the Belize Fund policies, procedures, systems, and requirements. The Finance Assistants' time will be 40% funded by this project and the remaining 60% will be funded by the larger Resilient Bold Belize PFP. This position is intended to work on both the larger PFP as well as this GEF SCCF Proposed project.

GEF Agency Oversight and Supervision
WWF-US, through its WWF GEF Agency will: (i) provide consistent and regular project oversight to ensure the achievement of project objectives; (ii) liaise between the project and the GEF-SCCF Secretariat; (iii) report on project progress to GEF Secretariat (annual Project Implementation Report); (iv) ensure that both GEF and WWF policy requirements and standards are applied and met (i.e. reporting obligations, technical, fiduciary, M&E); (v) approve annual workplan and budget; (vi) approve budget revisions, certify fund availability and transfer funds; (vii) organize the terminal evaluation and review project audits; (viii) certify project operational and financial completion, and (ix) provide no-objection to key terms of reference for project management unit.

Will the GEF Agency play an execution role on this project?
☐ Yes **x No**

If so, please describe that role here and the justification.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing *(max. 500 words, approximately 1 page)*

The GEF-SCCF project is fully aligned with Belize's GEF-8 BGI-IP Child Project 'Resilient, Bold Belize' which seeks to achieve effectively managed and increasingly resilient marine and coastal ecosystems that support the wellbeing of Belizeans.' It supports the Resilient Bold Belize – Belize's Project Finance for Permanence, a pioneering Project Finance for Permanence (PFP) initiative aimed at securing long-term conservation and sustainable management of Belize's marine and coastal ecosystems (Figure 19). This public-private partnership, spearheaded by the Government of Belize, supports marine conservation and enhance climate resilience through establishing sustainable financing, promoting nature-based solutions and strengthening climate resilience. It emphasizes a transparent and inclusive conservation planning approach, engaging key

stakeholders from the private sector, public sector, scientific community, conservation NGOs, and civil society. This collaborative effort aims to integrate nature-based solutions into the national agenda. The proposed project prepares stakeholders from the most vulnerable fishing communities for participation in the larger PFP.

The Belize Fund for a Sustainable Future has partnered with many organizations through strategic partnerships, co-financing, and joint project implementation. Working alongside partners such as the Wildlife Conservation Society (WCS), The Nature Conservancy (TNC), World Wildlife Fund (WWF), United Nations Development Programme (UNDP), the Ministry of Sustainable Development, Climate Change and Disaster Risk Management, and Ministry of Blue Economy. The Fund co-finances and implements programs that conserve biodiversity, strengthen environmental governance, and support sustainable livelihoods to meet national marine biodiversity commitments and global biodiversity targets. These collaborations mobilize resources, build local capacity, and enhance community resilience across Belize.

As described in the above project implementation arangements and the structure of the PMU for this project, all positions for this project will be working in partnership with the complimentary WWF GEF Blue and Green Islands Integrated Program Child Project (GEF ID:11250) which is executed by the BBFPU and implemented by WWF GEF Agency.

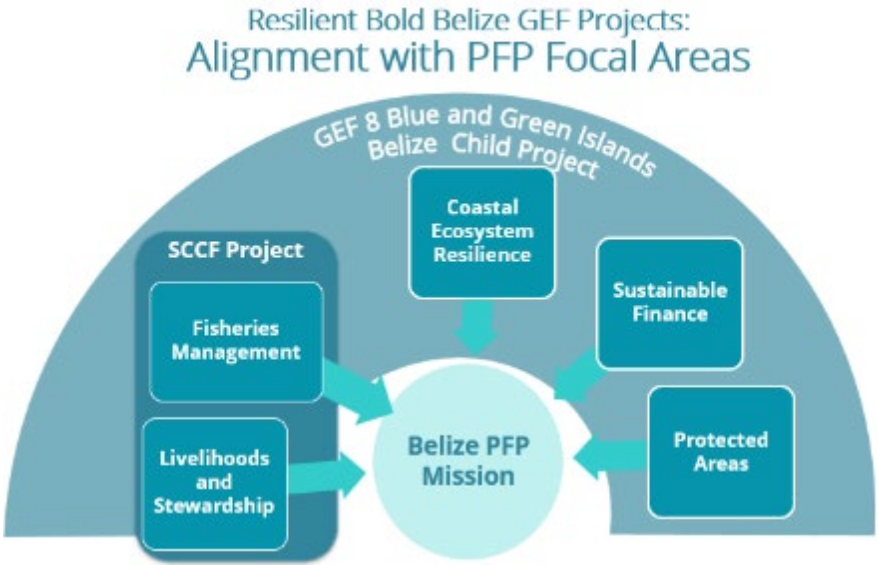


Figure 19: Alignment with RBB-PFP Focal Areas

The proposed interventions of the project align with the following country priorities:

Horizon 2030: National Development Framework for Belize 2010-2030: In alignment with the post-2020 Global Biodiversity Framework, Horizon 2030 highlights strategic priorities for Belize leading up to the year 2030. These priorities include democratic governance for effective public administration and sustainable development; education for development; economic resilience and a healthy environment as a source and basis of economic and social progress. This is implemented through #PlanBelize.

#PlanBelize Medium-Term Development Strategy 2022-2026: The #planBelize's Medium-Term Development Strategy 2022-2026 sets the Government of Belize strategic objectives to create the enabling environment to support increased economic growth, sustainable development, transformation, and investment climate for a resilient Belizean society. This includes "support for monitoring and training of fishers, reef-users, coastal and rural communities on good fishing practices, marine resource conservation, sustainable reef management, safe garbage disposal."

Belize's updated Nationally Determined Contribution (2021). Belize's updated Nationally Determined Contributions (NDCs) include both mitigation and adaptation components with targets to reduce greenhouse gas (GHG) emissions between 2021 and 2030. The NDCs are part of Belize's commitment to transition to low carbon development and strengthen resilience to climate change effects. The NDC emphasizes the importance of enhancing adaptive capacity and resilience in the fisheries sector, recognizing its vulnerability to climate change impacts. As one of its objectives, the NDC seeks to integrate climate adaptation into national development planning, particularly in sectors critical to the economy and food security, such as the fisheries industry. It highlights the significance of providing training and resources to support diversification of income-generating activities, to decrease dependence on climate-sensitive sectors, and also seeks to promote capacity building for adaptive capacity, ensuring that communities can effectively respond to climate-related challenges.

National Biodiversity Strategy and Action Plan (NBSAP): The National Biodiversity Office, under the Ministry of Sustainable Development, is responsible for implementing the NBSAP which provides guidance towards achieving Belize's commitments to the Convention on Biological Diversity (CBD), including the need to meet the 30x30 target and the Kunming-Montreal Global Biodiversity Framework. The NBSAP provides the national strategies for conservation of biological diversity, sustainable use of the components of biological diversity and fair and equitable sharing of the benefits that arise from the utilization of genetic resources.

National Protected Area System Plan (NPASP): This plan aims to provide effective, adaptive management of protected areas and sustainable use of Belize's natural resources to support local livelihoods. The plan also seeks to protect the country's biodiversity and maintain genetic diversity within species.

Belize Maritime Economy Plan - Belize. Commonwealth Economies Programme, 2022: Good Governance: Working towards a system that promotes sound public sector management, ensuring accountability and transparency through responsible decision making and a legal framework for development.

National Environmental Strategy (2024 – 2024) and Action Plan (2022 – 2026) (NESAP): This document is used to set policies, priorities, action plans and anticipated results that would address the environmental challenges Belize faces. It aims to provide a clear, updated environmental assessment and act as an operational tool to mobilize resources, develop capacity and execute the Department of Environment's mandate.

National Fisheries Policy, Strategy and Action Plan: This policy, strategy and action plan embraces key pillars in Belize's fisheries sector such as adaptive management, the ecosystem approach, Climate Change, Blue Economy, and the involvement of women in fisheries. It also looks at response to development challenges

and opportunities faced by the fisheries sector, and in particular the need to improve the sustainable production of fish for food security and income generation. The Plan is being implemented by the Belize Fisheries Department from 2022-2024.

Blue Economy Development Policy, Strategy and Implementation Plan (BEDPS) 2022-2027: This plan sets out to create the enabling framework for Blue Economy (BE) development in Belize with the vision that "Belize's Blue Economy is, by year 2030, productive, sustainable, resilient and vibrant, contributing sustainably to the socio-economic well-being of the country and its people." The five-year policy, strategy and plan will be implemented by the Ministry of Blue Economy (MBEDRM) through a multi-sectoral approach with stakeholders and collaborative partners while incorporating BE guiding principles to ensure sustainable economic growth while promoting the protection of Belize's blue spaces. This includes a specific straegy for "Engaging buffer communities for Collaborative stewardship of the NPAS".

The project aligns with the folowing Kunming-Montreal Global Biodiversity Framework, and most specifically the following targets:

Core Indicators

Indicate expected results in each relevant indicator using methodologies indicated in the GEF-8 Results Measurement Framework Guidelines. There is no need to complete this table for climate adaptation projects financed solely through LDCF and SCCF.

Core and sub-indicators for the LDCF and SCCF (2022-2026)				
Core indicators (used at PIF, CER, MTR, TE stages)	**Sub-indicators (to be used as relevant for each project at CER, MTR, TE stages)**	**Total**	**Male**	**Female**
		7,316	**3,699**	**3,617**
INDICATOR	**Sub-indicators**	**Total**	**Male**	**Female**
	1.2 Number of direct beneficiaries with diversified and strengthened livelihoods and sources of income (sex disaggregated)	2,456	2,373	83
	1.4 Number of youth (15 to 24 years of age) benefitting from the project (sex disaggregated)	3,498	1,766	1,731
	1.5 Number of elderly (over 60 years of age) benefitting from the project (sex disaggregated)	570	294	276
3. Number of policies/ plans/ frameworks/institutions to strengthen climate adaptation	3.1 Number of policies/plans developed and strengthened that will mainstream climate resilience (regional, national, sub-national)	7	N/A	N/A

	3.2 Number of systems and frameworks established for continuous monitoring, reporting and review of climate adaptation impacts	1	N/A	N/A
	3.4 Number of institutional partnerships or coordination mechanisms established or strengthened	1	N/A	N/A
	3.5 Number of institutions with increased capacity to plan, implement, monitor, and report for climate adaptation	7	N/A	N/A
	3.7 Number of local community organizations benefitting from and/or engaged in institution strengthening, partnerships or financing	7	N/A	N/A
4. Number of people trained or with awareness raised (sex disaggregated)	4.1 Number of people trained or made aware of climate change impacts and appropriate adaptation responses (sex disaggregated) at:			
	*National government	1	1	
	*Local community organizations	507	443	64
	*School children, university students, and teachers	709	358	350
	*Youth (15 to 24 years of age)	862	499	363
	*Community participants	100	40	60
	TOTAL	**1524**	**948**	**575**
5. Number of private sector enterprises engaged in climate change adaptation and resilience action	5.2 Number of entrepreneurs supported for climate adaptation and resilience (Sex disaggregated)	40	16	24

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators *(max. 250 words, approximately 1/2 page)*

The target selection and numerical values in the Core and Sub-Indicators table follow a results-based management framework aimed at quantifying climate adaptation outcomes and project outcomes. They take into account 1) alignment with global climate adaptation goals (including UNFCCC/SDG/NDC targets); 2) measurable, time-bound results tied to specific interventions; and 3) disaggregated data for inclusivity. Target figures are based on the project's intended reach and capacity and come from baseline studies, consultations and feasibility assessments conducted at the project design phase. Almost all beneficiary-related indicators are sex-disaggregated, reflecting the gender-sensitive approach. Sub-indicators drill down into specifics, such as demographics (gender, age) and sectors (fisheries, community), allowing nuanced measurement of impact.

Indicators 1 and 4: Baseline national data used in the determination of beneficiaries includes:

- Census data provides the total population of Belize (397,483), the population in the 10 target communities, and the national breakdown by gender and age[64] (community level breakdown by age has

64 Statistical Institute of Belize Census data 2022 (released 2024)

not been released yet). The gender ratio at national level is reflected in the gender ratio in the target communities (50.5% male: 49.5% female). This ratio has been used to calculate male vs. female participation in non-fisher related activities. It should be noted that commercial fishing is a predominantly male occupation, with only 17 women registered as fishers, as opposed to 852 men.

- Belize Fisheries Department commercial fishing license data provides the origin and gender of all commercial fishers, but not the age (September, 2024).
- Youths and elderly beneficiaries are calculated based on the % of the national population that are youths (M: 49.9%; F: 50.2%) and elderly (M: 8.3%; F: 7.9%) applied to the total population of the target communities, and then calculated as 80%, based on the increased communication of climate events and risks reaching 80% of the residents in the communities

Indicator 3: Fisher Association data:

- The Chunox Fisher Association has been recently re-established and has a membership of approximately 100, just under 50% of registered fishers in that community. The same was true of the Sarteneja Fisher Association when it was last active. However, some communities have much smaller populations (Riversdale, for example, only has a population of 79, of which 16 are registered fishers). The target selected is therefore set at 500 members in total, across at least 7 fishing communities and the National Women's Fisher Association. It is expected that recruitment of women during the project will increase, but the figure is conservative and based on indications from fisher association ability to mobilize women during fisher-related consultations.

Indicator 5:

- This indicator was determined based on the population in the target communities, potential for community members to attend trainings and then the absorptive capacity of those community members, including potential space for businesses and entrepreneurs to develop.

Risks to Achieving Project Outcomes

RISK CATEGORIES	RATINGS	ASSESSMENT AND MITIGATION MEASURES
CONTEXT		
Climate	Moderate	Extreme weather events exacerbated by the effects of climate change – such as increased ocean temperatures, storm events (including hurricanes and flooding) – could impact the project in several ways, such as impacting participation as a result of shifting the priorities of the fishing communities if hit by tropical storms, shifting the use patterns of fishers, limiting transportation and access, or delaying activities. The project will address this by checking that project activities, and the PFP Conservation Plan are climate sensitive, climate smart and incorporate multiple future RCP[1] climate scenarios based on National Reports. There is limited climate data available for Belize which could pose a risk to project development. The Project development team has coordinated with the Ministry of Sustainable Development and Climate Change to obtain the most recent data.

		[1] RCP: Representative Concentration Pathways are used to understand how our climate may change in future, drawing on past trends in climate change.
Environment and Social	Low	The activities this project proposes are considered to be low risk, as they primarily concern technical assistance, delivered through various forms, to fishers' associations. As such, although the three process standards in WWF's Environmental and Social Safeguards Framework — namely, Environmental and Social Risk Management, Grievance Mechanisms and Stakeholder Engagement —apply, no additional substantive standards have been triggered. This project therefore presents no need for additional mitigation measures. That notwithstanding, WWF is committed to pursuing inclusive conservation in each of its projects, which is why the Stakeholder Engagement Plan (SEP) has a subsection suggesting additional steps that can be taken to ensure equitable stakeholder participation during project execution.
Political and Governance	Low	The political risk to this project is low because the Belize Government is very adaptive and has methods for mitigating potential conflict in the case of a change of government officials. If a new government is elected, it is unlikely that the project would not be supported - when a project is funded by multilateral funding, all political parties recognize formal, official funding agreements and do not seek to change them when taking office. The Project Manager in the PMU will undertake mitigations, including coordination between different ministries in the government and the project partners to ensure that the project remains on track despite any changes that may result from local and national elections.
INNOVATION		
Institutional and Policy	Low	The Government of Belize has signed an MOU to demonstrate support for the development and implementation of a long-term Project Finance for Permanence to be implemented in Belize. The strategy for GEF Project implementation will be informed by government policies.
Technological	Low	The project will assist in coordinating the roll out of the Logbook digital application that the PFP will be leading for monitoring and reporting fishery catch data. The risk of involvement of this application would be that some stakeholders are unable to access it due to their cell phone capability or limited access to internet. The application is being designed to function offline to mitigate these risks.
Financial and Business Model	Low	The Belize Fund for a Sustainable Future, as the CTF, will by the closing of the PFP have the necessary financial information and planning systems in place to coordinate long term sustainability of the project. There is a risk that the PFP long term activities will change as the PFP has yet to

		reach closing (begin implementation), this could jeopardize the anticipated funding for the long-term financial sustainability of the Fisher Association Manager positions and the Fisher Liaison position beyond the project. There is a risk that the PFP will not reach the fundraising goal by the designated time for single close of the PFP.
EXECUTION		
Capacity for Implementation	Moderate	The project will be implemented by the selected Conservation Trust Fund, the Belize Fund for a Sustainable Future. This CTF was established March 2022, as a funding mechanism arising from a sovereign blue bond aligned with Belize's marine/coastal conservation and blue-economy ambitions. In its short lifespan so far it has disbursed over $19 million Belize Dollars (or equivalent). However, limitations, typical for a new institution, are the relatively short track record of measurable long-term ecological or social outcomes, and only initial results for on the full portfolio and impacts.
Fiduciary	Moderate	The fiduciary capacities of the Belize Fund, as the selected CTF, have been preliminarily assessed during an analysis conducted by the WWF PFP team and Government. Another Due Diligence process will be conducted by the WWF GEF Agency prior to project implementation. The Belize Fund was preliminarily assessed in January 2024 as not meeting the asset management conditions needed for the Belize PFP because it had not had time since its recent creation to establish investment governance structure, asset management systems, proven asset management capability, and significant proven experience and good understanding of the operation of international financial markets. While the fact that the PFP contemplates the Belize Fund managing a transition fund rather than endowment ameliorates these concerns somewhat, WWF will be requiring capacity building of the Belize Fund in the area of asset management before the closing of the PFP or proof of improvements that it understands the Belize Fund has made in this area since the January 2024 assessment.
Stakeholder	Low	In accordance with the WWF and GEF Environmental and Social Safeguards Standards, the proposed project will be delivered following a Stakeholder Engagement Plan by the Belize Fund, as the executing agency. The main risk seen during project development is the lack of stakeholder willingness or interest to participate in consultations. Because this was identified early on, mitigation efforts have been integrated into the Stakeholder Engagement Plan, ensuring that relevant stakeholders are engaged at appropriate times during the project implementation and targeting specific groups of people and intervention strategies (such as the fisher associations), through more accessible engagement and communication mechanisms,

		and mitigating restrictions of women and youth participation. Climate-smart business planning and other livelihood diversification training opportunities will be guided by a framework identified by the Business/Bioeconomy expert with support from the Safeguards and Gender specialist.
Other – Macro-economic	Moderate	Belize's main income generating sectors are crucial to the project's success as the project will depend on some government funding for the long-term sustainability of the PFP. The COVID-19 Pandemic had detrimental effects on the tourism sector, another pandemic like this could cause further economic problems for the country. Something the fishers that were consulted identified as a risk during a natural disaster is that relief funding is normally directed towards other sectors such as agriculture during severe droughts or as a result of disease. If the government needs to divert funding elsewhere, it is a possibility that the government will not be able to deliver on the prioritization of fisher livelihoods and the communities that are fishery dependent.
Other- PFP Buy-in	Low	There is a low risk of low-level of buy-in to the PFP, which would impact support for implementation beyond the life of the GEF-SCCF project. This has been addressed through a highly participatory, cross sectoral process in the development of the Conservation Plan which guides the PFP delivery that has been ongoing since 2022. This is inclusive of both Government and private sector stakeholders, with representation of both fishery and tourism resource users to encourage a strong national commitment for successful implementation. This is further strengthened by the position of the PFP focal point, located in the Blue Bond and Project Finance for Permanence Unit in the Office of the Prime Minister, and the dedication of GEF funding to the initiative.
Overall Risk Rating	Low	Based on the categories identified in the risk rating table, the overall project risk rating is categorized as Low.

The incremental value of the three components is presented below based on the 'business as usual' scenario, and the alternative scenario with the investment in implementation of the GEF project. It also identifies the global environmental benefit of the project.

COMPONENT	BASELINE (Business as usual)	ALTERNATIVE SCENARIO (with GEF project)	SUSTAINABLE DEVELOPMENT BENEFIT
COMPONENT 1: STRENGTHENED ADAPTIVE CAPACITY OF FISHER ASSOCIATIONS TO PROMOTE MORE	Fishers will continue to be marginalized and unrepresented in national fisheries decision making, with continued lack of trust with the BFiD over the trends	The project will improve representation of 2,464 fisher in national fisheries discussions through legally recognized fisher associations, with increased communication	This project will contribute towards the improved sustainability of national fish stocks

PRODUCTIVE, CLIMATE RESILIENT FISHERIES	demonstrated by the fisheries catch data and limited incentive to follow fisheries regulations and best fishing practices. Fishers will become increasingly at risk of damage their health as the fisheries conditions change as a result of climate change impacts (increased eye, ear, heart and lung issues as a result of current fishing practices, and reduced catch quality as heat during storage and transport become more of an issue	between the BFiD and the associations, building trust and understanding of the science behind the regulations, incentivising improved compliance with the regulations, resulting in greater participation in practices that will improve sustainability of national fish stocks The project will establish and strengthen fisher associations in key fishing communities, supported by skilled association managers tasked with ensuring association members benefit directly from the access to trainings and equipment to improve safety, health and product quality at sea in the increasing sea and air temperatures, access to investment opportunities for income diversification towards reduced dependency on the fisheries resources, and The project will strengthen fisher associations to be able to address specific climate risks (marine heatwaves, storms, sea-level rise, salinization, and ecosystem degradation) through improved governance, and access to climate information, enabling informed, coordinated responses and climate-smart fishing practices, reducing household and ecosystem vulnerability	This project will reduce the potential for climate-related health impacts for 500+ fisher association members. The project will increase access to socio-economic benefits for more than 2,270 households in 10 of the most vulnerable coastal fishing communities The project will contribute towards widening the economic base of the communities, improving climate change resilience for 9,146 people in the 10 most vulnerable fishing communities
COMPONENT 2: IMPROVED RESILIENT CLIMATE SMART LIVELIHOODS	The 10 most vulnerable coastal fishing communities are heavily dependent on fishing. Climate-impacted degradation of reefs with decreasing fish stocks, coupled with increasing	The project will providing improved capacity for households to access future climate-smart livelihood diversification opportunities, reducing household	

	numbers of fishers, and limited alternative employment options in the communities push fishers into unsustainable and illegal fishing practices to meet household needs, increasing the pressure on already degraded marine resources.	dependence on fishing as the sole source of income, The pressure fishers face to meet the economic needs of education and health for their children and families will be reduced with the development of a second supplementary household income,	
COMPONENT 3: KNOWLEDGE MANAGEMENT, COORDINATION AND COMMUNICATIO N	Limited communication between the Belize Fisheries Department and fishers leads to their limited ability to advocate for fisher needs or influence decisions affecting the fishing sector. Fishers are finding it harder to identify mechanisms for reducing their fishing pressure and increasing resilience of the resources they depend upon as they have limited exposure to sustainable and climate-smart fishing practices and access to new knowledge and techniques.	The project will improve communication between the Belize Fisheries Department and the fishers through the fishing associations, improving trust, information sharing and coordination towards more sustainable, climate-smart fishing methods. The project will provide opportunities for peer-to-peer learning and for fisher exchanges with other countries in the region to increase fisher exposure to improved sustainable fishing practices.	

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

The project fully aligns with SCCF Priority Area 1: Supporting the Adaptation Needs of SIDS. As a SIDS, Belize falls within the geographic scope of the SCCF as one of the most vulnerable countries on the planet to adverse impacts of climate change. It prepares the stakeholders – fishers and the vulnerable coastal fishing communities, including SCCF-prioritized gender and youth focused programs, for participation in the larger PFP and the GEF-8 BGI IP Child Project, and for taking ownership of climate solutions that improve their community adaptation and livelihoods.

The project contributes directly to achieving the Paris Agreement's global goal on adaptation by enhancing resilience, strengthening adaptive capacity, and reducing vulnerability within coastal fishing communities. It addresses the core pillars of adaptation by fostering sustainable livelihoods, building institutional capacity, and promoting inclusive, community-driven approaches to climate resilience to enable the most vulnerable coastal fishing communities through provision of the tools and knowledge to thrive in the face of climate change.

By engaging and building the capacity of youth and future leaders through leadership programs and scholarships, the project will foster long-term adaptation by cultivating a new generation of conservation-aware leaders who can drive adaptive change in their communities.

Country	
Belize	**How is the project contributing to the GEF-SCCF Outcomes**
Component 1. Strengthened adaptive capacity of fisher associations to promote more productive, climate resilient fisheries	
Outcome 1.1 Enabling environment created for fishers to coordinate and participate in policy making through strengthened fishers associations in X# of communities **Outcome 1.2.** Members of fisher associations report improved livelihoods as a result of increased training and capacity building	**Climate-resilient ecosystems and fisheries:** Strengthens governance and participation: Strengthening fisher associations provides a collective platform to amplify the voices of local stakeholders supporting their inclusion in decision-making processes for sustainable resource management and policy development, aligning with GEF-SCCF's vision of community empowerment. The project aligns with Lever of Transformation 2: Strengthened governance for adaptation, strengthening the structures for decision making, with training and capacity-building initiatives that build adaptive capacity, equipping fisher associations for participation in discussions on adaptation and push for changes that support their livelihoods and projects that build resilience in their communities. Building the skills to adopt climate-smart fishing practices, fostering resilience against environmental changes. This will reduce vulnerability by improving the sustainability of fisheries, helping protect the primary livelihood and food security of coastal communities, and directly addressing their economic and social vulnerability to climate impacts.
Component 2. Improved resilient climate smart livelihoods	
Outcome 2.1 Non-fishing community members (including women and youth) trained for future livelihood diversification to adapt to climate change impacts in their communities **Outcome 2.2** Improved community stewardship of marine and coastal resources	**Climate-resilient communities:** The project promotes diversification and economic resilience by strengthening community capacities for accessing diversified livelihoods through targeted inclusive training, including youth and women reducing dependence on a single marine resource base, and mitigating vulnerability to climate shocks. Business development and financial management training will empower communities to create and sustain new income streams, enhancing their ability to respond to environmental and economic stressors, improving the capacity in fisher families to diversify income sources and enhance community resilience to climate-induced shifts in fish stocks and marine ecosystems. By engaging and building the capacity of youth and future leaders through leadership programs and scholarships who have the skills to seek employment outside of fishing, the project will foster long-term adaptation by cultivating a new generation of conservation-aware leaders and can drive adaptive change in their communities. Diversification not only enhances food security and income stability but also contributes to the GEF-SCCF's goals of fostering sustainable livelihoods and social protection for at-risk populations. These activities embody the GEF-SCCF's emphasis on comprehensive and innovative solutions at the intersection of land, food, and water systems.
Component 3. Knowledge management, coordination and Communications.	
Outcome 3.1 Strengthened coordination, knowledge sharing and communication between fisher associations through knowledge sharing	The project aligns with Lever of Transformation 3: Knowledge exchange and collaboration, with South-to-South exchanges for fishers to share experiences and learn from other communities and fishers in similar situations, to identify context-appropriate solutions, and locally led processes that are catalyzing positive change

COMPONENT 1: Strengthened adaptive capacity of fisher associations to promote more productive, climate resilient fisheries

- **GBF Target 1: Plan and Manage all Areas To Reduce Biodiversity Loss.** Seeks to ensure that areas are under participatory, integrated and biodiversity inclusive spatial planning and/or effective management processes, through inclusive decision-making that respects the inputs and rights of fishers and coastal communities.

- **GBF Target 3**: **Conserve 30% of Land, Waters and Seas** Aims to ensure that at least 30% of global land and sea areas are conserved through effective management and equitable governance by strengthening fisher associations and involving them in policy-making, Component 1 promotes inclusive governance and sustainable management of marine resources, contributing to this target.

- **GBF Target 4**: **Halt Species Extinction.** Engaging fishers and improving compliance with regulations through this project will reduce the pressures from illegal and unsustainable fishing on ecosystems and marine species at risk, such as coral reefs, marine turtles, sharks and grouper.

- **GBF Target 5**: **Ensure Sustainable, Safe and Legal Harvesting and Trade of Wild Species.** Seeks to ensure that wild species are harvested sustainably, preventing overexploitation. Component 1's emphasis on climate-smart fishing practices directly supports sustainable harvesting, aligning with this target.

- **GBF Target 10: Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry.** Improving

COMPONENT 2: Improved resilient climate smart livelihoods

- **GBF Target 8**: **Minimize the Impacts of Climate Change on Biodiversity and Build Resilience.** Focuses on improving fisher and community understanding of climate change, climate change risks and impacts on the fisheries and coastal communities, and use of nature-based solutions. Understanding of these aspects will be woven throughout the trainings for fishers, youths and community participants to strengthen community capacity for developing climate-smart solutions.

- **GBF Target 9: Manage Wild Species Sustainably To Benefit People.** Focuses on ensuring that the management and use of wild species provide social, economic, and environmental benefits to people, especially those in vulnerable situations. By promoting livelihood diversification and building capacity, Component 2 enhances the well-being and resilience of fisher families, contributing to this target.

- **GBF Target 20: Strengthen Capacity-Building, Technology Transfer, and Scientific and Technical Cooperation for Biodiversity .** Aims to strengthen capacity-building and development, access to technology, and increased financial resources for implementing the GBF. Component 2's initiatives in vocational training and business development align with this target by enhancing the capacity of local communities to engage in sustainable practices.

COMPONENT 3: Knowledge management, coordination and Communications.

- **GBF Target 19 – Knowledge Sharing and Capacity Building:** Emphasizes expanding knowledge sharing, education, and capacity building for biodiversity conservation and sustainable use through peer-to-peer exchanges, national events, and international field trips contribute directly to expanding fisher associations' knowledge of sustainable fishing and biodiversity practices.

- **GBF Target 20 – Strengthening Capacity for Local Communities:** Strengthening capacity-building, technology transfer, and development to enable local communities to contribute to biodiversity

conservation and sustainable resource use. This will be achieved by developing communication strategies and organizing leadership and learning opportunities for fisher associations, empowering local fishers to enhance their leadership, contribute to biodiversity protection, and strengthen association management.

- **GBF Target 21 – Ensure That Knowledge Is Available and Accessible To Guide Biodiversity Action:** Focuses on ensuring the participation and equitable involvement of local communities and Indigenous Peoples in conservation and biodiversity governance through communication strategies and bringing together fisher associations at national and international levels promotes equitable participation, inclusion, and knowledge sharing across communities.

- **GBF Target 22 – Ensure Participation in Decision-Making and Access to Justice and Information Related to Biodiversity for all :** Promotes inclusive governance, equitable sharing of benefits, and participatory decision-making. This is through fostering coordination among fisher associations and strengthening ownership of accomplishments, ensuring fishers have a voice in decision-making processes that impact marine resource management.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment*:
We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the Project Description (Section B).
☒ Yes ☐ No (If –and only if— NO is selected, a pop-up field should open for the Agency to provide an explanation)

1)Does the project expect to include any gender-responsive-measures to address gender gaps or promote gender equality and women's empowerment?
☒ Yes ☐ No

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

X closing gender gaps in access to and control over natural resources;
X improving women's participation and decision-making; and/or
X generating socio-economic benefits or services for women.

2)Does the project's results framework or logical framework
include gender-sensitive indicators?
X Yes ☐ No ☐ tbd

Stakeholder Engagement*
We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes have been clearly articulated in the Project Description (Section B) and that a Stakeholder Engagement Plan has been developed before CEO endorsement.
x Yes ☐ No (If –and only if— NO is selected, a pop-up field should open for the Agency to provide an explanation)

Select what role civil society will play in the project:

Consulted only; ☐ Yes ☐ No
Member of Advisory Body; Contractor; ☐ Yes ☐ No
Co-financier; ☐ Yes ☐ No
Member of project steering committee or equivalent decision-making body; ☐ Yes ☐ No
Executor or co-executor; ☐ Yes ☐ No
Other (Please explain) ☐ Yes ☐ No

Private Sector
Will there be private sector engagement in the project?
☐ Yes ☐ No

And if so, has its role been described and justified in the section B project description?
☐ Yes ☐ No

Environmental and Social Safeguards
We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).
☐ Yes ☐ No (If –and only if— NO is selected, a pop-up field should open for the Agency to provide an explanation)

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
	Low		

LOW- Category C

META-INFORMATION FOR THE LDCF AND SCCF (2022-2026)

Meta-Information Category	Response	Note
LDCF	NO	
LDCF Challenge window	No	
This project involves at least one Small Island Developing State (SIDS)	Yes	Belize is considered a SIDS
This project involves at least one fragile and conflict affected state	No	
This project will provide direct adaptation benefits to the private sector	No	

This project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs)	No	
This project will collaborate with activities being supported by other adaptation funds.	Yes	Belize Fund for a Sustainable Future , Protected Areas Conservation Trust, Blue Action Fund, IDB,
This project has an urban focus	No	
This project will directly engage local communities in project design and implementation	Yes	
This project will support South-South knowledge exchange	Yes	The project could potentially facilitate knowledge exchange between other countries engaged in climate-smart fishing and sustainable fishing initiatives.
This project covers the following sector(s) (the total should be 100%):		
Agriculture		%
Nature-based solutions		%
Climate information services		%
Coastal zone management	70	%
Water resources management		%
Disaster risk management	10	%
Other infrastructure		%
Tourism		%
Health		%
Others	20	% (livelihood diversification)
Total	**100**	%
This project targets the following climate change exacerbated/introduced challenges		
Sea level rise	Yes	Activities under Component 2 integrate increasing community knowledge of sea level rise and the need for nature-based coastal stewardship into trainings.
Change in mean temperature	Yes	Activities contribute to addressing the issues of more intense temperature extremes and the impacts on health in the fishers and impacting the fishing industry and build capacity in communities for building resilience and adaptation.
Increased climate variability	Yes	The project provides activities that address the issues of increased unpredictability of storm events, heat etc. and the impacts on health and safety in the fishers, impacts on the fishing industry and building knowledge for community adaptation and increased resilience.
Natural hazards	Yes	The project provides activities that address the increasingly intense hurricanes through climate-smarting of fishing practices (e.g. management of lobster traps to avoid ghost fishing gear from storm displacement), hurricane planning)
Land degradation	No	
Coastal and/or coral reef degradation	Yes	Activities address the need for best practices and improved stewardship for reducing coastal and marine ecosystem degradation
Ground water quality/quantity	No	

E. OTHER REQUIREMENTS

Knowledge management*

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted.

☒ Yes

Benefits

Please provide a brief summary of the socioeconomic benefits of the project (500 words):

The project aims to enhance the resilience of fishing-dependent communities by addressing climate change impacts and improving access to future income diversification opportunities. The project contributes to:

Economic resilience: Diversified incomes reduce reliance on fisheries, cushioning families from climate shocks and fluctuating fish stocks.

Food security: Sustainable, climate-smart practices promote healthier fish populations, providing long-term access to this vital protein source.

Community well-being: Empowered fisherfolk and their families benefit from increased safety, education, and economic opportunities, creating more stable and prosperous communities.

Gender equity: Greater inclusion of women and youth leads to more inclusive and equitable economic growth.

These outcomes collectively reduce vulnerability to climate change while fostering sustainable development in Belize's coastal fishing communities.

Through Component 1, Formalized fisher associations enable collective bargaining, improving fisherfolk's ability to advocate for fair prices, access grants, and implement income-generating initiatives, facilitating financial independence and promoting sustainable fishing practices that stabilize incomes over the long term. Encouraging women's participation in fisher associations provides new economic opportunities and diversifies household incomes, reducing economic vulnerability. Women-dependent fishing households benefit from skill development and leadership roles in associations, fostering gender equity in a male-dominated sector. Training in governance, financial management, and grant applications builds the capacity of associations to secure funds for sustainability projects and diversifying income opportunities, with invest in community-led initiatives like sustainable aquaculture or eco-tourism.

This component addresses the need for climate-smart fishing practices that prioritize fisher safety and the delivery of high-quality products, reducing risks to life and minimizing economic losses caused by climate change.

Component 2 focuses on increasing the resilience of fisher families through improving their capacity to be able to access future income diversification opportunities. Trainings in business development, vocational skills and financial management will provide fishers and their families with the capacity to access and implement alternative income sources, decreasing reliance on fishing. Training in financial management allows families to better manage earnings, savings, and investments, leading to increased financial stability. Diversifying into vocational skills in eco-tourism, construction or small business management, and educational scholarships and youth engagement programs create pathways to employment beyond fishing, reducing intergenerational dependence on a climate-vulnerable sector. Programs like Reef Protectors equip youths with skills for employment in areas like marine conservation and tourism.

ANNEX A: FINANCING TABLES

GEF Financing Table

Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional /Global	Focal Area	Programming of Funds		(in $)		
					GEF Project Grant (a)		Agency Fee (c)	Total GEF Financing (a+b+c)
WWF US	**GEFTF**	**BELIZE**	**Climate Change**	**CC Global Regional Set-Aside**	**2,652,294**		**238,706**	**3,000,000**
Total GEF Resources					**2,652,294**		**238,706**	**3,000,000**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested? Yes No

If yes[65]: fill in PPG table (incl. PPG fee)

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in $)		
					PPG	Agency Fee	Total PPG Funding
WWF US	**GEFTF**	BELIZE	**Climate Change**	**CC Global Regional Set-Aside**	100000	9000	109000
Total PPG Amount					100000	9000	109000

Sources of Funds for Country STAR Allocation

GFEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Source of Funds	Total
WWF US	SCCF A**GEFTF**	BELIZE	CC	SCCF A Country Allocation (select as applicable)	2,652,294
Total GEF Resources					

Focal Area Elements

Programming Directions	Trust Fund	(in $)	
		GEF Project Financing	Co-financing
(select) CCA-3 CCA-2-1		3,000,000	4,172,209
Total Project Cost		3,000,000	4,172,209

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount ($)
GEF Agency	WWF US	In-kind	Recurrent expenditures	318,275
CSO	WWF Mesoamerica- Blue Action Fun	In-kind	Recurrent expenditures	3,659,465
Government	Blue Bond and Finance Permanence Unit	In-kind	Recurrent expenditures	194,469
Total Co-financing				4,172,209

Please describe the investment mobilized portion of the co-financing

ANNEX B: ENDORSEMENTS

Name of GEF Agency Coordinator	GEF Agency Coordinator Contact Information
Renae Stenhouse	Renae.Stenhouse@wwfus.org
Name of Agency Project Coordinator	**Agency Project Coordinator Contact Information**
Jacquelyn Beattie	Jacquelyn.beattie@wwfus.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name of GEF OFP	Position	Ministry	Date *(MM/dd/yyyy)*
Milagro Matus	CEO GEF OFP	Ministry of Sustainable Development, Climate Change and Solid Waste Management	04/22/2025
Signature			

ANNEX C: PROJECT RESULTS FRAMEWORK*

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found.

Project Results can be found in Annex C, on page 69 of the Annexes

The Project Results Framework is presented below:

INDICATOR	DEFINITION	METHODS / SOURCE	BASELINE	TARGETS			NOTES / ASSUMPTIONS
				Y1	Y2	Y3	
Project Objective: To strengthen the resilience of Belize fishers and coastal fishing communities most vulnerable to climate change							
1) Number of direct beneficiaries (sex and age disaggregated)	The total number of direct beneficiaries, disaggregated by sex.	Aggregating sign-in sheets and project reports across all activities with identification of individual participants to avoid double-counting Not Cumulative	0	**M:5** **F:3** **7**	**M:3699** **F:3617** **7,316**	**M:3699** **F:3617** **7.316**	Climate warnings assumed to reach 80% of the target vulnerable communities Total population: 9,146 (4624 male (50.6%), 4522 female (49.4%)) 80% population: 7,316 (3,699 male; 3,617 women) Based on 2022 census data (SIB)
COMPONENT 1: STRENGTHENED ADAPTIVE CAPACITY OF FISHER ASSOCIATIONS TO PROMOTE MORE PRODUCTIVE, CLIMATE RESILIENT FISHERIES							
Outcome 1.1 Re-establishment and strengthening of fisher associations							
2) Number of fisher associations established / reestablished Articles of Association= plans/policies strengthened to mainstream climate resilience	Established – registered as legal associations with the Government of Belize	Registration papers per organization Annual certificate of good standing per association per year	0	4	4	7	4 associations are being assisted by a parallel project, and should be registered in the first year
3) Number of direct beneficiaries with strengthened livelihoods and sources of income (SCCF 1.2)	The number of fishers in Belize and participating in project activities Total beneficiaries not captured in sub indicators 1.4,1.5,1.6 Diversified and strengthened livelihoods refers to fishing-related livelihoods	Aggregating sign-in sheets and project reports across all activities with identification of individual participants disaggregated by age and sex to avoid double-counting Annual survey of fishing association member participants including indicator for strengthened livelihoods	0	**(1)** M: 5 F: 3 **(2)** M: 0 F: 0	**(1)** M: 5 F: 3 **(2)** M:517 F: 9	**(1)** M: 5 F: 3 **(2)** M:517 F: 9	**(1)** 1 fisher liaison officer (M:1) 7 fisher association managers (M:4; F:3) March 2025 commercial fisher license data, Total number of fishers: 2,456 (M: 2,373; F: 83) Disaggregated by gender (F:83; M:2373) and age (15 – 24, >24 – 60; >60): **(2)** 526 adult fishers (>24 – 60) from the target communities (M; 517; F: 9) Non fisher association members will benefit from changes in fishing practices and data-informed fisheries

							management that leads to more resilient fisheries. The Fisheries Liaison officer and association managers would be hired during the first year Note: There is a move to reduce / cap the number of fishers, so this may actually decrease over the life of the project, whilst individual fisher benefit may increase.
4) Number of youths benefitting from the project (SCCF 1.4)	Youth – 80% of the youth (15 to 24 years of age) in the target communities (M: 49.8% ; F: 50.2%)	Census information, 2022. Calculated using the national % of youths and elderly, applied per community **Cumulative**	0	**(4)** M: 0 F:0	**(4)** M:220 F:2,164	**(4)** M:220 F:2,164	**(4)** 3,498 youths (18 – 24) from the target communities (M: 2,208; F:2,164) **(5)** 570 elderly (>60) from the target communities (M:294; F:275)
5) Number of elderly benefitting from the project (SCCF 1.5)	Elderly – 80% of the youth (15 to 24 years of age) in the target communities (M: 49.8% ; F: 50.2%)		0	**(5)** M:0 F:0	**(5)** M:294 F:275	**(5)** M:294 F:275	
Aggregated Total				**7**	**2,464**	**2,464**	
6) Number of fisher associations (re) established or strengthened for climate adaptation (SCCF 3.5)	Institutions: (7) fisher associations Increased capacity for climate adaptation: Associations have adopted monitoring and reporting practices that feed into national catch data and climate impacts.	Annual report per association on catch log and climate data collected by fishers	0	0	4	7	
Outcome 1.2: Increased transparency and confidence in national fisheries management strategies leads to adoption of climate-smart fishing practices by fisher associations							
6) Number of fishers associations that have adopted at least one climate smart fishing practices	Adoption means promotion of climate smart fishing practices by the association through educational materials, trainings, meetings	Training reports Annual report on activities and outputs to the PMU	0	0	4	7	

	Climate smart fishing practices means strategies and actions that reduce the impact of climate change on sustainability of fisheries resources and income security of fishers						
7) Number of people trained or made aware of climate change impacts and appropriate adaptation responses (SCCF 4.1)	Made aware - have been provided with information and training Appropriate adaptation responses: Actively implementing adaptation responses	Annual Fisher association member survey including indicator for improved knowledge of climate change and identified adaptation strategies adopted (data disaggregated by age and sex)	0	0	M: 250 F:20	M: 500 F:50	Fisher association members
COMPONENT 2: IMPROVED RESILIENT CLIMATE SMART LIVELIHOODS							
Outcome 2.1: Increased climate resilient opportunities for livelihood diversification							
8) Number of people trained or made aware of climate change impacts and appropriate adaptation responses not included in (9) (SCCF 4.1)	People trained per sector: **(8)** National Government	Aggregating sign-in sheets and project reports across all activities with identification of individual participants disaggregated by age and sex to avoid double-counting Number of participants participating in trainings and events that include climate awareness and adaptation components	0	**(8)** M:1 F:0	**(8)** M:1 F:0	**(8)** M:1 F:0	**(8) National Government:** Fisheries Dept. liaison officer consultant - gender is unknown. Other Fisheries dept. Staff will be indirect co-benefits
9) Number of community members who perceive (via survey) that there are additional and viable climate-resilient opportunities for livelihood	People trained per sector: **(9)** Local community organizations **(10)** School children, university students -	Annual survey of livelihood training participants Aggregating sign-in sheets and project reports across all activities with identification of individual participants disaggregated by age and sex to avoid double-counting	0	**(9)** M: 0 F:0 **(10)** M:0	**(9)** M: 10 F:40 **(10)** M:358	**(9)** M: 10 F:40 **(10)** M:358	**(9) Local Community Organizations:** CC included in climate-smart business trainings. Ongoing program over 2 years **(10) School children, university students:** CC included in school

diversification and report strengthened access to these (SCCF 4.1)	aged 5 to 14 (358 male, 350 female) will also benefit from activities but aren't accounted for here **(11)** Youth (15-24 years old) (including those in Indicator 10, below). Youth count is based on Census 2022 data, and applying national ratio of youths 15 – 24 (19.4% male and 18.9% female) to the target community populations	Number of participants participating in trainings and events that include climate awareness and adaptation components		F:0 **(11)** M:0 F:0	F:350 **(11)** M:114 F:113	F:350 **(11)** M:114 F:113	activities and events implemented by NGO partners **(11) Youth (15 to 24 years of age):** All youths in the community will benefit from improved climate change knowledge, either through the fisher associations or youth programs
Aggregated Total				**M:0 F:0**	**M:522 F:503**	**M:522 F:503**	
10) Number of youth who directly benefit from project led increased climate awareness, skills and leadership training in target communities	Beneficiaries are youth attending school events in the target communities	Measured by: participation lists for NGO youth engagement programs and NGO-hosted events (participant lists disaggregated by gender and age) Number of scholarships awarded	0	M:0 F:0	M:499 F:363	M:499 F:363	All youths from 15 to 16 yrs., including those participating in Reef Protectors, (30 – 2 cohorts) + 65 scholarships for school + 90 vocational scholarships, and class visits, Assumed 50:50 gender ratio.
Monitoring and evaluation data contributes to efficient decision making and adaptive project management							
Level of progress in implementing the M&E plan	PPR: Project Progress Report QFR: Quarterly Financial Report RW: Reflection workshop PCR: Project Close Report TE: Terminal Evaluation (support, review and logistics)	Based on yearly completion of the following milestones (see definitions at left) Y1: 2 PPRs, 4 QFRs, 1 RW Y2: 2 PPRs, 4 QFRs, 1 RW Y3: 1 PPRs, 4 QFRs, 1 RW, 1PCR 1 TE		100%	100%	100%	

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

	GET/LDCF/SCCF Amount ($)		
Project Preparation Activities Implemented	**Budgeted Amount**	**Amount Spent To date**	**Amount Committed**
Exernal Consultancies for technical expertise-Climate Adaptation	14,000.00	14,000.00	14,000.00
Travel Cost for Project Development Workshop and Kick off workshop	4,000.00	3,300.00	700.00
Kick-off workshops costs and Project Development Workshop at GEF ECW	4,834.00	3,040.00	1,794.00
Project Design and Development of project document	40,000.00	32,328.00	7,672.00
ESMF Drafting and Gender Analysis and Action Plan (including related consultations)	37,166.00	37,166.00	0.00
Total	100,000.00	89,834.00	24,166.00

Add New

ANNEX E: PROJECT MAP AND COORDINATES*

Please provide geo-referenced information and map where the project interventions will take place.

Additional WWF GEF Guidance: *Project longitude and latitude must follow the Decimal Degrees WGS84 format (e.g. -17.9734, -76.7885) and not degrees, minutes, seconds formats (e.g. (2°13'48.19"S, 30° 3'54.21"E). Please use decimals and not commas, do not include the '°' symbol or use 'N', 'S', 'E' or 'W'. Instead, please use '-' to indicate decimal coordinates in the South and West. Geo*referenced information and map where project interventions are taking place as appropriate.

Geo Name ID *Required field if the location is not an exact site*	**Location Name** *Required field*	**Latitude** *Required field*	**Longitude** *Required field*	**Location Description** *Optional text field*	**Activity Description** *Optional text field*
	Sarteneja	18.3548	-88.1426	Target fishing community	Component 1 Component 2
	Chunox	18.2945	-88.3567	Target fishing community	Component 1 Component 2
	Copper Bank	18.3212	-88.3567	Target fishing community	Component 1 Component 2
	Gales Point	17.1756	-88.3300	Target fishing community	Component 2
	Hopkins	16.8535	-88.2814	Target fishing community	Component 1 Component 2
	Riversdale	16.6893	-88.3112	Target fishing community	Component 1 Component 2
	Seine Bight	16.5778	-88.3658	Target fishing community	Component 2
	Monkey River	16.3666	-88.4917	Target fishing community	Component 2
	Punta Negra	16.2732	-88.5472	Target fishing community	Component 1 Component 2
	Barranco	16.0011	-88.9186	Target fishing community	Component 1 Component 2

Ten target coastal fishing communities have been selected for this project, and can be broadly split into three based on their location and the types of fishing they do:

TARGETED FISHING-DEPENDENT COMMUNITIES

ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard screening/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts.

Uploaded separately

Overall Categorization: C- Low Risk

ANNEXES LINKED TO GEF CEO ENDORSEMENT REQUEST TEMPLATE

ANNEX 1: TAXONOMY WORKSHEET
ANNEX 2: ACRONYMS AND ABBREVIATIONS
ANNEX 3.CLIMATE PROJECTIONS (ANNEX 3).
ANNEX 4. CLIMATE CROWD ASSESSMENT
ANNEX 5. LESSONS LEARNED ANNEX 4
ANNEX 6. TORS FOR FISHER ASSOCIATION MANAGERS
ANNEX 7.TORS FOR FISHERIES LIAISON OFFICER).
ANNEX 8. DISBURSEMENT CONDITIONS

ANNEX 9. TERMS OF REFERENCE FOR KEY PROJECT MANAGEMENT UNIT STAFF

ANNEX 1: TAXONOMY WORKSHEET

Please fill in the table below by checking off the boxes for the taxonomic information related to this project. Select the most relevant keywords/topics/themes that best describe this project.

Level 1	Level 2	Level 3	Level 4
☒Focal Areas/Theme			
	☒Biodiversity		
		☒Protected Areas and Landscapes	
			☒Productive Seascapes
			☐Productive Landscapes
			☒ Coastal and Marine Protected Areas
			☒Community Based Natural Resource Management
			☐Terrestrial Protected Areas
		☒Species	
			☐Livestock Wild Relatives
			☒Threatened Species
			☐Plant Genetic Resources
			☐Wildlife for Sustainable Development
			☐Animal Genetic Resources
			☒Illegal Wildlife Trade
			☒ Invasive Alien Species (IAS)
			☐Crop Wild Relatives
		☐Supplementary Protocol to the CBD	
			☐Access to Genetic Resources Benefit Sharing
			☐Biosafety
		☒Financial and Accounting	
			☐Payment for Ecosystem Services
			☒Conservation Finance
			☒Conservation Trust Funds
			☒Natural Capital Assessment and Accounting
		☒Mainstreaming	
			☐Agriculture & agrobiodiversity
			☐Certification (National Standards)
			☒Tourism
			☐Certification (International Standards)
			☐Infrastructure
			☒Fisheries
			☐Extractive Industries (oil, gas, mining)
			☐Forestry (Including HCVF and REDD+)
		☒Biomes	
			☒Mangroves
			☒Sea Grasses
			☒Tropical Dry Forests
	o		☐Paramo
			☐Rivers
			☐Lakes
			☒Coral Reefs
			☐Temperate Forests
			☐Tropical Rain Forests
			☐Grasslands
			☒Wetlands
			☐Desert
	☐Forest		
		☐Forest	
			☐Amazon

			☐Congo
			☐Drylands
		☐Forest and Landscape Restoration	
			☐REDD/REDD+
	☐**International Waters**		
		☐Fisheries	
		☐Ship	
		☐Freshwater	
			☐Aquifer
			☐Lake Basin
			☐River Basin
		☐Pollution	
			☐Persistent toxic substances
			☐Plastics
			☐Nutrient pollution from wastewater
			☐Nutrient pollution from all sectors except Wastewater
		☐Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		☐Areas Beyond National Jurisdiction	
		☐Strategic Action Plan Implementation	
		☐Coastal	
		☐Biomes	
			☐Polar Ecosystems
			☐Coral Reefs
			☐Mangrove
			☐Seagrasses
			☐Constructed Wetlands
		☐Marine Protected Area	
		☐Aquaculture	
		☐Learning	
		☐SIDS : Small Island Dev States	
		☐Large Marine Ecosystems	
	☒**Climate Change**		
		☒United Nations Framework Convention on Climate Change	
			☐Enabling Activities
			☐Paris Agreement
			☒Nationally Determined Contribution
			☐Capacity Building Initiative for Transparency
		☒Climate Change Adaptation	
			☒Private Sector
			☒Community-based Adaptation
			☐Livelihoods
			☐Disaster Risk Management
			☐Least Developed Countries
			☐Adaptation Tech Transfer
			☐Sea-level rise
			☐Climate information
			☐National Adaptation Plan
			☐Innovation
			☐Climate Finance
			☒Small Island Developing States
			☐National Adaptation Programme of Action
			☒Ecosystem-based Adaptation
			☒Complementarity
			☒Climate Resilience
			☐Mainstreaming Adaptation
		☐Climate Change Mitigation	

			☐Agriculture, Forestry, and other Land Use
			☐Sustainable Urban Systems and Transport
			☐Energy Efficiency
			☐Technology Transfer
			☐Renewable Energy
			☐Financing
	☒**Land Degradation**		
		☐Land Degradation Neutrality	
			☐Land Cover and Land cover change
			☐Land Productivity
			☐Carbon stocks above or below ground
		☒Sustainable Land Management	
			☐Ecosystem Approach
			☐Sustainable Fire Management
			☐Income Generating Activities
			☐Sustainable Forest
			☐Drought Mitigation
			☐Sustainable Pasture Management
			☒Integrated and Cross-sectoral approach
			☒Restoration and Rehabilitation of Degraded Lands
			☐Improved Soil and Water Management Techniques
			☒Community-Based Natural Resource Management
			☐Sustainable Livelihoods
			☐Sustainable Agriculture
		☐Food Security	
	☒**Sustainable Development Goals**		
	☐**Chemicals and Waste**		
		☐Open Burning	
		☐Eco-Efficiency	
		☐Waste Management	
			☐e-Waste
			☐Industrial Waste
			☐Hazardous Waste Management
		☐Emissions	
		☐Pesticides	
			☐DDT - Other
			☐DDT - Vector Management
		☐Ozone	
		☐Persistent Organic Pollutants	
			☐Polychlorinated Biphenyls
			☐Unintentional Persistent Organic Pollutants
			☐New Persistent Organic Pollutants
		☐Disposal	
		☐Sound Management of chemicals and Waste	
		☐Plastics	
		☐Best Available Technology / Best Environmental Practices	
		☐Green Chemistry	
		☐Industrial Emissions	
		☐Mercury	
			☐Cement
			☐Artisanal and Scale Gold Mining
			☐Coal Fired Power Plants
			☐Non-Ferrous Metals Production
			☐Coal Fired Industrial Boilers

☒Influencing models			
	☒Transform policy and regulatory environments		
	☒Deploy innovative financial instruments		
	☒Strengthen institutional capacity and decision-making		
	☒Convene multi-stakeholder alliances		
	☒Demonstrate innovative approaches		
☒Stakeholders			
	☒Private Sector		
		☐SMEs	
		☐Financial intermediaries and market facilitators	
		☒Capital providers	
		☐Individuals/Entrepreneurs	
		☐Large corporations	
		☐Non-Grant Pilot	
		☐Project Reflow	
	☒Type of Engagement		
		☒Partnership	
		☒Participation	
		☒Consultation	
		☒Information Dissemination	
	☒Civil Society		
		☒Community Based Organization	
		☒Non-Governmental Organization	
		☐Trade Unions and Workers Unions	
		☐Academia	
	☒Communications		
		☒Awareness Raising	
		☒Strategic Communications	
		☒Education	
		☒Behavior Change	
		☒Public Campaigns	
	☒Indigenous Peoples		
	☒Beneficiaries		
	☐Local Communities		
☒Gender Equality			
	☒Gender Mainstreaming		
		☐Women groups	
		☒Sex-disaggregated indicators	
		☒Gender-sensitive indicators	
		☒Beneficiaries	
	☐Gender results areas		
		☒Capacity development	
		☐Access and control over natural resources	
		☒Awareness raising	
		☒Access to benefits and services	
		☒Participation and leadership	
		☒Knowledge generation and exchange	
	☐Food Security in Sub-Sahara Africa		
		☐Small and Medium Enterprises	
		☐Integrated Land and Water Management	
		☐Diversified Farming	

		☐Crop Genetic Diversity	
		☐Gender Dimensions	
		☐Land and Soil Health	
		☐Multi-stakeholder Platforms	
		☐Food Value Chains	
		☐Resilience to climate and shocks	
		☐Sustainable Production Systems	
		☐Agroecosystems	
		☐Smallholder Farming	
	☐Food Systems, Land Use and Restoration		
		☐Integrated Landscapes	
		☐Sustainable Food Systems	
		☐Food Value Chains	
		☐Sustainable Commodity Production	
		☐Comprehensive Land Use Planning	
		☐Smallholder Farming	
		☐Landscape Restoration	
		☐Deforestation-free Sourcing	
	☐**Sustainable Cities**		
		☐Transport and Mobility	
		☐Integrated urban planning	
		☐Green space	
		☐Urban sustainability framework	
		☐Buildings	
		☐Global Platform for Sustainable Cities	
		☐Urban Food Systems	
		☐Energy efficiency	
		☐Urban Resilience	
		☐Municipal Financing	
		☐Municipal waste management	
		☐Urban Biodiversity	
	☐**Commodity Supply Chains**		
		☐ Deforestation-free Sourcing	
		☐Adaptive Management	
		☐Sustainable Commodities Production	
		☐High Conservation Value Forests	
		☐Financial Screening Tools	
		☐Oil Palm Supply Chain	
		☐Beef Supply Chain	
		☐Soybean Supply Chain	
		☐High Carbon Stocks Forests	
		☐Smallholder Farmers	
☒**Capacity, Knowledge and Research**			
	☒**Enabling Activities**		
	☒**Learning**		
		☒Adaptive Management	
		☒Indicators to Measure Change	
		☒Theory of Change	
	☒**Knowledge Generation**		
		☐Professional Development	
		☐Master Classes	
		☒Training	
		☒Workshop	
		☐Course	
		☐Seminar	
	☒**Innovation**		
	☒ **Capacity Development**		
	☒**Knowledge Exchange**		

		☐Twinning	
		☒Conference	
		☒Field Visit	
		☐Exhibit	
		☒Peer-to-Peer	
		☐North-South	
		☒South-South	
	☐**Targeted Research**		

ANNEX 2: Acronyms and Abbreviations

AWPB	Annual Work Plan and Budget
BEDPS	Blue Economy Development Policy, Strategy and Implementation Plan
BFiD	Belize Fisheries Department
BGI-IP	Blue and Green Islands – Integrated Programme
BMPAN	Belize Marine Protected Areas Network
CBD	Convention on Biological Diversity
CBIT	Capacity Building Initiative for Transparency
CEO	Chief Executive Officer
CTF	Conservation Trust Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GAP	Gender Action Plan
IDB	Inter-American Development Bank
LDCF	Least Developed Countries Fund
M&E	Monitoring and Evaluation
MCCAP	Marine Conservation and Climate Adaptation Project
METT	Management Effectiveness Tracking Tool
MOA	Memorandum of Association
MPA	Marine Protected Area
MSP	Medium-sized Project
NBSAP	National Biodiversity Strategy and Action Plan
NDC	Nationally Determined Contribution
NESAP	National Environmental Strategy and Action Plan
NPASP	National Protected Area System Plan
OFP	Operational Focal Point
PFP	Project Finance for Permanence
PMU	Project Management Unit
PPG	Project Preparation Grant
PRF	Project Results Framework
RCP	Representative Concentration Pathway
SCCF	Special Climate Change Fund
SDG	Sustainable Development Goal
SEP	Stakeholder Engagement Plan
SGP	Small Grants Programme
SIDS	Small Island Developing States
TOR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wildlife Fund