



PROJECT DOCUMENT

Antigua and Barbuda

Project Title: Resilient restoration of pivotal public infrastructure for the recovery and sustainable development of the island of Barbuda post Hurricane Irma

Project Number: 00111466

Implementing Partner: United Nations Development Programme

Start Date: 14 May 2018 **End Date:** 13 May 2019 **PAC Meeting date:** 10 May 2018

Brief Description

The project will support the efforts of the Government of Antigua and Barbuda in the post-Hurricane Irma recovery process in Barbuda through the rehabilitation of some essential public infrastructure using the “build back better” approach. The aim of the project is to repair/reconstruct key public infrastructure in Barbuda that are pivotal for the recovery of the island, the return of all displaced families and to the resilience of the hurricane-prone Island and for sustainable development in the short to long term.

In line with the Post Disaster Need Assessments, the Building Damage Assessment and the recovery strategy established by the government with the support of UNDP in 2017, the project will adopt a comprehensive approach to effectively meet the needs of the affected population on the Island of Barbuda. To this end, the project is designed to contribute to on-going initiatives by the Government of Antigua and Barbuda in coordination with other humanitarian and development actors towards the rehabilitation/reconstruction of key public infrastructure pivotal for the resilience and sustainable development of the people of Barbuda.

The project will address this strategy through the following outputs:

Output 1: The Hanna Thomas Hospital rehabilitated and equipped, ensuring structural resilience and inclusive access

Output 2: The Barbuda Post Office rehabilitated and equipped, ensuring structural resilience and inclusive access

As the implementing Agency, UNDP will use its direct implementation modality (DIM) to carry out the implementation of the project in close consultation and collaboration with relevant national authorities such as the Ministry of Health and Environment; the National Office for Disaster Services (NODS) who oversees the reconstruction process in partnership with Barbuda Council Committee of Works and General Purpose, Development Control Authority, and the Central Housing and Planning Authority. UNDP in coordination and close collaboration with the national authorities will manage, monitor and report the achievement of project results.

Activities will include:

1. Technical assistance and supervision of reconstruction works including training and mentoring of local workers involved in the reconstruction to complete reconstruction works at the Hannah Thomas Hospital; and to rehabilitate the Barbuda Post Office.
2. Technical assistance for acquisition of high quality hospital equipment and fittings required for the immediate functioning of the Hannah Thomas Hospital and Post Office in Barbuda.

Contributing Outcome (SPD 2017-2021):

Outcome 4.1: Policies and programmes for climate change adaptation, disaster risk reduction and universal access to clean and sustainable energy in place.


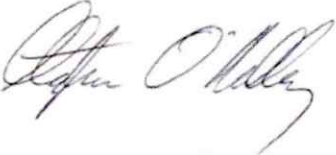
Contributing Outcome (UNDP SP 2018-2021):

Signature Solution 3: Enhance national prevention and recovery capacities for resilient societies

Total resources required:	US\$1,000,000	
Total resources allocated:	US\$1,000,000	
	UNDP TRAC:	

	India UN partnership fund	US\$1,000,000
	Government:	
	In-Kind:	
Unfunded:		

Agreed by (signatures)

Government	UNDP
 PERMANENT SECRETARY Ministry of Foreign Affairs, International Trade & Immigration	
Print Name: <i>Anthony Kinross</i>	Print Name: Stephen O'Malley, Resident Representative
Date: <i>14th MAY 2018</i>	Date: 11 May, 2018

I. DEVELOPMENT CHALLENGE

On September 6, 2017, Hurricane Irma hit the Islands of Barbuda and Antigua with catastrophic effect. Hurricane Irma made landfall as a category 5 storm (Saffir-Simpson scale), packing winds in excess of 180 mph (277km/h). The storm's eye passed directly through Barbuda exposing the island to the highest wind velocities in the storm. While out of the path of the eye, Antigua, located approximately 27 miles to the south of Barbuda, experienced major category 5 winds generated in the storm's inner core. During the event, Barbuda was exposed to the extraordinary eye wall winds for more than 3 hours as the storm passed over the centre of the island. This was accompanied with a significant storm surge (5-11 feet) which provoked flooding reported to reach some 600 meters inland. Compounding the situation, on September 18, Hurricane Maria, another category 5 storm affected the island of Antigua with strong winds and rainfall, without making landfall.

The Post Disaster Needs Assessment carried out by UN, EU, World Bank, Caribbean Development Bank and Eastern Caribbean Central Bank estimated the total damage (e.g. destroyed physical assets) of the Irma/Maria for Antigua and Barbuda as EC\$367.5 million (US\$136.1 million), while losses amount to approximately EC\$51.2 million (US\$18.9 million). Recovery needs amount to EC\$600.1 million (US\$222.2 million).

The combined value of destroyed assets and disruptions in the production of goods and services is equivalent to about 9% of the country's gross domestic product (GDP, current terms) in 2016. Hurricanes Irma and Maria will, therefore, have a significant negative impact on the overall performance of the national economy and likewise on the quality of life.

Tropical Cyclone Irma and Maria produced the most significant effects on the productive and social sectors. The individual sector that sustained the greatest damage was tourism, accounting for 44 percent of total damage costs, followed by housing, accounting for 37 percent of all damage. The tourism sector suffered the highest total effects from hurricanes Irma and Maria (including both damage and losses). However, in terms of policy, planning, financing and recovery implementation, housing may be the priority sector of intervention during the recovery phase. This is reflected in the financial estimation of the PDNA recovery needs in which housing is identified as the sector with most financial needs, followed by tourism and transport.

The country's real GDP growth rate is estimated to be affected by around 1.1 percentage point in 2017. That is, while the baseline estimation of growth for 2017 before the storm was 4.6%; after the storm that estimation is down to 3.5%.

Health sector effects¹

An assessment of the value of the total effects of Hurricane Irma to the health sector amounted to close to EC\$4.8 million.

Hannah Thomas Hospital, which is composed by 4 different major buildings, is the only health care facility on the Island. The impact of the hurricane shows the need to improve its resilience to natural disasters. Medical services were limited before the disaster due to limitations in terms of some equipment such as the one needed for laboratory tests. Additionally, emergency cases needed transferred to Antigua and this is always difficult owing to logistical constraints between the Islands. As indicated by the Government of Antigua and Barbuda and the affected communities, the provision of health care services is critical to promoting the return of the displaced population as well as the sustainable resilience of the Islanders.

Following Hurricane Irma, the Government of Antigua and Barbuda commissioned PAHO/WHO to conduct an assessment of the health facility on Barbuda. It concluded that the facility suffered significant damage but the building was deemed structurally sound, specifically with regard to its foundations, beams and columns. However, it suffered 85 percent damage to its roof. The diesel generator was also damaged. The water tank was contaminated, and the water pump, an essential component of the water system on the facility, was not operational, with its contents mostly destroyed. The report noted that the main access road to the hospital was partially obstructed by debris and fallen trees. It also noted that vector problems arose due to the floods and that dead animals could be found around the facility.

¹ Government of Antigua and Barbuda. 2017. Hurricane Irma Recovery Needs Assessment (i.e. PDNA)

Governance effects²

The disaster-induced disruption to the governance processes of the social, productive and infrastructure sectors was assessed through the damage to the local government buildings as well as the disruption of local government functions after the evacuation of the island. In addition, the costs incurred by NODS in its coordination of the response and relief for Barbuda and Dominica were factored in. The total costs of the effects (damage and losses) are estimated as nearly EC\$4.2 million.

The PDNA reports that 8 of the 17 public administrative buildings (see Table 1) are considered partially damaged (level 2), while another 5 have more than 50% of the roof missing and are unusable (level 3) and 2 have severe structural damage (level 4). However, one of the conclusions from the building damage assessment (BDA) is that public and government buildings have suffered less damage than other structures because of better construction techniques and materials.

Local government functions suffered disruption after evacuation of the island, with the Council of Barbuda, was relocated to Antigua from where it carries out skeletal operations.

With the total evacuation of the island most of the normal sources of revenue, such as tourism taxes, local fishing license, rental or leases were not being collected, this will affect the coming financial year due to the loss of revenue. This also affects their ability to rebuild and repair the government administrative infrastructure.

Government priorities

Following the impact of Hurricane Irma, the entire Barbuda population of 1800 was evacuated to the main island of Antigua. This was necessary as 90% of buildings were severely impacted³ including the loss of roofs, doors, windows as well as assets that were inside the buildings.

The GoAB has requested international assistance with the provision of construction materials, including roofing and tools. The GoAB has established phased recovery process by which phase 1 includes, in complementarity to debris and waste management, the repairs of priority buildings, including those that have sustained minor or medium damage. Phase 2 will address the needs of those structures with major damage and those that have collapsed.

Priority Areas of Intervention⁴

Hurricanes Irma and Maria have caused widespread devastation across Antigua and Barbuda with a destruction of houses and livelihoods that reached up to 95% in Barbuda.

The Post-Disaster Need Assessment (PDNA) in Barbuda pointed that housing is a priority sector in terms of policy, planning, financing and recovery implementation. In this sense the recovery needs to identify a resilient housing/building reconstruction program, meeting the existing building codes, with proper engineering supervision, following a thorough building structural assessment of the whole town of Codrington, and a strong capacity building component; restoration of infrastructure and assets as needed to sustain the Council of Barbuda operations; an upgrade of the most affected secondary road network; the underground cabling of the power network in Barbuda; enhancement of the National Office for Disaster Services operational capacity; resilient reconstruction of public critical infrastructure (port jetty, health, education, fire station); improvement of the hydro-meteorological services; and a review and enhancement of the national Disaster Risk Management Framework, with a focus on a better risk information, disaster preparedness operational capacities and disaster risk financing.

Specific to health, pre-disaster there was a long-needed upgrade to the facility, which included internal bathrooms for patients and improvements in accessibility for the disabled. A number of further needs were identified that would increase resilience to future events and improve the delivery of services to the population. These included: a special Health Housing Campus for doctors, nurses, matron, visiting health professionals, and pharmacists; the upgrade of the existing facility, including replacement and retrofitting of hospital roof, windows and doors; the inclusion of a training facility at the hospital; improved laboratory facilities; and improvement in the telecommunications systems (e.g. with satellite radio).

With respect to governance, the Barbuda Council recommended short and long-term actions in the areas of:

² Government of Antigua and Barbuda. 2017. Hurricane Irma Recovery Needs Assessment (i.e. PDNA)

³ Building damage assessment

⁴ Government of Antigua and Barbuda. 2017.

- Restoration of infrastructure and assets as needed to sustain their operations.
- Policy guidance for recovery strategy and planning in close coordination with the national government.
- Accountability mechanisms.
- Strengthened coordination and equitable distribution of some benefits (such as cash transfers and materials) for low-income families.

Response to Date

Regional and international support to Antigua and Barbuda has been mobilized, initially focusing on humanitarian requirements of the affected and displaced population. The Caribbean Catastrophe Risk Insurance Facility (CCRIF) provided pay-outs to the affected countries with insurance and in case of Barbuda, the country has received USD 6.8 million.

UNDP has mobilized initial resources to support the comprehensive assessment and recovery process as well as provided a recovery advisor who provided technical assistance to national institutions in charge of the debris management and removal process in Barbuda. UNDP also supported the substantive assessment of the impact and recovery needs through a PDNA. Additionally, a comprehensive building damage assessment has been completed, which supported identification of priority roofs and houses for repair by all partners.

Early recovery of Barbuda post-Irma has witnessed considerable interventions in the housing sector through collaborative efforts of humanitarian and development actors including the Red Cross, Samaritan's Purse. Efforts were undertaken by the population with the support of the government and national and international partners to remove the debris accumulated in and around the houses, as well as salvaging materials and simple repairs where possible.

UNDP will be implementing roofing projects on the island to restore damaged/destroyed roofs, ensure safe construction techniques and limit risk, and equipment to local beneficiaries and quality assurance for the installation process.

Additionally, through a Regional CERF grant of US\$300,000, Antigua and Barbuda received US\$65,900 initially allocated mainly for cash for work, assessments, and equipment.

II. STRATEGY

This project aims to bring an effective building reconstruction that addresses risks and restores pathways to inclusive sustainable development, taking into account the various underlying vulnerabilities, capacities and development challenges. In designing a resilient and sustainable community-based recovery project, focus will be laid on strengthening local capacities and applying resilient designs and construction practices to build back better in the health sector, ensuring more robust and resilient public infrastructure.

This intervention will focus on the completion of reconstruction works on the Hannah Thomas Hospital; and the subsequent equipping and furnishing of the hospital. In addition, the project will conduct detailed structural assessment of the Barbuda Post-Office (initially assessed during the BDA of 2017) in order to precisely qualify the extent of structural damage to the building, and subsequently support the rehabilitation and furnishing of the Post Office to restore essential postal services for the returning population in the phased recovery programme.

On-going reconstruction works on the 4 major buildings of the hospital were budgeted by national institutions on the basis of initial assessments conducted immediately after the hurricane. However, subsequent re-assessments have revealed additional extensive damage especially to the conduit piping and other electrical works; flooring and tiling, plumbing, windows, doors and other fittings.

The hospital main building size is approximately 54,000ft² built with bricks, reinforced concrete and galvanized sheets for its hip roofing. The exterior total roof damage is between 25%-49%, but most of the interior ceiling (plywood) has been destroyed. Main services such as water and electricity are completely damaged. The government has initiated the reconstruction but due to escalating costs has requested India – UNDP support to finalize the pending approximately 40% of the reconstruction, secure the provision of basic services and equip the hospital so it can be fully functional.

The commitment of the project in the country will be initially up to a period of 12 months and it will be led by UNDP in close collaboration and coordination with relevant government authorities including the Ministry of Health and

Environment, NODS, the Barbuda Council, and the Development Control Agency. UNDP will be responsible for managing, monitoring and reporting the achievement of results.

In order to ensure effectiveness and sustainability, the project will be built upon the core guiding principles of BBB approach which also guided the recommendations of the PDNA and BDA. These principles include:

- **Resilient and inclusive design:** The reconstruction of all buildings should consider design concepts for seismic and hurricane zones and specific measures to retrofit the structures based on the hazard risk of the area. Special attention must be taken in some components such as connections between rafters to beams and plate with adequate anchorage. These include the use of hurricane straps, bolts and steel through the foot of the rafters. In cases where these are not present, it is recommended that retrofitting is conducted. PAHO's SMART Hospitals programme⁵ will be used as a reference. Additionally, noting the recommendations of the PDNA, the design should include accessibility throughout the facility for the disabled as well as indoor sanitation.
- **Technical assistance and supervision:** The project will ensure the supervision and monitoring of contractors to enforce the building codes as well as to provide technical assistance on safe construction techniques, planning quantities of materials that will be required for repairs and conducting monitoring visits. All sub-contracts entered into with contractors and suppliers will be guided and monitored using these guiding principles.
- **Training and mentoring process** for people involved in reconstruction efforts: local people, especially Barbudans involved in the construction sector will be identified and linked to the reconstruction process. Efforts will be made by UNDP to ensure local contractors have access to participate in the global competitive procurement processes through their awareness and also by emphasising local engagement in the sub-contracts. In so doing, the local population will benefit directly from the project through incomes as well through the acquisition of knowledge and skills in resilient building, masonry, carpentry and furniture designs. These will be provided through on-site training and mentorship designed into sub-contracts with special attention paid to the needs of women and other vulnerable people.
- **Quality purchases:**
 - **Procurement of PPE, equipment and reconstruction materials:** The use of good quality and safe constructions materials is crucial for the Build Back Better process. Reconstruction and roofing materials and tools will be required to meet international, regional standards in addition to national requirements and will be procured locally or regionally where possible according to UNDP rules and regulations to ensure full transparency in the process and best value for money.
 - **Fairness, integrity and transparency,** which ensures that competitive processes are fair, open, and rules-based. All potential vendors should be treated equally, and the process should feature clear evaluation criteria, unambiguous solicitation instructions, realistic requirements, and rules and procedures that are easy to understand.
 - **Effective competition,** understood as giving all potential vendors timely and adequate information on UNDP requirements, as well as equal opportunity to participate in procurement actions, and restricting them only when it is necessary to achieve UNDP development goals.
- **Quality assurance:** There are some consideration to increase the engagement of the beneficiaries and improve efficiency in the reconstruction phase avoiding future problems:
 - Competitive bidding process that ensures the involvement of only suitably qualified entities with the capacity to deliver agreed milestones on target.
 - Apply resilient designs and construction practices to repairs and reconstructions in the housing sector in line with standard building codes.
 - Establish a retrofit program to improve building resilience including hurricane straps, roof attachments and other measures.

⁵ http://www.paho.org/disasters/index.php?option=com_docman&view=download&alias=2496-technical-standards-for-retrofitting-a-guide-6&category_slug=smart-hospitals-toolkit&Itemid=1179&lang=en

- The need of regularly being informed about the actions taken in the recovery process has been a request from the affected population and it should be address by the government with the support of the organizations implementing any actions at field level.
- A proper debris and waste management will need to be ensured in the are to be restored or rebuilt
- Produce illustrating documents with key messages showing proper construction techniques.
- **Building on prior UNDP experience and partnerships:** UNDP’s support to the hurricane Irma recovery process in Barbuda will be anchored in the resilience-based approach as expressed in UNDP’s Strategic Plan. This involves supporting resilient housing/building, creating gender-sensitive employment and livelihoods, improving equitable access to resources and building capacities at national, sub-national and community and individual levels for disaster preparedness and recovery. This approach enables bridging of humanitarian and long-term development efforts, reduces risks and builds resilience.

In this strategy it is important to take into account that UNDP has vast global experience in similar projects in same sectors and has drawn many lessons learned during these responses such as:

- Use of good quality construction materials.
- Good installation techniques promoting Build Back Better
- Local procurement where possible
- Leadership from national authorities
- Engagement of local communities
- Participation of women and other vulnerable groups is key
- Capacity building activities as an important component
- Build Back Better to avoid replicating vulnerabilities and promote resilience
- Knowledge management and experience exchange among countries is very enriching

UNDP’s role

UNDP helps national and local governments address the underlying vulnerabilities that cause susceptibility to disasters and moves communities toward risk-informed actions and trajectories. In the immediate aftermath of the disaster, UNDP facilitates recovery through combining the community re-establishment with injecting financial resources at a household level, through emergency employment in debris management, reconstruction and/or community infrastructure rehabilitation. This approach to recovery not only meets the immediate needs in the affected regions to kick-start recovery, but also creates conditions for long-term recovery, resilience to multiple shocks, and sustainable development. In response to Hurricane Maria, UNDP’s interventions will focus on enhancing resilience through programmes to restore livelihoods, strengthen governance capacities (national and local levels) to coordinate and manage recovery processes, integrate risk reduction measures in recovery activities, and deliver basic services.

UNDP brings its core mandate of sustainable and inclusive development to support recovery processes: the community-based and capacity building approach, the focus on gender equality and the empowerment of women, the support to human rights for development, the focus on institutionalizing processes at a national and sub-national level, and its multidisciplinary work – including governance, livelihoods and environment.

The approach is guided by the two international frameworks: The Outcome of the World Humanitarian Summit and the Sendai Framework for Disaster Risk Reduction 2015-2030. The World Humanitarian Summit Framework reached 32 core commitments through 7 round tables, including calls for strengthened gender perspective in humanitarian crisis settings.⁶ In particular, the 6th round table, “Natural disasters and climate change, managing risks and crises differently” concluded with core commitments that are significant to this project. Through the proposed interventions, UNDP will work to reinforce national and local management of disaster and climate change risks (core commitment 24); implement risk reduction and climate change strategies and plans (core commitment 23); and build community resilience as a critical first line of response (core commitment 26). Further, the project will deliver on the shifts/changes in direction agreed in the WHS Framework. In particular, the proposed interventions of this project will

⁶ Core WHS commitments include: 1) empower Women and Girls as change agents and leaders; 2) ensure universal access to sexual and reproductive health and reproductive rights

be guided by the suggested direction under the core responsibility 4, “Working differently to end need” including: to reinforce, not replace, national and local systems; to anticipate, not wait for, crises; and to deliver collective outcomes by transcending humanitarian-development divides⁷.

These efforts also deliver on the Sendai Framework, especially under Priority area for action 4: Enhancing disaster preparedness for effective response and to “build back better” in recovery, rehabilitation and reconstruction. This priority facilitates the link between relief, rehabilitation and development and the use of opportunities during the recovery phase to develop capacities that reduce disaster risk in the short, medium and long term. Disaster risk reduction is integrated into recovery with recognition of gendered perspectives, through measures such as land use planning, structural standards improvement, and the sharing of expertise, knowledge, and lessons learned to integrate post-disaster reconstruction into the economic and social sustainable development of affected areas.

III. RESULTS AND PARTNERSHIPS

Expected Results

In response to the needs and priority areas identified by the government of Antigua and Barbuda, UNDP will engage qualified and competent entities with the capacity to deliver project milestones for the rehabilitation of essential public buildings.

Output 1: The Hanna Thomas Hospital rehabilitated and equipped, ensuring structural resilience and inclusive access.

The BBB approach is based on post disaster risk assessments and consists on ensuring the purchase of good quality constructions materials and the promotion of safe and resistant installation techniques for strong buildings, as well as the promotion of a participatory reconstruction making best use of local skills, institutions and resources.

The activities included in this output will be guided by the recommendations and needs pointed in the last PDNA document and the BDA of 2017, and will be complementary to other housing initiatives on going in Barbuda and in coordination with other international organizations active in the rehabilitation process.

1.1 Technical assistance and knowledge transfer for a resilient rehabilitation process

The project will support the recovery process in the health sector ensuring BBB approach which includes the enforcement of building codes, the application of proper building reconstruction techniques through training and promotion, local and national capacity building, and permanent communication with the affected population about the recovery process. This component will also include technical coordination of the repair by UNDP.

A critical requirement for achieving results of this output will include the full engagement of the community representatives of Barbuda who will be receiving regular updates about the activities regarding the recovery process. It is therefore anticipated that a period of engagement, to confirm the priorities and approach to realizing implementation, is necessary as a first step. There will also need to be some coordination with other partners to facilitate improved cohesion.

1.2 Resilient and inclusive reconstruction and equipping of the hospital

The Government of A&B has identified the Hannah Thomas Hospital as critical to the re-population of the Island of Barbuda after hurricane Irma. This output aims to support the government in its aspiration to return the displaced population of about 1,800 to the Island as soon as possible. The rehabilitation of the facilities to enable the restoration of healthcare services is essential and pivotal not only to a recovery programme but also ensuring sustainable development. UNDP will collaborate with the Ministry of Health and Environment and other institutions to develop targeted actions in order to repair and equip the hospital. This will include procurement of building materials and medical equipment, and supervising the reconstruction.

Output 2: Resilient rehabilitation and equipping of the Barbuda Post Office, ensuring structural resilience and inclusive access.

⁷ World Humanitarian Summit: Commitments to Action,

https://www.worldhumanitarian summit.org/sites/default/files/media/WHS%20Commitment%20to%20Action_8September2016.pdf

2.1 Resilient and inclusive reconstruction and equipping of the post office

UNDP will collaborate with the Barbuda Council and other institutions to develop targeted actions in order to repair and equip the post office. This will include procurement of building materials and medical equipment, and supervising the reconstruction.

Resources Required to Achieve the Expected Results

The project investment is primarily human and institutional resources who will provide technical services. These include contractors and their teams, housing engineers who will conduct training in proper building techniques and provide technical assistance and supervision on the building process, procurement and logistics specialists. The primary investment of the project will be procurement of materials, equipment and supplies specifically:

- Purchase of good quality construction material
- Procurement of medical equipment and equipment for the post office
- Procurement of personal protective equipment (PPE) and tools as necessary

Partnerships

The project will be directly implemented by UNDP in close consultation and collaboration with relevant national authorities such as the Ministry of Health and Environment; the National Office for Disaster Services (NODS) who oversees the reconstruction process in partnership with Barbuda Council Committee of Works and General Purpose, Development Control Authority, and the Central Housing and Planning Authority. UNDP in coordination and close collaboration with the national authorities will manage, monitor and report the achievement of project results. UNDP will also consult with relevant persons at PAHO/WHO to ensure that the rehabilitation of the hospital is in keeping with their Safe Hospitals standards.

The Development Control Authority (DCA) will play a very important role. Since there is no entity in place to regulate the builder, DCA can regulate the quality of buildings, starting with the approval of plans and construction. To ensure this capability, the Building Inspectors who review submitted plans, need to follow the construction with onsite visits. All the new structures to be built in Barbuda, as part of the reconstruction process, need to fully comply with the Laws of Antigua & Barbuda Building Guidelines.

Risks and Assumptions

There are multiple risk factors associated with Hurricane Irma and María response and recovery. These events have created widespread destruction of houses and infrastructure, disruption of basic service provision, and extensive damage and losses in income generating activities. Coordination at local level has been difficult despite the efforts of relevant authorities. Additionally, given the specific context, the country logistics are challenged by damage to airports, ports and roads.

One of the key constraints in the rebuilding of Barbuda lies in the logistics of bringing workers, heavy equipment & machinery, and building materials, including aggregates, to the island efficiently. Water depth is not conducive to many large cargo vessels which could impede delivery of materials and equipment.

Risks	Mitigation measure
Operational: Limited involvement of decision makers in strategic project activities	UNDP will maintain direct dialogue with the decision-making level of the national entities so that channels of communication and coordination can find alternative solutions in a timely manner. Promote constant dialogue and involvement of institutions for strengthening their commitment
Financial: Given the significant inflation in costs of labour and materials since the hurricane and the limited in-country labour availability, there will be constraints to ensure adequate resources are available to complete the reconstruction.	UNDP will approach the reconstruction in phases to ensure that, first the hospital is built to acceptable standards prior to commencing activity on the post office. UNDP will also continue to dialogue with partners to mobilise additional resources for the recovery.

<p>Operational:</p> <p>The expertise provided by this recovery framework is limited in time, therefore actions must be embedded in and driven by nationally-defined priorities.</p>	<p>The recovery framework must be sequenced to ensure appropriate absorption.</p> <p>The Recovery Advisor (RA) and by extension the Antigua and Barbuda project office; and other technical support will need to be embedded in national structures to ensure coherence and clarity of needs, which must be effectively communicated to the Antigua and Barbuda project office for planning longer-term programming.</p>
<p>Environmental:</p> <p>Occurrence of a disaster, particularly during the hurricane season, at national or regional level that may require urgent emergency measures and change of priorities due to response and recovery actions</p>	<p>Focus will be on accelerating implementation before the next hurricane season to ensure a level of preparedness for possible impacts. In case a disaster occurs, support will be provided for coordination in the management of emergencies.</p>
<p>Operational:</p> <p>Constraints in bringing workers, heavy equipment and machinery, and building materials, including aggregates, to the island efficiently.</p>	<p>Review with NODS and other partners transportation and logistics options for moving goods and supplies to Barbuda to support reconstruction activities and provide special emergency procedures for clearing (customs) and distributing recovery supplies and services to Barbuda.</p> <p>Collaborate with NODS to identify secure, safe and affordable accommodation for workers to minimise frequent travels from Barbuda</p> <p>Ensure adequate and realistic planning for the delivery of results</p>
<p>Operational</p> <p>Delays in delivery of materials procured for the project</p>	<p>Procurement of project tools and materials will be planned even before implementation starts.</p> <p>The UNDP Antigua and Barbuda project office will liaise with government counterparts to ensure all necessary information for an effective procurement process.</p>

Stakeholder Engagement

The project will make particular efforts to engage with community affected population as well as the national and international organizations supporting the recovery process to plan and manage the recovery and reconstruction activities.

At local level, efforts will be taken to support local leadership and accountability in recovery implementation, administration and financial management of recovery processes. Direct dialogue with affected persons, especially the most vulnerable, is critical to ensuring design of gender responsive interventions that address targeted needs. This process will be integrated initially into the PDNA, and combined with the harmonized beneficiary targeting criteria being developed by the shelter sector working group. This will be led by the UNDP Antigua and Barbuda office.

Additional key stakeholders will include:

- The public service providers such as Antigua Public Utilities Authority (APUA) and the National Solid Waste Management Authority.
- Professional associations of engineers and architects.

South-South and Triangular Cooperation (SSC/TrC)

As a development tool, South-South Cooperation (SSC) promotes cooperation among countries through the sharing of best practices and the diversification and expansion of development options and economic links.

The project comes from the India-UN Development Partnership Fund which is a dedicated facility within the United Nations Fund for South-South Cooperation (UNFSSC). It is supported and led by the Government of the Republic of India and implemented in collaboration with the United Nations system.

Through this same fund, the government of Antigua and Barbuda will develop another project in housing/building reconstruction sector and in which sharing good practices and technical documentation with this project will be strengthened.

Additionally, this project will complement another relevant ongoing recovery initiatives in Barbuda and UNDP will build upon the experience and best practices already gathered related to procurement of construction materials and housing repairs. This current project financed by the Government of the Republic of India, will support the completion of on-going reconstruction works at the Hannah Thomas Hospital including the supply of equipment and furniture; as well as the rehabilitation of the Barbuda Post Office through sub-contracts awarded to qualified entities including but not limited to local contractors. A capacity-building component is incorporated in the design of the project to allow for the development of local capacity for the sustainability of the project outcomes.

Lastly, the project will acknowledge the financial contribution of the government of Republic of India through communication standard elements. This means that the project should provide the government of India with due credit for its role supporting the initiative, including at all public and media engagements, as well as through prominent display of the flag, logo or relevant partnership signage at all relevant occasions and opportunities.

Knowledge

There are two possible knowledge products that this project could contribute to, based on the PDNA:

- The adaptation of the Dominica Housing Standards document for Antigua and Barbuda case contributing to establish measures for retrofit programs.
- Producing illustrated documents with key messages showing proper construction techniques

Sustainability and Scaling Up

As these are critical community services, the Government of Antigua and Barbuda will resume operation of these facilities within their national budget.

IV. PROJECT MANAGEMENT

Responsibility for directly implemented (DIM) projects rests with UNDP, as reflected in the Standard Basic Assistance Agreement signed by UNDP with the government as agreed in the United Nations Multi-Country Sustainable Development Framework Sub-Regional Implementation Plan and respective annual work plans.

The implementing partner:

- Assumes full responsibility for the effective use of project resources and the delivery of outputs in the signed project document;
- Must report fairly and accurately on project progress against agreed work plans in accordance with the reporting schedule and formats included in the project document; and
- Maintains documentation and evidence of the proper and prudent use of project resources in conformity to the project document and in accordance with applicable regulations and procedures; documentation should be available on request to project monitors and designated auditors.

Under DIM, UNDP Barbados and the OECS Sub-regional Office is accountable for the effective and efficient use of resources for the achievement of programme results in conjunction with the implementing partner. This encompasses the design of projects, the assessment of capacities of implementing partners, the joint selection of implementing partners, and the financing and evaluation of programme activities. UNDP must monitor progress towards intended outputs and appropriate use of resources.

UNDP team in Antigua and Barbuda for the coordination of the recovery efforts will support the government to implement project activities at local level, monitoring and communications with national counterparts in close coordination with the Barbados and the OECS Sub-regional Office.

UNDP's Crisis Response Unit (CRU) will be key in the technical support and guidance throughout the project by providing direct and immediate support to UNDP colleagues, governments and local counterparts in the recovery and coordination of the emergency with a long-term engagement approach.

The following principles will govern management and implementation arrangements:

- A flexible approach to development and implementation of recovery activities will be employed, through partnerships with UN agencies, and with options for engaging a range of implementing partners including local NGOs, international NGOs and others;
- Implementation of recovery activities will seek to employ modalities that strengthen sustainable local level capacities.
- Safety and security of UNDP staff, project personnel and implementing partners will be a key priority. UNDP projects will allocate resources for safety and security measures. This will include resources for efficient communications (with adequate redundancy), safety of project offices and personnel and other measures. Regular monitoring visits will be undertaken to ensure that efficient safety and security systems are in place.
- The management of recovery activities will promote strong collaboration and complementarities with other national and international assistance in the affected area.

V. RESULTS FRAMEWORK

Intended Outcome as stated in the Sub-Regional Programme Results and Resource Framework:								
Outcome 4.1: Policies and programmes for climate change adaptation, disaster risk reduction and universal access to clean and sustainable energy in place								
Outcome indicators as stated in the Sub-Regional Results and Resources Framework, including baseline and targets:								
Outcome 4.1.2. No. of countries where sustainable, resilient and resource-efficient construction and retrofitting has been carried out in at least one government building. Baseline: 3 Target: 10								
UNMSDF Outcome								
A sustainable and resilient Caribbean: Policies and programmes for climate change adaption, disaster risk reduction and universal access to clean and sustainable energy in place								
Applicable Signature Solution from the UNDP Strategic Plan 2018 - 2021:								
Signature Solution 3: Enhance national prevention and recovery capacities for resilient societies								
Project title and Atlas Project Number:								
EXPECTED OUTPUTS	OUTPUT INDICATORS	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)			DATA COLLECTION METHODS & RISKS
			Value	2017	2018	2019	FINAL	
Output 1: The Hanna Thomas Hospital rehabilitated and equipped, ensuring structural resilience and inclusive access	<i>HTH rehabilitated and equipped</i>	<i>Development Control Authority, Barbuda Council</i>	0	0	0	1	1	Inspection reports Participants lists Project Progress Reports
Output 2: The Barbuda Post Office rehabilitated and equipped, ensuring structural resilience and inclusive access	<i>Post Office rehabilitated and equipped</i>	<i>Development Control Authority, Barbuda Council</i>	0	0	0	1	1	Inspection reports Project Progress Reports

VI. MONITORING AND EVALUATION

The Ministry of Works and Housing will monitor project activities in line with UNDP policies and procedures. Additional monitoring could be conducted by partnering governments, Indian representatives accredited in/for the partner country and, where applicable, UNOSSC as fund manager and secretariat of the Board of Directors.

With respect to reporting, the project will submit preliminary financial and narratives reports to UNDP every 6 months; one at mid-term of the project and one at the end.

Within reasonable timeframes and frequency, additional progress up-dates may be requested as needed from project teams. Up-dates are submitted through the Secretariat. They may include best available financing delivery figures, description of progress and challenges in project implementation and pictures or other materials on project activities.

Projects and small grants may be independently evaluated at mid-term and/or completion, and audited, in accordance with the policies and procedures of UNDP.

Projects financial and narrative reports will be summarized, analyzed and incorporated in portfolio-wide reporting for the India – UN Development Partnership Fund. In addition, these will be reflected in the reports of the United Nations Fund for South-South Cooperation.

Monitoring and reporting plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Quarterly Report	Indicator monitoring; field visits; slower than expected progress will be addressed by project management.		
	Overall progress monitoring	Monthly	2-3 bullet points on progress will be shared via email with the India-UN Fund Secretariat at UNOSSC		
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risk logs updated and maintained; risks are identified by project management and actions are taken to manage risk.		
Learning	Knowledge, good practices and lessons will be captured in a final evaluation	Annually/Final	Field visits and consultations; relevant		

			lessons are captured by the project team and used to inform management decisions. Final lessons learned publication will be produced.		
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.		
Project Report	A progress report will be presented to the Project Board and key stakeholders.	Every 6 months; Mid-term and Final Report	Compilation of results achieved against annual targets at output level, quality rating summary, updated risk log, and any evaluation or review reports over the period.		T

VII. MULTI-YEAR WORK PLAN

EXPECTED OUTPUTS AND RESULT ACTIVITIES	PLANNED ACTIVITIES	YEAR				PLANNED BUDGET	
		2018	2019	RESPONSIBLE PARTY	Funding Source	Budget Description	Amount
Output 1: The Hanna Thomas Hospital rehabilitated and equipped, ensuring structural resilience and inclusive access.	Activity 1.1 Technical assistance and knowledge transfer for a resilient rehabilitation process	67,750	61,250	UNDP	India-UN partnership		129,000
	Action 1.1.1 Provide technical assistance to sub-contractors at site	20,000	12,000			71400 Service Contracts	32,000
	Action 1.1.2 Support on-site training and mentorship to local population involved in reconstruction	42,000	42,000			71200 International Consultant - Engineer	84,000
	Action 1.1.3: Production of monitoring tools	2,000				71600 Travel	7,000
	Action 1.1.4: Ensure sustained consultation and coordination with national authorities	3,000	2,000			75700 - Training	5,000
		750	250			72500 Supplies	1,000

	Activity 1.2 Resilient and inclusive reconstruction and equipping of the hospital	563,000	142,750	UNDP	India-UN partnership		644,500
	Action 1.2.1 Complete reconstruction according to PAHO SMART guidelines	500,000	0			72100 Contractual Services	500,000
	Action 1.2.2 Procure medical equipment and tools	50,000	75,000			72200 Equipment and Furniture	125,000
	Action 1.2.3 Procure furniture and office equipment	1,000	1,000			72400 Communication and Audio Visual	2,000
	Action 1.2.4. Training on use of new equipment	10,000	4,000			74700 Transport, shipping and handling	14,000
		1,500	1,500			75700 Training and Workshops	3,000
		500	0			72500 Supplies	500
Output 1 Sub-total		630,750	142,750				773,500
Output 2: The Barbuda Post Office rehabilitated and equipped, ensuring structural resilience and inclusive access	Activity 2.1 Resilient and inclusive reconstruction and equipping of the post office	136,500	8,000	UNDP	India-UN partnership		144,500
	Action 2.1.1 Complete reconstruction according to resilient guidelines	82,000	0			72100 Contractual Services	82,000
	Action 2.1.2 Procure equipment and tools	15,000	0			72200 Equipment and Furniture	15,000
	Action 2.1.3 Procure furniture and office equipment	12,000	0			74700 Transport, shipping and handling	12,000
	Action 2.1.4. Provide technical assistance to sub-contractors at site	20,000	5,000			71400 Service Contracts	25,000
		7,000	3,000			72400 Communication and Audio Visual	10,000
	Action 2.1.5 Secure access to basic services (water and	500	0			72500 Supplies	500

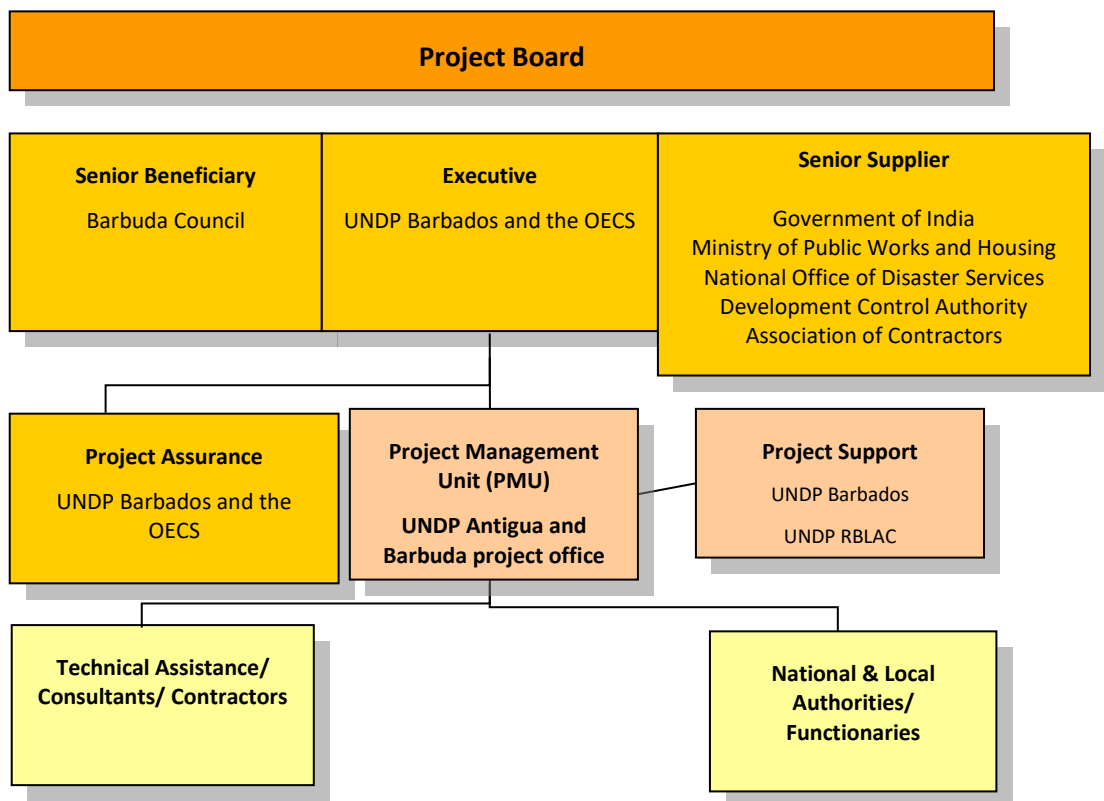
	electricity)						
Output 2 Subtotal		136,500	8,000				144,500
Planning, monitoring and coordination support		35,000	17,874	UNDP			52,874
	Project Management				UNDP	61100 61200 61300 Staff costs	
	Travel	5,000	5,000		India-UN partnership		10,000
	Direct Project Costs*	25,000	10,000		India-UN partnership	64300 DPC- Staff	35,000
		5,000	2,874		India-UN partnership	74599 DPC - GOE	7,874
SUBTOTAL		802,250	168,624				970,874
General Management Support (3%)		24,067.50	5,058.72				29,126
TOTAL		826,317.50	173,682.72				1,000,000

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

The current initiative will be Directly Implemented (DIM) by UNDP in close consultation and collaboration with relevant national authorities such as the Ministry of Public Works and Housing, Ministry of Health and Environment; the National Office for Disaster Services (NODS) who oversees the reconstruction process in partnership with Barbuda Council Committee of Works and General Purpose, Development Control Authority, and the Central Housing and Planning Authority. UNDP in coordination and close collaboration with the national authorities will manage, monitor and report the achievement of project results.

All efforts will be made to embed the project into national and local work programmes and in ensuring ownership by local authorities and municipalities being served through programmed actions. The project is directly linked to the nationally adopted CDEMA Comprehensive Disaster Management Strategy and provides opportunities for the influencing of national policies and plans and for activity downscaling and replication in smaller constituencies.

To enable UNDP's responsibility for programming activities and resources, while simultaneously fostering national ownership, appropriate management arrangements and oversight of UNDP's programming activities will be established. The management structure will respond to the project's needs in terms of direction, management, control and communication. This will be addressed through the use of adaptive management structure throughout the project.



In case of UNDP, the support to the project will be led by the UNDP Barbados and OECS Resident Representative, or his designate, who will ensure that all phases associated with project implementation are managed and completed according to UNDP procedures. The SRO will designate a SRO staff responsible for the project assurance who must be different from the Project Manager.

The procurement of goods and services, and the hiring of project personnel, will be carried out in full compliance with UNDP rules and procedures.

The initiative will be implemented in accordance with the conditions established in the Project Document and the SBAA for the activities funded by the Indian-UN partnership.

Having responsibility for project implementation, UNDP will have a dedicated project team, referred to as a Project Management Unit (PMU). The PMU will be led by a Project Manager to deliver on the outputs outlined in this project document.

Ministry of Public Works and Housing with UNDP support, assuring the quality control and oversight for this initiative (especially on substantive results monitoring and financial management), will report to the donor on a quarterly basis with the use of Annual Project Implementation Reviews. More frequent updates can also be provided between project performance evaluations in response to any particular requirements or preferences of the donor

The Project Board (PB) will maintain responsibility for building consensus, management decisions for the project when guidance is required by the Project Manager. Responsibilities of the PB include making recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, PB decisions should be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective competition.

The **Project Board** (PB) will be a key mechanism for ensuring coordination and planning of activities across national and regional stakeholders, and providing strategic guidance and advice for the implementation of the project. The PB is responsible for making, on a consensus basis, management decisions for the project when guidance is required by the implementing agency. Project reviews by this group are made at designated decision points during the execution of the project, or as necessary when raised by the implementing agency. Its main functions will be to: a) provide general advice to the project and maintain its alignment with DRR objectives; b) provide advice on linking the project to regional and national priorities for achieving sustainable development goals; c) analyse results and outputs of project implementation and provide recommendations and technical assistance to the development of activities, d) review the project intervention plan. This approach ensures that the perspectives and synergies of the partners are captured and that there is ownership, promotion of sustainability and coordination with regional and national strategies (CDM Strategy, national work plans and recovery plans).

This group is consulted by the Project Manager for decisions when Project Manager's tolerances (normally in terms of time and budget) have been exceeded (flexibility). Based on the approved annual work plan (AWP), the Project Board may review and approve project quarterly plans when required and authorises any major deviation from these agreed annual plans. The Project Board plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan (AWP), the Project Board can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans. The Terms of Reference are included in Annex 4.

In order to ensure UNDP's ultimate accountability for the project results, Project Board decisions will be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the Board, the final decision shall rest with UNDP.

Potential members of the Project Board are reviewed and recommended for approval during the Project Appraisal Committee (PAC) meeting. Representatives of other stakeholders can be included in the Board as appropriate. The objective is to create a mechanism for effective project management. The Board contains four distinct roles:

- **Executive:** represents the project ownership to chair the group. For this project, UNDP will assume this role. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier. Specific responsibilities include to:
 - Ensure that there is a coherent project organisation structure and logical set of plans
 - Set tolerances in the AWP and other plans as required for the Project Manager

- Monitor and control the progress of the project at a strategic level
 - Ensure that risks are being tracked and mitigated as effectively as possible
 - Brief Outcome Board and relevant stakeholders about project progress
 - Organise and chair Project Board meetings
- **Senior Beneficiary:** individual or group of individuals representing the interests of those who will ultimately benefit from the project. The primary function within the Board is to ensure the realisation of project results from the perspective of project beneficiaries. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. Specific responsibilities include to:
 - Ensure the expected output(s) and related activities of the project are well defined
 - Make sure that progress towards the outputs required by the beneficiaries remains consistent from the beneficiary perspective
 - Promote and maintain focus on the expected project output(s)
 - Prioritise and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes
 - Resolve priority conflicts

The assurance responsibilities of the Senior Beneficiary are to check that:

- Specification of the beneficiaries' needs is accurate, complete and unambiguous
 - Implementation of activities at all stages is monitored to ensure that they will meet the beneficiaries' needs and are progressing towards that target
 - Impact of potential changes is evaluated from the beneficiary point of view
 - Frequently monitor risks to the beneficiaries
- **Senior Supplier:** individual or group representing the interests of the parties concerned which provide funding for specific cost sharing projects and/or technical expertise to the project. The primary function within the Board is to provide guidance regarding the technical feasibility of the project. This includes technical guidance on designing, developing, facilitating, procuring and implementing the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required.
 - Make sure that progress towards the outputs remains consistent from the supplier perspective
 - Promote and maintain focus on the expected project output(s) from the point of view of supplier management
 - Ensure that the supplier resources required for the project are made available
 - Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes
 - Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts

Project Assurance: this role is the responsibility of each Project Board member; however, the role can be delegated. The project assurance role performs objective and independent project oversight and monitoring functions, independent of the Project Managers, ensuring appropriate project management milestones are managed and completed. The Deputy Resident Representative of UNDP Barbados and the OECS, or his/her designate, will provide quality assurance oversight.

The **Project Support** role provides project administration, management and technical support to the Project Management Unit as required by the needs of the individual project or Project Manager. Such functions include support for administrative services, project documentation management, financial management, monitoring and reporting, and provision of technical support services. The UNDP Barbados and OECS office will function in this role.

The Resident Representative, or his designate, from the UNDP Barbados and OECS office will ensure that all phases associated with project implementation are managed and completed according to UNDP procedures, including designation of staff for project assurance. The Head of Project Office of the UNDP Project Office in Antigua and Barbuda will appoint a team member to be responsible for daily project coordination. An appropriate separation between project oversight and direct project support is required in accordance with the UNDP Internal Control Framework.

The project activities will be implemented in accordance with the conditions established in the Project Document, the SBAA, as well as the Programme Guidelines of the India-UN Development Partnership Fund.

IX. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Antigua and Barbuda and UNDP, signed on 26 August 1983. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”

X. RISK MANAGEMENT

1. UNDP as the Implementing Partner shall comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)
2. UNDP agrees to undertake all reasonable efforts to ensure that none of the [project funds]⁸ [UNDP funds received pursuant to the Project Document]⁹ are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.
3. Consistent with UNDP’s Programme and Operations Policies and Procedures, social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (<http://www.undp.org/ses>) and related Accountability Mechanism (<http://www.undp.org/secu-srm>).
4. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.
5. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

⁸ To be used where UNDP is the Implementing Partner

⁹ To be used where the UN, a UN fund/programme or a specialized agency is the Implementing Partner

ANNEXES

- 1. Project Quality Assurance Report**
- 2. Social and Environmental Screening Template**
- 3. Project Board Terms of Reference and TORs of key management positions**