

COMMUNITY ENGAGEMENT STRATEGY

SOUTH WATER CAYE MARINE RESERVE

Belize Fisheries Department



KFW

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SOUTH WATER CAYE MARINE RESERVE COMMUNITY ENGAGEMENT STRATEGY

INTRODUCTION

South Water Caye Marine Reserve (SWCMR) is one of seven protected areas that, together, form Belize's World Heritage Site – the Belize Barrier Reef Reserve System. The Marine Reserve, 117,875 acres (47,700 hectares) supports fishing and tourism livelihoods for the coastal communities and provides subsistence fishing for people living on Tobacco, South Water and other cayes of the area. The complex reef formations lie in clear sheltered water, and represent exceptional examples of barrier, patch, and rhomboid reefs, woven into a mosaic of highly connected, extensive mangroves and seagrass. This high ecosystem connectivity has resulted in SWCMR being a key nursery area for commercially important species – not just for replenishment of the Marine Reserve but for the entire reef system.

Based on the beauty and the rich marine diversity, the area has the potential to be a key reef-based tourism destination in Belize, but is currently underutilised. South Water Caye Marine Reserve was identified as a management issue in the last national management effectiveness assessment (Wildtracks, 2010), and has since been significantly strengthened through the MAR Fund KfW project for Conservation of Marine Resources in Central American (South Water Caye Marine Reserve), with investment in infrastructure and equipment towards improved operations. Whilst the on-site management is improving, the stakeholder support and engagement in Dangriga and Hopkins, two of the key coastal communities in the immediate seascape, is still weak.

This report provides recommendations for community engagement and empowerment strategies targeted at Dangriga and Hopkins that encourage stakeholder participation in the management and conservation of the natural resources of the Marine Reserve, contributing towards Outcome 2 of the MAR Fund KfW project for Conservation of Marine Resources in Central American (South Water Caye Marine Reserve).

Objective: Develop a community strategy that seeks to improve quality of life of the stakeholder communities of SWCMR, taking into account ethnic and cultural relevance and identifying mechanisms for community engagement and empowerment, with direct participation in decision-making in the management and conservation of the natural and coastal marine resources of the marine protected area.

“The participation of civil society in best management practices and the sustainable use of marine-coastal resources has been advanced.”

The report also looks at the enabling environment required for successful engagement of communities, with identification of synergies and areas for strengthening of communication, collaboration and coordination across stakeholders at the local level. This is essential to achieve strong, long term,

sustainable outcomes with proactive participation of communities in the management of the protected area, and promotion of ownership.

Section 1 provides a situation analysis, with the context in which the two communities (Dangriga and Hopkins) exist, and a summary of community characteristics. It identifies stakeholders active in the area (both in the communities and in the SWCMR operating environment) who can influence the outcomes, towards engaging and strengthening engagement of these stakeholders and their communities.

Section 2 presents the results of the Theory of Change planning, identifying the long-term goal for the strategy:

GOAL 1: ENGAGED COMMUNITIES DEMONSTRATING SUPPORT AND GOOD STEWARDSHIP OF SWCMR

GOAL 2: STRONG STAKEHOLDER PARTNERS, ENGAGED, SUPPORTIVE AND PARTICIPATORY IN MANAGEMENT ACTIVITIES THAT STRENGTHEN SWCMR

Three **Key Strategic Themes** have been identified to frame the Strategy:

- **RECOGNITION OF ECOSYSTEM SERVICES VALUES:** Ensuring that stakeholders are fully aware of the ecosystem services provided by SWCMR
- **ACTIVE STAKEHOLDER ENGAGEMENT AND SUPPORT:** Ensuring that stakeholders / communities have accurate information for decision making, and mechanisms that facilitate meaningful participation, towards improved stewardship of the marine reserve.
- **INCOME DIVERSIFICATION:** The structures, processes and partnerships that need to be in place for successful income diversification project implementation in the communities.

Four SMART targets have been identified, linked to the five outcomes:

KEY STRATEGIC THEME ONE: RECOGNITION OF ECOSYSTEM SERVICES VALUES

TARGET ONE: By 2022, at least 30% of people surveyed in Dangriga and Hopkins recognise the ecosystem values associated with SWCMR and support its conservation and sustainable use

KEY STRATEGIC THEME TWO: ACTIVE STAKEHOLDER ENGAGEMENT AND SUPPORT

TARGET TWO: By 2022, there has been an increase of 20% in sustained, active support of SWCMR in Dangriga and Hopkins over the 2019 baseline

TARGET THREE: By 2022, at least 10 local tourism operations have developed strong collaborative partnerships with SWCMR to strengthen management of the Marine Reserve

KEY STRATEGIC THEME THREE: INCOME DIVERSIFICATION

TARGET FOUR: By 2022, at least 20% of SWCMR fisher households in Dangriga and Hopkins have benefited either directly or indirectly from income diversification strategies, and have demonstrated reduced impacts on the marine protected area over the 2019 baseline

KEY RECOMMENDATIONS

- Having consistent presence of a Fisheries Department Communication / Outreach Officer in the Dangriga office would improve communication and engagement of stakeholders, and improve potential for collection of entrance fee
- In recognition of the limited Fisheries Department staff availability for implementation of this Strategy, identify partner organizations with similar goals that can be engaged and assist towards reaching mutually agreed targets
 - Engage and partner with Reef Keepers Belize for consistent presence in schools, ensuring students have opportunities to experience and understand the ecosystem values of SWCMR, building future conservation leaders in the communities
 - Engage / partner with a capacity-building NGO with project development and implementation skills, business and financial management skills to take on the role of oversight and mentoring for effective investment in income diversification projects
- Review, revise, strengthen and implement a three-year communication strategy (Communication, Education and Public Awareness Strategy) towards engagement of key stakeholders
- Strengthen fisher associations for improved representation of fishers, two-way flow of information, and effective organizational, financial and project management, towards improved stewardship of the marine resources
- Identify and invest in income diversification opportunities for fishers and fisher families based on individual interests, and on a combined grants / loan system, facilitated by a capacity-building NGO partner
- The percentage of tourism use of SWCMR far exceeds the fisher use – the management regime would benefit from increasing the focus on, and engagement of, the tourism sector and use, towards improved benefits for the communities and improved financial sustainability for the Marine Reserve
- Identify and invest in marine tourism businesses that will improve employment opportunities for fishers in the communities (particularly Dangriga)
- Engage and partner with the local tourism sector (including Tobacco Caye), to develop an environment of pride and supportive stewardship of the marine protected area, bringing tour guides, hotels and resorts to the table and fully engaging them in management activities
- Partner with BTB, BTIA local chapters and the tourism sector towards improving international marketing of SWCMR as a tourism destination

1. SITUATION ANALYSIS

THE BELIZE FISHERIES DEPARTMENT

South Water Caye Marine Reserve is managed by the Belize Fisheries Department (Ministry of Agriculture, Fisheries, Forestry, the Environment and Sustainable Development), which administers the policies and laws that govern the Marine Reserve. The Fisheries Department manages the Marine Reserves in Belize (including South Water Caye) under the Protected Area Management (Marine Reserve) programme of the Ecosystems Management Unit, as part of its Mission...

“To provide the country and the people of Belize with the best possible management of aquatic and fisheries resources with a view to optimize the present and future benefits through efficient and sustainable management”.

Mission Statement, Fisheries Department

...with the specific goal of:

“holistic ecosystems management of the aquatic resources through a marine reserve network and international commitments”.

The SWCMR site-specific Fisheries Department goal for South Water Caye Marine Reserve is:

“To provide for the protection, wise use, understanding, and enjoyment of the natural resources of South Water Caye Marine Reserve in perpetuity”

...with the following objectives:

- Maintain and conserve the natural resources of South Water Caye Marine Reserve for the benefit of current and future generations
- Engage fishermen in the management of sustainable fisheries
- Provide opportunities for recreation, interpretation, education, and appreciation for all visitors
- Strengthen education and understanding of users and potential users of the dynamics of coral reef systems within South Water Caye Marine Reserve and the human impacts affecting them
- Identify, implement and strengthen priority research and monitoring through on-site activities, collaboration and partnerships

Implementation of the management plan is the responsibility of the Ecosystem Management Unit, managed under the Marine Protected Areas Coordinator, and the site management team, under the Reserve Manager. Site level management at South Water Caye Marine Reserve is conducted from the staffed Fisheries Base, established on Twin Cayes. The Reserve Manager is supported by a Head Ranger, a ranger, a marine biologist and a caretaker. These personnel are responsible for the on-site, day-to-day management of the reserve, and for the implementation of the management plan, through effective use of funds, staff and equipment, and supported by centralized activities such as environmental education and outreach, from Belize City. Each staff position is described by a general term of reference.

An Advisory Committee assists the Fisheries Department with management recommendations and is composed of representatives from the major stakeholder sectors.

SOUTH WATER CAYE MARINE RESERVE

South Water Caye Marine Reserve is highlighted as an area of national and global importance for its particularly high ecological and socio-economic value, and for protecting one of the best developed examples of barrier reef in the western hemisphere area. It is characterized by the variety of reef structures, important cross-shelf habitat linkages and an assemblage of ecosystems considered possibly the most biodiverse in the region. It is also of economic importance to Belize for its lobster, conch and fin-fish, extracted by traditional fishers originating from the coastal communities of Sarteneja, Dangriga, Hopkins, Riversdale and Placencia, and as a subsistence fishing resources for people living on Tobacco Caye, South Water Caye and other cayes within the protected area.

These fishermen use hand lines for finfish, shades / traps for lobster (primarily the fishermen from Dangriga and Hopkins), and free-dive for spiny lobster (*Panulirus argus*) and Queen conch (*Strombus (Lobatus) gigas*) (primarily fishermen of Sarteneja), fishing throughout the General Use Zone of the protected area. Long lines are also used in the deeper channels and on the fore-reef, especially near Tobacco Caye. In total, one hundred and forty-five boats from Dangriga and Hopkins are licensed for fishing in Area 3 (which includes SWCMR), though only a portion of these will access the Marine Reserve. Boats also access the area from the northern fishing communities (FiD data, 2018).

CPUE data demonstrates that the northern fishers target predominantly lobster and conch, whilst the central fishers focus more on fin fish – over 90% of the lobster product, 85% of the conch and 90% of the crab recorded were extracted by northern fishers, whilst the majority of whole finfish (55%) were extracted by boats from the central communities (SWCMR, 2017).

In 2017, fishers represented only 2% of visitors to SWCMR. The remaining 98% were associated with tourism, generating over Bz\$89,440 for the MPA through entrance fees (SWCMR, 2017). It should be noted, though, that with the size of the marine protected area and the limitations of staff and resources, this can be considered only a rough estimate of the total visitation and doesn't account for revenue leakage because of the challenges faced in entrance fee collection. As with fishing, tourism is also an important aspect of management, generating funding towards management costs, but also impacting the

Key Characteristics of National Importance: SWCMR:

- Considered one of the most highly developed examples of barrier reef structure in the region, with extensive spur and groove formation
- sheltered waters and oceanic mangrove systems of the Pelican Cayes in the southern area of the Marine Reserve have been identified as one of the most biodiverse marine systems within the western hemisphere, supporting a number of endemic species, and species new to science
- Shallow northern back-reef lagoon between the reef crest and Tobacco Range supports nationally important nursery areas for the queen conch
- Mangroves of the Marine Reserve are considered particularly important for the sustainability of commercially important species for the entire Belize reef system
- Steep-sided faros in the Pelican Cayes area
- Deep water channels
- High connectivity between littoral forest, mangrove, seagrass and reef
- Nesting beaches for hawksbill and green turtles
- Exposed reef and sand cayes provide nesting sites for several tern species
- Designated as part of Belize's World Heritage Site

Rationalization Report (Walker, 2012)

marine resources. Even allowing for errors in visitation figures, SWCMR is significantly underutilised. In 2017, only 5,275 visitors were recorded, primarily focused on snorkelling (72%), with 7.7% using the area for diving and a further 1.1% engaged in sport fishing (Figure 1; SWCMR, 2017). Tobacco Caye operates as a tourism hub, with guest houses, a marine field centre for international groups and a single dive shop. Other cayes within the marine protected area provide all-inclusive resorts, and visitors also come on day trips arranged from the mainland, either through independent tour guides or through hotels and resorts. 19% of the visitors were categorised as tour guides, with SWCMR providing 1,005 guide-days of employment, much of it originating in the local resorts and communities – again, this is considered to be an under-representation of the actual use and benefit of the resources to the local communities and businesses.

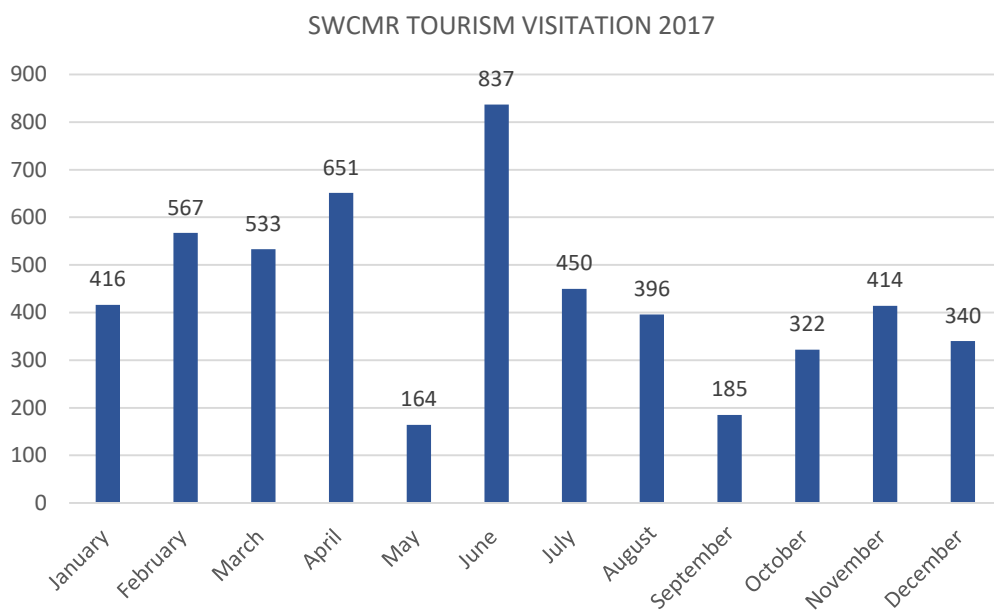


FIGURE 1: TOURISM VISITATION TO SWCMR, 2017 (SWCMR, 2017)

The tourism sector is an important component of Belize’s economy, providing employment for one out of seven people at the national level. In Stann Creek District, the tourism industry employs approximately 1,787 people (1,002 men and 785 women), only 9.2% of the national total (BTB / Social Security Board, 2017). Considering the importance of tourism, the high potential for increasing visitation to the marine

TOURISM STATISTICS FOR STANN CREEK DISTRICT, 2016

Average daily expenditure for guests in Dangriga / Stann Creek: Bz\$335.16

Annual revenue generation (accommodation sector): Bz\$17.17 million

Average hotel occupancy: 33.2%

Number of registered tour guides: 125

Number of registered tour operators: 38

BTB, 2017

protected area, and the relative high use compared to the fishing sector, it is recommended that SWCMR seriously consider a significant shift to include a focus on engagement of the tourism sector in the targeted stakeholder communities.

Focal Conservation Targets

- Coral Reef Communities
- Mangroves
- Seagrass
- Commercial and Recreational Species
- Turtle Nesting Beaches
- Wide Ranging Large Marine Vertebrates

Management of the natural resources of the Marine Reserve is focused on seven Conservation Targets (an additional target, Nesting Bird Sites, was added during the Management Planning review in 2017) selected to assist in guiding conservation strategies at site level. These focal targets represent the array of ecological systems, communities and species of importance of South Water Caye Marine Reserve. They are grounded in the reasons for protection – as part of the National Protected Areas System, and as one of seven protected areas within Belize’s World Heritage Site. Focal targets also reflect conservation efforts at the regional and national level, as well as system-level planning outputs for the Southern Belize Reef Complex (Walker et al., 2009), and national level initiatives. All conservation targets are ecosystem and species assemblages and are considered indicative of the threats faced by the protected area.

At the site level, the South Water Caye Marine Reserve was rated overall as **FAIR** in 2017 - outside its range of acceptable variation, and vulnerable to serious degradation under the current management regime. Three of the targets (Coral Reef Communities, Commercial / Recreational Species and Turtle Nesting Beaches) have viability ranks of **FAIR**, suggesting that there needs to be significant intervention if they are to improve. Two targets were rated as **GOOD** (Mangroves and Wide-Ranging Large Vertebrates). Seagrass was the one exception, being rated as **VERY GOOD**, with few widespread human impacts (Table 1).

<i>Summary of Conservation Target Viability for South Water Caye Marine Reserve (2017)</i>				
<i>Conservation Targets</i>	<i>Landscape Context</i>	<i>Condition</i>	<i>Size</i>	<i>Viability Rank</i>
	<i>Rating</i>	<i>Rating</i>	<i>Rating</i>	
<i>Coral Reef Communities</i>	<i>Good</i>	<i>Poor</i>	<i>Fair</i>	<i>Fair</i>
<i>Mangroves</i>	<i>Good</i>	<i>Fair</i>	<i>Good</i>	<i>Good</i>
<i>Seagrass</i>	<i>Very Good</i>	<i>Very Good</i>	<i>Good</i>	<i>Very Good</i>
<i>Commercial / Recreational Species</i>	<i>Fair</i>	<i>Fair</i>	<i>Fair</i>	<i>Fair</i>
<i>Turtle nesting beaches</i>	<i>Fair</i>	<i>Fair</i>	<i>Poor</i>	<i>Fair</i>
<i>Wide Ranging Large Marine Vertebrates</i>	<i>Good</i>	<i>Good</i>	<i>Fair</i>	<i>Good</i>
<i>Nesting Bird Sites</i>	<i>Fair</i>	<i>Poor</i>	<i>Poor</i>	<i>Poor</i>
<i>Biodiversity Health Rank for South Water Caye Marine Reserve</i>				<i>Fair</i>

TABLE 1: CONSERVATION TARGET VIABILITY

Threats to the protected area were also re-evaluated in 2017, with the following key threats highlighted: Caye Development, Fishing Pressure and Agricultural Runoff (Table 2). For the first two, it is recognised that there is an awareness gap that needs to be addressed, with improved engagement of stakeholders,

enabling and empowering their participation in the reduction of these threats. Climate Change was also identified as an over-arching threat.

Fisher, tourism and farming association and industry in the Stann Creek area identified the following as key environmental concerns relevant to the South Water Caye Marine Reserve:

- Unsustainable fishing practices
- Agricultural, urban and industrial pollution
- Poor solid waste disposal
- Clearance of riparian vegetation
- Unsustainable deforestation in the watersheds

The drivers were identified as:

- Limited / weak enforcement in the marine environment
- Limited awareness
- Limited Government support for conservation
- Weak Government-NGO relationship
- Lack of cooperation from communities towards conservation outcomes
- Increasing immigrant population (limited knowledge of and respect for regulations)
- Negative cultural changes

The communities selected for targeting in this strategy were determined through discussion with the SWCMR manager and MAR Fund / KfW, with the consensus that the majority of the focus be on Dangriga and Hopkins. Sarteneja, the largest fisher stakeholder, is being addressed under a separate project (BAS / SACD, in prep.). Both Dangriga and Hopkins lie on the central Belize coastline, in Stann Creek District.

Threats Across Targets	Seagrass	Mangroves	Coral Reef Communities	Wide Ranging Marine Vertebrates	Commercial / Recreational Species	Sandy Beaches	Overall Threat Rank
Caye Development	Medium	Very High	Very High	High	High	Very High	Very High
Fishing Pressure	Medium	-	High	High	Very High	-	High
Climate Change	-	Medium	High	Medium	High	Very High	High
Poor Fishing Practices	-	Low	Low	High	High	-	High
Agricultural Runoff	Medium	-	Medium	Medium	Medium	-	Medium
Oil Spills		-	Low	Medium	-	Medium	Medium
Visitor Impacts (tourists, researchers etc.)	-	-	Low	Low	-	-	Low
Oil Exploration and Drilling	Low	-	Low	-	-	-	Low
Overall Threat Status for Targets	Medium	High	High	High	Very High	Very High	Very High

TABLE 2: SUMMARY OF THREATS

STAKEHOLDER COMMUNITIES

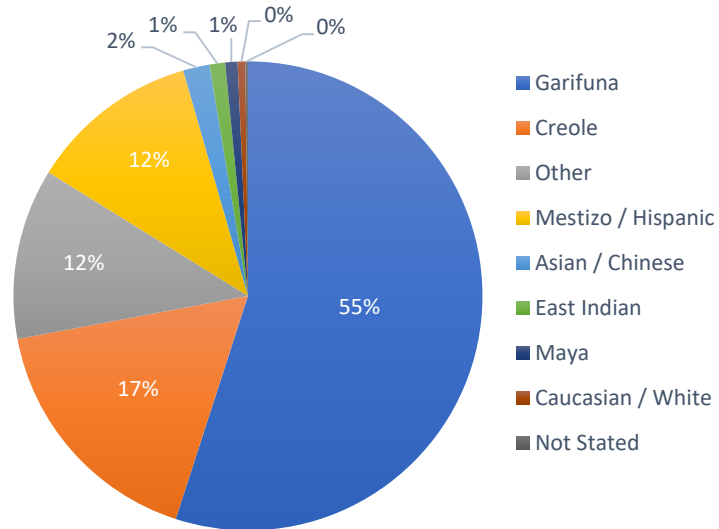
Six communities are identified as stakeholders of SWCMR, either through fishing or tourism. Seasonal inhabitants of Tobacco Caye are also considered as stakeholders, though not as a formal community (Table 3).

Stakeholder Communities of South Water Caye Marine Reserve				
Community	Location (UTM) Distance (km)	Population (approx.)	Key Population Components	Comments
Sarteneja	E16 0378750 N18 2029500 (158 km NW)	2,300	Mestizo	Largest fishing, concentrating on lobster and conch throughout Belize waters using traditional sail boats. Largest number of fishermen utilizing natural resources of SWCMR.
Dangriga	E16 0370200 N18 1876300 (11.4km ESE)	11,600	Garifuna	Fishing skiffs utilizing SWCMR – hand lines, traps and shades for finfish, lobster and conch Tourism
Hopkins	E16 0363200 N 18 1864680 (13km E)	1,027	Garifuna	Small number of skiffs, focused on SWCMR - hand lines, traps and shades for finfish, lobster and conch Tourism developments (e.g. Hamanasi)
Sittee River	E16 0363200 N 18 1864680 (13.3km E)	641	Garifuna	Fishing community gradually shifting to tourism
Placencia	E16 03653894 N18 26544 (14.3km NE)	1,200	Predominantly Creole	Historically a fishing community – now a primarily tourism-based economy
Riversdale / Seine Bight	E16 0363200 N 18 1864680 (8.3km E)	1,829	Garifuna	Historically a fishing community – now moving towards a tourism based economy
Tobacco Caye	E16 0386986 N18 68397 (within SWCMR)	Seasonal resident population of 16	Creole	Small seasonal, caye-based community located in SWCMR mostly reliant on tourism based around snorkelling and diving. Small number still depend on fishing for subsistence and income.

TABLE 3: STAKEHOLDER COMMUNITIES OF SOUTH WATER CAYE MARINE RESERVE

DANGRIGA

Dangriga, once known as Stann Creek Town, is an expanding coastal town located at the mouth of the Stann Creek River. with a population estimated at 9,593 in 2010, growing to 10,328 in 2017, approximately 27% of the 42,230 people resident in Stann Creek District (SIB, 2017)). The town is predominantly Garifuna, with almost 60% of the population considering themselves as Garifuna in 2010 (SIB, 2010). Dangriga is considered a vibrant cultural centre of the Garifuna people, with strong ties to the history, language and culture. This includes Garifuna Settlement Day, celebrated each year on November 19th with the re-enactment of the arrival of the Garifuna after being driven out of St. Vincent.



As the district centre, Dangriga is the financial, commercial, medical and educational centre for Stann Creek, with a daily transient population coming in to the town from the rural communities. Many of the district government offices are located here, as are the high schools.

Dangriga's economy is based on agriculture, tourism, fishing and farming, with citrus and cultivation being almost synonymous with the Stann Creek Valley. It has the potential for an increasing role in tourism as an access point to the cayes, though this is currently under-utilized. With the closure of the seaport in the mid-1980's, there has been an increasing unemployment rate, at 16.5% in 2014 (Belize Labour Force Survey, 2014), and a trend of 'working out', with young adults leaving the town for other areas in Belize with higher employment opportunities or travelling to the United States to seek work. Many maintain strong links with Dangriga, sending funds back to support their families, but this migration out of the town is of concern, with those that leave including the entrepreneurs – who have the vision and innovation to be able to start businesses that provide local employment opportunities for others. There has also been an increase in migrants into the community from Honduras, Guatemala and El Salvador, hired originally as seasonal workers on the citrus, banana and shrimp farms, and then settling in the area.

The 183 licensed fishermen registered as living in Dangriga represent almost 20 percent of the 942 fishers listing Managed Access Area 3 as their primary fishing area which extends from the near-shore coastal waters to South Water Caye Marine Reserve (Fisheries Data, 2017). Of these, the number of fishers linked to the marine reserve is much smaller – in the region of 30 fishers from Dangriga / Hopkins (SWCMR staff).

Over the years, Dangriga has seen the rise and fall of several fisher and tour guide organizations, but has strong, well established cultural and sports organizations. A total of seven organizations were identified for the purposes of stakeholder mapping. Of these, four are considered as key partners for engagement – two fisher associations, the Belize Tourism Industry Association Dangriga chapter, and Reef Keeper Belize, a reef education NGO. Wabafu Fishermen Association has been a willing recipient of alternative

**ORGANIZATIONS / ASSOCIATIONS
IN DANGRIGA**

- BTIA Dangriga chapter
 - Dangriga Sports Council
 - Wabafu Fishermen Association
 - Stann Creek Fishermen Association
 - Stann Creek Sports Council
 - National Garifuna Council
 - Reef Keeper Belize
-

livelihood options, though is less willing to be engaged in activities with no direct benefits, such as awareness events. As the most organized of the two fisher associations, with the capacity to be effectively engaged in participating in management decisions and activities, engagement and involvement in management activities is considered critical. The second association, Stann Creek Fishermen Association, is less engaged, with a more antagonistic attitude towards the Belize Fisheries Department, but is willing to be involved in meetings. The two fisher associations both have members that are generally supportive of Managed Access, but with little trust of the on-site management. An indication of

improved management, implementation of the local Managed Access Committee process, and effective and fair surveillance and enforcement activities will need to be in place before the fishermen will be willing to be fully engaged.

There has been only limited engagement of the tourism sector in either Dangriga or Hopkins, despite tourism being the largest user of the Marine Reserve. The Dangriga chapter of the Belize Tourism Industry Association has been collaborating with the SWCMR Outreach Officer in the coordination of outreach activities, but this needs to be consistent beyond the life of the current KfW project. There is also room to strengthen that engagement to a more meaningful role in management activities, as an intermediate for strengthening engagement of the tourism industry in the area. The SWCMR rangers are in relatively consistent contact with the hotels and resorts located within the boundaries of the protected area, but there is currently no strategy in place towards full engagement of this sector. Several hotels / dive operators have voiced willingness to participate in assisting with management activities through installation of marker buoys in key sites to increase safety for snorkelers around the cayes. There is, however, no coordinated mechanism for their involvement in these activities.

**RESORTS / CAYE OPERATIONS LINKED TO
SWCMR**

- Blue Marlin
 - Carrie Bow Caye Marine Research Station
 - Coco Plum Resort
 - International Zoological Expeditions
 - Island Expeditions
 - Pelican Resort
 - Ragged Caye/Raga Tours
 - Reef End
 - Royal Belize
 - Thatch Caye Resort
 - Tobacco Caye Lodge
 - Tobacco Caye Marine Station
-

Reef Keeper Belize, a registered NGO based from Tobacco Caye and active in the schools in Dangriga since 2012, has been working collaboratively with the Outreach Officer of SWCMR over the last year in a

successful partnership for educational activities in the schools. The organization is small, however, and would need to increase its human resources and capacity to be able to expand its activities to meet SWCMR needs, particularly if the SWCMR Outreach Officer post is not continued. This partnership is considered critical for engaging the next generation in Dangriga.

The National Garifuna Council is currently not well engaged, but as a key organization in the cultural lives of people in Dangriga, it should be considered as a possible partner for the potential for engaging the community in marine conservation through cultural values. It is considered open to engagement, and could provide a platform for addressing cultural difficulties faced by SWCMR during communication activities. A lower priority, but still considered as engagement targets, are the two sport organizations. SWCMR and the Dangriga Sports Council worked together successfully to implement the SWCMR football competition for youths, providing a focus for youth activities, and ensuring that there is coordination between organizations wishing to include youths in sport activities, rather than duplication of effort. Stann Creek Sports Council is focused on older sporting sector. Whilst neither are directly linked to SWCMR, neither is considered as a critical partner, but both have the experience and capacity to ensure that sporting initiatives linked to the marine reserve are marketed and implemented successfully

Dangriga has a Municipal Development Strategy that provides recommended policies and interventions to meet the needs of the town, with a vision for the future...

A 2030 VISION FOR DANGRIGA

Dangriga is a booming town that is well governed and that provides an opportunity for an array of large and small enterprises, agro-businesses and investments to operate effectively and efficiently, and create jobs for a productive and healthy society in which services are accessible. Residents live a good quality of life and engage in a healthy lifestyle that is attuned to the cultural diversity of the town. The town pursues its vision through economic and tourism development; arts and culture promotion; land use planning; provision of sporting and recreational facilities; infrastructure investments; and ensuring that the movement of pedestrians, bicycles, and vehicles is adequately facilitated.

Dangriga Municipal Development Plan, 2014

Areas of Concern

Dangriga has grown over the years in the flood plain of the Stann Creek River. It is low lying, with insufficient drainage planning or infrastructure in place to address the risks of flooding during tropical storm events and high tides. Original canals and flood gates are maintained where feasible but are in need of rehabilitation and expansion to deal with the extension of the town into swampy areas. As sea level rise becomes an increasing reality, the town will become more vulnerable to flooding, and coastal erosion. Water contamination is also considered an issue, particularly with citrus industry effluent contaminating

the Stann Creek River, and with potential leaching of chemicals from the solid waste dump site into Gra Gra Lagoon.

HOPKINS

Hopkins is a Garifuna community located on the coastal strand of Stann Creek District with an economy that was traditionally based on farming and fishing but has more recently shifted to tourism. The Hopkins Fishermen Association has 30 members, of which 15 are active traditional fishers, though many are

ORGANIZATION / ASSOCIATION

[Hopkins Fishermen Association](#)
[BTIA Hopkins chapter](#)
[South Stann Creek Tour Guide Association](#)

shifting to part- or full-time jobs associated with the growing tourism industry in and around the community (HFA, pers com. 2017). This increase in investment in tourism has also been reflected in an increase in community capacity, with more stable associations and organizations than in neighboring Dangriga.

There has been an almost exponential growth of low to mid-level tourism in the community, and an associated development of foreign-owned resorts catering to medium to high end tourism along the coastline, with 38 hotels now established in the area. Tourism has enabled people in Hopkins to develop consistent incomes, with farming and fishing shifting to secondary importance, providing supplementary incomes in the low tourism season for those with only seasonal tourism employment (Morozova, 2016). The establishment of larger resorts has increased the availability of employment, opening up opportunities, particularly for women in the community, with a demand for service-related staff (housekeeping, cooking, reception etc.). It has also improved opportunities for employment as tour guides. Many of the larger resorts are willing to invest in capacity building for their staff and retain them at the same rates during the low season, reducing their need to return to fishing. However, it is estimated that between 20 and 50% of employment is not local -many hotels select their staff based on skills and experience, not necessarily through a wish to provide local employment (Morozova, 2016).

The increasing interest in Hopkins, not just a tourism destination but also for recreational and retirement homes for foreign investors, has led to sale of seafront properties, providing short-term economic gain for those selling, but reducing the potential for local community members to maximise long term development opportunities. Small tourism businesses identify marketing as one of their biggest barriers, with insufficient funds available for large scale promotion. Those wanting to enter the tourism industry as tour guides either fund themselves or are trained when working at one of the resorts.

There is a disconnect between South Water Caye Marine Reserve and the tourism sector – tourism sector representatives consulted do not consider themselves to be engaged by the managers of the marine protected area and find little support for participatory activities such as lionfish removal. However, the sector constituents are also considered to be independent, with divisions between local and foreign owned businesses, and competitive relations rather than collaboration between larger resorts. This leads to barriers in successful engagement of the industry unless led by an external body such as BTB or the national BTIA office.

STAKEHOLDER MAPPING

Stakeholder mapping was conducted to identify the Government agencies, organizations, associations and individuals that have direct and indirect relationships with the protected area through their activities. It also provides a foundation from which to identify investment opportunities for strengthening support for SWCMR and its management activities.

GOVERNMENT STAKEHOLDERS

Community and stakeholder support are based on perceptions, and one of those perceptions is that whilst the Fisheries Department is wanting to see changes in fishing behavior and greater compliance with Managed Access and fishing regulations, fisher consultations consistently highlighted the need for improved, fair enforcement across all fishers and across all sectors in the marine protected area. Also raised during consultations was the need for Government to effectively address other critical threats that may have much greater impacts on the SWCMR conservation targets, such as mangrove clearance, dredging, agrochemical contamination and unsustainable caye development.

Inter-departmental partnerships, improved communication and effective collaboration are critical in addressing these key threats (particularly unsustainable caye development and agricultural runoff) across all sectors, building trust in the communities by demonstrating that the Government is willing to make its own commitments towards changes in the way SWCMR is managed (Table 4).

It is also critical to take into consideration the national framework when developing income diversification initiatives, with both Government and Quasi-Government agencies working in the landscape / seascape, with the potential to influence the outcomes. If these agencies can be effectively engaged, this influence can be very positive, with the provision of technical support (e.g. agricultural extension officers, marketing through BTIA / BTB), and assistance with adherence to legal frameworks (e.g. business, tourism and BAHA regulations, tour guide and hotel licensing).

GOVERNMENT AGENCIES

Forest Department
Department of the Environment
Geology and Petroleum Department
Belize Tourism Board
Coastal Zone Management Authority
and Institute
Lands Department
Belize Coast Guard
Dangriga Town Council
Hopkin Village Council

GOVERNMENT STAKEHOLDER	ROLE / RESPONSIBILITY	RELEVANT LEGISLATION / POLICIES / PLANS
Fisheries Department	Authority responsible for management of SWCMR and regulation of fishing (including establishing Managed Access). Established and has managed SWCMR directly since its establishment	Fisheries Act National Protected Areas System Act National Protected Areas Policy and System Plan
Forest Department	Authority responsible for enforcing mangrove regulations and regulations relevant to protection of manatees and nesting bird colonies in SWCMR	Mangrove Protection Act (revised) Wildlife Protection Act
Department of the Environment	Authority responsible for regulation of coastal and caye development activities in SWCMR through the EIA process, and of monitoring and regulating environmental impacts of agricultural and industrial activities in the watersheds	National Environmental Strategy and Action Plan
Department of Agriculture	Authority responsible for promotion of agricultural development and practices in the watersheds to the west of SWCMR	National Land Use Policy and Planning Framework (under revision) National Food and Agricultural Policy Agricultural Extension Service
Geology and Petroleum Department	Authority responsible for regulation of dredging and oil exploration / extraction activities in and adjacent to SWCMR	Petroleum Act
Belize Tourism Board	Regulates tourism use of the protected area; provides training, certification and licensing framework for tour guides, tour operators and hotels. Promotes tourism development; markets Belize as a tourism destination	National Sustainable Tourism Master Plan 2030
Department of Lands	Regulates sale and lease of land / cayes and conditions of sale / lease	National Land Use Policy and Integrated Framework of Land Resource Development
Coastal Zone Management Authority and Institute	Statutory Authority responsible for coastal planning. Provided recommendations for level of development within SWCMR through the ICZMP.	Coastal Zone Management Act Integrated Coastal Zone Management Plan: South-Northern Region ICZMP South-Central Region ICZMP
Dangriga Town Council	Management and development of Dangriga Town	Dangriga Municipal Development Plan
Hopkins Village Council	Local authority for management of Hopkins	Tourism Master Plan for Hopkins

COMMUNITY ASSOCIATIONS AND NON-GOVERNMENTAL STAKEHOLDERS

A number of associations and non-Governmental stakeholders are also involved in management of South Water Caye Marine Reserve and need to be included in mechanisms that improve communication and engagement. For each identified stakeholder, the current and optimal levels of engagement are identified (Table 5) as well as the optimal future relationship with the association or organizations (Table 6).

It is recommended that communication be strengthened across all these stakeholders, with the development of formal partnerships in some cases, and continued collaboration in others.

The fisher associations in both Dangriga and Hopkins form essential links to the fishers who use the marine resources and represent their views. They are also the vehicles for income diversification investment, though experience has demonstrated that for such projects to succeed, there needs to be a support structure in place providing consistent on-site support.

One of the most significant gaps in engagement is with the Belize Tourism Industry Association local chapters in Dangriga and Hopkins. Tourism is a growing industry in the area, and SWCMR has the potential to become a world-class tourism destination if managed well, providing financial sustainability for the MPA, and improving employment opportunities in the coastal communities. Fisheries Department expertise and focus, however, is with the fisheries management, and engaging and partnering with the tourism sector would be an important step in this direction. There is tourism expertise in Hopkins in particular for visitor management and marketing that can be harnessed towards a common goal. The Stann Creek Tour Guide Association is based in Hopkins, and represents tour guides from both Dangriga and Hopkins. It has not been engaged by SWCMR, and establishing stronger communication is essential if SWCMR is to fulfil its potential as a key tourism destination.

Reef Keepers Belize, a small organization focused on improving awareness of the marine environment in schools and inspiring students to become conservation leaders in their community, has been partnering with SWCMR to ensure there is a presence in the schools. The organization has the capacity to grow, and continued collaboration can assist in ensuring that the next generation in Dangriga and Hopkins have opportunities to see, understand and value the reef.

SWCMR receives technical assistance from a number of non-Governmental organizations – at the site level, Wildlife Conservation Society has worked on strengthening the SWCMR Advisory Committee and

COMMUNITY ASSOCIATIONS

Belize Tourism Industry Association – Dangriga
Belize Tourism Industry Association - Hopkins
Wabafu Fishermen Association
Hopkins Fishermen Association
Stann Creek Fishermen Association
Tobacco Caye
Dangriga Sports Council
Stann Creek Sports Council

NON-GOVERNMENTAL ORGANIZATIONS

Belize Tourism Industry Association
Fragments of Hope
Oceana
Projects Abroad
Reef Keepers Belize
Smithsonian Institute
Southern Environmental Association
Tobacco Caye Marine Station
Wildlife Conservation Society
University of Belize - ERI

provides assistance with commercial species monitoring support. At a national level, it also works in partnership with the Fisheries Department to ensure the tools are available for effective implementation of Managed Access – introducing the SMART system of data recording across the National Protected Areas System. The Southern Environmental Association, a co-management organization that manages two MPAs in the Southern Belize Reef Complex seascape, also has the capacity to collaborate in the seascape, and has conducted patrols in the southern portion of SWCMR, though is, itself, limited by human and operational resources. It has also joined forces with the outreach officer to conduct educational outreach to schools in the area, though these activities would benefit from being more strategic and co-ordinated, and less project based.

Projects Abroad, a volunteer organization based in Placencia, has been providing assistance for monitoring health of the reefs, filling critical human resource gaps. Fragments of Hope, also based on the Placencia peninsula, has been sub-contracted to conduct reef restoration activities in the MPA. The Smithsonian Institute monitors the state of the reef and has long term climate monitoring in place, but communication and exchange of information between SWCMR and scientists based at the marine station at Carrie Bow Caye is limited, and would benefit from significant strengthening, with use of Smithsonian data to inform management decisions.

Key recommendations:

Short term:

- Maintain a Community / Outreach Officer in the communities to improve communication with stakeholders
- Strengthen fisher associations for improved representation of fishers, two-way flow of information, and effective organizational, financial and project management, towards improved stewardship of the marine resources
- Partner with Reef Keepers Belize for consistent presence in schools, ensuring students have opportunities to experience and understand the ecosystem values of SWCMR, building future conservation leaders in the communities
- Partner with the tourism industry and develop an environment of pride and supportive stewardship of the marine protected area, bringing tour guides, hotels and resorts to the table and fully engaging them in management activities
- Establish a tourism committee with BTIA to engage tourism stakeholders, to provide recommendations for improved visitor management, infrastructure, and marketing

Long Term:

- Partner with the tourism sector towards improving international marketing of SWCMR as a tourism destination

NON-GOVERNMENTAL STAKEHOLDERS

STAKEHOLDERS ACTIVE IN THE SWCMR AREA						
Stakeholder	Relevance	LOCATION	USE TYPE	Reliance on SWCMR	Level of Engagement	
					CURRENT	GOAL
COMMUNITY ASSOCIATIONS						
Belize Tourism Industry Association – Dangriga Chapter	Promotion of tourism in Dangriga and representation of the tourism sector	Dangriga	Tourism	HIGH	HIGH	VERY HIGH
Belize Tourism Industry Association - Hopkins Chapter	Promotion of tourism in Hopkins and representation of the tourism sector	Hopkins	Tourism	HIGH	LOW	VERY HIGH
Dangriga Sports Council	Can provide assistance with implementation of SWCMR sporting activities for youths	Dangriga	Sports	LOW	MEDIUM	MEDIUM
Hopkins Fishermen Association	Registered fisher association that represents traditional fishers in Hopkins	Hopkins	Fishing	HIGH	HIGH	VERY HIGH
Stann Creek Fishermen Association	Fisher association that represents traditional fishers in Dangriga	Dangriga	Fishing	HIGH	LOW	VERY HIGH
Stann Creek Sports Council	Can provide assistance with implementation of SWCMR sporting activities for adults	Dangriga	Sports	LOW	MEDIUM	MEDIUM
Stann Creek Tour Guide Association	Tour guide association that represents tour guides in Dangriga and Hopkins	Hopkins	Tourism	HIGH	LOW - MEDIUM	VERY HIGH
Wabafu Fishermen Association	Registered fisher association that represents traditional fishers in Dangriga	Dangriga	Fishing	HIGH	HIGH	VERY HIGH
Tobacco Caye	Non-organized group of fishers, tour guides and guest houses – seasonally resident on Tobacco Caye	SWCMR	Fishing / Tourism	VERY HIGH	LOW	VERY HIGH

TABLE 5: STAKEHOLDERS ACTIVE IN SWCMR

STAKEHOLDERS ACTIVE IN THE SWCMR AREA						
Stakeholder	Relevance	LOCATION	USE TYPE	RELIANCE ON SWCMR	LEVEL OF ENGAGEMENT	
					CURRENT	GOAL
NGOs						
Reef Keepers	NGO that educates Belizean students about protecting reefs, mangrove, and seagrass through classroom visits and field trips to the Cayes. Partnered with SWCMR in 2017.	Dangriga	Education	LOW	HIGH	VERY HIGH
Fragments of Hope	Contracted under MCCAP to assist in building reef resilience in SWCMR, with out-planting of resilient corals in the Marine Reserve	Placencia	Conservation	LOW	HIGH	HIGH
Smithsonian Institute	Long term research organization based on Carrie Bow Caye. Have an established monitoring programme in Conservation Zone I and II. Monitoring health of the reef.	SWCMR	Science	HIGH	MEDIUM	HIGH
Southern Environmental Association	Co-management organization for Gladden Spit and Silk Cayes Marine Reserve and Laughing Bird Caye National Park – both part of the larger Southern Belize Reef Complex seascape. Assisting SWCMR with seascape enforcement.	Placencia	MPA management	LOW	HIGH	VERY HIGH
Wildlife Conservation Society	Provide research and monitoring inputs to SWCMR, and support for the SWCMR Advisory Committee. Considering work on nutrient pollution from the watershed and impacts on the reef	Belize City	Technical Support	LOW	VERY HIGH	VERY HIGH
World Wildlife Fund	Provide research and technical support for BBRS-WHS (including SWCMR)	Belize City	Technical Support	LOW	VERY HIGH	VERY HIGH

TABLE 5: STAKEHOLDERS ACTIVE IN SWCMR

STAKEHOLDERS ACTIVE IN THE SWCMR AREA						
Stakeholder	Relevance	LOCATION	USE TYPE	Reliance on SWCMR	Level of Engagement	
					CURRENT	GOAL
VOLUNTEER ORGANIZATIONS						
Projects Abroad	A volunteer organization based in Placencia that assists with reef monitoring activities in SWCMR.	Placencia	Science	MEDIUM	HIGH	VERY HIGH
Tobacco Caye Marine Station	A marine-based education facility established in 2008, linked to Monkey Bay, primarily hosting international students	SWCMR	Education / Tourism	VERY HIGH	MEDIUM	HIGH
BUSINESSES						
Caye Resort Owners	A number of cayes support resorts, residences and / or guesthouses within the MPA	SWCMR	Tourism	VERY HIGH	MEDIUM	HIGH
Hotels / Resorts in Dangriga and Hopkins	Hotels and resorts in and around Dangriga use SWCMR in their marketing and in tours for their guests	Dangriga / Hopkins	Tourism	HIGH	MEDIUM	HIGH
Reef Tour Companies in Dangriga and Hopkins	Use SWCMR in their marketing and in tours for their guests	Dangriga / Hopkins	Tourism	HIGH	MEDIUM	HIGH
SCHOOLS						
Dangriga / Hopkins Schools	Need to be engaged	Dangriga / Hopkins	Education	LOW	MEDIUM	VERY HIGH

TABLE 5: STAKEHOLDERS ACTIVE IN SWCMR

KEY STAKEHOLDER CURRENT AND OPTIMAL STATUS		
Stakeholder	Current Status (including Impact / Benefit)	Optimal Relationship
ASSOCIATIONS		
Belize Tourism Industry Association – Dangriga Chapter	Represents tourism sector with activities focused primarily on culture (e.g. Garifuna Settlement Day). Organizing 5 tour guide courses, professional core module, customer service, culinary, wait staff and first aid courses. Advertise conch fest (Tobacco Caye). Would like to see increased private sector participation in management of SWCMR. Establishing a BTIA Youth Arm to engage youths in tourism. Have initiated an Adopt a Bloc neighbourhood clean-up campaign.	Strong partnership with SWCMR, with investment in joint marketing of the Marine Reserve and initiatives to facilitate access. Improved communication with BTIA and improved dissemination of information to tourism sector on the Marine Reserve. Increased tourism sector participation in management of SWCMR. Joint field trips for youths to provide exposure. Investigate potential for fee collection at BTIA office.
Belize Tourism Industry Association - Hopkins Chapter	Promotion of tourism in Hopkins and representation of the tourism sector.	Strong partnership with SWCMR, with investment in joint marketing of the Marine Reserve and initiatives to facilitate access. Improved communication with BTIA and improved dissemination of information to tourism sector on the Marine Reserve. Increased tourism sector participation in management of SWCMR.
Hopkins Fishermen Association	Represents traditional fishers in Hopkins, with a membership of 30 (15 active). Many also work in the tourism industry. Majority of members are supportive of Managed Access.	Partnered with SWCMR in implementing Managed Access, demonstrating good stewardship of the marine resources.
Stann Creek Tour Guide Association	Represents tour guides in Dangriga and Hopkins. No real management focus on engaging this sector or meeting their needs at SWCMR	Strong partnership with SWCMR, with investment in improving communication, infrastructure and interpretive information for tourism visitors
Stann Creek Fishermen Association	Fisher association that represents traditional fishers in Dangriga. Not as engaged as WFA.	Partnered with SWCMR in implementing Managed Access, demonstrating good stewardship of the marine resources.
Wabafu Fishermen Association	Represent the majority of the SWCMR fishers from Dangriga. Majority are supportive of Managed Access, but would like to see fair enforcement.	Partnered with SWCMR in implementing Managed Access, demonstrating good stewardship of the marine resources.

TABLE 6: CURRENT AND OPTIMAL STATUS OF ENGAGEMENT FOR KEY STAKEHOLDERS

STAKEHOLDER CURRENT AND OPTIMAL STATUS		
Stakeholder	Current Status (including Impact / Benefit)	Optimal Relationship
Tobacco Caye	Non-organized group of fishers, tour guides and guest houses – seasonally resident on Tobacco Caye	Tobacco Caye residents are supportive of SWCMR, with an established entrance fee collection system in place. SWCMR and other partners have assisted in developing and implementing a sustainability plan for the caye, in collaboration with the residents.
NGOs		
Fragments of Hope	Contracted under MCCAP for coral restoration in the Marine Reserve.	Continued collaboration with Fragments of Hope for maintenance of out-planted corals.
Reef Keepers	Partnering with SWCMR Education Officer to provide biodiversity component to school presentations. Use Tobacco Caye as a field site.	Continued, expanded collaboration with SWCMR, strengthening the Reef Keepers /SWCMR presence in primary schools in Dangriga and Hopkins.
Smithsonian Institute	Improving knowledge of marine biodiversity of SWCMR. Limited alignment / collaboration between SWCMR and Smithsonian Institute.	Strengthened communication / collaboration between SWCMR and Smithsonian Institute – data exchange (e.g. met data) for annual reports. Identification of information gaps, common goals and objectives.
Southern Environmental Association	Willing to partner in the seascape to strengthen surveillance and enforcement in the southern portion of SWCMR, but limited by human resources and operational funds .	Strong partnership for collaborative surveillance and enforcement in the SBRC seascape, with SEA patrols contributing towards coverage in southern SWCMR.
The Nature Conservancy	Building capacity of Wabafu for seaweed farming	Maintain the collaborative partnership and provide an enabling environment for fishermen wanting to use SWCMR for seaweed farming.
Wildlife Conservation Society	Provide research and monitoring inputs to SWCMR. Produce reports that make data accessible for management. Facilitate the SWCMR AC meetings.	Continued support for research and monitoring, and for the SWCMR Advisory Committee.
World Wildlife Fund	Provide research and technical support for BBRRS-WHS (including SWCMR).	Continued research and technical support for BBRRS-WHS (including SWCMR), feeding into management decisions to strengthen management of SWCMR.

TABLE 6: CURRENT AND OPTIMAL STATUS OF ENGAGEMENT FOR KEY STAKEHOLDERS

STAKEHOLDER CURRENT AND OPTIMAL STATUS		
Stakeholder	Current Status (including Impact / Benefit)	Optimal Relationship
VOLUNTEER ORGANIZATIONS		
Projects Abroad	Based in Placencia. Has been providing assistance with reef monitoring activities in SWCMR.	More formal, continued partnership with SWCMR for reef monitoring. Explore other potential synergies.
Tobacco Caye Marine Station	Collaborated at first, but issues with SWCMR management led to a halt in collaborative activities.	Open discussions on potential for future collaboration – identification of areas of common interest.
BUSINESSES		
Caye Resort Owners	Some are supportive of SWCMR, others less so. Potential impact from poor waste management, but most are environmentally conscious and try to follow best practices.	Strong partnerships that demonstrate pride in being linked to SWCMR, and support /assist with management activities such as tourism infrastructure and marketing. Improved stewardship through best practices.
Hotels / Resorts in Dangriga and Hopkins	Limited engagement with SWCMR – use it as a tour destination, but don't place emphasis on marketing it as a WHS.	Strong partnerships with key hotels that demonstrate pride in being linked to SWCMR, and support /assist with management activities such as tourism infrastructure, marketing and student field trips.
Reef Tour Companies in Dangriga and Hopkins	Limited engagement with SWCMR – use it as a tour destination, but don't place emphasis on marketing it as a WHS.	Strong partnerships with key reef tour companies that demonstrate pride in being linked to SWCMR, and support /assist with management activities such as tourism infrastructure, marketing and student field trips.
SCHOOLS		
Dangriga and Hopkins Schools	Being engaged through SWCMR Outreach Plan / SWCMR Education and Outreach Officer. Short term, project based. Being implemented in collaboration with Reef Keepers.	Consistent presence in schools, through lessons, competitions and field trips. Structured medium-term plan for ensuring firm basis in key concepts.
FUNDING PARTNERS		
GEF SGP	Invests in strengthening community-based fishing associations and NGOs active in supporting Managed Access	Provide support for community-based organizations through support letters, in-kind co-financing and support at the SGP NSC for projects that align with the SWCMR management plan

TABLE 6: CURRENT AND OPTIMAL STATUS OF ENGAGEMENT FOR KEY STAKEHOLDERS

STAKEHOLDER CURRENT AND OPTIMAL STATUS		
Stakeholder	Current Status (including Impact / Benefit)	Optimal Relationship
FUNDING PARTNERS		
Protected Areas Conservation Trust	Has identified SWCMR as a priority site for investment, under the Conservation Investment Strategy	Engage for collaborative project with NGO for support of outreach and / or income diversification in stakeholder communities
German Development Bank KfW	Is investing in infrastructure, equipment and planning to build the capacity of SWCMR	Ensure the effective implementation of the project activities, including this Community Engagement Plan
MAR Fund	Invests in strengthening key priority protected areas, including SWCMR, support communication activities in the communities. Can also fund NGOs	Engage for collaborative project with NGO for support of outreach and / or income diversification in stakeholder communities

TABLE 6: CURRENT AND OPTIMAL STATUS OF ENGAGEMENT FOR KEY STAKEHOLDERS

2. KEY STRATEGIES

THEORY OF CHANGE

The strategic planning process has been based on a Theory of Change model developed from the outputs of interviews with SWCMR personnel and stakeholders, and with the integration of information from reports reviewed during the process (Figure 2). Two goals were developed for the Strategy.

GOAL 1: ENGAGED COMMUNITIES DEMONSTRATING SUPPORT AND GOOD STEWARDSHIP OF SWCMR

GOAL 2: STRONG STAKEHOLDER PARTNERS, ENGAGED, SUPPORTIVE AND PARTICIPATORY IN MANAGEMENT ACTIVITIES THAT STRENGTHEN SWCMR

Three **Key Strategic Themes** have been identified to frame the Strategy:

- **RECOGNITION OF ECOSYSTEM SERVICES AND PROTECTED AREA FUNCTIONS:** Ensuring that stakeholders are fully aware of the ecosystem services provided by SWCMR.
- **ACTIVE STAKEHOLDER ENGAGEMENT AND SUPPORT:** Ensuring that stakeholders / communities have accurate information for decision making, and mechanisms that facilitate meaningful participation, towards improved stewardship of the marine reserve.
- **INCOME DIVERSIFICATION:** The structures processes and partnerships that need to be in place for successful income diversification project implementation in the communities.

Four SMART targets have been identified, linked to the five outcomes:

RECOGNITION OF ECOSYSTEM SERVICES VALUES

TARGET ONE: By 2022, at least 30% of people surveyed in Dangriga and Hopkins recognise the ecosystem values associated with SWCMR and support its conservation and sustainable use

ACTIVE STAKEHOLDER ENGAGEMENT AND SUPPORT

TARGET TWO: By 2022, there has been an increase of 20% in sustained, active support of SWCMR in Dangriga and Hopkins over the 2019 baseline

TARGET THREE: By 2022, at least 5 local tourism operations have developed strong collaborative partnerships with SWCMR to strengthen management and marketing of the Marine Reserve

INCOME DIVERSIFICATION

TARGET FOUR: By 2022, at least 20% of SWCMR fisher households in Dangriga and Hopkins have benefited either directly or indirectly from income diversification strategies, and have demonstrated reduced impacts on the marine protected area over the 2019 baseline

Each identified step in the Theory of Change modelling is a clearly articulated assumption of what needs to be in place in order to achieve the next step, leading to a “Results Chain” (Example 1).

EXAMPLE

Assumption: If we succeed in improving understanding in the communities of the importance of marine ecosystem services, then communities will be engaged and want to participate in the protection of these ecosystem services, contributing towards improved stewardship of the environment.



Barriers to Improved Understanding in Communities:

- Limited coverage of relevant coastal / reef ecosystem services information in the school curriculum
- Challenges to ensuring sustained educational activities in schools
- Limited opportunities for inspirational field activities for student and community members
- Limited understanding in the communities of the links between ecosystem services and community resilience
- Challenges in ensuring good participation at community meetings
- Limited opportunities for active participation in protection of local ecosystem services
- Limited capacity and interest in community groups in participation

KEY STRATEGIES TO ADDRESS THE NEED FOR IMPROVED KNOWLEDGE AND UNDERSTANDING

Outreach strategies targeting students

- Develop a well-structured, sustained awareness strategy for engagement of students in both primary and secondary schools, in partnership with other stakeholder
- Partner with Reef Keeper Belize to strengthen and expand field activities that engage interest in the environment and build conservation leadership skills in youths
- Develop sporting events that require associated environmental stewardship activities, in collaboration with the Dangriga Sports Council
- Conduct an annual summer camp for primary school students focused on ecosystem services of SWCMR

Outreach strategies targeting community stakeholders

- Continue / strengthen outreach to SWCMR Advisory Committees
- Build a collaborative partnership with the Dangriga and Hopkins BTIA personnel
- Establish manned office / information booth in Dangriga with to improve communication, accessibility to information on SWCMR, support for income diversification projects

EXAMPLE 1: THEORY OF CHAIN PLANNING PROCESS

If we achieve the following through our STRATEGIES...

...our OUTCOMES will be these

...and will achieve our GOALS

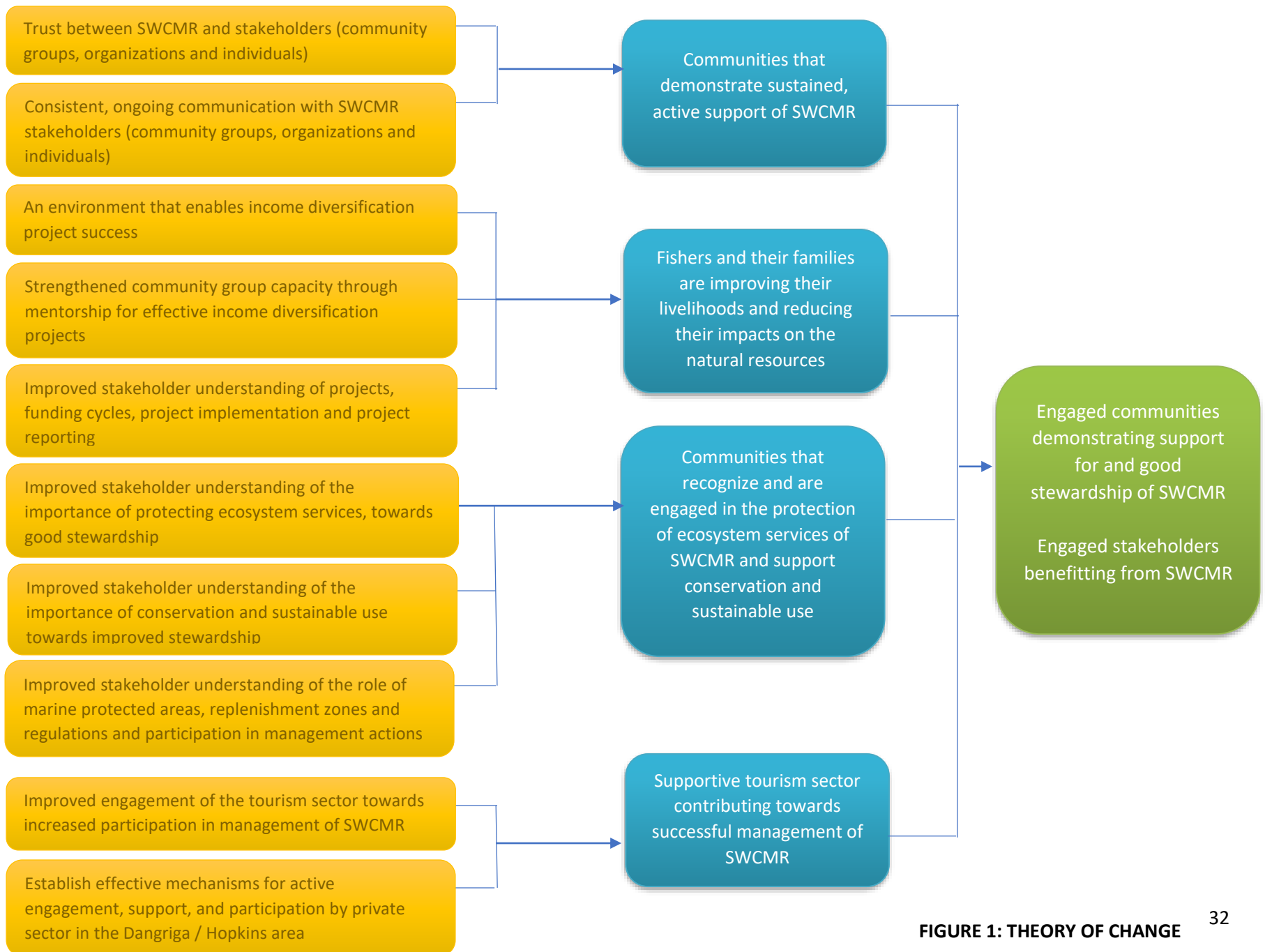


FIGURE 1: THEORY OF CHANGE

KEY STRATEGIC THEME ONE

BUILDING KNOWLEDGE AND UNDERSTANDING

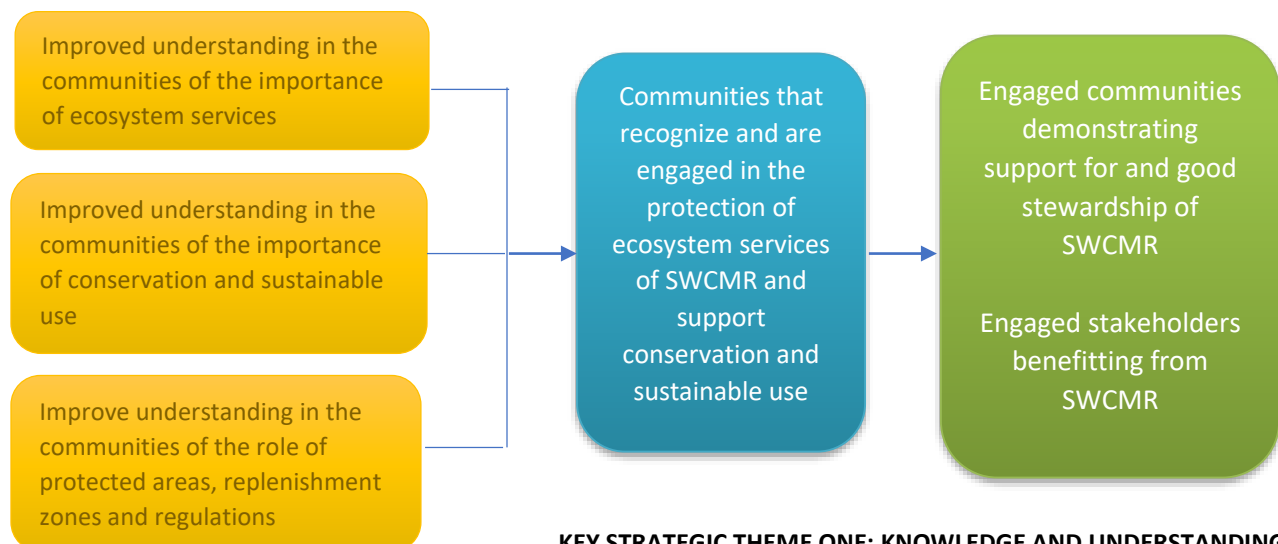
RECOGNITION OF ECOSYSTEM SERVICES AND PROTECTED AREA FUNCTION

“In the end, we will conserve only what we love; we will love only what we understand and we will understand only what we are taught.” Baba Dioum, 1968)

It is recognized that to engage people in conservation of natural resources, there needs to be a basic understanding of the value of those resources to their lives - the ecosystem services they provide that impact the community – the protection from storm events provided by the barrier reef, the economic benefits from tourism and the provision of food and income through traditional fishing activities. Dangriga, in particular, is considered a significant gap in coverage of marine conservation education activities in coastal communities in Belize - ensuring that this gap is filled is particularly important. Building knowledge and understanding of the role and importance of SWCMR and the services it provides in both Dangriga and Hopkins is therefore considered key to the success of any engagement activities in the communities. A series of three knowledge / understanding pre-conditions were identified during the Theory of Change planning process, essential for ensuring an enabling environment:

- Understanding of the importance of ecosystem services of SWCMR, including climate change adaptation and resilience values
- Understanding of the importance of conservation and sustainable use
- Understanding the role of protected areas, replenishment zones and regulations

If we achieve the following through our STRATEGIES... **...our OUTCOMES will be these** **...and will achieve our GOAL**



KEY STRATEGIC THEME ONE: KNOWLEDGE AND UNDERSTANDING

KEY CONCEPTS

- Benefits of SWCMR
 - Roles of marine protected areas, replenishment zones and regulations
 - Ecosystem services
 - SWCMR targets and threats
 - Threatened Species
 - Climate change impacts, adaptation and resilience
 - Community involvement in the protection and conservation efforts of SWCMR
-

Knowledge and understanding of these concepts in the communities is critical to successful outcomes and requires a multi-pronged approach, with outreach / awareness strategies tailored to reach five key target audiences in Dangriga and Hopkins:

- Education Sector
- Fishing Sector
- Tourism Sector
- Non-Government Organizations
- Government Agencies

In 2017, a **SWCMR Communication, Education and Awareness Workplan** was developed (Moore, 2017), providing a sound foundation for a structured, cohesive framework designed to reach a wide cross-section of local stakeholders for improved understanding of the key concepts and role of South Water Caye Marine Reserve, and mechanisms for meaningful participation in management activities. This identified communication tools that can be used depending on the sector, that have been integrated into this Engagement Strategy (Table 3).

SECTOR	COMMUNICATION TOOLS
Education Sector	<ul style="list-style-type: none"> ▪ School Outreach Strategy ▪ Classroom lessons and activities ▪ Presentations ▪ Field activities ▪ Conservation activities – beach clean-ups, no-litter signs etc. ▪ Poster competitions ▪ School conservation projects ▪ Summer Camp ▪ Environmental Club activities ▪ Conservation Sports Competitions ▪ Activities that celebrate Reef Week ▪ Quarterly information brief to teachers ▪ Annual report on status of SWCMR to teachers
Fishing Sector	<ul style="list-style-type: none"> ▪ Communication Plan ▪ Boat-to-boat conversations ▪ Notice boards at landing sites ▪ Fisher meetings ▪ Managed Access Committee meetings ▪ Activities that celebrate Fisher Month ▪ Quarterly information brief ▪ Annual report on status of SWCMR
Tourism Sector	<ul style="list-style-type: none"> ▪ Presentations on SWCMR at BTIA / tour guide association meetings ▪ Activities that celebrate Reef Week ▪ Quarterly information brief ▪ Annual report on status of SWCMR to tourism stakeholders

TABLE 3: COMMUNICATION TOOLS

TARGET ONE: OUTREACH TO STUDENTS AND TEACHERS

The importance of engaging youths through education activities in schools cannot be over-emphasized, but to date, efforts have been project-based, resulting in limited continuity of presence in the schools, with stops and starts to engagement activities, duplication of effort by organizations and limited cohesive structure or messaging. As a result, the majority of students in Dangriga have a low level of understanding and engagement – not only for support of SWCMR, but for the marine environment and conservation generally (A. Moore, pers. com.). Marine ecosystem values and good stewardship are not being successfully transferred to youths through the education system. The only exceptions are seen in two private schools, where there have been significant input over multiple years from the local NGO, Reef Keepers Belize, resulting in a cohort of students that understand the importance of the reef and are inspired and engaged in marine conservation. This has been achieved through a successful combination of classroom activities and field trips (A. Moore, pers. com.). The challenge is now how to scale up these activities to have the same impact in the remaining eight schools in the town, and in the schools in Hopkins.

In 2017, a partnership between SWCMR and Reef Keepers brought this model to eight more schools in Dangriga through the MARFund KfW project, increasing the reach of education and awareness activities. However, this initiative has been short-term (one year) and project based, and not well coordinated with other education activities by other organizations such as SEA, Oceana and Mar Alliance. To be effective in changing perceptions and behaviour, experience has shown that activities need to be consistent over time (not short-term, project-based), and delivered according to a strategic framework that provides opportunities for improving communication, collaboration and coordinated activities by all organizations involved in marine conservation education in the two communities.

The limited continuity in the schools, in particular, and the lack of a structured plan, is considered a significant barrier to the long-term achievement of outreach and engagement goals and objectives. To overcome this, the key school-based strategy is focused on the development of a structured, collaborative, long-term programme that interacts with students at key stages in primary and high school, building knowledge and understanding of the key concepts and identified pre-conditions, engaging students throughout their schooling, and developing conservation leadership skills to improve outcomes. It also integrates a focus on ‘learning by doing’ through outdoor experience, considered critical as experience has shown that exposure to the marine environment is the most effective way to engage youths and develop a long-term interest in the marine environment and conservation, building a future culture of conservation stewardship in the communities.

LESSONS LEARNT

Multi-year outreach strengthens student engagement and understanding

Field activities and outdoor experiences are critical

Outreach should also focus on creating conservation leaders

Outreach by multiple organizations will be more successful if it is coordinated, with unified messaging

Bearing in mind the SWCMR staff limitations in numbers and time, and changes in staff positions, it is recommended that, for successful development and implementation of the strategy, the partnership be strengthened between SWCMR and Reef Keepers, a registered NGO and well positioned for expansion into a leadership role for this strategy. Reef Keepers has a consistent presence in Dangriga, and has demonstrated its success in working with the private schools in this area, and at collaborating with the Education Officer at SWCMR. As part of the Southern Belize Reef Complex (SBRC) seascape, other logical partnership options would include the Southern Environmental Association (SEA) and potentially the Toledo Institute for Development and Environment (TIDE) – the development of a seascape education awareness programme for schools was identified in the SBRC Conservation Action Plan as a key cross cutting activity (Wildtracks, 2008). A collaborative effort with well defined roles and responsibilities and shared costs of implementation would be more effective than each organization duplicating effort across the seascape.

People in Hopkins, as a more tourism-orientated community, are thought to be more aware of the value of the reef – particularly for tourism. There is also the potential for participation by other non-core organizations for implementation of specific components of the Strategy – for example, MAR Alliance (sharks), Southern Watershed Alliance (river to reef considerations), Department of the Environment (plastic pollution and importance of recycling) and BTIA chapters (tourism and the marine environment).

**POTENTIAL COLLABORATORS IN
DEVELOPMENT OF AN EDUCATION
STRATEGY**

SWCMR
Reef Keepers
Southern Environmental Association
BTIA Dangriga
BTIA Hopkins
Oceana

OUTREACH TO SCHOOLS

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
1.1 Develop and implement a 5 year School Outreach Strategy in collaboration with partners in the seascape, that engages students in both primary and high schools			
1.1.1 Develop / strengthen collaboration with Reef Keepers Belize to lead implementation of the School Outreach Strategy in Dangriga and Hopkins	<ul style="list-style-type: none"> ▪ Develop, maintain and strengthen the partnership between SWCMR and Reef Keepers through an MoU that defines roles and responsibilities ▪ Support funding requests by Reef Keepers for financial sustainability of the organization for achieving objectives in line with the Fisheries Department and SWCMR outreach objectives ▪ Strengthen and expand field activities that engage interest in the environment and build leadership skills 	SWCMR EMU / Communications Liaison (in collaboration with the Reserve Manager and Biologist)	<ul style="list-style-type: none"> ▪ Reef Keepers needs assessment – RK has the human and financial resources to lead the School Outreach Strategy in Dangriga and Hopkins ▪ MoU between Reef Keepers and Fisheries Department
1.1.2 Engage relevant conservation partners and schools in development and implementation of the long-term School Outreach Strategy	<ul style="list-style-type: none"> ▪ Collaborative workshop with partners and teachers for strategy design ▪ Identification of other organizations that can contribute towards overall implementation of the strategy 	SWCMR Manager / Biologist / FiD Communication Liaison and Reef Keepers	<ul style="list-style-type: none"> ▪ List of conservation partners with defined roles and responsibilities for implementation of the Strategy ▪ List of other identified participants for implementation of specific components of the Strategy

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
1.1 Develop and implement a 5 year School Outreach Strategy in collaboration with partners in the seascape, that engages students in both primary and high schools			
<p>1.1.3 Develop and implement a well-structured, sustained multi-year School Outreach Strategy for engagement of students in both primary and secondary schools, to ensure grounding in key concepts.</p> <p>Target Groups:</p> <ul style="list-style-type: none"> ▪ Upper Primary Schools ▪ Year 3 / 5 Science programmes in High Schools 	<ul style="list-style-type: none"> ▪ Integrate structured outdoor environmental experiences for students, reinforcing key concepts and building capacity for critical thinking, analysis, presentation of ideas, and leadership skills ▪ Integrate events that promote conservation (e.g. summer camps, Science Symposia, annual sports / football competitions) 	<p>SWCMR Manager / Biologist / FiD Communication Liaison and Reef Keepers</p>	<ul style="list-style-type: none"> ▪ Post-workshop report ▪ Approved School Outreach Strategy ▪ Annual report on success of implementation, outputs and impacts
<p>1.1.4 Encourage establishment of at least five environmental clubs in Dangriga / Hopkins schools</p>	<ul style="list-style-type: none"> ▪ Work with schools in Dangriga / Hopkins to establish and support at least five environmental clubs ▪ Develop a budget for cost of supporting each group (activities / equipment), and engage tourism resorts / industry in the area in adoption of each group ▪ Develop a series of activities throughout the year to build marine conservation interest and stewardship in environmental groups, in partnership with other organizations active in the area ▪ Integrate activities to promote conservation leadership ▪ Annual marine conservation competition for the groups 	<p>SWCMR Manager / Biologist / FiD Communication Liaison and Reef Keepers</p>	<ul style="list-style-type: none"> ▪ Number of environmental clubs established ▪ Number of students participating ▪ Calendar of activities planned vs. activities implemented ▪ Integrate evaluation of success into annual report on success of implementation, outputs and impacts

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
1.2 Improve knowledge, understanding and delivery of key concepts by teachers			
<p>1.2.1 Annual Summer Camp for Upper Primary Level teachers to provide learning opportunities and ideas for inspiration teaching of marine conservation</p>	<ul style="list-style-type: none"> ▪ Two to three-day Summer Camp based in SWCMR ▪ Classroom and field activities ▪ Engagement of other stakeholders – fishers, tour guides etc. to participate in class discussions during Summer Camp ▪ Course module developed during the Summer Camp by teachers and then implemented with science students 	<p>SWCMR Outreach Officer / Reef Keepers</p>	<ul style="list-style-type: none"> ▪ Number of teachers participating in Summer Camp ▪ Post-Summer Camp report ▪ Integrate evaluation of success into annual report on success of implementation, outputs and impacts ▪ Implementation of course module by teachers ▪ Number of science students participating in module

TARGET TWO: OUTREACH TO COMMUNITIES

SWCMR currently has a Community Engagement, Education and Awareness Workplan, designed for implementation over an eight-month period that focuses on a series of key messages that align with the Key Concepts defined in this document. To achieve a change in attitude and behaviour in communities, however, a much more sustained campaign is required, over a number of years. Key communication strategies focused on SWCMR stakeholders are identified in the SWCMR management plan, for implementation over a five-year period.

KEY COMMUNICATION ACTIVITIES HIGHLIGHTED IN THE 2018 SWCMR MANAGEMENT PLAN

- Develop a Communication Plan for dissemination of information to all stakeholder sectors, to the Advisory Committee, surveillance and enforcement and research partners, funding partners, and other Government agencies (especially Coast Guard, Port Authority, Department of the Environment, Forest Department and Department of Geology and Petroleum)
- Ensure SWCMR Advisory Committee members participate in and are kept informed of reserve activities and management decisions
- Ensure traditional fishers, tour guides and SWCMR resort owners are kept informed of reserve activities and management decisions affecting them
- Ensure tour guides and tour operations using South Water Caye Marine Reserve are aware of management zones, rules and regulations
- Ensure relevant information on rules and regulations is available for dissemination to fishers, tourists and other visitors at the proposed office in Dangriga, and at the Ranger's Station
- Ensure there are large, clear signs with a map of the Marine Reserve, positioned at key departure points (eg. Dangriga, Tobacco Caye) including information on fees, zones and regulations
- Increase good practices awareness in dive groups through development and dissemination of information to dive guides
- Presentations on research and monitoring results, and reserve activities to fishers, tour guides and stakeholder communities at least twice a year
- Develop and produce poster / laminated card for distribution to resorts with map of SWCMR highlighting zones, regulations, major dive / snorkelling sites, and dive best practices
- Produce and disseminate best practices guidelines for caye-based tourism operations and other residents. WCS guidelines are recommended
- Ensure there is awareness of SWCMR and the environmental services and benefits it provides to the communities through use of media opportunities and posters (focusing particularly on biodiversity protection, fisheries production and tourism)
- Displays and exhibits placed at public events such as Garifuna Settlement Day, Earth Day, etc.
- Produce an annual summary flier of reserve activities and achievements, to be distributed to residents, tour guides, tour operators and fishers

SWCMR Management Plan (2018 draft)

Until 2017, the Fisheries Department outreach activities have tended to be infrequent, and limited by human and logistical resources. Investment in the construction of a small office in Dangriga, scheduled for

October, 2018, has the potential to increase accessibility to the FiD staff, and change the balance in the relationship between SWCMR and its stakeholders – particularly the fishers.

KEY MESSAGES OF THE DRAFT COMMUNITY ENGAGEMENT, EDUCATION AND PUBLIC AWARENESS STRATEGY (2017)

Improve knowledge and understanding of:

- Reef, seagrass and mangrove ecosystems and biodiversity, and their local, national, regional and global importance
- Marine conservation and marine protected areas, and their roles in conserving biodiversity and the environment and maintaining a sustainable fishery
- Belize Fisheries policies and regulation
- Management zones of SWCMR and their role in sustainable fishery
- The SWCMR Management Plan and its components
- The history of the establishment of SWCMR
- Conflicts, threats and challenges that are barriers to effective management of SWCMR
- Ways in which the public can be involved in management and outreach/opportunities associated with SWCMR

During the consultation process, one of the weaknesses identified by participants has been the previous lack of presence and continuity of Fisheries Department personnel active in the communities. Until 2017, Fisheries Department activities associated with SWCMR were focused almost exclusively on communication activities within the Marine Reserve, primarily for enforcement of Fisheries Regulations, with only limited, ad-hoc communication activities in the communities (SWCMR staff, 2017). Whilst general community awareness can be improved using a number of tools – fisher fairs, murals, posters and signs in the community, and videos over local radio and television, it will be more cost effective to focus on the fishing and tourism sectors - those that impact and are most impacted by SWCMR.

Dangriga is traditionally considered a challenging community to engage in marine conservation for a number of reasons. As mentioned previously, there is limited focus on marine conservation in the education system - youths don't leave school with the basic information necessary to understand and respect the importance of SWCMR and the ecosystem services it protects to their health, safety and livelihoods. This limited awareness continues as they become adults. The town is more business-focused than Hopkins, with few people reliant on the marine environment – only a small percentage of the community are either tour guides or fishermen, with few tourism opportunities linked to the reef. This reduces the interest and motivation of many community members to attend meetings to learn more. The lack of a long-term NGO or co-management partner active in the area to implement consistent education / awareness activities has also been a significant challenge to raising awareness. Where organizations are present (e.g. Punta Gorda, Placencia), communities are considered to have a much better understanding of the roles of the marine protected areas.

Hopkins, however, is more receptive to being informed about the key concepts – the community has largely embraced tourism, with a stronger recognition of the links between tourism, the state of the reef and the state of Hopkins' economy. There is an active BTIA chapter and Stann Creek Tour Guide Association that are receptive to information on the marine environment and SWCMR, for integration

into tours. Communication with and engagement of the tourism sector, in general, though, has not been prioritised by SWCMR in the past.

OUTREACH TO COMMUNITIES

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
2.1 Develop and implement a 5 year Communication Strategy in collaboration with partners in the seascape, that maintains consistent communication between SWCMR and its key stakeholders			
2.1.1 Review, revise and expand the 2017 Communication, Education and Public Awareness Workplan	<ul style="list-style-type: none"> ▪ Identify and engage potential partners for implementation of the Communication Strategy ▪ Workshop with key stakeholders to review, revise and expand the 2017 Communication, Education and Public Awareness Strategy ▪ Integrate the School Outreach Strategy 	FiD Community Liaison, SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ Workshop report ▪ List of collaborating partners ▪ Revised 5-year Communication, Education and Public Awareness Strategy
2.1.2 Ensure SWCMR has the human and logistical resources for implementation of the Communication, Education and Public Awareness Strategy	<ul style="list-style-type: none"> ▪ Employ an SWCMR Community Outreach Officer, based in Dangriga ▪ Establish an equipped office in Dangriga ▪ Allocate a vehicle dedicated to education and outreach activities, to be based in Dangriga 	Fisheries Department	<ul style="list-style-type: none"> ▪ Annual Needs Assessment ▪ % Needs Assessment recommendations met ▪ Equipped office ▪ Vehicle ▪ Annual fuel allowance
2.1.3 Implement the Communication, Education and Public Awareness Strategy	<ul style="list-style-type: none"> ▪ Activities are defined in the draft strategy, and will be revised and expanded during the workshop ▪ Evaluate success and revise annually if necessary ▪ Ensure engagement of SWCMRAC 	FiD Community Liaison, SWCMR Manager ? Community Outreach Officer, Reef Keepers	<ul style="list-style-type: none"> ▪ Annual report on success of implementation, outputs and impacts
2.1.4 Measure success of the Strategy	<ul style="list-style-type: none"> ▪ Conduct a well-structured KAP survey to form a baseline against which to measure changes in knowledge, attitudes, perception and willingness to change behaviour ▪ Repeat at 2.5 and 5 years 	FiD Community Liaison, SWCMR Manager / Community Outreach Officer, Reef Keepers	<ul style="list-style-type: none"> ▪ KAP Baseline report with indicators ▪ Mid-Strategy report ▪ 5-year report

TARGET THREE: THE FISHING SECTOR

With the recent roll out of Managed Access, new fisheries management tools, revised zoning and the revision of the Fisheries Act, the need for effective communication with and engagement of fishers is increasingly important. During consultations, fishers have identified the wish for improved communication with the Fisheries Officers at SWCMR, based on a more positive approach that balances information on regulations, zones and Managed Access with feedback on the state of the resources. Recent changes in management staff of the protected area have improved the reception of the fishers, who would like to see a change in the way fishers are approached by SWCMR staff. Rebuilding trust, however, will take time and open communication.

FISHERMEN ASSOCIATIONS

Stann Creek Fishermen Association
Wabafu Fishermen Association
Hopkins Fishermen Association

Experience has shown that it is hard to convene meetings of fishers in Dangriga, with poor attendance, meeting fatigue and a tendency for meetings to end in discord and disarray. The fishing community is fractured and conflictious, and the two Dangriga fishing associations (Stann Creek Fishermen Association and Wabafu Fishermen Association) have not been very stable over time (community consultations, 2017/2018). This results in challenges when developing targeted communication strategies. The Hopkins Fishermen Association, however, is considered a more stable fisher group, and more receptive to outreach.

The most effective tool for increasing fisher awareness has proved to be boat-to-boat conversations - a strategic outreach tool refined by Belize Audubon Society, providing information to fishers that mirrors the community outreach messages, and reinforcing the key concepts. Whilst this strategy focuses on fishers of Dangriga, Hopkins and Tobacco Caye, the boat-to-boat conversations are also relevant for engaging and communicating with SWCMR fishers from other communities such as Sarteneja and Placencia. It has been shown that, for greatest effectiveness, boat-to-boat activities should:

- be led by the Outreach Officer rather than an enforcement officer
- provide the fishers with incentives for participation (generally soft drinks and chips)
- be conducted without the presence of uniformed rangers and coastguard, to ensure easy distinction between outreach and enforcement activities

The fishers in both communities have also expressed appreciation at having an SWCMR Outreach Officer in the communities that they can approach for information – one not associated with fisheries enforcement (Fisher consultations, 2017 / 2018). Information to fishers will also be able to be transferred at the new Reserve Headquarters at Twin Cayes, once completed.

OUTREACH TO THE FISHING SECTOR

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
3.1 Improve communication with the fishers of Dangriga, Hopkins and Tobacco Caye			
3.1.1 Ensure fishers are kept informed of SWCMR activities and management decisions affecting them	<ul style="list-style-type: none"> ▪ Regular, open communication with Fisher Associations in Dangriga, Hopkins and Tobacco Caye ▪ Quarterly printed / e-mail brief to fisher associations on SWCMR activities and annual report on status of the resources ▪ Meetings / workshops when consultation is most important- avoid meeting fatigue ▪ Install and maintain Fisher Notice Boards at landing areas in Dangriga, Hopkins, Tobacco Caye, Dangriga office and at the Ranger Station ▪ Post updates / information at least once a month ▪ Post urgent updates as needed, and back-up with radio / TV announcements 	SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ Workshop / meeting reports ▪ Quarterly information brief distribution list ▪ Annual report on status of resource of SWCMR - distribution list ▪ % fishers present at workshops ▪ Fisher Notice Boards ▪ Monthly updates distribution list ▪ % fishers who check the Notice Board (fisher survey)
3.1.2 Regular boat-to-boat discussions	<ul style="list-style-type: none"> ▪ Regular boat-to-boat activities – providing information on new policies, status of resources ▪ Incentivise participation in boat- to-boat conversations – soft drinks, chips, t-shirts etc. ▪ Develop / revise SWCMR laminated booklet covering SWCMR fishing regulations, zones and advice on completion of MA log books 	SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ Log of boat-to-boat activities ▪ Laminated booklet on regulations (revision of the previous version) ▪ List of boats receiving the booklet

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
3.1 Improve communication with the fishers of Dangriga, Hopkins and Tobacco Caye			
3.1.3 Ensure SWCMR Fisheries Officers are knowledgeable of the Fisheries regulations for clear dissemination	<ul style="list-style-type: none"> ▪ Conduct in-house training for Fisheries Officers in communication with fishers and the revised fisheries regulations / legislation relevant to SWCMR ▪ Provide Fisheries Officers with copies of SWCMR fishing regulations 	SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ % of SWCMR Fisheries Officers knowledgeable of Fisheries regulations ▪ % of SWCMR Fisheries Officers considered non-confrontational by fishers in non-enforcement situations (boat-to-boat, surveillance activities)
3.1.4 Integrate fisher communication strategies into the umbrella Communication, Education and Public Awareness Strategy	<ul style="list-style-type: none"> ▪ Integration of fisher communication strategies into the umbrella Communication, Education and Public Awareness Strategy 	SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ Communication, Education and Public Awareness Strategy includes fisher communication strategies
3.1.5 Measure success of the Strategy	<ul style="list-style-type: none"> ▪ Conduct a well-structured KAP survey to form a baseline against which to measure success ▪ Repeat at 2.5 and 5 years 	SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ % fishers with improved knowledge of SWCMR fisheries regulations and zones ▪ % fishers considered to be compliant with SWCMR regulations ▪ % fisher who consider they are adequately informed

TARGET FOUR: OUTREACH TO THE TOURISM SECTOR

The tourism sector has been under-engaged by SWCMR but is identified as a key opportunity for improving support and collaboration for the marine protected area. However, a significant investment in time and effective communication is required towards setting a foundation for future engagement.

A number of tourism groups are active in the area – including the Belize Tourism Industry Association chapters in Dangriga and Hopkins, and tour guide and hotel associations. Until the appointment of an Outreach Officer in 2017, however, there has been little interaction between these associations and staff of SWCMR. The same is true of hotels, tour guides, tour operators and resorts. As with the fishers, communication has been ad-hoc and non-consistent, and focused almost entirely on fee collection – not on strategically strengthening the long-term relationship between the marine reserve and the tourism industry that uses it and benefits from it.

TOURISM STAKEHOLDERS

BTIA Chapter - Dangriga
BTIA Chapter - Hopkins
Stann Creek Tour Guide Association

Unlike the fishing sector, the tourism sector is more open to being engaged, and has more capacity to be able to support SWCMR. A key recommendation of this strategy is that significant, sustained effort should be made to partner with the tourism industry and develop an environment of pride and supportive stewardship of the marine protected area, bringing tour guides, hotels and resorts to the table and fully engaging them in management activities. Improved communication is the first step towards achieving the move towards strong partnerships.

OUTREACH TO THE TOURISM SECTOR

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
4.1 Improve communication with the tourism sector of Dangriga, Hopkins, Tobacco Caye and resorts within SWCMR			
4.1.1 Ensure the tourism sector is kept informed of SWCMR activities and management decisions affecting them	<ul style="list-style-type: none"> ▪ Keep regular, open communication with tourism Associations in Dangriga, Hopkins, and Tobacco Caye, and resorts within SWCMR ▪ Provide quarterly printed / e-mail brief on SWCMR activities and annual report on status of the resources to engaged members of the tourism sector ▪ Conduct meetings / workshops with the tourism sector as needed – avoid meeting fatigue ▪ Provide updates / information at least once a month to BTIA chapters, tour guide associations and engaged hotels ▪ Post important / urgent updates as needed, and back-up with radio / TV announcements 	SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ Workshop / meeting reports ▪ Quarterly information brief distribution list ▪ Annual report distribution list ▪ % registered tour guides present at tour guide workshops / meetings ▪ Monthly updates to tourism sector
4.1.2 Improved knowledge of tourism best practices by SWCMR tour guides	<ul style="list-style-type: none"> ▪ Develop and disseminate SWCMR laminated booklet covering SWCMR tourism regulations, zones and tourism best practices to SWCMR tour guides 	SWCMR / SWCMR Community Outreach Officer	<ul style="list-style-type: none"> ▪ Laminated booklet (revision of the previous version) ▪ List of tour guides receiving the booklet
4.1.3 Ensure SWCMR Fisheries Officers are knowledgeable of the BTB regulations relevant to SWCMR	<ul style="list-style-type: none"> ▪ Conduct training for fisheries officers in tourism regulations / legislation relevant to SWCMR 	SWCMR Manager / SWCMR Community Outreach Officer	<ul style="list-style-type: none"> ▪ % of SWCMR Fisheries Officers knowledgeable of relevant tourism regulations

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
4.1 Improve communication with the tourism sector of Dangriga, Hopkins, Tobacco Caye and resorts within SWCMR			
4.1.4 Integrate tourism sector communication strategies into the umbrella Communication, Education and Public Awareness Strategy	<ul style="list-style-type: none"> Integrate tourism sector communication strategies into the umbrella Communication, Education and Public Awareness Strategy 	SWCMR Community Outreach Officer	<ul style="list-style-type: none"> Communication, Education and Public Awareness Strategy includes tourism communication strategies
4.1.5 Measure success of the Strategy	<ul style="list-style-type: none"> Conduct a well-structured KAP survey to form a baseline against which to measure success Repeat at 2.5 and 5 years 	SWCMR Community Outreach Officer	<ul style="list-style-type: none"> % tour guides with improved knowledge of SWCMR tourism regulations and zones % tour guides considered to be compliant with SWCMR regulations % tour guides who consider they are adequately informed

TARGET FIVE: OUTREACH TO GOVERNMENT AGENCIES AND THE NGO SECTOR

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
5.1 Improve communication with NGOs and Government Agencies relevant to SWCMR			
5.1.1 Maintain ongoing communication with relevant NGOs and Government agencies on SWCMR management activities	<ul style="list-style-type: none"> Keep regular, open communication with relevant NGOs and Government agencies Engage Government agencies when collaboration is required Provide quarterly printed / e-mail brief on SWCMR activities and annual report on status of the resources Conduct meetings when required to communicate key issues (e.g. with DoE re. caye development; with WCS re. resource monitoring activities) 	SWCMR Manager / SWCMR Community Outreach Officer	<ul style="list-style-type: none"> Workshop / meeting reports Quarterly information brief distribution list Annual report distribution list

KEY STRATEGIC THEME TWO: ACTIVE STAKEHOLDER ENGAGEMENT AND SUPPORT

ENGAGING STAKEHOLDERS TOWARDS A JOINT VISION OF IMPROVED STEWARDSHIP

Until recently, management of South Water Caye Marine Reserve has been operating with only limited engagement of the stakeholders, with the majority of management activities focused on the surveillance and regulation of fishing activities. This is partly a result of the limited staff available for management of one of the largest marine protected areas in central / southern Belize, and partly a result of the fisheries management mandate under which SWCMR was established. Moving forward into the future, there is a critical need to engage new, supportive stakeholders – the tourism sector and the youths of the community – increasing appreciation and pride in the marine protected area, recognition of benefits and providing mechanisms for active participation in management activities and improved stewardship of the marine resources. The eventual outcome being sought is improved stewardship of the natural resources, whether in and around the communities and at South Water Caye Marine Reserve. Moving from outreach to engagement for improved stewardship is based on a “desire to encourage community members to adopt and sustain reef-friendly behaviours” (Marshall et al., 2015), and is considered a critical management tool when working with communities towards effective management

STEWARDSHIP THE CAREFUL AND RESPONSIBLE MANAGEMENT OF THE NATURAL RESOURCES ENTRUSTED TO OUR CARE

Ecosystem stewardship encourages and empowers citizens to actively respond to change and to shape the future of coral reefs through personal and collective action. Stewardship programs incorporate education and awareness activities, but their ultimate goal is to reinforce and increase behaviours that can protect reef ecosystems through conservation and sustainable practices.

Marshall et al., 2015

South Water Caye Marine Reserve has the potential to be a key tourism destination in Belize but is currently under-achieving. The challenges of limited tourism infrastructure, marketing and engagement of the tourism industry and past leakage of entrance fees has had a significant impact on the financial sustainability of the Marine Reserve

BTIA Dangriga Youth Arm Challenges include limited collaboration between tourism operations located within the marine protected area, and limited communication and collaboration between SWCMR and the coastal tourism sector that uses the Marine Reserve.

Community Researchers have proved to be the single, most successful mechanisms for improving the awareness and understanding of the role and work of a marine protected area, greatly improving knowledge and understanding of the participants in conservation and sustainable use, through participation in biodiversity monitoring and outreach activities. SWCMR has an ongoing community researcher programme, building employable skills and experience. Strengthening this programme and expanding it to provide exposure of community researchers to assist with outreach activities will be a

valuable strategy towards inspiring and nurturing knowledgeable conservation advocates within the communities.

Other successful strategies have been engagement through strengthening community resilience to climate change – a recent project completed by the Pan-American Development Foundation (PADF) focused on community-based approaches to disaster preparedness and climate change adaptation, to build the capacity of the members of Dangriga and Hopkins communities to adapt to, withstand, and respond to the increasing intensity of storms and floods. PADF partnered with resorts to build awareness of the importance of mangroves to coastal resilience, with active ecosystem restoration implemented with the participation of community members – the Harlem Beach custodians. Training was also provided for schools and local hotels in emergency planning for disasters and best practices, CPR and first aid – skills that improve safety within the community and protect livelihoods. The project also promoted awareness of the use of lionfish, partnering with Oceana and Blue Ventures to improve local use of lionfish both as a protein source and through cooking demonstrations, and using the fins through jewellery making workshops. These strategies brought community members to meetings and workshops, providing opportunities for information transfer – and providing successful models that can be built on and replicated to improve community engagement.

The Fishing Sector

Three local fishing associations have been identified during the planning process, two in Dangriga (Wabafu Fishermen Association and Stann Creek Fishermen Association) and one in Hopkins (Hopkins Fishermen Association). There are also fishermen based out of Tobacco Caye. The most stable and most engaged would appear to be the Hopkins Fishermen Association. The Dangriga associations, however, have shown limited organizational stability over the last five years, and fishers in that community are recognized as very divided, despite several attempts to build capacity for institutional strengthening. There has also been a significant trust issue forming a barrier between fishers and the management of South Water Caye Marine Reserve, based on perceptions of unfair enforcement in the protected area in the past. Both these factors create challenges in engaging and working with the fisher groups in the future.

Lessons Learnt

There is a significant trust-issue forming a barrier between SWCMR fishers and the Fisheries Department

Efforts are most effective if focused on younger fishers and fisher organizations

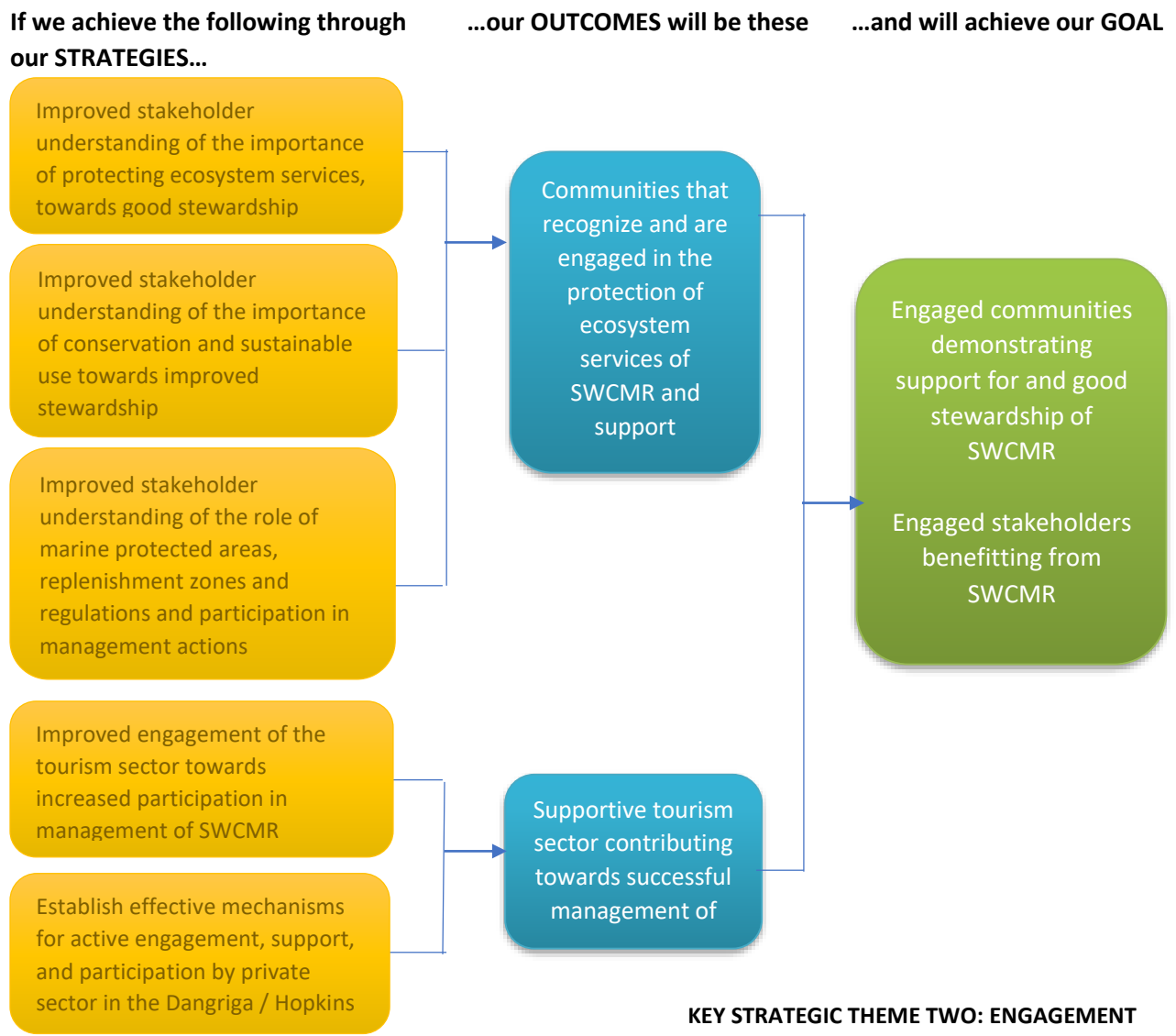
Fisher participation in regular meetings is not a realistic goal in the current context

The Tourism Sector

The engagement of the tourism sector in Dangriga, Hopkins and the cayes in tourism development and management of SWCMR is a key opportunity that has been largely ignored over the years. Whilst Dangriga fishers still rely heavily on fishing for their livelihoods, the development of large resorts and smaller hotels in the Hopkins area has changed the employment landscape for that communities, with fishermen moving successfully into tourism. Many of the larger resorts are interested in expanding their social responsibility programmes and understand the importance of SWCMR to their continued success. There has not yet,

however, been a concerted effort at engaging this sector. Engagement should also consider not just the larger resorts, but also the smaller, local tourism stakeholders, ensuring that they, too, are engaged and participating in the process, with a voice in any future vision for tourism at the marine reserve.

Engagement strategies are centred around activities that have been identified as key issues by stakeholders during consultations – the erosion of Man’O’War Caye, the increasing issue of plastics in the sea and on the cayes, and the management of invasive lionfish. Whilst SWCMR has reached out in the past to address these issues, the engagement has not been followed through and maintained beyond a single event or project. It is important that engagement activities build on each other, increasing the communication with of stakeholders in building a better understanding the role of the protected area, and participation in management activities.



STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
5.1 Engaging key stakeholders in the fishing industry			
5.1.1 Identify a collaborating partner who can provide technical support towards strengthening fisher associations as representatives of fishers in Dangriga and Hopkins	<ul style="list-style-type: none"> Identify and engage a collaborating partner organization that can provide capacity building in governance, institutional, project and financial management 	Fisheries Department EMU	<ul style="list-style-type: none"> Board evaluation output Annual financial statement Trainings implemented Number of fishers participating in trainings
5.1.2 Ensure open communication and fair enforcement across all fishers in SWCMR	<ul style="list-style-type: none"> Provide training for SWCMR staff in non-confrontational engagement with fishers Provide conflict resolution training for SWCMR staff 	SWCMR Manager / SWCMR Community Outreach Officer	<ul style="list-style-type: none"> % of fishers who indicate that surveillance and enforcement has improved % of fishers that are using SWCMR that are
5.1.3 Establish an effective Managed Access committee for Area 3	<ul style="list-style-type: none"> Facilitate regular meetings of the MA Committee Build capacity of the Committee for its roles and responsibilities 	SWCMR Manager	<ul style="list-style-type: none"> % of fishers who consider the Managed Access Committee is functioning well Level of attendance at meeting
5.1.4 Use Keystone Man'O'War caye restoration project to bring fisher and tourism stakeholders together	<ul style="list-style-type: none"> Meet with Wabafu and Hopkins Fishermen Associations to discuss options of restoration of Man O' War Caye Engage and contract fishers for critical boat-based tasks 	SWCMR Manager / SWCMR Outreach Officer	<ul style="list-style-type: none"> Number of fishers participating in Man O' War caye restoration meeting Number of fishers employed during Man O' War caye restoration activities
5.2 Engaging key stakeholders in the tourism industry			
5.2.1 Establishment of a tourism committee to provide technical recommendations for improving SWCMR as a tourism destination	<ul style="list-style-type: none"> Partner with BTIA (national) for identification and engagement of key tourism stakeholders in the communities Facilitation of strategic planning towards development and marketing of SWCMR as a tourism destination, with identification of roles and responsibilities for active participation of tourism stakeholders 	SWCMR Manager / SWCMR Outreach Officer	<ul style="list-style-type: none"> Number of tourism sector representatives participating on tourism committee Strategic Plan for development and marketing of SWCMR as a tourism destination

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
5.2 Engaging key stakeholders in the tourism industry			
5.2.2 Keystone project for engagement of tourism stakeholders – restoration of Man’O’War Caye	<ul style="list-style-type: none"> ▪ Meeting with Stann Creek Tour Guide Association, local BTIA chapters and fishing sectors to discuss options of restoration of Man O’ War Caye and develop a joint plan of action ▪ Seek assistance from the tourism sector for active participation in restoration activities, with well-defined roles and responsibilities ▪ Provide learning opportunities as part of project (e.g. presentations on history of the caye and birds from qualified bird experts, key concepts) 	SWCMR Manager / SWCMR Outreach Officer	<ul style="list-style-type: none"> ▪ Number of tour guides / tourism sector representatives participating in Man O’ War caye restoration meeting ▪ Number of tour guides / tourism sector representatives participating in restoration activities ▪ Status of Man’O’War Caye
5.2.3 Participatory development of project ideas for reducing plastic use in SWCMR	<ul style="list-style-type: none"> ▪ Partner with tourism sector towards active participation in developing a joint plan of action identifying and implementing strategies for reducing plastic use and waste in SWCMR ▪ Facilitate access to eco-friendly plastic replacement options for small operations ▪ Organize coastal and caye litter sweeps in partnership with BTIA chapters, schools and fisher associations ▪ Provide learning opportunities as part of project, based on key concepts 	SWCMR Manager / SWCMR Outreach Officer	<ul style="list-style-type: none"> ▪ Number of tour guides / tourism sector representatives participating in plastic use reduction ▪ Lbs of plastic removed

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
5.2 Engaging key stakeholders in the tourism industry			
5.2.4 Provide opportunities and incentives for lionfish eradication	<ul style="list-style-type: none"> ▪ Partner with BTIA Dangriga and Hopkins chapters and Stann Creek Tour Guide Association ▪ Provide incentives and seek active participation from the tourism sector for annual / biannual events focused on eradication of lionfish 	SWCMR Manager / SWCMR Outreach Officer	<ul style="list-style-type: none"> ▪ Number of tour guides / tourism sector representatives participating in lionfish removal ▪ Number and lbs of lionfish removed during events

KEY STRATEGIC THEME THREE: INCOME DIVERSIFICATION

SUCCESSFUL INCOME DIVERSIFICATION PROJECT IMPLEMENTATION IN THE COMMUNITIES

Over the last ten years, there has been a surge in commitment and interest by marine conservation organizations in supporting income diversification for fishermen in the coastal communities towards reduced pressure on the marine resources. This includes the development of the Economic Alternatives and Fisheries Diversification Plan (2014 – 2019) (Shal, et al., 2014), developed by The Nature Conservancy and the Belize Fisheries Department, with the vision that “By 2023, fishing communities have a high standard of living with diversified income sources based on multiple economic activities including the sustainable harvesting of a healthy fishery with effective collaboration among all stakeholders”. However, successful outputs have been very limited in terms of scale and long-term sustainability. There are many reasons for this, including the independent nature of fishers, their strong cultural ties to the sea, the seasonal nature of fishing, limited education for moving into other occupations, the difficulties of shifting from a known income source to unknown, the impacts of natural disasters...all of these are barriers to successful alternative livelihood and income diversification outcomes.

A review of lessons learnt from past projects highlights the need for consistent communication and mentoring not just during the short-term project time frame, but also in the medium term, beyond the life of single projects, if outputs are to be successful in changing lives and reducing dependence on the marine resources. The limited time and staff availability at SWCMR and the absence of an established conservation organization in Dangriga or Hopkins for supporting income diversification mechanisms are significant barriers to ensuring the success of income diversification initiatives. There is no organization in the area with the capacity to act as an intermediary for management of investments in community groups as their capacities increase, or to be able to take on the role of mentoring, improving consistent communication and support with fisher association, co-ordinating meetings and capacity-building trainings, and monitoring of projects and micro-loans.

Challenges also exist for the funding agencies, generally based in Belize City or Belmopan, with high financial costs and time commitments for reaching the central coastal communities, challenges in maintaining ongoing communication and support for grantee organizations, and of working relatively remotely with fisher associations that have limited capacity for financial management, weak governance and limited long-term sustainability. It is recommended that, should there be continued investment in income diversification projects, the role of oversight and mentoring should be filled through collaboration with a supporting, capacity-building organization such as BEST, with relevant project development and implementation skills.

Income Diversification

An increase in the diversity or number of income generating activities supporting fishing households

Salas et al., 2014

Despite some advances in the success of income diversification outcomes through initiatives such as seaweed production, the number of fishers and fisher households who have been able to successfully diversify their income base has been minimal. Two key pre-conditions have been identified for facilitating success of income diversification investments:

- Community understanding of projects, funding cycles, project implementation and project reporting
- Consistent support of community groups / projects: Good communication, continuity of presence, mentoring,

Also considered key is the recognition of the important role women can play in income diversification for fishing households and the communities as a whole.

Despite the low level of success of income diversification projects targeting individual or groups of fishers in Belize over the years, there is still the wish to support fisher groups and individual fishers and their families wanting to diversify their income base, with the capacity and commitment to see the projects through. To ensure maximum conservation return, projects should be linked to improving climate change resilience in the communities and to building environmental stewardship both in the communities and in South Water Caye Marine Reserve.

Based on review of past lessons learnt, the greatest impact and long-term benefit may be achieved through a more holistic focus - to focus less on individual projects, and more on improving employment opportunities in tourism in both communities (but Dangriga in particular) through a shift in focus of the management of the protected area to one that prioritizes tourism management and improved marketing along with fisheries management. Moving away from ad-hoc projects towards more strategic investments in improving the tourism environment would improve outcomes and impacts for fishers towards short, medium and long-term outcome success beyond the project timeframe, with opportunities for increased marine-based employment in the area (e.g. boat captains, fly fishing guides etc.). For this reason, grants / loans should also be available to assist in the establishment and growth of credible marine tourism businesses that align with the goal of the Strategy.

Modelling of lessons learnt from past projects has led to the identification of a structured framework for improving successful income diversification outcomes (Figure ...). Currently, however, many of these structures, such as mentoring / support, financial and project management, and microloans, are not yet established in the area and business management and marketing still requires capacity building for the organizations, and employment of staff with experience in these areas.

A number of criteria have been identified to guide potential investment, including:

- Identification of established, stable fisher associations with project ideas that align with the goal of the Strategy
- Identification of committed, motivated entrepreneurs with viable project ideas and an ethic of environmental stewardship

- 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

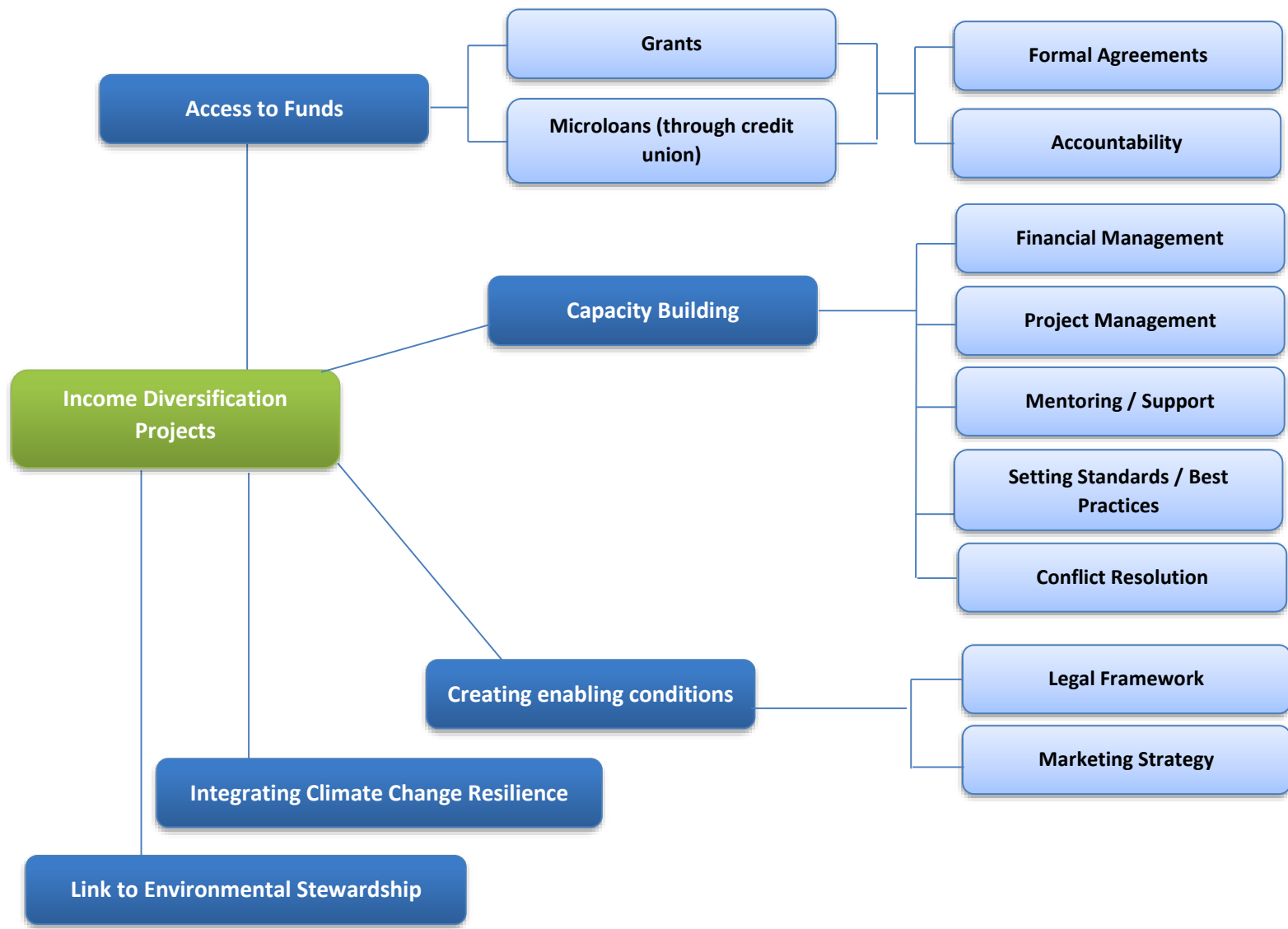


FIGURE ...: FRAMEWORK FOR SUCCESSFUL INCOME DIVERSIFICATION PROJECTS

There is no 'one model fits all' solution – each person or group will have different ideas and different approaches – and therefore need to be worked with individually. An assessment has also been completed of past income diversification projects in Belize, identifying what has worked:

- Applicant ownership of project through owner investment through cash or micro-loan financing
- Existing groups / businesses that know and understand the business
- Based on sound business plans
- Clear mechanisms for how profits are used in group projects – equitable split and reinvestment
- Longer term investment of time and finance – 3 years
- Family groups, rather than groups of independent fishermen
- Project applicant has long term vision of expansion beyond business start-up
- Financial sustainability of projects
- Continuity of support beyond the initial project

Based on the above, a set of criteria has been developed to assist in screening potential projects for investment, designed as a discussion tool, bringing into focus the alignment, strengths and weaknesses of the applications, though can also be scored (High=3; Medium=2; Low=1) to provide comparison between projects and comparison between different stages of a project (Table 4).

PROJECT PREPARATION

Once a project has been selected as a potential for investment, it can then be developed collaboratively by the applicant and the collaborative capacity-building partner organization. This part of the process is perhaps the most important, developing the partnership for continued communication and support with the Development Officer, laying the foundation for project success, and ensuring the applicant has the capacity to implement the project – not just in the short term, but with a vision for the long term. This should include, but not be limited to:

- Full project plan
- Project implementation framework
- Establishing / strengthening the financial management framework
- Capacity building needs assessment
- Training to address capacity needs identified
- Business Planning
- Marketing
- Hurricane planning

At the end of this step, the project should pass through the selection criteria again to ensure that it meets the minimum criteria for project implementation. This project preparation phase may last for several months, and can be a useful indicator of the level of commitment of the applicant.

PROJECT SELECTION CRITERIA			
SELECTION CRITERIA	HIGH (3)	MEDIUM (2)	LOW (1)
PROJECT APPLICANT			
Reliability of, and respect for, applicant (person / group applying)	100% conservation and community partners provide strong recommendations	50-99% % conservation and community partners recommend this applicant	Not recommended by conservation and community partners
Level of current support of applicant for conservation / improved management of marine resources / SWCMR / Fisheries Department	Applicant acts as a conservation leader in his sector and implements sustainability best practices	Applicant supports fishing regulations	Has recent (within 2 years) warnings or arrests for illegal fishing and is antagonistic towards SWCMR staff / Fisheries Department.
Importance of support of applicant for improved conservation outputs for SWCMR	Applicant is a direct user of SWCMR	There are members in the same household / family who are direct users of SWCMR	The applicant and family have no direct link with SWCMR
Applicant has the capacity to implement the project,	Applicant has demonstrated success in starting a business / completing a project. Good financial management skills	Applicant has participated in successful projects but not managed a project on their own	Applicant has no experience / limited capacity in managing projects
Level of financial capacity of person / group applying	Applicant has well established, strong financial management system in place, past experience in project area	Applicant has some financial management skills and a basic financial management system in place	Applicant has limited financial management skills and no financial management system in place
PROJECT VIABILITY			
Level of understanding of project implementation, monitoring and evaluation	Applicant has successfully implemented previous projects, with good written and financial and project reporting	Applicant has participated in implementation of previous projects, and has some understanding of project implementation, written and financial reporting, monitoring and evaluation	Applicant has no understanding of project management / implementation
Viable business plan that identifies risks and opportunities	Applicant has a viable business plan and recognizes and is addressing the risks	Applicant business plan highlights risks and opportunities, but these are not well understood by applicant	Applicant business plan is not viable in the current context

TABLE 4: PROJECT SELECTION CRITERIA

PROJECT SELECTION CRITERIA			
SELECTION CRITERIA	HIGH (3)	MEDIUM (2)	LOW (1)
PROJECT VIABILITY (Continued)			
Potential for self-sustainability after 3 years	Business opportunity has excellent chances of being self-sustainable after three years	Business opportunity has some potential for being self-sustainable after three years	Business opportunity will need longer than three years to become sustainable
Evidence of ability to provide any co-financing / loan repayments required	Applicant has personal funds invested in the business, and has equipment that can be used as collateral	Applicant has no funds committed towards the project, but has co-financing equipment and a good record of loan repayment	Applicant has no personal funds invested in the business – and a poor record of past loan repayment
Level of commitment of person / group applying	Applicant is committing personal funds and equipment to the business	Applicant has no funds committed towards the project, but has co-financing equipment	Applicant has no commitment of personal funds and equipment to the business
Access to necessary logistics and equipment for project implementation (if relevant - if required for access to the project site)	Vehicle / boat available and suitable (roadworthy / seaworthy) for accessing project site	Vehicle / boat available for accessing project site but reliability is questionable	No vehicle / boat available or seaworthy for accessing project site – recipient would need to rely on a second party for transport to project site
Land / seabed tenure-ship sufficiently stable for investment (if relevant)	Investment is to be made on private land owned by the applicant	Investment is to be made on private land under agreement with the land owner (who is not an applicant)	Investment is requested for Government leased land / seabed
Willingness of applicant to participate in training opportunities	Applicant is eager to participate in trainings and attends 100% of recommended relevant training days	Applicant is willing to participate in trainings but only participates in between 50% and 75% of recommended relevant training days	Applicant is reluctant to participate in trainings and participates in less than 50% of recommended relevant training days
Willingness of applicant to request assistance from the Development Officer / Outreach Officer	Applicant maintains close communication with the Development Officer / Outreach Officer and utilizes the technical support and resources to improve project design and outputs	Applicant occasionally communicates with the Development Officer / Outreach Officer but communication is generally initiated by the Officer for strengthening project design and implementation	Applicant is unwilling to request assistance or communicate with the Development Officer / Outreach Officer

TABLE 4: PROJECT SELECTION CRITERIA

PROJECT SELECTION CRITERIA			
SELECTION CRITERIA	HIGH (3)	MEDIUM (2)	LOW (1)
PROJECT IMPACT			
Ability of project to increase employment opportunities in the community	Project will provide new, medium term employment opportunities, with room and plans for expansion	Project will provide new, medium term employment opportunities, but may not expand beyond the project applicants	Project is unlikely to increase employment opportunities in the community
Project improves fisher household income	Project will provide additional income for two or more SWCMR fisher families	Project will provide additional income for one SWCMR fisher family	Project doesn't provide additional income for SWCMR fisher families
Project benefits will be spread equitably among beneficiaries, taking into account relative input of participants	Project recognizes level of work input by all applicants in group, with mechanisms for measuring effort and clear, equitable agreements for profit sharing and reinvestment	Project recognizes level of work input by applicants in group, with somewhat equitable agreements for profit sharing but not reinvestment	Project doesn't recognize level of work input by applicants in group, with weak profit sharing agreements and no plans for reinvestment
Project support of community stability and development and potential to address identified key community issues	Project will contribute towards community stability and development through impact of one of the key community challenges to development	Project will have potential for small positive impact on challenges to community stability and development	Project will have no impacts on community stability and development
Project improves opportunities for youths / women	Project is led by and supports employment / training of women and youths	Project supports employment / training of some women and youths	Project doesn't support employment or training of women and youths
Project has potential and is designed for expansion beyond initial investment	Project is designed for expansion beyond the project itself, with a credible medium / long term vision	Applicant is focused on the project time frame, but there is potential for expansion beyond that	There is no potential for expansion beyond the outputs of the project itself
CONSERVATION RETURN			
Alignment with Theory of Change objectives	Project is closely aligned with and will contribute towards more than one ToC outcomes and impact	Project is somewhat aligned with and will contribute towards at least one ToC outcomes / impact	Project is not well aligned with the ToC objectives, with limited contribute towards ToC outcomes
Alignment with BAS-SACD objectives / management plan strategies	Project is closely aligned with and will contribute towards activities in the SWCMR management plan	Project is somewhat aligned with and will contribute towards at least one activity in the SWCMR management plan	Project is not well aligned with SWCMR management plan

PROJECT SELECTION CRITERIA			
SELECTION CRITERIA	HIGH (3)	MEDIUM (2)	LOW (1)
CONSERVATION RETURN			
Alignment with national conservation strategies (e.g. NBSAP)	Project is closely aligned with and will contribute towards NBSAP strategies	Project is somewhat aligned with and will contribute towards at least one NBSAP strategy	Project is not well aligned with NBSAP strategies
Predicted future direct impact of applicant on CBWS	The Applicant's attitude has potential for significant positive influence over activities in SWCMR	The Applicant's attitude has potential for some positive influence over activities in SWCMR	The Applicant's attitude has potential for negative influence over activities in SWCMR
Clear link to (and understanding of) conservation return in the proposal	The Applicant fully understands the environmental and conservation returns of the project	The Applicant has some understanding of the environmental and conservation returns of the project	The Applicant is focused only on the project, and has only limited understanding of the environmental and conservation returns

TABLE 4: PROJECT / INVESTMENT SELECTION CRITERIA

PROJECT AGREEMENTS

A project agreement should be drawn up between the collaborating partner organization and the applicant. As well as laying out the requirements for the project, this agreement should have clear, legally under-pinned clauses on use of funds and repayment of any loans involved. It should also reflect conservation outcomes, based on either behaviour change or increased environmental stewardship requirements. For example, integration of clauses that ask the applicant to follow the Fisheries, Forest and Wildlife laws (no fishing out of season / undersized lobster / conch; no wild animal pets; no hunting without the legal permits / seasons; no logging without logging permits; no clearance of mangroves), or social equality requirements, with repercussions for breaking the agreement. There would also be the option for building in requirements relevant to specific projects (e.g. all agricultural initiatives should be organic; 10% land maintained/replanted as forest; field margins are replanted with forest for increased forest canopy cover to improve forest connectivity and water security in the landscape).

MEASURING SUCCESS

Measuring project and investment success through monitoring and evaluation is key, providing figures to support outputs and leverage greater financial investment into the area. These measures should not just focus on outputs, but also on outcomes and impacts, and be supported by a baseline. At a basic level, the selection criteria can be used to run a rapid assessment at the end of the project, to identify whether applicants have improved in any of the criteria areas.

INCOME DIVERSIFICATION

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
6.1 Investments supporting increased income diversification			
6.1.1 Identify and engage a capacity building partner organization for collaborative implementation of the income diversification strategy	<ul style="list-style-type: none"> ▪ Identify and engage a capacity building partner organization with the skills to provide project support ▪ Employ a Development Officer to work with the collaborating partner organization 	Fisheries Department - EMU	<ul style="list-style-type: none"> ▪ Signed MoU with collaborating capacity building organization
6.1.2 Identify and support motivated, committed fisher associations / fisher entrepreneurs with viable start-up and ongoing projects that align with the SWCMR investment criteria	<ul style="list-style-type: none"> ▪ Develop a database of relevant fisher associations, individuals, private sector and public sector partners associated with Dangriga / Hopkins ▪ Establish strong partnerships with identified groups / individuals, with clear understanding of their visions and goals ▪ Run annual workshops for proposal development, to ensure clear partner understanding of project cycles, timeframes, implementation, reporting requirements, roles and responsibilities ▪ Address the language and literacy levels of project participants to avoid this becoming a barrier to project implementation. ▪ Ensure integration of a conservation / environment component into projects and project agreements ▪ Identify and support exchange visits and capacity building sessions for potential participants to increase knowledge/ understanding and success rate of income diversification projects, with follow-on investment to implement lessons learnt 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Database of community groups, individuals, private sector and public sector partners in and associated with SWCMR ▪ List of community project partners ▪ Workshop reports and attendance lists ▪ Number of proposals developed ▪ Number of proposals approved ▪ Number of proposals successfully implemented ▪ Number of participants with improved literacy / numeracy skills ▪ Annual evaluation of Income Diversification partner knowledge and perceptions ▪ Annual evaluation of participant income - % income derived from SWCMR fishery ▪ Number of days participants spend fishing per year

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
EMU, SWCMR Manager, Partner organization			
EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Ensure SWCMR has the right conditions and location for seaweed farming, based on experience from Placencia and Turneffe ▪ Discuss with TNC for best practices, DFC loans system, and for contributing to scaling up to meet international market demand ▪ Identify fishers interested in seaweed farming ▪ Contract Placencia Producers Cooperative to train fishers ▪ Provide combined grant / loans to fishers to establish farms and continued support once farms are established 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Number of fishers participating ▪ Lbs of seaweed produced per year ▪ Annual evaluation of participant income - % income derived from SWCMR fishery ▪ Number of days participants spend fishing per year
6.1.4 Establish combined grant / micro-loan system for support of small projects	<ul style="list-style-type: none"> ▪ Partner with local credit union to provide small loans for projects that meet criteria and follow on support ▪ Establish mechanisms for access to the micro-loans 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Letter of Agreements for micro-loans ▪ Number of loans provided ▪ Number of loans successfully repaid ▪ Annual evaluation of participant income - % income derived from SWCMR fishery ▪ Number of days participants spend fishing per year
6.1.5 Identify and select projects that support increased employment opportunities in tourism sector in Dangriga	<ul style="list-style-type: none"> ▪ Open application process to tourism sector for improved tourism business in Dangriga ▪ Contract marketing expert to work with Dangriga tourism sector to improve marketing of tourism packages in Dangriga ▪ Identify investment opportunities linked to improving tourism to SWCMR – e.g. reliable water taxi to Tobacco Caye 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Number of fishers finding part time work in the tourism industry in Dangriga ▪ Number of visitors to SWCMR annually ▪ Number of tourism businesses supported through grants / micro-loans ▪ Business plans with benchmarks and indicators

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
6.1 Investments supporting increased income diversification			
6.1.6 Provide support grants / loans to fishers or fisher family members wanting to take the tour guide course	<ul style="list-style-type: none"> ▪ Ensure participants are committed to the time the course will take and have the basic reading and writing skills required ▪ Provide 50% loan 50% grant support 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Number of participants that take up the training opportunity ▪ Number of participants that complete the course successfully ▪ Number of participants that successfully pay off their loan
6.1.7 Provide support grants / loans to fishers / fisher family members who have successfully completed the tour guide course in add-on qualifications – fly fishing, diving	<ul style="list-style-type: none"> ▪ Identify training opportunities and advertise ▪ Ensure participants are committed to the time the course will take and have a valid tour guide license ▪ Provide 50% loan 50% grant support for training opportunities 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Number of participants that find employment in the tourism sector ▪ Annual evaluation of participant income - % income derived from SWCMR fishery ▪ Number of days participants spend fishing per year
6.1.8 Identify and invest in training support recipients with viable business ideas	<ul style="list-style-type: none"> ▪ Identify participants with valid business concepts and the motivation, interest and understanding of basic business skills to succeed ▪ Provide grant / loan support for establishing businesses ▪ Provide skills training based on needs assessment 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Number of business start-ups supported ▪ Number of businesses successful after 1 year ▪ Annual evaluation of participant income - % income derived from SWCMR fishery ▪ Number of days participants spend fishing per year
6.1.9 Build capacity of grant / loan recipients to be able to continue to succeed beyond individual project timeframe	<ul style="list-style-type: none"> ▪ Provide capacity building and support for governance, organizational, business and financial management, team building and leadership of community partners towards developing independence ▪ Provide access to microloans / grants for follow-on funding based on post-project needs assessment ▪ Coordinated, strategic investment in skills training and exchange visits 	Fisheries Department - EMU, SWCMR Manager, Partner organization	<ul style="list-style-type: none"> ▪ Post-project needs assessment for completed projects (equipment, capacity) ▪ % of needs identified that have been addressed ▪ Pre and post project evaluation of recipient capacity ▪ Annual evaluation of support recipient knowledge and perceptions

STRATEGY / STRATEGIC ACTIONS	ACTIVITIES	RESPONSIBLE PARTIES	INDICATORS
6.2 Improving the environment for tourism employment in Dangriga / Tobacco Caye / Hopkins			
6.2.1 Identify a champion organization willing to lead and work with SWCMR towards creating a first class sustainable tourism destination	<ul style="list-style-type: none"> ▪ Discuss with INGOs, BTB, BTIA to identify a suitable partner ▪ Develop a plan of action that includes participation of local tourism stakeholders 	Fisheries Department – EMU / SWCMR Manager / Community Outreach Officer	<ul style="list-style-type: none"> ▪ Identified champion ▪ Plan of Action

3. MEASURING SUCCESS

Measuring success through effective monitoring and evaluation is key. During the Theory of Change development, the desired outcomes and impacts were identified (Figure 2), providing the benchmarks against which success can be measured. Accurate baselines and monitoring data that demonstrates success in achieving these benchmarks is important in ensuring the conservation returns are meeting their targets, providing figures to support information on outputs, outcomes and impacts. Demonstrating output, outcome and impact success can also leverage greater financial investment in the area.

General implementation and output indicators have been identified in the Strategy tables, providing the first level of monitoring and evaluation to facilitate annual tracking of implementation and some tracking of outputs. The Monitoring and Evaluation Plan, however, goes beyond this, and should be considered as a critical, integral part of the Community Engagement and Investment Strategy, and the first step to be taken in implementing the Community Engagement Strategy.

A baseline should be developed for all monitoring and evaluation indicators identified in the strategic actions as a first step during the Preparatory Phase, pre-implementation. Indicators can be either quantitative or qualitative, and can be categorised as Inputs, Outputs, Outcomes, Impacts or Conservation Returns (Table 5 and 6).

INDICATOR CATEGORY	DEFINITION
INPUTS	Resources invested (e.g. money, labour, materials)
OUTPUTS	Short term goods and services generated by the inputs
OUTCOMES	Expected medium term changes in behaviour / perception
IMPACTS	Ultimate (long term) effect of the strategic intervention
CONSERVATION RETURNS	Direct or indirect conservation gains

TABLE 5: INDICATOR CATEGORIES

The Monitoring and Evaluation (M&E) Plan is not designed to be used on an annual basis, but guides baseline surveys and pre- and post-activity survey design. It should be implemented at the end of every three to five years (depending on the time interval decided upon during M&E Plan development). The information gathered should not be considered as solely outputs of the Community Engagement Strategy, but is also important for informing management decisions for the protected areas, and M&E survey design should be flexible enough to take into consideration information required for protected area management.

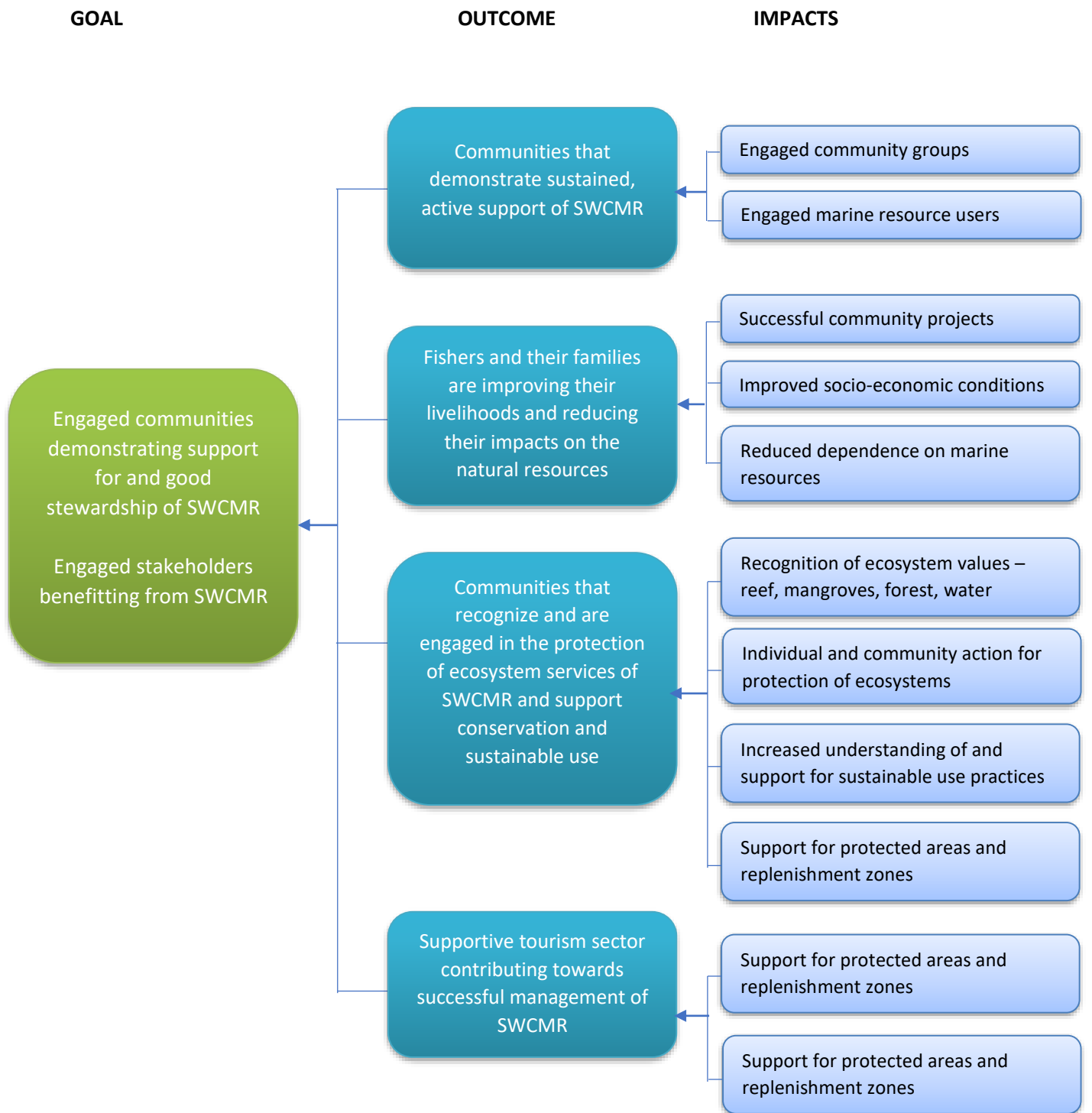


FIGURE 2: DESIRED OUTCOMES AND IMPACTS

	INPUTS	OUTPUTS	OUTCOMES	IMPACTS	CONSERVATION RETURNS
DEFINITION	Resources invested (e.g. money, labour, materials)	Short term goods and services generated by inputs	Expected medium term changes in behaviour, perception	Ultimate (long term) effect of the strategic intervention	Direct or indirect conservation gains
QUANTITATIVE INDICATORS (segregated by gender, where relevant)	<ul style="list-style-type: none"> ▪ Construction Materials ▪ Number of community hours co-financing ▪ Funds invested through BAS-SACD 	<ul style="list-style-type: none"> ▪ Number of shade houses built ▪ Volume of lettuce produced ▪ Number of students participating in field trips ▪ Number of students involved in climate change adaptation activities 	<ul style="list-style-type: none"> ▪ Number / % of fishers reducing their number of fishing days per year (reduced fishing pressure) ▪ % increase in household income ▪ Ratio of household income from fishing / enterprise ▪ Trend in student recognition of ecosystem values – reef, mangroves, forest, water 	<ul style="list-style-type: none"> ▪ Changes in fishing effort (number of people x time) per year in CBWS and LHR ▪ Changes in status of fishery of CBWS and LHR ▪ Trend in student action for protection of ecosystems ▪ % of community households that demonstrate behaviour change towards improved climate change resilience 	<ul style="list-style-type: none"> ▪ Number of participants regularly communicating and collaborating in BAS-SACD activities ▪ % of community considered engaged ▪ % of fishers that have reduced their fishing pressure ▪ Number of conservation leaders in the communities
QUALITATIVE INDICATORS	<ul style="list-style-type: none"> ▪ Participant satisfaction with process 	<ul style="list-style-type: none"> ▪ Participant satisfaction with outputs 	<ul style="list-style-type: none"> ▪ Participant satisfaction with outcomes ▪ Participant perception of improved skills / knowledge ▪ Participant perception of improved lifestyle 	<ul style="list-style-type: none"> ▪ Participant perception of improved socio-economic status ▪ Participant perception of improved employment opportunities ▪ Participant perception of household / community readiness for climate change 	<ul style="list-style-type: none"> ▪ Changes in community perception of conservation and sustainable fishery ▪ Changes in community perception of BAS-SACD

TABLE 6: INDICATOR HIERARCHY (ADAPTED FROM IFC / WORLD BANK, 2010)

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