



KFW



PROJECT FOR THE CONSERVATION OF MARINE RESOURCES IN CENTRAL

AMERICA

Funding Agreement: (2010 66 836)

**BIENNIAL WORK PLAN
2016-2017**

Corozal Bay Wildlife Sanctuary

Belize

1. LOGICAL FRAMEWORK OF THE PROJECT

INTERVENTION LOGIC	VERIFIABLE INDICATORS	SOURCES AND MEANS OF VERIFICATION	HYPOTHESIS
MAIN OBJECTIVE (MO)			
To contribute to the conservation of the ecological functions of the Mesoamerican Reef System (MRS).	Mangrove areas in the project's CMPA equal to or greater than those of the baseline.	Baseline study and final study.	Effective management will be able to address threats to mangrove and seagrass ecosystems
	Seagrass areas of the project's CMPA equal to or greater than those of the baseline.	Baseline study and final study.	
PROJECT OBJECTIVE (PO)			
To consolidate the CMPA selected in the project's region and ensure the use of coastal and marine resources in the medium-term.	PO VIO1: The financial gap does not increase in 100% of the CMPAs included in the programme.	Baseline study and final study.	<ul style="list-style-type: none"> The MAR ecosystem does not suffer irreparable damage by the effects of climate change. Countries with participation in the MAR coordinate their strategy. The four governments maintain and promote policies which support the protection and conservation of natural resources. Worldwide and domestic macroeconomic conditions do not adversely affect the financial resources available for the CMPAs. Social, migratory and population stability do not impose disproportionate pressures on the natural resources of the MAR. There are supportive policies for the tourism sector and the volume of tourist visits to the countries and protected areas is stable.
	PO VIO2: Management plans are updated and under implementation in 100% of the CMPAs included in the programme.	Five MP developed; qualitative analysis of the programme / sub programme running.	
	PO VIO3: The CMPAs included in the programme have natural sustainable resources use plans under implementation.	Monthly and annual Project reports, informes de seguimiento de los fondos miembros.	
RESULTS			
R1: The protection and conservation of the coastal -marine ecosystems in the marine area are secured.	R1 VIO1: At least 12 initiatives for marine and terrestrial infrastructure built or rehabilitated and put into operation by the end of the third year (2017) and that will be used properly in accordance with their original purpose until the conclusion of the project.	Inventories and monthly and institutional reports; visitor records; patrol reports; Number of participants trained; user manuals. Photos.	VIO1 & VIO2: There are no adverse weather conditions that affect the integrity of the infrastructure of the CMPAs. Funds allocated by the Executor for maintenance are available.
	R1 VIO2: The acquired facilities are being used properly and have regulation and usage logs.	Inventories; usage regulations; usage logs; operation and maintenance manuals; maintenance logs; biological monitoring reports; training reports. Photos	

INTERVENTION LOGIC	VERIFIABLE INDICATORS	SOURCES AND MEANS OF VERIFICATION	HYPOTHESIS
	R1 VIO3: The park rangers (officers and community members) receive at least two training sessions per year on the protection and conservation of natural resources.	Certificates/registration records/training reports and lists of participants.	VIO3 & VIO4: There are sufficient funds to maintain human resources of the CMPAs.
	R1 VIO4: A control and supervision planning scheme exists and is being implemented in accordance with the operational capabilities of each area.	Reports on the planning and scheduling of control and surveillance activities; Patrol reports, logs.	
	R1 VIO5: At the end of 2015 (second year) five management plans (programs) exist and are being implemented (over the lifetime of the project).	5 Management Plans produced; qualitative analysis of the ongoing programs/sub-programs.	VIO5 & VIO6: The five governments maintain policies which support the protection and conservation of natural resources; The CMPAs maintain their current administrative structures.
	R1 VIO6: At the end of the Project, the five CMPAs have improved their socio-economic and governance indicators by x%.	Baseline studies using the Management Effectiveness Assessment/final measurement.	
R2: Best management practices and the sustainable use of marine-coastal resources are applied.	R2 VIO1: The five CMPAs have a strategy/community development plan for the end of the second year.	5 strategies developed; qualitative analysis of activities in progress as part of the project.	VIO1 & VIO2: There is community interest in participating in the project's actions; There is general macroeconomic stability (input costs/sales prices/open markets); Other entities (NGOs, local governments, academia) are interested in supporting productive initiatives that strengthen communities and grassroots organizations.
	R2 VIO2: 100% of the proposed productive initiatives have undergone feasibility/market and business studies/plans, in addition to studies on business aspects and training and technical support mechanisms.	Complete proposals (support studies).	
	R2 VIO3: Increased number of community members trained, accredited and involved in activities that support daily management tasks (biological monitoring; control and surveillance) of protected areas.	Accreditation reports and records, lists of participants; activity reports.	VIO3 & VIO4: There is community interest in participation.
	R2 VIO4: The 5 CMPAs have mechanisms (community advisory committees or equivalents) which ensure the participation of local stakeholders in decision-making guidance regarding the management of the areas and meet at least twice yearly.	Rules on the constitutionality and functions of the committees/minutes of meetings/committee training reports/institutional reports/list of participants.	
R3: Communication and effective exchanges to promote the adoption of new practices.	R3 VIO1: At the end of the project, at least six (6) small regional projects implemented and monitored by the Member Funds: Three of them in a first call in 2015 and the other 3 in a second call in 2016.	Technical and financial reports; monitoring reports of the Member Funds.	There is an interest of proponents to participate in small grants projects. The respective national authorities have shown interest in participating in regional meetings and monitoring the implementation of the agreements reached. There is interest in participating.
	R3 VIO2: At least two regional meetings have been held and a strategy for monitoring the implementation of the agreements has been reached.	Meeting minutes, list of participants; activity report; statement of the agreements reached and monitoring plan.	
	R3 VIO3: At the end of the project, at least five exchanges of experiences between area managers	Visit report, list of participants.	

INTERVATION LOGIC	VERIFIABLE INDICATORS	SOURCES AND MEANS OF VERIFICATION	HYPOTHESIS
	and/or other stakeholders from each CMPA have been encouraged.		

2. CONTEXT AND ATTENTION POINTS (SENSITIVE POINTS)

In general the northern fishing communities of Corozal Bay have a reputation for being difficult to engage because of their perception of conservation organizations and distrust of their motives, a problem at national level. This is a definite sensitive point that limits stakeholder engagement and could slow down the execution of project activities. However, Sarteneja Alliance for Conservation and Development (SACD) has been able to maintain a degree of cooperation with targeted sectors, and is focused on strengthening its current partnerships, specifically with the fishermen associations, tour guide associations, private sectors and the education sector within the targeted areas.

A key target is the local artisanal fishermen, whose families have used the Bay through generations and whose trust is the most fragile of all. As a group, they have a limited understanding of the national protected area and fisheries frameworks. Their participation is always influenced by external factors, one day it could be good and the next, it is poor. Outside political interests, particularly during the national election period, have created their own short-term challenges to ensure effective participation of these fishermen, SACD needs to be proactive in strategizing how to maintain the participation of this sector, and consistent and sustained in its approach.

National and local politics present a risk to the project activities and implementation, Belize recently held its National General Elections and while the government was retained by the same party, with changes in the Ministries, with a new Minister in place at the Ministry responsible for national protected area and fisheries. There is always the risk of limited knowledge leading to uninformed decision-making by the new Ministers. SACD has been able to work with previous governments and doesn't foresee major challenges with the new Minister in position. The amendment of the National Protected Areas System (NPAS) bill and the Protected Areas Conservation Trust (PACT) Act provides significant strengthening and safeguarding of the interest of protected areas at a national level. It allows for the amendment of the Corozal Bay Wildlife Sanctuary statutory instrument to allow for traditional fishery extraction under a sustainable use framework. Current Fisheries Department initiatives provide an opportunity for the realignment of the Corozal Bay boundaries for inclusion of no-take replenishment zones and with the potential category change to Marine Reserve. SACD is fully a part of the discussions, as part of the decision making process, and sits on the Marine Climate Change Adaptation Project (MCCAP) task force that provides the funding for the realignment process. The management plan will need to be updated to reflect the changes.

Finally, Northern Belize is in the 'highest probability of hurricane impacts' and as such, Corozal Bay and its community stakeholders are always at risk. SACD has systems in place to ensure that all equipment and infrastructure are secured, to minimize storm damage.

3. ACTIVITIES TO DEVELOP

RESULT 1. THE PROTECTION AND CONSERVATION OF MARINE-COASTAL ECOSYSTEMS IN THE MARINE AREA ARE SECURED

A stronger foundation will be built for improved protection and conservation management of this marine protected area and its critical ecosystems into the future. This will be achieved through the development of a financial sustainable strategy, Board development activities and the updating of the management plan. This is also expected to contribute not only to the health of the biodiversity within the marine protected area but also improving Corozal Bay Wildlife Sanctuary's role within the larger seascape in maintaining the health of ecosystems and associated livelihoods along the northern Belize reef.

The continued strengthening of SACD's institutional capacity is an important component of this work plan, to ensure that SACD's staff and Board members have increased their capacity for sound decision making, through the implementation of the updated governing policies and procedures that are now in place. The investment in research equipment, enforcement and surveillance equipment and educational support equipment required for effective implementation of the different programme areas, will increase the overall management effectiveness of the protected area. The provision of a new vessel in the second year will also greatly improve SACD's enforcement, surveillance, monitoring and research activities, and improve its ability to collaborate in these activities with partners at system level. Also key to the long term protection and conservation of the coastal ecosystems is having necessary infrastructure in place. This includes the need for a multipurpose building with solar system to be used as the headquarters of the organization and its community partners, increasing the sustainability of the organization, providing infrastructural support, office space, secure equipment storage etc., for support and continuity of effective programme implementation in CBW.

BC.1.01 Investments in infrastructure

The need for a multi-organization building and the installation of an effective solar power system is highlighted in both SACD's Strategic Plan (Key Results Area 1, Strategy 9) and the management plan for Corozal Bay Wildlife Sanctuary, in order to improve SACD's operational functionality, increase its ability to strengthen community recognition and support for protection and sustainable resource use of the Wildlife Sanctuary, and to increase management cost-effectiveness of all Alliance members. SACD also seeks, not only more financial sustainability, but also to reduce its carbon footprint as a component of its "going green" initiative, through use of renewable energy.

BC.1.01.01 Purchase and construction of a multipurpose building

In order to increase management effectiveness and long term financial sustainability, SACD seeks to purchase a house and lot in the primary stakeholder community of Sarteneja. The main purpose of the building is to host and support the work of SACD and that of the other community-based organizations that work in direct collaboration with SACD, the Sarteneja Fishermen Association and Sarteneja Tour Guide Association. The multipurpose building will provide adequate office space, a dedicated meeting room, an interpretive center, mini-field lab, store room for patrol and field

equipment, bathroom and kitchen facilities. SACD's initial plan was to build the multipurpose building on SACD's property on the outskirts of the community. However, after discussion with MAR Fund advisors, it was recommended that SACD investigate the possibility of acquiring a building or lot in a more suitable, central location, and a building that fits this criteria has been identified. The land is in a better location and is almost twice the size of the currently owned SACD property. It also holds a semi-completed building, valued close to US\$100,000.00. SACD is therefore proposing to purchase the identified building and lot, once a survey establishes its soundness. The building is being offered to SACD for a reduced price of US\$65,000.00 plus the current SACD property (valued at US\$30,000.00). The total amount requested from the project is US\$82,750.00; US\$750.00 to be used in January 2016 to employ the services of an expert to do an assessment and evaluation of the proposed land and building. Based on the results, the first payment of US\$26,000.00 in February, 2016 and second and third payments of US\$39,000.00 will be made in June 2016 to acquire the property. A further US\$17,000 will then be invested in completing the building in July and August of 2016. SACD will be providing a counterpart funding of US\$30,000.00, the market value of the currently owned SACD's property. An informal assessment has shown that the property is sound and the purchase price fair. However, should the formal assessment suggest that the property and lot are not a good investment for the purpose required, SACD will be investing the same amount requested (US\$82,750.00) to develop a blue print and invest in the construction of infrastructure as originally planned.

BC.1.01.05 Installation of solar power system

The multi-purpose building in BC.1.01.01 will be equipped with a solar power system as a mechanism to reduce the cost of operations of SACD and its partner organizations, whilst also reducing SACD's carbon footprint in the global environment. The cost of the system for the solar panels, batteries, installation and training of SACD staff for basic maintenance is estimated at US \$40,000.00 to be covered by the Project. A local company will be contracted to execute the work, during the final stage of building construction, in October and November of 2016.

BC.1.02 Investments in Equipment

A needs assessment of the different SACD programmes, conducted during management planning for the marine protected area, has identified priority equipment, ranging from office equipment, surveillance and enforcement equipment, to education and outreach equipment, and research and monitoring equipment. This equipment has been identified as necessary in order to strengthen management effectiveness in both the short and long term, and increase SACD's ability to meet the conservation goals for Corozal Bay Wildlife Sanctuary. It will also further SACD's ability to proactively support system and trans-boundary management initiatives.

BC.1.02.02 Purchase and installation of marker buoys and information signs.

SACD, through the MCCAP, is revisiting the Corozal Bay boundaries, and identifying potential zones, to be identified in consultation with the local users/communities. It is also envisioned that the Wildlife Sanctuary designation of the protected area will be revised under the new NPAS Act (2015) to provide for traditional use, either as a Wildlife Sanctuary category 2 or a marine reserve

Depending on the results of the process, SACD will need to do a complete demarcation of CBWS boundaries and zones. Demarcation buoys and information signs will be purchased and installed to increase the general awareness about the protected area and to increase ability for effective surveillance and enforcement. The project will be providing US\$7,000.00 to purchase and install 5 information signs in September 2016. The contribution of MCCAP is estimated to be US\$20,000.00 for purchasing and installing 12 demarcation buoys in September of 2016.

BC.1.02.03 Equipment and supplies to strengthen the surveillance and enforcement

SACD will be purchasing surveillance and enforcement equipment, including: 1 night owl optics binocular, 2 camping tents, 1 ice box, 4 rain coats, 1 portable stove, 1 butane tank, 1 marine battery, 1 generator, 1 fridge, and 1 floater for the automatic bilge pump. Patrolling is one of the most critical activities within the surveillance and enforcement programme and can only be achieved with the support of critical equipment for the patrol unit. The equipment will also increase SACD's capacity to participate in system level partnerships and joint surveillance activities with other national maritime units such as the Belize Coast Guard, equipment becomes an integral part for effective management within CBWS and for meeting SACD's commitments as part of the Northern Belize Coastal Complex. This equipment will also ensure that the rangers have the necessary equipment to implement their duties while ensuring their safety in case of emergencies and during responses to reports of illegal activities. The project will be providing US\$3,000.00 for the equipment to be purchased in May of 2016 and March of 2017. The contribution of MCCAP is for approximately US\$100,000.00 worth of equipment including a fully equipped surveillance and enforcement vessel with two 115 outboards, a fixed wing drone with accessories, and support surveillance equipment to be purchased in February of 2016 and June of 2017.

BC.1.02.04 Purchase of office equipment

SACD, with the support of this project, will continue strengthening its institutional structure for improved management effectiveness of the marine protected area. This includes the overall strengthening of SACD's administration through purchase of critical office equipment, strengthening its capacity in record keeping and financial management; and providing the necessary equipment for staff to maximize performance. The identified priority equipment requirements for 2016 -2017 are for increasing management effectiveness in both the short and long term, based on needs assessment of the different SACD programmes, conducted during management planning for the marine protected area. Equipment will no longer be a limitation for effective conservation outputs and will also strengthen data management and back-up. SACD will be purchasing 2 Laptops, 1 desktop, 4 fans, 1 filing cabinet, 1 office desk, 1 conference table, 1 office chair, 12 conference chairs and 2 external memories. The total amount requested of the Project for this work plan is \$8,000 for the purchase of the above mentioned equipment. The 2 laptops and 1 desktop will be purchased in March, 2016 and the remaining equipment in February, 2017.

BC.1.02.04: Purchase of uniforms

SACD would like to defer this activity from 2015 to the first quarter of 2016. The objective of this activity is to ensure that the rangers and the general staff are well identified and respected by the local communities in which SACD operates. Rangers often know the people they encounter within

the marine protected area, so it is important that they can be properly identified as SACD officers when on duty. Respect for their position as enforcers is reinforced by ensuring that they wear the uniform with the SACD and Forest Department logos, designating authority, and carry Fisheries Officer identification. For other staff within the organization, recognition through use of uniforms is just as important when it comes to engendering respect for the organization. However, this activity was delayed because SACD is currently working to upgrade its logo type which is an essential part of the uniform. The Logo has been delayed and as such the uniforms were placed in hold while the logo is completed, which are due to be completed in January 2016. Therefore, the kit composed of uniforms (three shirts and three pants for each of the five staff members), to perform SACD's objectives effectively. This is valued at US\$180.00 per kit, totalling to US\$900.00, to be covered by the project, in January 2016.

BC.1.02.06 Purchase of a replacement vessel and outboard engine

SACD will be purchasing a replacement vessel and outboard to support the biodiversity monitoring activities and to effectively implement the Research and Monitoring Plan. Having two active programmes inclusive of Surveillance and Enforcement Programme and Research and Monitoring Programme ongoing in CBWS, there is the need for two reliable vessels, each dedicated to one of these programmes, as identified in the most recent MPA management effectiveness assessments. SACD will be replacing the 7 year old vessel and engine with a new, fully equipped boat with the primary objective of strengthening the monitoring and research activities, including the monitoring of key indicator species (West Indian manatees, sharks and rays, stromatolites and coastal birds) as outlined in the Management Plan (E.19). The boat and engine are each valued at US\$12,500 with a total cost of US\$25,000.00, to be covered by the project and to be purchased in June and July of 2017. The maintenance, tax exemption, licensing, fuel and insurance will be part of the counterpart funding by SACD, estimated at US\$11,000.00 for each year.

BC.1.02.07 Purchase of vehicle

SACD will be purchasing a Toyota pickup to enhance its ability to participate and have an improved presence in all its satellite stakeholder communities, Copper Bank, Chunox, Corozal and Consejo, and at national level. With its remote location and unreliable public transport, the acquisition of a vehicle is critical for building SACD's capacity to reach out and be an effective actor at both local and national level, leveraging support for Corozal Bay Wildlife Sanctuary, providing logistical support for attending meetings and trainings, disseminating results and experiences at national forums, and for supporting community outreach activities. The vehicle will also support the enforcement activities by provide reliable transportation for evidence to the Court and for maintaining collaboration with the mandate agencies, allowing SACD to work more effectively with the Fisheries and Forest Departments. SACD will therefore be purchasing a vehicle through the project in February, 2016, valued at US\$37,000.00. The maintenance, licensing, insurance, tax exemption and operational fuel will be part of the counterpart funding by SACD, estimated at US\$10,000.00 for the year 2016, and US\$5,000.00 for the year 2017 of the project, totalling US\$15,000.00 for the two years.

BC.1.02.08 Upgrading monitoring equipment.

SACD will be purchasing 1 eco sounder, fish measuring equipment, nitrates and phosphate testing, replacement of monitoring probes, 1 dry box, 2 dry bags, 2 go-pro cameras and calibration solution to support the active Research and Monitoring Plan. The main research and monitoring activities are water quality surveys, mangrove assessments, manatee surveys, and fish catch assessment, all of which actively support the management decisions of the organization. The project will ensure that SACD has the necessary equipment to maintain the ongoing monitoring activities and will provide; US\$7,520.00 for the above mentioned equipment, to be purchased in May of 2016 and May of 2017. The counterpart for this activity during this work plan will be US\$19,014.00 (US\$ 18,089.00 from SGP/GEF and US\$925.00 from PACT) to purchased 2 kayaks, supporting utensils (pots, dishes, etc.), contaminant sampling equipment and 1 data management compatible laptop to be purchased in February and March of 2016.

BC.1.02.14 Equipment to strengthen the education and outreach programme

SACD will be purchasing 3 book shelves, reference books, 2 tables, 10 chairs, 1 fish tank, 1 flat screen display, 10 snorkel sets, 10 life jackets, 10 binoculars, 1 cooler, 2 dry boxes, 1 projector, 1 projector screen, 2 dry bags, 3 camping tents and 1 First Aid kit to support the Education and Outreach Programme activities. The equipment will directly support the Volunteer and Internship Programme that actively works along with the schools in the area, and is considered a critically important investment in the future leaders of CBWS stakeholder communities, engaging them in conservation activities and providing them with the knowledge and motivation to grow up as effective stewards of the marine protected area and marine resources. As such, they will understand the value of fragile ecosystems, the services that the ecosystems provide, and the need for their protection. With the support of this project US\$5,350.00 will be invested in March of 2017 to purchase the above mentioned equipment.

BC.1.03 Generation / updating of the MCPA management plans.

SACD is operating under an updated management plan; however, under this activity SACD will be incorporating management activities that will address system level priorities and climate change adaptation strategies (Adaptive Management Plans). This will allow for synergies between protected areas within the Northern Belize Coastal Complex (Bacalar Chico National Park, Hol Chan Marine Reserve, Cake Caulker Marine Reserve and Forest Reserve, and Corozal Bay Wildlife Sanctuary) in strategic management activities that are key for the sustainability of the larger system. This will also allow for the 4 individual Management Plans to be aligned with each other to provide for greater protection of critical ecosystems such as mangroves, sea grass, water quality and coral reefs, all of which are identified conservation targets of the Northern Belize Coastal Complex. Climate change planning is also critical and needs to become linked to all ongoing and planned SACD and NBCC activities. Once this has been achieved, management decisions will be greatly strengthened; which is particularly critical for the local fishery and local fishers. Fish are linked completely to the climate patterns and depend on the seasons for their use in the bay. Without an understanding of these, the ability to effectively manage the protected area and safeguard the livelihoods of the fishers in the long term, would be seriously undermined.

BC.1.03.03 Integration of Climate Change and system level outputs into the CBWS management plan

Northern Belize has been highlighted as one of the highest risk areas in the Country for climate change impacts, including increasing air and water temperatures, rising sea level, unseasonal rainfall with increased droughts and flooding, saltwater inundation of the aquifer, and increasing intensity of hurricanes. SACD will be contracting a Consultant to integrate the outputs from the Community Climate Change Adaptation Plan and from the System level – Conservation Action Plan (CAP) report. This will ensure that the CBWS management plan has incorporated management activities that will address system level priorities and climate change adaptation. This will be a counterpart activity provided by SGP/GEF of the amount of US\$4,500.00 to be completed in October of 2016.

BC.1.04 Support for the implementation of the control and surveillance systems.

The sub activities proposed in this activity are all outlined in the Surveillance and Enforcement Plan, which highlights the priority areas to be addressed. SACD will strengthen its trans-boundary collaborative partnerships to strengthen its enforcement activities. It will also strengthen the ranger's capacity with the necessary training to be able to enforce the fisheries and environmental laws, and will further enhance the ability of SACD to maintain and increase the patrol presence in the bay by having the required fuel for patrolling. This will contribute in the maximising of resources to effectively protect and conserve the marine - coastal ecosystems, ensuring that the percentage of infractions are minimized and the impacts to the ecosystems are reported and addressed.

BC.1.04.03 Implementation of surveillance and enforcement programme

This activity is ongoing throughout the life of the project - SACD will continue the implementation of its Surveillance and Enforcement Plan (S&E). Patrols are targeting illegal fishing activities, transboundary incursions, non-permitted development and mangrove clearance. The protection and conservation of the coastal ecosystems of CBWS is greatly dependent on the presence of the patrols, with fuel consumption being one of SACD's highest costs. The project will be providing US\$5,000.00 to provide 20% of the fuel cost for 10 months, starting in February to November 2017. The remaining 80% of fuel cost for the S&E activities will be counterpart from OAK foundation - providing approximately US\$10,000.00 per each year, which will be distributed at US\$1,000.00 per month starting February 2016 to November 2016 and February 2017 to November 2017.

BC.1.04.06 Training of rangers as special constables and Forest Officers

SACD will be training two rangers as Special Constables, and as Forest Officers. This is a requirement to ensure that SACD has the capacity to be able to conduct arrests within and around the protected area. With the availability of trained rangers, the patrol team will increase their authority by having the relevant certification and licensing to conduct searches and to implement both the fisheries and forest regulations. This will provide for SACD to be more effective in addressing mangrove clearance and coastal development issues. The project will be providing US\$1,000.00 per year (Totalling US\$2,000.00) for the trainings in April of 2016 and also for a refresher course to be conducted in

April of 2017. There is a counterpart of US\$2,500.00 from the MCCAP for fisheries, weapon handling, and engine maintenance trainings to be completed in January 2016.

BC.1.05 Support for the implementation of evaluation and monitoring systems

Research and monitoring are critical in providing information for management decisions focused on the effective management of the biodiversity of the protected area. Priority strategies in the CBWS management plan and the Research and Monitoring Plan (SACD, 2013), provides an integrated framework for the research and monitoring activities for Corozal Bay Wildlife Sanctuary. These activities focus on continued strengthening of monitoring of fish traps catches, continued implementation of the water quality monitoring programme for CBWS, integrating the sea grass net monitoring, coastal impacts, and climate change associated impacts, among others. These strategies are important for improving the viability of Corozal Bay Wildlife Sanctuary as a functional protected area within Belize while fulfilling information gaps.

BC.1.05.01 Generation of a baseline of mangrove cover and marine grassland in the five MCPAs

In order to have a standardized baseline based on the consultancy results of Phase I of the project, and in order to use the same methodology for the base line analysis of mangrove cover and marine grassland, for all the sites of the project, a remote sensing consultancy will be hired to do satellite imagery to determine the extent of mangrove and sea grass cover in the marine protected areas. The project will be responsible for contracting the consultant and the payment of the contract will be done by the MPA. The project will be covering a total of US\$10,000 for this consultancy in January of 2016 and US\$ 5,000 for ground truthing for mangrove cover and marine grass lands (fuel, good and stipends for community researchers).

BC.1.05.06 Fish catch assessments of commercial important species

This activity is an ongoing activity outlined in the CBWS's Research and Monitoring Plan which looks at monitoring fish catch and fishing effort, with point of capture monitoring of fish traps every year; this includes 8 surveys per month for 7 months during the fish trap season. Starting 2016, SACD will also be strengthening its fish monitoring activities by incorporating in-water surveys in three focal points within the bay to support the work currently being done through the fish catch assessments. SACD with a counterpart from OAK will be providing for the monitoring activities during 2016 of the amount US\$ 1,500.00 to cover for the food and stipends for community researchers and for the fuel to complete the in-water surveys and the fish catch assessments. The project will provide US\$1,000.00 to ensure that this activity (food and stipends for community researchers and fuel) continues through 2017 during May to November.

BC.1.05.07 Monitoring of water quality

This activity is an ongoing activity outlined in the Research and Monitoring Plan for Corozal Bay Wildlife Sanctuary. It is considered critically important in the maintenance of the health of coastal waters of northern Belize; as it is expected that this will lead to a greater need for adaptive management, with information required to make effective management decisions. SACD will be

conducting yearly monitoring in dry (April), wet(August) and norther (December) seasons for 2016 and 2017 – looking at the physical conditions of the CBWS but also expanding to test for contamination in the New River water shed. The project will be providing USD\$1,675.00 for each year to provide stipends and food for the community researchers, and fuel for the seasonal WQ monitoring. The counterpart contribution will be USD\$2,000.00 per each year to provide for stipends, food, and fuel for community researchers to expand on water contamination research.

BC.1.05.14 Development and implementation of Climate Change Community adaptation Plan

SACD will be developing a community climate change adaptation plan in partnership with Belize Audubon Society (BAS) and the MCCAP project, through a series of community workshops, providing the foundation and the critical strategies that will be implemented through this project. In this work plan, from the project SACD will be implementing at least 1 key (feasible) recommendation from the plan in at least 3 stakeholder communities (Sarteneja, Chunox and Copper Bank) of CBWS. The amount requested from the project is US\$20,000.00 in which 40% (US\$8,000.00) will be spent in September, October and November of 2016, and the remaining 60% (US\$12,000.00) in April, May and June of 2017. SACD through the SIDS- CBA will be providing a counterpart of US\$1,650.00 from to support at least 1 consultation in each of the 3 communities mentioned to be implemented in March 2016.

BC.1.06 Protection of fragile ecosystems

SACD has identified fragile ecosystems (seagrass, mangroves and stromatolites) and species of Corozal Bay Wildlife Sanctuary and its implementing conservation actions to protect these conservation targets. Mapping of these important ecosystems is crucial in addressing non-permitted development and mangrove clearance - linking spatial data on potential and actual illegal impacts to ecosystems to inform areas to be patrolled. The outputs of the mapping are important for dissemination of information at community level, in an understandable manner.

BC.1.06.04 Mapping services (manatee resting areas, stromatolites, no take areas)

This activity is an ongoing activity that aims to ensure that the SACD Research and Monitoring Programme has the support of spatial data and mapping services. SACD will be contracting a GIS technician on an annual minimal retainer fee to continue translating the geo-referenced data and remote sensing information into maps. This is important for SACD to be able to advocate for the protection of fragile ecosystems. The total fees for the GIS expert is US\$4,000.00, of which the project will be providing (50%) of the total which equal to US\$2,000.00 for 2016 and 2017 to be paid in 4 disbursements (February and August of 2016, and February and August of 2017). The GIS expert will be providing an in-kind contribution of US\$ 2,000.00 (50%) for the period of February and August of 2016, and February and August of 2017.

BC.1.08 Institutional Strengthening for Area Managers.

This activity is very important for the success of this project and ensures that SACD is meeting its responsibility as the co-manager organization of CBWS. It provides for building the capacity of the Board of Directors for institutional growth and effective decision making. It also ensures the financial sustainability of the organization through the development of a financial sustainability plan and provides the improvement of SACD's communications and information dissemination.

BC.1.08.02 Implementation of key recommendations of SACD's Communications Plan

Recommended in the SACD Evaluation of Management Effectiveness document and Communication Plan is the need for SACD to improve in its communications by strategically communicating and expanding its social participation and interaction. SACD is currently reestablishing its website and social media sources to ensure effective dissemination of information at all levels. It has been recognized as a limitation that needs addressing to ensure that SACD's work is showcased, more so, with the activities being undertaken in this project. SACD therefore seeks to strengthen its communications by contracting a designer/communication expert for a 10 month period to ensure that SACD has a fully established operational communication package. The amount requested from the project is for a retainer fee of US\$4,000.00 to be paid in February, June and November of 2016. This will cover for the designer to establish search engine optimization and setups, domain registration and hosting, design informational pamphlets, design informational rack cards and banners, design cost and branding, photo/video documentation of activities/locations and annual website and social media upgrading/maintenance/training. SACD will be providing a counterpart of US\$1,000.00 for the website design, development and setup in January 2016.

BC.1.08.04 Exchange visits for Board officers and staff to meet with counterparts at other agencies

The 2012 -2017 SACDs strategic plan calls for Board Members to be exposed to other initiatives in Belize and regionally where possible to build capacity in management and further strengthening of SACD's institutional structure. SACD representatives will be able to meet other Board members, Executive Directors and staff from other conservation organizations and will participate in a board development session to build motivation. This project will provide US\$3,000.00 for travel, accommodation and per diem for Board Members to participate in an exchange visit in July of 2016 to other NGO's in Belize or other countries. OAK will be providing a counterpart of US\$1,000.00 in April of 2016 for a board development session (retreat) where the planning of possible exchange visits will also be discussed.

BC.1.08.05 Financial Sustainability Study and implementation of key recommendations

This activity is important at the early stages of the project to ensure the long term sustainability of the project activities and results. With the project funding of US\$15,000.00, SACD will be working with a consultant to explore financial sustainability options and develop a Financial Sustainability Plan. The budget estimate for the consulting services is projected to include the consultant costs and all expenses related to the research, consultations, and preparation of the plan. These include any travelling or accommodation required by the consultant to be paid in 3 payments (April, May and July 2016). SACD also has secured funding from OAK foundation as counterpart to implement

at least 1 key recommendation of the plan during February to April 2017 at the amount of US\$10,000.00.

BC.1.08.08 Implementation of priority system and transboundary management activities.

In 2015, management of Corozal Bay Wildlife Sanctuary was strengthened as an integrated part of a collaborative partnership with adjacent MPAs as part of the Northern Belize Coastal Complex. Collaboration with transboundary MPAs was also strengthened through the development of a transboundary collaboration mechanism. In 2016, SACD aims to sign a formal transboundary MoU to ensure that collaboration is maintained with partners in both Mexico and Belize. The project will be providing US\$2,500.00 for each year to ensure that 5 Trans boundary working group members are provided with travel, accommodation and food for at least 3 trans boundary meetings per year (1 per each quarter – February, June, October for 2016 and February, June, October for 2017). This will be complemented in the first year (2016) through a SACD - SGP project with approximately US\$10,000.00 for the facilitation of workshops and joint activities both at system and transboundary level.

RESULT 2: APPLIED BEST MANAGEMENT PRACTICES AND SUSTAINABLE USE OF MARINE-COASTAL RESOURCES.

With environmentally strong development plans, integrating best practices, and greater engagement of informed stakeholders, SACD will have the foundation for community collaboration in best practices and sustainable resource uses. SACD will be developing and implementing community strategies in at least 3 of the most vulnerable communities of CBWS (Sarteneja, Chunox and Copper Bank). It will also provide for the integration of sustainable tourism activities in the protected area and its associated users. This will be done through the development of an environmentally friendly tourism marketing plan and will further be strengthened by the provision of a tour guide training for fishers from the communities. This also links to the sustainable fishery plan implementation through the provision of opportunities for fishers to engage in sustainable fishing practices such as fly fishing (catch and release) and the designation of areas to support it. The scholarship funded activities will create a new generation of stewards, the future leaders of these communities with an understanding of basic concepts of natural resource use, sustainability and the environment.

BC.2.01 Development of the productive fabric of communities/associations

The three planned sub-activities in this work plan are priority activities under the Sustainable Development Programmes within the CBWS 5 year management plan. This will provide for greater community engagement in three buffer communities; with greater support for the protection and conservation of the protected area. Also addressed here is the development of Sarteneja as a tourism destination, to provide opportunities for alternative livelihoods, with diversification away from traditional fishing.

BC.2.01.02 Support for alternative economic activities compatible with the environment and in line with the development of the sustainable fishery plan

SACD seeks to support alternative and supplemental incomes in Sarteneja, Chunox, and Copper Bank that will be identified based on the outputs of each individual community strategy/plan currently being developed, to reduce their dependence on the marine resources. For these two years SACD will be implementing at least (2) two projects in each of the three stakeholder communities mentioned above. During the two years of the project, US\$20,000.00 will be allocated for August of 2016, US\$20,000.00 for January of 2017, US\$20,000.00 for May of 2017 and US\$15,000.00 for September of 2017. MCCAP is also providing funds for the same purpose in the same three communities during 2016 of which SACD will be using US\$50,000.00 from the Chunox high school agriculture project as counterpart during 2016.

BC.2.01.04 Sustainable Tourism Marketing Plan

The SACD Sustainable Tourism Marketing Plan is a strategy for strengthening tourism opportunities in and around the protected area and its stakeholder communities. SACD will be hiring a consultant to develop a sustainable tourism marketing plan with tangible outputs including, securing at least one market for the community of Sarteneja. This project will provide US\$12,000.00 for consulting services that will include the research, the consultations, and the preparation of the plan. This will also include any travelling or accommodation required by the consultant to be paid in April, May and June of 2017.

BC.2.01.04 Provision of Tour Guide Training for community members

Tourism has been identified as an important foundation for the future sustainable development of the community of Sarteneja, and perhaps the only option for shifting and diversifying the economic base away from fishing. Therefore, SACD will be working with a lecturer identified by the Belize Tourism Board (BTB) to provide tour guide training targeting young fishermen from the three major stakeholder communities of CBWS (Chunox, Copper Bank and Sarteneja). This project will be providing US\$10,000.00 which is 58% of the training costs that include the lecturer, materials, travel, accommodation, and logistics, to train at least 15 young fishermen across the three major stakeholder communities of CBWS in May, June and July of 2016. It is estimated that the counterpart provided by the Belize Tourism Board (BTB) will be US\$7,500.00 which is the remaining 42% of the training costs (lecturer, materials, travel, accommodation, and logistics) to be used within the same three months (May, June and July of 2016).

BC.2.02 Generation/Updating of sustainable usage plans for marine-coastal resources within communities/associations.

Maintaining a healthy fish population and local fishery is highlighted as a priority objective within the CBWS management plan and aligns with the National Protected Areas Policy for community use and benefit from natural resources. This activity provides the opportunity for the implementation and integration of a sustainable fishery plan in CBWS, increasing the opportunity of fishermen to

fully engage in the management of resource extraction of the area based on the national Managed Access framework.

BC.2.02.02 Participatory Sustainable fishery plan and implementation

As the co-management agency for Corozal Bay, SACD will be working to engage local fishermen to implement guidelines for the community management of the small-scale fishery in the Wildlife Sanctuary, towards the goal of long term sustainable use of the resources for the benefit of both current and future generations. This project will provide US\$25,000.00 for a consultant to finalize the plan in April and the implementation will begin in August of 2017. An estimate of US\$10,000.00 will be provided by the MCCAP as counterpart for the establishing of zones (replenishment areas) within CBWS in August 2016.

BC.2.03 Involvement of organised community groups in the management of natural resources

SACD is built on a foundation of community collaboration and support at organizational level, but recognizes that it needs to strengthen its social sustainability by building up its community engagement. This activity will ensure greater stakeholder understanding of what SACD is and what it hopes to achieve, leading to increase support, important for both short and long term social and environmental sustainability. SACD aims to continue with the Volunteer and Internship Programme to increase awareness and allow for youths to engage in the monitoring and research activities. This is further sustained through the provision of scholarships for them to continue their education beyond primary level, providing them with the education to seek jobs, reducing the number of youths going into the fishing industry. The community strategy will be developed to guide the provision of at least 2 supplemental economic projects in at least three stakeholder communities of CBWS.

BC.2.03.02 Environmental education campaigns focusing on environmental awareness-raising, importance of marine reserves

SACD's Education and Outreach Programme focuses on increasing understanding of basic concepts of estuary and reef ecology, conservation, and the sustainable use of marine resources in the community. Also of concern for SACD, is the issue of climate change, and seeks to improve ecological sustainability of the resources on which the community stakeholders depend. This will further be strengthened at community level through SACD activities within the local schools and open days, such as Manatee Day etc. This project will provide US\$1,000.00 each year (US\$2,000.00) to support two community days in Sarteneja in October of 2016 and October of 2017.

BC.2.03.10 Support of community youths through the continuation of the Volunteer Internship Programme and Scholarship Programme

SACD has an ongoing Volunteer and Internship Programme that is focused on engaging youths in conservation and strengthening the capacity of the community by investing in future conservation leaders. This is a yearly programme which integrates upper primary level children into conservation-related activities, training and involving them in basic biodiversity monitoring, garbage clean-ups

etc, resulting in a 4-year scholarships awarded to the 4 best students. This project will provide US\$7,000.00 to support this activity each year with a total value of US\$14,000.00 for 2 years to provide 16 scholarships per year to be paid in July of each year. Each recipient will receive US\$437.50 per scholarship per year. This covers the tuition fee paid directly to the High School, with a contract signed with parents to commit them to covering books, uniforms and other costs for the value of US\$500 per student per year totaling US\$8,000 for 1 year and US\$16,000.00 for the 2 years.

BC.2.03.11 Development of Community strategy

This activity is being deferred from 2015. The community strategy is currently being developed in partnership with the Belize Audubon Society (BAS) and is meant to be completed in January of 2016. This will give us a structure under which economic alternatives are well planned in accordance with the needs of the communities; incorporating best practices where feasible and considering climate change effects. This project will provide US\$2,500.00 which is 25% of the contract to be paid in January of 2016, to cover SACD's percentage of the services.

BC.2.05. Administrative Expenses

BC.2.05.02 Bank Fees

The estimated cost for bank transfers of the projects resources will be of US\$500.00 per year, US\$1,000 for the duration of this BWP, to be covered by the Project.

BC.1.6 Unforeseen expenses

BC.6.01.02 Unforeseen expenses

Throughout the projects lifetime the prices of materials and supplies may increase due to global changes in the market. As a contingency a small amount of money from the project is set aside to cater for these activities. These will also cover the expenses incurred from the transfer of funds, and bank charges. A total of US\$ 13,001.10 to be covered by the project is set aside.

4. SUSTAINABILITY

- INSTITUTIONAL SUSTAINABILITY.

SACD with support of the project is building a stronger foundation with the revision of its institutional documents, which is the first step for the long term institutional sustainability of the Organization. The stronger the foundation the more likely the Organization will be sustainable and successful. The integration of board development sessions and exchanges will build the capacity of the board members and will provide for mentoring of new board members. This will ensure the continued growth of SACD, aligned with its vision and mission. The infrastructure and equipment will also support the foundation and will enable SACD to continue with the co management of the protected area, hence providing the institutional foundation for the sustainability of SACD.

- **FINANCIAL SUSTAINABILITY.**

SACD, currently relies on project funding to achieve its goals. Though, since its establishment, SACD has maintained its operations even with the limitation of operational funding. This project will provide the foundation on which SACD will be able to expand on its financial sustainability, by having the infrastructure and equipment in place. The Financial Sustainability Plan will be the first steps to provide a road map of feasible financial mechanisms to ensure the long term financial sustainability of the Organization by reducing the dependency on grant funding. Through the tourism funded activities SACD also seeks to increase tourism in the area, providing with the potential for SACD to seek supporting donations and visitor fees.

- **ENVIRONMENT**

As a protected area co-manager, SACD's environmental sustainability is dependent on information, community engagement, environmental friendly practices, and enforcement. This is addressed through the implementation of the monitoring and research activities (water contamination, over fishing, removal of mangroves among others). Also, developing and strengthening collaboration between conservation stakeholders and communities through system level collaboration and implementation of sustainable practices such as sustainable fishery and sustainable tourism activities. This will ensure effective marine protected area management and improved ecological sustainability. This estuarine system, is the largest in the MAR region, is a critical nursery ground for several important commercial species, as well as for the viability of the vulnerable West Indian manatee.

- **APPROPRIATE TECHNOLOGY.**

Where feasible, the infrastructure will contain low energy light bulbs, fully powered by solar power technology. Providing a cleaner energy source for its operational headquarters in Sarteneja, and to reduce impact to operations from local power issues – brown outs and black outs, which can cause damage to equipment. The vehicle will also be low fuel use through the purchase of a 4 cylinder diesel pickup truck – minimizing SACD carbon footprint and to be purchased locally, partly to ensure our contributing to the economy of Belize, but also to ensure that there is the in-country knowledge to maintain and fix the vehicle. This is a the organizational philosophy of reducing its impacts on the environment.

- **SOCIO-CUTURAL AND MAINSTREAM SUSTAINABILITY.**

The alternative economic projects for the communities seeks to strengthen communication with the stakeholder communities, particularly fishermen, women and youths; increasing recognition of the organization, with greater stakeholder understanding of what SACD is and what it hopes to achieve, and increased support for its activities and those of the protected area- important for both short and long term social sustainability . These projects also seek to– this have been recognized as a priority for SACD.

5. **BWP's Annex 1: Development table format (Excel file).**

In annex 1 (Excel format) you can find the development table.

6. [BWP's Annex 2: Financial Planning Matrix \(Excel file\)](#).

For the Biennial Work Plan, the planning has a single plan sheet, which has united both general and project expenses and you can find it in Annex 2.