



**United Nations Development Programme
Regional: Caribbean
PROJECT DOCUMENT**

Project Title: Japan-Caribbean Climate Change Partnership

UNDP Strategic Plan Primary Outcome:

1. Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded
5. Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters including climate change

Expected Outcome(s):

- RP Outcome 1. Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded
- RP Outcome 4. Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change

Expected Output(s):

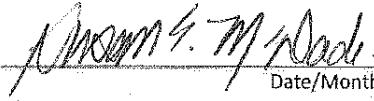
- SP Output 1.4. Scaled up action on climate change adaptation and mitigation across sectors which is funded and implemented
- SP Output 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)
- SP Output 5.1. Mechanisms in place to assess natural and man-made risks at national and sub-national levels
- SP Output 5.2. Effective institutional, legislative and policy frameworks in place to enhance the implementation of disaster and climate risk management measures at national and sub-national levels

Executing Entity/Implementing Partner: UNDP

Implementing Entity/Responsible Partners: UNDP Subregional Office for Barbados and the OECS, UNDP Country Offices: Guyana, Jamaica, Belize and Suriname

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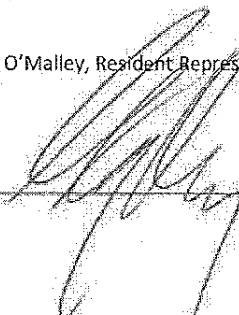
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ACRONYMS

AFOLU	agriculture, forestry and other land use
ALM	Adaptation Learning Mechanism
BMZ	German Federal Ministry for Economic Cooperation and Development
BPOA	Barbados Programme of Action
CAF	Cancun Adaptation Framework
CAFAN	Caribbean Farmers Network
CANARI	Caribbean Natural Resources Institute
CAP	Common Alerting Protocol
CAPRA	Comprehensive Approach to Probabilistic Risk Assessment
CARDI	Caribbean Agricultural Research and Development Institute
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CCA	climate change adaptation
CCCCC	Caribbean Community Climate Change Centre
CDEMA	Caribbean Disaster Emergency Management Agency
CDM	Clean Development Mechanism
CER	certified emissions reduction
CIMH	Caribbean Institute for Meteorology and Hydrology
COP	Conference of Parties
CReW	Caribbean Regional Fund for Wastewater Management
CSA	climate-smart agriculture
DRR	disaster risk reduction
EWS	early warning system
FAO	Food and Agricultural Organisation of the United Nations
GCF	Green Climate Fund
GDP	gross domestic product
GE	green economy
GEF	Global Environment Facility
GFDRR	Global Fund for Disaster Risk Reduction
GHG	greenhouse gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GOJ	Government of Japan
GWP-C	Global Water Partnership Caribbean
ICT	information and communication technology
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation on Agriculture
IWRM	integrated water resources management
JICA	Japan International Cooperation Agency
LECB	Low-Emission Capacity-Building
LEDS	low-emission development strategy
MDG	Millennium Development Goals
MRV	measurement, reporting and verification
MSI	Mauritius Strategy for the Further Implementation of the BPOA
NAMA	Nationally Appropriate Mitigation Actions
NAP	National Adaptation Plan

OECS	Organisation of Eastern Caribbean States
PAHO	Pan-American Health Organisation
PIOJ	Planning Institute of Jamaica
PV	photovoltaic
RCC	Regional Collaboration Centre
RE	renewable energy
SE4ALL	Sustainable Energy for All
SIDS	small island developing states
SLM	sustainable land management
SLR	sea level rise
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention for Climate Change
UNISDR	United Nations Office for Disaster Risk Reduction
UWI	University of the West Indies

I. SITUATION ANALYSIS

1.1. Climate Risks and Socioeconomic Vulnerabilities

1. Caribbean countries share similar economic and sustainable development challenges, including small populations, remoteness, open and undiversified economies, susceptibility to natural hazards¹, and vulnerability to climate change. The SIDS Accelerated Modalities of Action (SAMOA) Pathway² emanating from the Third International SIDS Conference in 2014 noted that “in spite of the considerable efforts of small island developing states and the mobilisation of their limited resources, their progress in the attainment of the internationally agreed development goals, including the Millennium Development Goals, and in implementing the Barbados Programme of Action and the Mauritius Strategy has been uneven, and some have regressed economically. A number of significant challenges remain.”

2. Climate change is recognised as one of these challenges which compounds these inherent vulnerabilities. It could significantly increase the risk of hurricanes and storms in the Caribbean and threaten future development in the region. Damage from wind, storm surge and inland flooding already amounts to 6% of gross domestic product (GDP) on average per year in some countries and annual expected losses could rise by another 1 to 3% of GDP by 2030³. Negative impacts associated with climate change on land, water resources and biodiversity have also been predicted with the potential to affect shoreline stability, the health of coastal and marine ecosystems and private property, as well as ecosystem services. Increasing coastal erosion and severe coral reef bleaching events in 2005 and 2010 bear witness to this. These are compounded by already-existing challenges within terrestrial and marine ecosystem management, land-based sources of pollution, integrated water resources management, and land use change, including urbanisation. Tourism and agriculture will be among the sectors most negatively impacted by these climatic changes.

3. Poverty, environmental degradation and vulnerability have a reinforcing cyclical relationship, where limited alternatives for livelihoods and basic needs as well as limited education often lead the poor into environmentally unsustainable practices which increase their exposure to natural hazards. For instance, a lack of electrification in remote rural areas may lead to forest clearance for fuel, thus increasing likelihood of soil erosion, land slippage and flash flooding. Alternatively, illegal structures are constructed within floodplains and drainage systems. Impacts of climate change and disaster risk on most vulnerable populations are further highlighted as frequent, small seasonal events cause cumulative losses which can serve to keep the poor in poverty.

4. Further to this, countries discussing the challenges of SIDS at the 2014 Third International Conference on Small Island Developing States noted that the impact of the global financial crisis has included increased unemployment and declines in wages, and by extension an increase in the number of vulnerable persons and communities, and an increase in poverty⁴. It was also noted that food insecurity is increasing as food production falls as a result of declining biodiversity and degradation of ecosystems, as well as access to potable water, and poses a threat to health and livelihoods. It was noted that the Caribbean’s geo-political position compounds the vulnerabilities caused by poverty, noting that the region

¹ A natural hazard is a natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage (UNISDR, 2009)

² <http://www.sids2014.org/index.php?menu=1537>

³ CCRIF. 2010. Economics of Climate Adaptation in the Caribbean

⁴ Third International Conference on Small Island Developing States, Caribbean Regional Synthesis Report, UN ECLAC 2014

has to protect coastlines that are entry points for trafficking of small arms, illegal drugs as well as trafficking of persons. Another point raised was the issue of urbanisation and the challenge of high levels of poverty in urban areas. These are leading to the manifestation of urban slums and unplanned human developments with limited employment opportunities, which is compounded by the weak institutional frameworks of governments, creating an environment in which gang violence can be perpetuated.

5. According to the UN ECLAC synthesis report on the 2014 SIDS conference: “Poverty is also forcing people in the Caribbean to live on dangerous, marginal sites and in poorly built houses. Overcrowding, subdivision and other conversions of dwellings, lack of amenities and deterioration of buildings are common characteristics of such settlements... In addition, although the research task of assessing the actual and potential health impacts of climate change is still lagging in the Caribbean, note is made of an increased incidence of dengue fever and malaria. Some countries have also reported an increase in leptospirosis as a result of flooding and heavy rainfall.”

6. The Intergovernmental Panel on Climate Change (IPCC)⁵ confirms that small islands are highly vulnerable to climatic and non-climatic stressors, with sea level rise and temperature rise among the most insidious threats for coastal flooding and erosion, ecosystem degradation and loss of livelihoods. Climate change data indicate an approximate increase in sea surface temperature of about 0.6°C (above the global mean temperature in the 20th century) and a mean sea level rise (SLR) over the past century between 2 and 6mm per year. Under this current scenario SLR will inevitably lead to accelerated coastal erosion, increased flood risk, salinisation of water resources and in some areas permanent loss of land. The design capacities of outdated drainage infrastructure are repeatedly being exceeded as the frequency and nature of weather events is changing. With 60-90% of residents, critical infrastructure, hotels and administrative functions in Caribbean small island developing states (SIDS) concentrated within 1km of the coast⁶, the need for well-devised and concerted action is imperative.

7. High external debt, heavy dependence on imports, rising unemployment and inequality are eroding the ability of the countries and communities to cope with natural hazard impacts, which can gradually make even small events devastating.

8. While loss of lives in disasters is decreasing, risk exposure and economic loss are increasing, especially due to small scale highly frequent events⁷ and human development processes play a major role in the configuration of risk constructed by growth in socioeconomic exposure and gaps in development. There are less data available on the damage and losses caused by less severe, more frequent extensive hazard events such as flash floods, landslides and drought, the accumulation of which are believed to be more significant than the intensive events. While extensive events are globally responsible for only 13% of mortality, they result in 42% of economic losses. Environmental degradation, poverty and unplanned urban development exacerbate these risks. Low levels of

⁵ IPCC Working Group II. 2014. Fifth Assessment Report Climate Change 2014: Impacts, Adaptation and Vulnerability

⁶ Moore, R. 2003. Impact and Response Scenarios for Coastal Flooding in Barbados and Guyana for the Enhancement of National Disaster Organisations Flood Hazard Preparedness Planning; Becken, S. and Hay, J. 2007. Tourism and Climate Change: Risks and Opportunities; CANARI. n.d. Caribbean Challenges to Climate Change.

⁷ UNISDR. 2011. Global Assessment Report on Disaster Risk Reduction: Revealing Risk, Redefining Development

investment in DRR and high average annual losses⁸ would in the long term render a country less capable of absorbing losses from these extensive events⁹.

9. The costs associated with the frequent recurrence of natural disasters are high. Since the early 1960s, the Caribbean has experienced losses equivalent to almost 1% of GDP on average in damages each year. In addition, 1.5% of the population has been affected each year, and natural disasters have taken the lives of over 1,300 people over the past 60 years. The economic costs of the disasters is on the rise. Losses have risen from 0.9% of GDP per year in the 1980s and 1990s to 1.3% of GDP in the 2000s. Similarly, the effects of natural disasters on growth and debt are also significant. Recent studies find that in the Caribbean the average hurricane reduces economic output by nearly 1%, and that moderate storms reduce growth by 0.5%. In the Organisation of Eastern Caribbean States (OECS), the debt to GDP ratio grows faster, by almost 5% points the year a storm strikes, with a cumulative debt increase of 5% of GDP few years later.¹⁰ The troughs impacting Saint Lucia and St Vincent and the Grenadines during December 2013 were estimated to cost \$83.2million (6% of GDP) and \$93.3million respectively (13% of GDP)¹¹.

10. With high reliance on the **tourism sector**, natural hazards typically hold threat of high costs to replace infrastructure and facilities, both from the public and private purse. Accompanying disruption of travel and communication services present added economic losses as business is disrupted for extended periods¹². **High risks of disruption of international transport and logistics services compound the already high costs, where maritime transport for SIDS is greater than any other country group due to remoteness, challenging connectivity, trade imbalances (high imports) and small shipping volumes¹³. With a high rate of importation of goods (food, clothing, petroleum products, medicines, etc.) a disaster which causes loss of access to the air or sea ports for any prolonged period presents a significant threat to the countries of the region. Closure of ports also reduces revenue from tourism, the country's principal generator of foreign exchange. These vulnerabilities will substantially impede any reconstruction and recovery processes¹⁴. Agricultural losses lead to utilisation of more national resources for the importation of food as food insecurity becomes particularly acute. Despite its declining contribution to GDP and employment in many countries, the agricultural sector still plays a critical role in food and livelihood provision and the servicing of other economic sectors such as tourism and manufacturing throughout the region.** For the most part, croplands are rain-fed, with only 3-29% irrigated, thus suggesting limited capacity to cope with meteorological drought¹⁵.

11. At the same time, the Caribbean region is highly dependent on imported fossil fuels for energy and mostly consists of isolated electricity grids with limited possibilities for interconnection. This over-reliance makes the region extremely vulnerable to high and volatile oil prices, in addition to contributing to greenhouse gas (GHG) emissions (though less significantly than developed economies), and also limits

⁸ The estimated average loss per year over a long time period, considering the range of loss scenarios relating to different return periods (UNISDR, 2013)

⁹ UNISDR. 2013. Global Assessment Report on Disaster Risk Reduction: From Shared Risk to Shared Value – The Business Case for Disaster Risk Reduction

¹⁰ IMF. 2013. Caribbean Small States: Challenges of high debt and low growth

¹¹ Recovery and Reconstruction Strategies for each country, 2014

¹² Phillips, W. 2011. Regional Environmental Policy and Sustainable Tourism Development in the Caribbean. ECLAC

¹³ UNCTAD. 2014. Review of Maritime Transport 2014

¹⁴ DEM. 2014. Barbados Country Document for Disaster Risk Reduction [draft]

¹⁵ Farrell, D., Trotman, A. and Cox, C. 2010. Drought Early Warning and Risk Reduction: A Case Study of the Caribbean Drought of 2009-2010.

options for managing climate change risks as they unfold over time. Persistent and long-term high prices for oil on the world markets lead to unaffordable energy prices which in turn inhibit economic growth, investment and efforts to reduce poverty. In 2013, oil imports accounted for 6-16% of the GDP of the region¹⁶. For Guyana, the oil trade balance has declined from 30% in 2005 to 21% in 2013¹⁷. Despite the high costs of electricity, on average around US\$0.33 per kWh, demand continues to grow at an average annual rate of 3.7% in the region. In absolute terms, the Caribbean’s relative contribution to greenhouse gas (GHG) emissions is small; however, in terms of GHG emission per capita, the average exceeds both South and Central America¹⁸. Trinidad and Tobago has amongst the highest per capita GHG intensity in the world. The importance of fossil fuel in the energy mix (see Figure 1) results in a carbon intensive electricity grid and high grid emission factors in the region¹⁹.

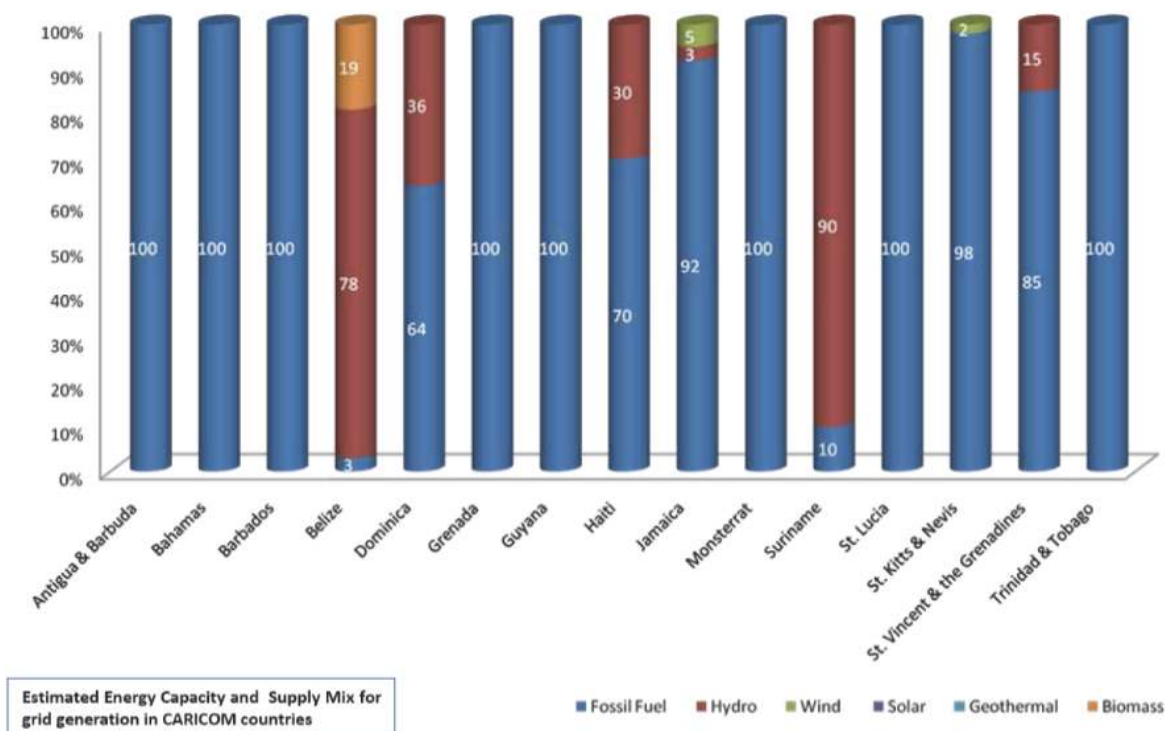


Figure 1: Estimated energy mix in CARICOM countries

Source: [http://belize.acp-](http://belize.acp-cd4cdm.org/media/361655/climate%20change%20mitigation%20synergies%20in%20the%20caribbean.pdf)

[cd4cdm.org/media/361655/climate%20change%20mitigation%20synergies%20in%20the%20caribbean.pdf](http://belize.acp-cd4cdm.org/media/361655/climate%20change%20mitigation%20synergies%20in%20the%20caribbean.pdf)

12. While the severity of impacts varies from country to country, there is a common vision of priority concerns directly linked to climate-related risk across the Caribbean coupled with a renewed sense of urgency for transformational change and collective solutions.

¹⁶ World Bank, 2012, “Mitigating Vulnerability to High and Volatile Oil Prices”

¹⁷ Guyana Energy Agency Strategic Plan 2014-2018 <http://www.gea.gov.gy/downloads/strategic-plan-2014-2018.pdf>

¹⁸ ECLAC, The Economics of Climate Change in the Caribbean – Summary Report 2011

¹⁹ Bahamas 0.723tCO_{2e}/MWh, Cuba 0.873tCO_{2e}/MWh, Dominican Republic 0.654tCO_{2e}/MWh, Guyana 0.948tCO_{2e}/MWh, Jamaica 0.783tCO_{2e}/kWh. Lowest – Malaysia 0.041tCO_{2e}/MWh; highest – UAE 1.3tCO_{2e}/MWh (IGES List Of Grid Emission Factor 2015)

1.2. Long-term Solution and Barriers to Achieving the Solution

13. The SAMOA Pathway considers the green economy in the context of sustainable development and poverty eradication as an important tool in pursuing solutions to these challenges in the broader national development context, in connected social, environmental and economic spheres. It further recognises the need for national action and leadership to achieve this end.

14. Climate change threatens to undermine decades of progress and efforts to reach the Millennium Development Goals (MDGs). Recognising that persistent climate-related liabilities will continue to undermine their potential for sustainable development, Caribbean countries are focusing their post-2015 long-term sustainable development strategies on the principles of climate risk management and resilience building – understood as market transformations based on “adjustments in ecological, social, or economic systems in response to actual or expected climatic stimuli and their effects or impacts”²⁰. Studies have shown that cost-effective adaptation and risk mitigation solutions can help to avoid up to 90% of expected losses²¹.

15. The priority to invest in measures that result in the necessary market transformations for addressing long-term climate change needs is reflected in the Barbados Programme of Action (BPOA) and reaffirmed in the Mauritius Strategy for the Further Implementation of the BPOA (MSI), as well as the SAMOA Pathway. In addition, the 2012 Barbados Declaration included 22 voluntary commitments from SIDS contributing to the Sustainable Energy for All (SE4ALL) initiative, reiterated at the UNFCCC Rio+20 Conference. Various initiatives in the Caribbean are underway in support of these goals, including those supported by bilateral donors.

16. The 2010 Cancun Agreements on climate change provided that “developing country Parties will take nationally appropriate mitigation actions (NAMAs) in the context of sustainable development, supported and enabled by technology, financing and capacity building, aimed at achieving a deviation in emissions relative to ‘business as usual’ emissions in 2020.” It differentiates between NAMAs that are domestically supported (unilateral NAMAs) and internationally supported (supported NAMAs), specifying that both are subject to being measured, reported and verified domestically but that the latter, will be subject to international measurement, reporting and verification (MRV). In the Caribbean region, the Dominican Republic and Dominica are the only countries that have submitted a NAMA to the Registry of the United Nations Framework Convention on Climate Change (UNFCCC).

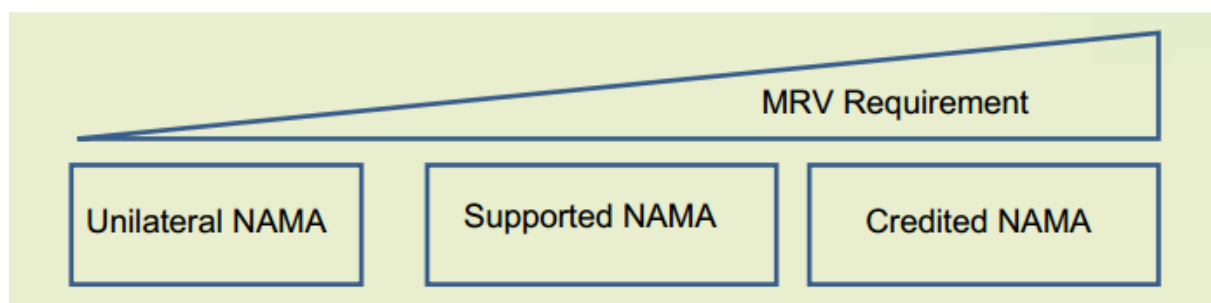


Figure 2: Types of NAMAs and level of associated monitoring, reporting and verification

²⁰ Definition of “adaptation”: IPCC Working Group II. 2001. Third Assessment Report Climate Change 2001: Impacts, Adaptation and Vulnerability

²¹ CCRIF. 2010. Economics of Climate Adaptation in the Caribbean

17. A shift towards renewable energy alternatives, combined with promotion of energy efficiency and conservation, and climate change risk management can produce green, low-emission, climate-resilient development dividends. This can produce a number of benefits: reducing the energy bill of oil-importing countries, reducing GHG emissions, increasing energy security, and providing increased access to more affordable energy for the poor. It will also reduce the risk for businesses by promoting and supporting climate change risk management in key sectors. Examples have shown that once energy is available, communities, the business community and entrepreneurs benefit enormously from services such as light, power, heat, irrigation, new livelihood opportunities and clean air that it brings. Belize, Dominica, Guyana and Jamaica are among the territories that are actively pursuing implementation of low-carbon development strategies and green economies.

18. The Caribbean Development Bank has recently completed an analysis of the potential of the green economy (GE) in the region, with particular emphasis on renewable energy and assessing the resulting socioeconomic impacts²². Among the lessons gleaned from experiences across the region in RE are the importance of an appropriate and consistent policy and regulatory environment; the need for RE development to be situated within a broader sustainable development policy context and framework; benchmarks to measure progress; and the cohesion required between national policy, private sector innovation, markets and finance.

19. ***Inadequate awareness, information, technical and policy capacity, and limited funding availability for informing and formulating a low-emissions development strategy*** are among the reasons that it has been difficult to direct and guide climate change mitigation investments in the Caribbean. The Clean Development Mechanism (CDM) has been considered a potential instrument to trigger such investments but the region has limited success in accessing carbon finance (e.g. Cuba, Dominican Republic, Guyana and Jamaica have been successful in registering CDM projects). The lack of information and capacity were some of the factors, but also a problem was the size of projects to attract investors, who were mainly interested in emission reductions. Considering market conditions²³ other instruments, such as NAMAs, need to be considered. The Caribbean region needs support to prepare and implement NAMAs in sectors with mitigation potential, which contribute to emission reductions with significant social, economic and environmental co-benefits.

20. At the Seventeenth Session of the Conference of the Parties (COP-17) of the UNFCCC in Durban, Parties adopted a decision on National Adaptation Plans (NAPs) indicating technical and financial support for countries to formulate and implement NAPs²⁴. This emerging instrument has yet to take hold in the Caribbean. In terms of national institutions' capacity on adaptation planning, most Caribbean countries have developed plans for adaptation during the course of National Communications and Technology Needs Assessments. However, most of these plans remain limited to a single ministry domain and therefore climate change is not fully integrated across all economic sectors' planning. Climate change is usually taken into account in a cursory manner during planning and budgeting process. The required medium to long-term and cross-sector planning that would enable a comprehensive assessment of the benefits and trade-offs of climate change adaptation (CCA) interventions for society is rarely undertaken.

²² CDB. 2014. A New Paradigm for the Caribbean: Transitioning to a Green Economy

²³ The actual demand for certified emissions reductions (CERs) is depressed due to various factors such as the international financial and economic crisis, lack of commitment of emission reduction under the Kyoto protocol and the oversupply of credits. Prices are at their lowest, around 1.45 Euro. At their peak in 2008, CER prices were around 20-25 Euro.

²⁴ UNFCCC. 2011. Report of the Conference of the Parties on its seventeenth session, held in Durban from 28 November to 11 December 2011. FCCC/CP/2011/9/Add.1

21. In Guyana and Suriname, with large extensions of forest cover, the agriculture, forestry and other land use (AFOLU) sector acts as sink, with high CO₂ absorption figures compensating for other sector emissions. The net removal (sequestration) of emissions from the atmosphere by AFOLU is primarily through the growth of trees, sequestration of carbon in wetlands, and forest, agricultural and grassland soils. Therefore mitigation and adaptations initiatives in Guyana and Suriname have been taking into consideration the AFOLU sector co-benefits.

22. Unfortunately, risks and opportunities from climate change and natural hazards are not consistently integrated into planning and budgeting in key sectors, and associated risk management measures are not promoted adequately across the island nations. Limited expertise in applying risk assessment methodologies and paucity of or difficulty accessing necessary data are among the contributory factors. Current practices are often oriented towards reacting to events (including extremes), with limited focus on addressing key issues that underpin risk mitigation and adaptive capacity to manage medium and long-term risks and opportunities for key economic sectors and development aspirations, in the face of a changing climate regime.

23. Although early warning systems (EWS) are in place in the Caribbean, the network of hydro-meteorological stations in the region is still under active development. The hydro-meteorological information generated by the some of the existing stations only provide partial data about the region's hydro-climatic conditions. Most of the existing and recently installed hydro-meteorological stations tend to be rainfall or automatic weather stations which record weather/climate parameters. Unfortunately, water level station development and soil moisture monitoring has not kept paced with the expansion of weather/climate stations. The primary reason is that water level stations require more resources to sustain. Also, some stations are setup for monitoring but not necessarily early warning. However, there is work underway to improve terrestrial and marine monitoring networks, including the hydro-meteorological and tsunami monitoring networks (see section 2.2).

24. While the necessary evidence-based data are incomplete, the requisite national strategies, policy environment, technical and institutional capacities to support investment decisions that lead to the required market transformations that will reduce the vulnerability of the economy to climate change risks and support climate-resilient livelihoods, is also underdeveloped. Nevertheless, at a regional level, capacities continue to be enhanced, such as through the development of the Regional Climate Centre at the Caribbean Institute for Meteorology and Hydrology (CIMH), which will help to address some of these challenges.

25. While most countries in the Caribbean have been active in formulating policies and strategies relating to adaptation and climate resilience over the past years, there remain substantial gaps and challenges, including enforced legislation with effective sanctions. On the national level, an integrated and strategic approach to embed adaptation into planning tools and policies and prioritise activities is still weak, in part driven by wavering commitment as economic priorities shift.

26. Furthermore, ***the coordination between relevant stakeholders as well as evidence-based knowledge on adaptation in the region needs improvement.*** Although sectors like water, agriculture and coastal zone management are highly vulnerable, climate change risks are not yet fully anticipated and adaptation measures are not yet sufficiently tested and promoted in these sectors in several countries. In the agricultural sector, this will have long-term effects on food production and options for income-generation for local populations, particularly the rural communities that are the poorest and most

vulnerable. Traditional systems of small-scale agricultural production upon which the most vulnerable communities depend will be affected by extreme weather events, and overtime, become increasingly difficult as climate conditions change. Crops that once thrived will no longer be equally effective. New crops that farmers switch to may not have ready markets for sale or export. Skills required for managing new varieties will need to be developed. This need to promote the production activities that are adapted to the climatic cycles of the region and their associated events is widely recognised by national governments in the region. However, there is significant potential to increase visibility and awareness and implement concrete adaptation and climate resilience measures on the ground.

27. Without public finance investments to overcome barriers such as (a) high up-front initial costs of new technologies that generate relevant data; (b) policy frameworks that create the necessary environment for incentives that promote behavioural adjustments; (c) technical and institutional capacities, and many more, the ability of governments and community members to directly address risks associated with climate change and disaster risk will continue to be limited.

28. The technical and political discussions under the Subsidiary Body on Implementation (SBI) within the UNFCCC indicate that to support market transformations and investment decisions in the context of medium and long-term climate change adaptation, **there is a need for climate-resilient planning and budgeting to be embedded within the existing annual/periodic planning and budgeting processes of respective countries.** In this context, it will be critical to build on and strengthen existing sector and national planning and budgeting processes, strategies or policies in the Caribbean, as well as those already under development, in order to avoid the creation of parallel structures and/or processes, as well as contradictory objectives. Moreover, **horizontal (cross-sector) and vertical (national/sub-national) coordination for advancing climate change adaptation planning for the medium to long-term needs considerable strengthening** within the context of national development strategies. Currently, capacities for integrated and multi-sector planning and implementation are weak, making an integrated approach to climate change risk management difficult.

29. **Insufficient human resources with the necessary technical competencies** has been a structural barrier in the Caribbean, particularly with respect to personnel in key public sector institutions with the skills and mandates needed to support risk resilient planning and budgeting. As such, NAMA and NAP-specific capacity development needs will have to be integrated into the existing capacity development strategies of relevant agencies/institutions.

30. Furthermore, **relevant information is needed among national, regional, and local institutions to make climate-smart investment decisions.** Climate information must be integrated with key economic, political and social information, systematically analysed and disseminated: to local communities in the form of early warning information that reaches the most vulnerable populations in the area; to policy makers who must create appropriate public policy changes to incentivise behavioural adjustments; to the private sector, including small and medium-sized enterprises (SMEs), individuals, as well as larger firms who will need to protect investments, capitalise on new and emerging business opportunities, and/or undertake no-regrets investments. This requires systems to be in place to iteratively generate evidence-based information on: i) economic and social vulnerability to current and future climate change; ii) adaptation needs that are also aligned to growth and poverty reduction objectives; and iii) economically and socially viable options in the context of uncertainty in the medium to long-term.

31. Finally, the increased vulnerability of local communities is due in part to **the lack of adequate on-the-ground experience in promoting resilience to climate change, especially in the context of food**

security. Traditional knowledge has not been sufficiently nurtured and combined with appropriate modern information and technologies (e.g. drip irrigation) that will better support a diversified and sustainable supply of agricultural products, contributing to food security and the generation of income for the most vulnerable populations of the region. Without commensurate financial support, these vulnerable populations will continue to rely on production technologies that are ineffective in light of rapidly changing conditions as a result of climate change.

II. STRATEGY

2.1. Project Rationale

32. The proposed Japan-Caribbean Climate Change Partnership will bring together policy makers, experts and representatives of communities to encourage **policy innovation** for climate technology incubation and diffusion. By doing so, the initiative aims to ensure that the aforementioned barriers to the implementation of climate-resilient technologies are addressed and overcome in a participatory and efficient manner. As a result, concrete mitigation and adaptation will be implemented on the ground, in line with the countries' long-term strategies.

33. There is a demonstrated need for modern, clean energy technologies. Policy instruments such as NAMAs and NAPs provide tailored frameworks to expand access to clean energy and to prioritise adaptation measures in diverse sectors accordingly. They can harness climate finance and help reduce the overall risk environment for potential investors, spurring actual investment in clean energy and adaptation technologies.

34. Universal access to clean energy is an essential enabler of inclusive development, poverty reduction, reducing income inequality, green growth and business development, supporting climate change risk management — in short, the achievement of the MDGs. Achievement of the sustainable development agenda will not be possible without addressing green, low carbon and climate-resilient development needs. An effective entry point is access to an adequate quantity and quality of modern energy services. To generate larger multiplier and spill-over impacts on development the sustainable energy projects need to evolve from their traditional focus on residential needs towards much broader aims. This will encompass an employment-generating local community development approach by linking energy provision to income generation and productive uses such as for agriculture and agro-processing, micro-enterprise, small industry, commercial activities and social services like clean water, refrigeration, education and health facilities.

35. In addition to the environmental benefits, the transition to renewable energy could provide important social and economic benefits in stabilising the cost of electricity, guaranteeing supply and energy security, improving national balances of payments and liberating scarce public funds for social programmes such as health and education. Caribbean nations have committed to move toward renewable energy sources. This commitment was especially highlighted in the Barbados Declaration signed on 9 May 2012 with 22 voluntary commitments of SIDS to advance the Sustainable Energy for All (SE4ALL) goals.

Nationally Appropriate Mitigation Actions (NAMAs):

A NAMA is a mitigation action, which is nationally determined and voluntarily taken by a developing country to reduce GHG emissions to levels below those of “business as usual” (BAU). A common characteristic of all NAMAs is that they either constitute a transformational change to a sector of the economy or provide support for such change. Therefore, a NAMA's point of departure from existing development objectives and priorities might consist of re-evaluating these and placing additional emphasis on options for emissions reduction. NAMAs may consist of a suite of actions, and these might be interrelated horizontally as well as vertically. They may be prioritized at different levels, from the national level down to the sub-sector level. A number of prioritisation tools exist designed to strike a balance among a NAMA's sustainable development benefits, its overall benefits to the economy, its alignment with current policies, its transformational qualities, its financing and its emissions reduction, and possibly other aspects.

36. These important voluntary commitments were reiterated at Rio+20 and the high-level event on SE4ALL in the margins of the 67th United Nations General Assembly in September 2012, where SIDS reiterated their request for support from developed nations in moving towards achieving these goals.

37. In addition, building upon and supported by the NAMAs and NAPs, the initiative will support the **incubation of climate technology** into targeted public sectors, private industries, and community groups and enterprises so that green, low-emission climate-resilient technologies can be tested, refined, adopted, and sustained as a practical measures to enhance national, sub-national and community level resilience.

38. For example, in order to strengthen the availability of relevant climate information for informing investment decisions that support market transformations required in the context of a changing climate, technologies will need to be upgraded. New hydro-climatological stations as well as refurbishment of old ones will be required, which is currently a part of CIMH's planned programming, including generation of innovative income streams to finance operation and maintenance. Public-private partnerships involving meteorological services and mobile phone companies, aviation, shipping will need to be developed. The new automated stations will need to provide data at a significantly greater frequency, recording physical parameters (i.e. rainfall, wind, temperature, etc.), in all weather conditions, day and night all year around. These new stations should also provide accurate and useful data on extremes in climate (i.e. maximum rainfall intensity, maximum wind gusts, etc.) in each country and support existing regional EWS networks. Additionally, the climate change-related information will need to be used over time to support decision-making at the regional and local levels so that development and land use planning will properly incorporate climate change considerations, especially to support resilient agriculture and production practices, and coastal management. This will entail that technical capacities to utilise climate information in investment appraisal (cost-benefit/cost-effectiveness analysis) and sector economic analysis be enhanced.

39. Moreover, it will be important to support concrete, interventions on the ground to enhance communities' capacities to access renewable energy and adapt to climate change. The IPCC reports that in small islands, community-based adaptation has been shown to generate larger benefits when delivered in conjunction with other development activities²⁵. Finance will be required to promote the use of adaptive agro-silvopastoral practices in the Caribbean to help farmers cope with climatic impacts that directly affect crop and livestock production. Support, including technical assistance and finance, will be

National Adaptation Plans (NAPs):

In the context of climate change, Caribbean countries need to consider medium- to long-term planning within the framework of national priorities for low emissions and climate-resilient development so as to align and sustain growth and poverty reduction. The National Adaptation Plan (NAP) process is one of several processes established to address this need. The NAP process is to be country-driven, continuous, participatory, progressive and iterative, enabling Caribbean countries to identify, finance and implement appropriate medium to long-term adaptation needs, and to balance sector and cross-sector priorities, at national, sub-national and local levels. Importantly, the medium- to long-term adaptation planning underpinning the NAPs should be multi-stakeholder oriented, and based on and guided by the best available science, rigorous collection and analysis of appropriate data, and consideration of experiences and good practices within, and outside, the Caribbean region. The preferred solution is to strengthen appropriate existing institutional frameworks, technical expertise, managerial capacity and decision-making processes within the Caribbean to facilitate the NAP process.

²⁵ IPCC Working Group II. 2014. Fifth Assessment Report Climate Change 2001: Impacts, Adaptation and Vulnerability

required for enhancing ecosystem-based and technological solutions for enhancing resilience in vulnerable areas.

40. In order to ensure that the targeted incubation of climate technology will lead to large-scale, and long-term adoption and diffusion that would enable green low-emission climate-resilient development, the initiative will also establish an innovation ecosystem where the knowledge and skills required for climate technology incubation and diffusion can be co-created and shared effectively, widely, virally, and/or organically. Here, creative partnerships and collaboration with universities and private sectors both nationally, regionally and internally will be explored.

41. Overall, the Japan-Caribbean Climate Change Partnership is designed to strengthen the capacity of countries in the Caribbean to invest in mitigation and adaptation technologies, as prioritised in their NAMAs and NAPs. These technologies will help reduce the aforementioned dependence on fossil fuel imports, setting the region on a low-emission development path; as well as improve the region's ability to respond to climate risks and opportunities in the long-run, through resilient development approaches that go beyond disaster response to extreme events. The facility will help the integration of climate risks and opportunities into economic planning and budgeting across key sectors, e.g. water, energy, agro-forestry, urban development, transport (upstream level), which result in concrete adaptation and mitigation technology investments, e.g. solar PV for irrigation and electricity generation, Common Alerting Protocol (CAP) based early warning systems²⁶, solar water heaters, energy efficient lighting (downstream level). It will provide a regional platform for the promotion of low-emission and climate-resilient technologies for the Caribbean, considering the multi-sector coordination challenges amongst climate change and other stakeholders in the region. It will also bring regional scale to attract and catalyse additional/incremental technology investments, by removing the barriers preventing investment into these applications: *financial* (upfront cost of adaptation/mitigation technologies), *information* (limited awareness of their long-term benefits) and *capacity* (policy/technical, institutional and individual constraints to embrace these technologies).

42. The Japan-Caribbean Climate Change Partnership will target the following eight Caribbean countries: **Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, Guyana, Jamaica, Belize and Suriname** (see section 2.3 for selection criteria details). The selection of the beneficiaries of upstream (Government officers) and downstream activities (community level) will be carried out with the support of diverse ministries within each country, giving priority to most vulnerable communities and respecting local processes of social organisation and related to national and sub-national legal frameworks and national development and poverty reduction plans. The activities as articulated within this document (section 2.4) are indicative and will need to be prioritised and refined by each country.

43. The **current estimated number of total beneficiaries of this project is 200,000 people in 50 communities and towns across the 8 selected Caribbean countries**, however, the number will be updated after the detailed project implementation plan is prepared during the project start-up period.

²⁶ http://www.wmo.int/pages/prog/amp/pwsp/CommonAlertingProtocol_en.html; <http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2.html>



Figure 3: The Caribbean region

2.2. Policy Conformity and Programmatic Synergies

Alignment with Caribbean Policies

44. The initiative will focus on scaling up opportunities to expand the access to clean energy and promote sector-targeted adaptation technologies and measures in the Caribbean as strategic entry points for accelerating MDG progress with their large multiplier and spill-over effects, in line with regional strategic objectives.

45. The Caribbean Community Climate Change Centre (CCCC) has been designated by CARICOM Heads of Government as the regional coordinating agency for the response to climate change, guided by the Regional Framework for Achieving Development Resilient to Climate Change 2011-2021 and its Implementation Plan²⁷, as well as a repository for regional climate change information and data. The Regional Framework's vision of a "regional society and economy that is resilient to a changing climate" is viewed as requiring a multi-disciplinary multi-stakeholder multi-sector approach, underpinned by the following strategies:

- Promoting actions to reduce greenhouse gas emissions through energy reduction and conservation, and switching to renewable and cleaner sources of energy;

²⁷ <http://www.caribbeanclimate.bz/ongoing-projects/2009-2021-regional-planning-for-climate-compatible-development-in-the-region.html>

- Promoting actions to minimise the effects of greenhouse gas emissions through initiatives and measures designed to reduce the vulnerability of natural and human systems to the effects of climate change (e.g., flood defences, and changing land use patterns);
- Promoting the development and implementation of educational and public awareness programmes as well as public access to information and citizen participation across the Caribbean region;
- Building the CCCCC's organisational capacity to manage adaptation to climate change, through training of scientific, technical, and managerial personnel; institutional strengthening; providing systematic long-term technical assistance; and strengthening information support capacity that allows the CCCCC to effectively support the Member States; and
- Promoting the dissemination of successful adaptation experiences to address the impacts of climate change on: water supply; coastal and marine ecosystems; tourism; coastal infrastructure; and health

46. Within the context of the Implementation Plan, this project proposes to contribute to linking CCA and DRR through strengthened integration in existing institutional structures, increasing understanding among stakeholders of risk and its impact on sustainable development, improved early warning systems, and coordinated training and education.

47. The CARICOM Regional Energy Policy²⁸, approved in 2013, has as its goal the “fundamental transformation of the energy sectors of the Member States of the Community through the provision of secure and sustainable supplies of energy in a manner which minimises energy waste in all sectors, to ensure that all CARICOM citizens have access to modern, clean and reliable energy supplies at affordable and stable prices, and to facilitate the growth of internationally-competitive regional industries towards achieving sustainable development of the Community”. Among its 14 objectives are diversification of energy supplies, including accelerated deployment of renewable energy, labelling and standards; energy security during disasters; and strengthening research, development and innovation.

48. The Comprehensive Disaster Management Strategy 2014-2024²⁹ intends to realise “safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management”. In pursuing its 4 outcomes, the strategic framework acknowledges the need to integrate disaster resilience in key economic sectors; operate at local, sector and national levels; harmonise with work on CCA and sustainable development; and focus on community resilience with particular attention to the most vulnerable and gender concerns. In leading this process from a regional level, the Caribbean Disaster Emergency Management Agency (CDEMA) understands the imperative to widen its sectors of engagement at national levels, as well as cooperation with key technical regional partners such as CCCCC and the University of the West Indies (UWI).

49. This project contributes to the following outcomes under the CDM Strategy:

- Outcome 1: Strengthened institutional arrangements for Comprehensive Disaster Management implementation at national and regional levels
- Outcome 3: Improved effectiveness of Comprehensive Disaster Management at sector levels
- Outcome 4: Strengthened and sustained capacity for a culture of safety and community resilience in Participating States

²⁸ http://www.caricom.org/jsp/community_organs/energy_programme/CARICOM_energy_policy_march_2013.pdf

²⁹ <http://www.cdema.org/CDMStrategy2014-2024.pdf>

50. Consequently, to be in concert with regional goals, the Japan-Caribbean Climate Change Partnership will foster working partnerships with other technical institutions working in the region such as the CCCCC, the CIMH, the Caribbean Agricultural Research and Development Institute (CARDI), the Caribbean Public Health Agency (CARPHA), Caribbean Tourism Organisation (CTO) and the Global Water Partnership Caribbean (GWP-C).

Alignment with UNDP Strategic Priorities and Comparative Advantage

51. UNDP's strength relies on its universal presence, that includes an up-to-date intellectual outlook, a proven ability to influence policy and build capacity, a long-standing role as trusted partner working across sectors and with multiple stakeholders, often on sensitive issues, and a large country office network, including SIDS countries.

52. UNDP's new Strategic Plan (2014-2017) is focused on helping countries to move towards sustainable development goals, to simultaneously eradicate poverty and make significant reduction of inequalities and exclusion. It recognises that climate change may have potentially catastrophic consequences, most of all for the poor and explicitly emphasises the need to support countries with integrating low-emission, climate-resilient objectives into national and sector development plans and identifying priority mitigation and/or adaptation measures; reforms that reduce investment risk and offer improved incentives for adaptation and mitigation responses that can work over the medium to long term; implementation of measures to reduce vulnerability and increase adaptive capacity across affected sectors; and development of capacities to access (including through direct access), deliver, monitor, report on and verify the use of climate finances. In addition, the plan explicitly emphasises the need to adopt inclusive and sustainable solutions to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy).

53. UNDP also recognises the role of partners as well as the significant potential that exists for mutually beneficial cooperation on important global and regional development issues. Bilateral development partners have made strong endorsements to help development throughout the world. Such partners include countries like Japan, Spain, Germany, Canada, and many other contributors. The Government of Japan has already invested in an effective programme on adaptation in Africa, namely the UNDP-GOJ Africa Adaptation Programme. The coordination of efforts among members of the UN system is also paramount, with the SAMOA Pathway calling for "renewed dedication of UN system support for cooperation among [SIDS] and national, regional and interregional coordination" to address their specific needs and vulnerabilities.

54. Support towards mitigation and adaptation to climate change is entirely compatible with UNDP's mandate of pursuing sustainable human development. Working on these issues over the past two decades indicated that the right mix of policies, skills, and incentives can influence behaviour and encourage investments, in order to help reduce greenhouse gas emissions. The provided assistance included the formulation and implementation of green, low-emission and climate-resilient development strategies.

55. Another area where UNDP is directing many efforts is on access to sustainable sources of clean, reliable and affordable energy, through an integrated development approach, as well as strengthening national capacities on integrated waste management, including waste prevention, reuse and recycling, and disposing a range of waste streams. In this regard UNDP is seeking to enhance development partnerships with funding for improved sustainable energy solutions targeting underserved communities

and groups. For instance, with funding from the Global Environment Facility (GEF), UNDP is promoting change in energy efficiency and modern energy coverage for a wide range of users in a variety of sectors.

56. With its focus on resilience, UNDP continues to emphasise reducing vulnerabilities from a holistic perspective, addressing natural hazard and climate risk through preparedness and humanitarian response, as well as mitigation through improved ecosystem management, poverty reduction, social inclusion and sustainable livelihood initiatives. For instance, the UNDP-UNEP Poverty-Environment Initiative supports country-led efforts to mainstream poverty-environment objectives into national development and sub-national development planning, from policymaking to budgeting, implementation and monitoring, so as to manage the environment in a way that improves livelihoods and leads to sustainable growth. UNDP is also supporting realisation of SE4ALL in the Caribbean.

Alignment with Existing National and Regional Initiatives

57. With respect to risk resilience in Caribbean SIDS, UNDP support to countries has focused on policy reform and development, institutional strengthening, advocacy and public awareness, and technical capacity building in national planning and budgeting, ecosystem-based management, sustainable livelihoods, risk assessment and mitigation, disaster response, inter alia.

58. UNDP has supported the implementation, currently assists with the execution or is programming in the countries initially selected. UNDP has significant programming on the ground that combines upstream support with downstream activities. Japan's funding would boost the impact of these activities.

59. In the UNDP Barbados and the OECS Sub-Regional Office (SRO):

- The St. Vincent and the Grenadines' **Promoting Access to Clean Energy Services (PACES)** project funded by the GEF is catalysing additional funding for renewable energy developments, including hydropower, potentially geothermal and particularly solar technologies (e.g. the country's new airport is expected to include solar photovoltaic installations).
- The Dominica **Low Carbon Development Path: Promoting energy efficient applications and solar photovoltaic technologies in streets, outdoor areas and public buildings in island communities nationwide** is currently being developed into a medium-sized GEF project. Its sustainability depends on grants being available to cover some of the pilot technology demonstrations.
- The St. Lucia proposed **NAMA in the transport sector** (under consideration) would focus on some of the upstream work envisaged for funding under the sixth replenishment of the GEF (GEF-6). It would benefit from downstream activities (e.g. powering the bus routes with Solar PV-EE lighting, procuring fuel emission testing equipment for the government).
- Grenada's government has approached UNDP for NAMA support to "convert government buildings to solar", which will also be considered for GEF-6 funding along with similar demands for NAMA from the region (e.g. Barbados, St. Vincent and the Grenadines). With the UNFCCC Regional Collaboration Centre (RCC) based in Grenada already providing NAMA-related support in the Caribbean, UNDP's upstream climate change mitigation upstream work would already include key regional partners.
- BMUB (Germany) is currently financing in Grenada a **Programme on Integrated Climate Change Adaptation Strategies (ICCAS)**, being jointly implemented by UNDP and GIZ. This includes community education, the implementation of a grant mechanism for facilitating community-based adaptation (Community Climate Change Adaptation Fund), update of the national Climate Change Strategy and Action Plan, development of a NAP and Coastal Zone Management Policy and Plan, and adaptation measures in the water sector.

- The UNDP SRO is supporting the Eastern Caribbean region on energy efficient lighting technologies under the **Caribbean Energy Efficiency Lighting Project** under the **SIDS DOCK Support Programme**, with pilot activities expected in Barbados, in line with the GEF-funded **Disaster Risk and Energy Access Management (DREAM): Promoting Solar Photovoltaic Systems in Public Buildings for Clean Energy Access, Increased Climate Resilience and Disaster Risk Management**, as well as the independent OECS Member States.
 - The **Strengthening Public Investment in Disaster Risk Reduction and Climate Change Adaptation in the Eastern Caribbean** project will build on national disaster loss accounting databases (DesInventar) and create national risk profiles for countries throughout the sub-region using the Comprehensive Approach to Probabilistic Risk Assessment (CAPRA) methodology, with support from the World Bank Global Fund for Disaster Risk Reduction (GFDRR) and the UN Office for DRR (UNISDR). This will see training of personnel from multiple sectors, in particular finance and development planning, to integrate the risk assessments in evaluation of public investments and national plans and budgets.
60. UNDP is also supporting energy access and CCA in various sectors outside of the OECS.
- **Deployment of Renewable Energy and Improvement of Energy Efficiency in the Public Sector** in Jamaica has a particular focus on de-risking investment in the health and other social sectors.
 - **Construction of Water Harvesting Infrastructure and improving the Community's Adaptive Capacity to Natural Hazards** in Jamaica sought to strengthen the communities' resilience to climate change impacts, and its variability, through awareness raising and capacity building activities in water security and natural resource management. The project activities included the rehabilitation of the community water catchment; the construction of an earth pond system; the development of a sustainable water harvesting system; agroforestry and sustainable land management (SLM); and the awareness-raising of community members on the productive use and care of rainwater harvesting ponds and catchment. It now serves as a demonstration site, with several surrounding communities pursuing replication activities.
 - Guyana's **Energy Access at Community Level for MDG Achievement in Hinterland Areas** initiative aimed to address the non-electricity energy of the hinterland villages which have little access to modern energy services such as electricity, light and modern fuels for cooking and transportation and where residents use wood as fuel for cooking and in some cases for lighting. Improvements included provision of solar cookers and PV systems for lighting and appliances.
 - The **Strengthening National and Local Capacities for Disaster Response and Risk Reduction** worked on improving response and mitigation capacities at multiple levels in Guyana.
 - The **LCDS Amerindian Development Fund** provides support for the socioeconomic and environmental development of Amerindian communities in Guyana, with sustainable use of natural resources to generate income, combat poverty and adapt to climate change.
 - **Enhancing Belize's Resilience to Adapt to the Effects of Climate Change** targets climate change governance structures to allow the government to effectively plan for and manage the effects of climate change on Belize's development. Specifically it looks at enhancing adaptive capacity and resilience to climate change in national policies and resilience building in the water sector.
 - The **SIDS DOCK Biofuels Initiative** in Suriname is studying the feasibility of production of biofuels from dedicated biomass crops on mined out bauxite lands.
61. Within the UN system:
- In the context of the UN Convention to Combat Desertification (UNCCD), UNEP is leading, among several partners including the CARICOM Secretariat, FAO and UNDP, the **Partnership Initiative for**

Sustainable Land Management for Caribbean SIDS (PISLM). Its work programmes focus on capacity building and mainstreaming of SLM; creating synergy with other Conventions and multi-lateral environmental agreements; risk and disaster mitigation; sustainable flood systems; and integrated SLM projects.

- UNEP is implementing with Grenada the **Building Capacity for Coastal Ecosystem-Based Adaptation in SIDS** project, supported by the EU. It is designed to strengthen resilience and adaptive capacity of communities that depend on coastal ecosystem services. This includes piloting social-ecological vulnerability scenarios and adaptation cost-benefit analyses, developing a decision support framework, and demonstration projects in Grand Anse and Windward.
- UNEP, UWI and the Government of Barbados completed the **Barbados Green Economy Scoping Study**³⁰ which identified agriculture, fisheries, building, transport and tourism as key sectors with potential for transformation in the context of a transition to a green economy.
- **Advancing Caribbean States' Sustainable Development Agenda through Green Economy** is conducting national scoping studies to examine the potential for GE options in Haiti, Jamaica and Saint Lucia. In the Jamaica case, they have brought 10 ministries together to assess the 5 sectors identified, and within the context of the national 2030 strategic vision. UNEP and the CARICOM Secretariat are guiding this initiative with EU support, with ILO and UNDP among the other partners. Belize, Guyana, St Vincent and Grenadines and Trinidad and Tobago have requested UNEP support to extend this initiative to their countries. The project is also looking at developing a GE course for intended delivery through UWI and communication and outreach. The Caribbean Green Economy Conference in February 2015 will encompass sharing the results of the scoping studies, strengthening the Regional GE Network and presenting the GE Training Manual, inter alia.
- UNEP and the Planning Institute of Jamaica (PIOJ) implemented the **Climate Change Adaptation and Disaster Risk Reduction Project** with EU support, which assisted Jamaica with its adaptation to climate change and contributed to sustainable development by increasing the resilience of vulnerable areas and reducing the risks that are associated with natural hazards, particularly in vulnerable communities. Specifically it looked at reducing downstream run-off and associated negative environmental and human impacts through rehabilitation through slope stabilisation and reforestation, and improved watershed management; increasing resilience of coastal areas through restoration and protection of seagrass beds and mangroves, and promoting alternative livelihoods; and enhancing public awareness and development of the Climate Change Policy Framework and Action Plan.
- The **Caribbean Regional Fund for Wastewater Management (CRw)** aims to provide sustainable financing for the wastewater sector; support policy and legislative reform; and foster regional dialogue and knowledge exchange amongst key stakeholders. UNEP and the Inter-American Development Bank (IDB) are working to achieve these objectives, with the support of GEF, in 13 countries across the Wider Caribbean Region.
- Within its Risk Management, Resilience Building and Territorial Development programme, FAO focuses on mitigation, prevention and preparedness of the agricultural sector for natural hazards, including pests and disease. FAO is working on initiatives such as rainwater harvesting, wastewater recycling and CSA, including the recently-approved GEF-funded **Climate Change Impacts in the Eastern Caribbean Fisheries Sub-sector** to increase resilience and reduce vulnerability through introduction of adaptation measures in fisheries management and capacity building in aquaculture.

³⁰ Moore et al. 2014. Green Economy Scoping Study: Barbados http://www.unep.org/pdf/Barbados_GESS_study_web2.pdf

- PAHO's **SMART Hospitals Toolkit**³¹ is a practical guide for hospital administrators, health disaster coordinators, health facility designers, engineers and maintenance staff to conserve resources, increase operational efficiencies and reduce carbon emissions. It includes a Baseline Assessment Tool, the Hospital Safety Index, a Green Checklist, cost-benefit analysis methodology, and model policy. There is potential for adapting this tool to other sectors e.g. education, tourism.

62. Other partners are actively working in the region on CCA issues, and strengthening adaptive capacity in various sectors. Among these are:

- CIMH is a regional training centre under the World Meteorological Organisation (WMO) for meteorology, hydrology and associated sciences, the regional climate data centre, instrument centre, and Centre of Excellence for satellite meteorology. With investment from USAID, CIMH is becoming a WMO Regional Climate Centre, which will significantly improve capabilities to understand and predict climate issues. This will form part of the development of the Global Framework for Climate Services (GFCS)³² in the Caribbean which gives a roadmap for delivery of climate services to key climate-sensitive sectors such as health, agriculture, water resources and disaster risk management. The components that contribute to this include:
 - The Caribbean Climate Outlook Forum (CaricOF) for real-time seasonal climate forecasts and interpretation to improve the effectiveness of EWS, including very timely drought forecasts
 - Establishment of Caribbean Environmental and Climate Computational Centre to provide CIMH, regional scientists and end-users with needed resources to better understand and predict climate impacts
 - Developing a Climate Services Information System (including DEWETRA and the Climate Impacts Database (CID)) to produce and distribute climate data, products and information according to the needs of users and to agreed standards
- **Caribbean Aqua-Terrestrial Solutions (CATS) Programme**³³ is a partnership between CARICOM and BMZ being implemented in Belize, Dominica, Grenada, Guyana, Jamaica, St Kitts and Nevis, Saint Lucia, and St Vincent and the Grenadines by the Caribbean Public Health Agency (CARPHA) and GIZ. The Programme adopts a ridge-to-reef management approach, with two main components: adaptation of rural economies and natural resources to climate change and management of coastal resources and conservation of marine biodiversity.
- **Water, Climate and Development Programme (WACDEP)**³⁴ aims to promote water security and climate resilience through implementation of better water policies, strategies, programmes and adaptation actions, in response to the Implementation Plan of the Regional Framework for Achieving Development Resilient to Climate Change, building on a platform of integrated water resources management (IWRM). This is being collaboratively implemented by Global Water Partnership Caribbean (GWP-C) and CCCCC. The Caribbean Water and Climate Knowledge Platform has been developed as an associated knowledge resource³⁵. Recently launched under WACDEP is the "Climate-proofing water investment in the Caribbean" initiative which will include

³¹ http://www.paho.org/disasters/index.php?option=com_content&view=article&id=2235%3Asmart-hospitals-toolkit&Itemid=807&lang=en

³² Trotman, 2014. GFCS Caribbean: Implementation support from CIMH
<http://www.wmo.int/gfcs/sites/default/files/Adrian%20Trotman%20CIMH.pdf>

³³ <http://caribbeancats.org/>

³⁴ <http://www.gwp.org/Global/GWP-C%20Files/GWP-C%20WACDEP%20Brochure%20-%20Water%20Sector%20Professionals.pdf>

³⁵ <http://www.gwp.org/en/Caribbean-Water-and-Climate-Knowledge-Platform/>

development of a Caribbean Climate Resilience and Water Security Investment Plan and subsequent identification of pilot projects for climate proofing.

- The **Mainstreaming Climate Change in Disaster Management in the Caribbean Phase II (CCDM-II)** project builds on work completed by CDEMA, aiming to strengthen regional, national and community level capacity for mitigation, management and coordinated response to natural and technological hazards and the effects of climate change. Supported by the Australian Development Agency, the project uses a multi-sector multi-stakeholder participatory approach to target vulnerable groups.
- Saint Lucia's **Disaster Vulnerability Reduction** project aims to reduce urgent disaster vulnerability and increase long term climate resilience by addressing the multi-faceted risks associated with hydro-meteorological events. The World Bank is supporting components relating to support flood and landslide risk reduction and climate adaptation; improving assessment and application of disaster and climate risk information in decision-making; a pilot climate adaptation financing facility; and emergency response capacity building.
- **Geothermal energy development** – with support from the International Renewable Energy Agency (IRENA) and Abu Dhabi Fund for Development (ADFD), St Vincent and the Grenadines will develop a 10-15MW geothermal plant to connect to the electricity grid to provide baseload power for the country. This builds on the feasibility study facilitated by UNDP SRO in 2013.
- **Rally the Region to Action on Climate Change (OECS-RRACC)** – a joint effort by the OECS Commission and USAID focuses on improving the enabling environment to build understanding and support for policies and laws that reduce vulnerability to climate stress; launching interventions in freshwater and coastal management to build resilience; building institutional capacity and addressing information gaps for government practitioners and relevant sectors; and building public awareness and capacities for climate change adaptation.
- **Caribbean Climate Online Risk and Adaptation Tool (CCORAL)**³⁶ is an online support system for climate-resilient decision making. It assists decision-makers in applying a climate change perspective to activities and identify actions that minimise climate-related loss, maximise opportunities and build climate-resilience. It includes screening, climate risk assessment and a toolbox of appropriate tools relative to the initiative being assessed.
- The **Pilot Programme for Climate Resilience (PPCR)** Caribbean regional track will look at improving geospatial data and management for adaptation planning, SLR and storm surge impact analysis; consolidating and expanding the regional climate network and global platform linkages; downscaling and expanding climate projection models and high resolution maps; and applied adaptation initiative. The latter will include the health, fisheries and agriculture sectors. The project is being implemented by UWI Mona, alongside CCCCC, CIMH, CARPHA, CARDI and the Caribbean Regional Fisheries Mechanism (CRFM).
- Under the PPCR national track, the IDB is supporting 65,000 low income farmers in 20 communities in Jamaica in **Mainstreaming Climate Change Adaptation in Local Sectoral and National Plans and implementation of integrated climate change adaptation strategies**. The project will develop vulnerability assessments for CCA measures (e.g. mini-dams, rainwater harvesting), and will also improve drainage, sustainable farming practices, soil conservation and reforestation. The adaptation measures will buffer the impacts of extreme climate events, increase water supply during the dry season and reduce saline intrusion to the groundwater.
- Under the Adaptation Fund, the **Enhancing the Resilience of the Agricultural Sector and Coastal Areas to Protect Livelihoods and Improve Food Security** initiative, the PIOJ is working to protect livelihoods, improve land and water management for protection and building institutional and

³⁶ <http://ccoral.caribbeanclimate.bz/stage1>

local capacity for climate change adaptation. This objective will be achieved by Increasing climate resilience of the Negril coastline; enhancing climate resilience of the agricultural sector by improving water and land management in select communities, and improving institutional and local level capacity for sustainable management of natural resources and in disaster risk reduction in the targeted vulnerable areas; and raising awareness for behaviour modification.

- The **Jamaica Rural Economy and Ecosystems Adapting to Climate Change (JA REEACH)**, funded by USAID, aims to protect rural lives, livelihoods and ecosystems in targeted Jamaican communities affected by climate change through interventions that drive adaptation and build resilience. This will be achieved by improving adaptive actions to promote resilient livelihoods and natural systems; and strengthening local and national institutions needed to support the processes of adaptation and sustainability. To date, there have been interventions in climate-smart agriculture, youth empowerment and community-based adaptation.
- Through the **Special Programme on Adaptation to Climate Change (SPACC)**, CCCCC led the piloting of adaptation projects supported by the World Bank-GEF programme. Among these were water systems utilising saltwater reverse osmosis (SWRO) systems, powered by grid-connected solar photovoltaic (PV) systems, and a combination of rainwater harvesting and grey water processing systems in a joint public-private sector partnership. The SWRO/PV system is currently being replicated in Barbados, Belize and Grenada.
- CCCCC with support under the EU Global Climate Change Alliance (GCCA) is currently installing over 150 hydro-meteorological/agrometeorological stations. A network of other critical stations such as the Coral Reef Early Warning System (CREWS) and the Continuous Observing Reference Stations (CORS) for observing the rate of SLR are already in place. Additionally, protocol for information sharing through the CCCCC Information Clearinghouse Facility will be developed.
- **Country Documents for Disaster Risk Reduction** – coordinated through the UNISDR project under the DIPECHO Action Plan for 2013-2014, these comprehensive documents examine hazard threats, vulnerabilities, capacities and risk management and national and sub-national levels, with identification of national priorities and recommendations for future progress. CD-DRRs have been completed for Dominica, Barbados, Grenada, Guyana, Saint Lucia, St. Vincent and the Grenadines, Jamaica and Trinidad and Tobago.
- **Climate-Smart Agriculture (CSA)**³⁷ **Country Profile** recently completed for Grenada by the International Centre for Tropical Agriculture (CIAT), develops a baseline for initiating the discussion to increase investment in CSA.
- Developing **design concepts for climate change resilient buildings** – with assistance from the IDB, the UWI Institute for Sustainable Development, in collaboration with GEF and UNEP, has designed a net-zero energy efficient building, with particular attention to water efficiency, renewable energy, materials, resources and indoor environmental quality.
- **Coastal Protection for Climate Change Adaptation** project – CCCCC, with support from KfW (German Development Bank) seeks to pursue the implementation of Local Adaptation Measures (LAMs) for the sustainable improvement of coastal ecosystems relevant for climate change adaptation in Grenada, Jamaica, Saint Lucia, and St. Vincent and the Grenadines.
- The Caribbean Natural Resources Institute (CANARI) worked to increase the use of information and communication technology (ICT) in recognising and applying valuable local and traditional knowledge to decision-making through the **Promoting participatory ICTs for adding value to**

³⁷ The CSA concept reflects the improved integration of agricultural development and climate responsiveness, aiming to achieve food security and resilient production systems under a changing climate and increasing food demand. CSA initiatives sustainably increase productivity, enhance resilience, and reduce/remove greenhouse gases, and require planning to address trade-offs and synergies between productivity, adaptation, and mitigation.

(FAO, 2010: http://www.fao.org/fileadmin/user_upload/newsroom/docs/the-hague-conference-fao-paper.pdf)

traditional knowledge in climate change adaptation, advocacy and policy processes in the Caribbean project. With support from the ACP-EU Technical Centre for Agricultural and Rural Cooperation, it included the application of participatory 3-dimensional modelling (P3DM) to enable identification of climate-related risks and recommended adaptation actions.

- The Carbon War Room’s **Ten Island Challenge** aims to work with pioneering island economies to reduce dependency on fossil fuels through the acceleration of commercial opportunities on islands, attracting expert engineering firms and investment. Saint Lucia and Aruba are among the countries which have signed on to the initiative.
- The **Caribbean Renewable Energy Development Programme (CREDP)** was implemented by the Energy Programme at the CARICOM Secretariat in Guyana. The UNDP/GEF-funded activities included feasibility studies, knowledge management, and institutional capacity building. The programme continued with GIZ funding, in partnership with the OECS Commission.

2.3. Design Principles and Strategic Considerations

Geographic Scope

63. The proposed project will target those countries in CARICOM whose income are classified as category (iii) or category (iv) as per World Bank's Operational Manual, except those counties whose GNI per capita is over US\$12,275 (Antigua and Barbuda, Bahamas, Barbados, St Kitts and Nevis and Trinidad and Tobago) (see Table 1). The project will bring complementary benefits to the wider region through South-South cooperation and sharing lessons learned.

Table 1: CARICOM members’ country classification as per the World Bank

Category	Countries
Countries income iii:	Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, St Vincent and the Grenadines
Countries income iv or above:	Antigua and Barbuda, Bahamas, Barbados, Saint Kitts and Nevis, Suriname, Trinidad and Tobago
Organisation of Eastern Caribbean States (OECS) members:	Anguilla, Antigua and Barbuda, British Virgin islands, Dominica, Grenada, Montserrat, St Kitts and Nevis, Saint Lucia, St Vincent and the Grenadines

64. In line with this, the Japan-Caribbean Climate Change Partnership will target the following eight Caribbean countries: **Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St Vincent and the Grenadines, and Suriname**. The main justification for OECS countries is their relatively lower income level to other countries in the region. In addition, these countries, due to their small size, could hardly justify NAMA and NAP support on a stand-alone basis, but only as part of a homogeneous cluster. It is also noted that the OECS Commission is headquartered in St. Lucia, while the UNFCCC Regional Collaboration Centre for the Caribbean is located in Grenada, as potentially relevant partners. Guyana has a low-lying coast that renders the country highly vulnerable to the impacts of climate change. There is a high fossil fuel dependency, with about 5% of electricity generated from bagasse. It has a huge interior not currently connected to the grid and very energy insecure. This happens to be the area with the poorest part of the population. Guyana also hosts the CARICOM Secretariat, thus facilitating liaison with CARICOM in view of potential scaling up of interventions to its Member States following successful establishment of the

initiative and its initial work programme. Jamaica and Belize are also CARICOM members with medium level income status and highly vulnerable to climate-induced disasters. Belize has the potential to become a source of biofuels for smaller Caribbean countries which do not have the landmass to grow their own. Belize also hosts the CARICOM Climate Change Centre (CCCCC), another relevant partner for this initiative.

65. This approach is considered pragmatic and is informed by the initial level of capitalisation of the initiative. It has the additional advantage to be scalable and can therefore increase its coverage in the future progressively and in line with additional funding that can be mobilised.

Public-Private Partnerships

66. This initiative will explore three opportunities to develop public-private relationships that put in place the minimum building blocks for sustaining project results. In this regard, the following three lines of action will be pursued:

(1) Technology transfer

In each of the beneficiary countries, support would be provided to enable local communities involved in entrepreneurial initiatives to acquire appropriate technologies in the water, agriculture and energy sectors. For instance, recent studies show that small-scale family farms accounts for about 80% of farms in Latin America and the Caribbean³⁸, generating 57-77% of agricultural employment, making these key targets for improving adaptive capacity and sustainability.

(2) Enabling public policies for private sector expansion

The Japan-Caribbean Climate Change Partnership will promote among beneficiary countries effective experiences of putting in place appropriate policies and fiscal incentives for acquisition of climate-smart technologies to boost key productive sectors such as agriculture, water, and energy.

(3) Knowledge exchange

Support to local business associations to develop linkages with the Japanese private sector through business exchanges and trade shows to become more aware of technological options for risk mitigation that are appropriate for local contexts.

South-South and North-South Cooperation

67. From the preparatory field assessment missions undertaken, a clear opportunity exists for this initiative to enhance both South-South cooperation and North-South cooperation. As a result, the following lines of action would be implemented:

- (1) Intra-regional information sharing using CARICOM and OECS bodies – a key principle of this initiative is to support the sharing of information and linking policy to practice through the sharing of experiences across the region on climate change adaptation and mitigation. In this regard, both CARICOM and the OECS will serve as knowledge brokers and conduits for disseminating information intra-regionally on the experiences of this initiative. This will help the project management team to identify countries in the region with effective examples that can be shared with other countries undertaking similar initiatives. UNDP will use the framework of the Project

³⁸ FAO. 2014. Agricultura Familiar en América Latina y el Caribe: Recomendaciones de Política <http://www.fao.org/docrep/019/i3788s/i3788s.pdf>

Board but will also use relevant existing web-based platform(s) to document this information and expertise exchange among CARICOM and OECS Member States.

- (2) Involvement of Government of Japan supported trainees – the GOJ has provided human resource development and training opportunities to many of the countries that will benefit under this initiative. UNDP will ensure that those technical skills are utilised where and when available. A skills mapping and matching of Caribbean nationals available under this initiative will be conducted with the aim of connecting already available expertise in the region to opportunities for sharing those skills either within the country or among countries.
- (3) Engagement of volunteers from the Japan International Cooperation Agency (JICA) – JICA representatives have offered to make available JICA experts to work in specific sectors that are supported under this project, such as water, energy and waste management, to contribute to the implementation process. This is a practice already established in some of the beneficiary countries, such as Jamaica, where JICA has supplied volunteers in the areas of disaster management, climate change, environment, agriculture and community development. Through strong collaboration with the JICA Regional Office in the Dominican Republic, JICA's Liaison Office in CARICOM and the JICA field Office in St. Lucia, UNDP's project management team in Barbados will work closely to identify opportunities for JICA experts and volunteers to work alongside local counterparts in the 8 beneficiary countries.

Gender Consideration

68. In several respects, females face disproportionately higher vulnerability than males with regard to disaster risk and capacities to cope. For instance, female unemployment is typically higher than for males, single female-headed households are more likely to be poor, and there are notable disparities in the dependency ratio for such households, with women primarily carrying the burden of care. This impacts their ability to prepare for and respond to risks, as well as potentially hindering their capacities to recover after an event.

69. According to the July 2014 UN ECLAC Caribbean Synthesis Review and Appraisal Report On the Implementation of the Beijing Declaration and Platform for Action: "In the region as a whole, labour force participation rates tend to favour males although there are differences among countries given variations in economic conditions and opportunities. Although more women are entering the labour market, their labour force participation rates remain below those of men. In the Eastern Caribbean, the average unemployment for women stands at 16%, while for men it is 12%. In several countries of the CARICOM region, unemployment levels are twice as high for females compared to males... The recent economic crises have also affected women's employment, in areas such as the hospitality industry that is important to many Caribbean economies. As several Caribbean countries are reporting increases in the number of female-headed households, there are also concerns that poverty associated with unemployment can pose a threat to these households and to the social and economic stability of countries as a whole" (p. 32).

70. Further, the report notes that the Dominica assessment pointed to the particular fragility of women in a post-disaster recovery situation: "The effect of climate change and the increase in frequency of natural hazards is one of the most urgent issues currently impacting Dominica's social and economic development. Women in Dominica constitute the majority of the country's poorest persons... they still have unequal economic and social status which makes them particularly vulnerable to the impact of natural hazards. Their unequal position in the labour market also makes their recovery from disasters more difficult. These and other factors need to be addressed in disaster risk management and planning.

The relevant institutions have not integrated gender into disaster risk management, and this will have a negative impact on national development” (p 22).

71. Similarly, where schools are used as emergency shelters, women are unable to return to work if children are still at home. In some rural areas in Belize, the communities are often dominated by females because the males travel to the cities to work. Therefore, such realities must be integrated into project activities, ensuring that women and men have a voice to articulate their specific needs.

72. Several gender targets and indicators have been identified in the Project Results Framework to ensure that planning takes into account gender needs and impacts and that there is measurement of the likely impacts of this initiative on men and women.

73. This initiative, as a core principle, will ensure that gender considerations are fully integrated into Nationally Appropriate Mitigation Plans and National Adaptation Plans. Specifically, all NAMAs and NAPs supported will be assessed to identify the extent to which gender concerns have been taken on board in key sectors. For example, in the area of integrated water resources management (IWRM), the decision on where to construct community water storage facilities will take into account the length of time women have to travel to access these sites and the level of security, and will also ensure that opportunities are provided to both young males and females in the training to be provided to equip community members to construct such storage facilities.

74. From the mitigation perspective, the project will provide opportunities for skills development of both men and women in the training to be provided at a community level, e.g. for installation and maintenance of solar PV and other technology. At a community level, the project will ensure that all community level interventions conduct a gender needs assessment to ensure that the interventions are gender informed, and provide opportunities for reinforcing positive gender norms. UNDP’s will operationalise its social safeguards by integrating gender concerns in project monitoring activities to ensure that this project does not cause perverse gender impact nor exacerbate tenuous gender relations.

75. In compliance with UNDP corporate Gender Strategy, this initiative will provide equal employment opportunities for both men and women.

2.4. Project Objective, Outcomes and Outputs

Objective

76. The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of inclusive low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change within, or aligned with, improved development planning and budgeting processes.

77. In the pursuit of this objective, the initiative will support policy innovation through the development of a number of NAMAs and NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. This initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs

that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

78. Critically, in the development of activities, the implementation must undertake a comprehensive analysis of related work (completed and ongoing) in the country and the region. Activities must strive to build on and strengthen this work, avoid duplication, and upscale where relevant, and engage national and other partners active in the countries to achieve these synergies as applicable.

79. National stakeholders should be fully involved in project formulation and fully understand the programmatic approach and objectives in order to ensure full ownership. Engagement of all levels of society in a participatory approach will be paramount in effecting a transformational change in how climate and disaster risk are addressed in the Caribbean. This includes the need to educate civil society and vulnerable groups and involve them in designing appropriate solutions and subsequent capacity building, promoting buy-in and stewardship. Youth, women, the elderly, the impoverished, minority groups, indigenous people and persons with disabilities are among those with special vulnerabilities and are at risk from exclusion, particularly in decision-making processes. Farmers, fisherfolk and others directly dependent on natural resources for their livelihoods are particularly susceptible to climate risks.

80. Therefore solutions should address underlying vulnerabilities which are being exacerbated by climate change and preventing the building of risk resilience. South-South cooperation and sharing of tools, methodologies and experiences across the region, and capitalising on SIDS-specific research and technology and innovation will also be critical in finding appropriate and sustainable solutions. Socioeconomic baselines will be established at the outset of the project to be able to strategically target interventions and address vulnerable groups, support prioritisation and sustainable design of activities and measure project impacts. Social and environmental assessments will also be conducted to determine and formulate avoidance, mitigation or management measures for any adverse impacts identified, based on the UNDP Social and Environmental Screening Procedure (see section 2.7 and Annex 4).

81. The implementation process, especially at policy (NAMA/NAP) level must be oriented around a multi-sector multi-disciplinary approach. Given the wide-reaching impacts of climate change, and existing challenges in mainstreaming climate change and risk resilience into national planning frameworks, it is paramount that these processes not be isolated within a Ministry of Environment or Climate Change Unit. Of particular note, Ministries of Finance and Planning are among the key players that must be integral to the process.

Outcome 1

NAMAs and NAPs to promote alternative low-emission and climate-resilient technologies that can support energy transformation and adaptation in economic sectors are formulated and institutionalised

82. National and sector planning processes, a central means by which public policy responses are formulated, budgeted and implemented, have not systematically incorporated climate change risks and opportunities. Countries now need to consider medium to long-term planning within the framework of national priorities for low-emission and climate-resilient development. The primary challenge is that these countries presently have limited institutional structures, knowledge and technical capacity for initiating a functional, cross-sector and iterative process to take climate risk into account in planning. Key constraints, while not equal across all countries, relate to:

- Planning officials not being fully sensitised on the complex nature of climate change impacts.
- Technical officers in line ministries and other government institutions having limited opportunity to strengthen relevant technical capacities to support climate risk planning.
- Difficulty in gathering or accessing and making good use of accurate climate data for planning purposes and inadequate use available of evidence-based methodologies and toolkits.
- Disconnect between political cycles, planning cycles and long-term vision required to address risk resilience issues, and limited coordination among ministries. Low-emission and climate-resilient development is not considered as top priority.
- Budgetary support insufficient to advance adaptation and mitigation in an integrated manner with baseline development objectives.
- Need to strengthen regional cooperation/communication for knowledge sharing in addressing climate change.

83. An effective response to the issues identified above will build on a number of relevant national and sub-national level initiatives.

84. In terms of national institutions' capacity for adaptation planning, few Caribbean countries have developed plans for adaptation during the course of National Communications and Technology Needs Assessments. However, most of these plans remain limited to a single ministry domain and therefore climate change is not fully integrated across planning in all economic sectors. It is usually taken into account in a cursory manner during planning and budgeting process. The required medium to long-term and cross-sector planning that would enable a comprehensive assessment of the benefits and trade-offs of climate change adaptation (CCA) interventions for society is seldom undertaken.

85. In addition, the Caribbean has made several voluntary commitments in line with the Sustainable Energy for All initiative requiring the development of country capacities to structure and integrate the required efforts and intended mitigation actions under an effective framework.

86. This is in line with the need for support Caribbean governments have expressed to identify and prepare NAMAs for submission to the UNFCCC, and assist in their implementation (e.g. at COP-17 in Durban). Most countries are struggling to implement national strategies that decouple carbon emissions from economic growth, particularly considering their high dependency on fossil-fuel energy generation and the hefty electricity bills paid by most Caribbean countries.

87. In this sense, there are a number of relevant baseline initiatives in place in developing countries aimed to strengthen their institutions' planning capacity to address climate change:

- (1) *Low-Emission Capacity-Building (LECB) Programme* (UNDP): This project builds capacities in developing countries to design and implement low emission development in the public and/or private sectors.
- (2) *The Green Climate Fund (GCF) Readiness Programme* (UNDP and UNEP). This programme offers needs-oriented support to countries for preparing themselves to access and manage GCF resources once it is fully operational.
- (3) *The National Adaptation Plan Global Support Programme* (UNDP and UNEP). This programme provides targeted technical assistance to developing countries to take initial steps to integrate climate change issues into existing planning and budgeting processes

88. Deficiencies in robust, consistently-collected, gender-disaggregated data is perennially cited as a prevailing challenge in the region, which prohibits validation of planning processes, risk assessment and investment. This has several contributory factors, whether limited trained personnel, equipment, inconsistent methodologies, infrequent updating or simply restricted access to existing data. In many cases, planning ministries in Caribbean countries do not have well-organised, user-friendly and robust scientific data and evidence-based technical guidelines on managing climate risks and/or do not command the requisite national ownership when developing climate policies and strategies. As a result, appropriate measures for medium to long-term climate change adaptation or mitigation are often not included in national, sector and local policies and plans.

89. The National Communication process in Caribbean countries has contributed to a basic knowledge on climate change impacts, vulnerability, and appropriate cost-effective, economically-efficient, and socially-appropriate adaptation and mitigation interventions. UNFCCC guidelines and training materials developed by the Consultative Group of Experts for National Communications exist³⁹, which include prioritising and designing national programmes covering key sectors, but mainstreamed support to operationalise and applying these guidelines is not available. Some baseline initiatives that aim to strengthen countries' technical capacities on gathering and analysing climate information are:

- (1) *PROVIA* (UNEP): This programme provides more cohesive and coordinated global research support and accessibility of Vulnerability Impact Assessment knowledge to policy-makers and other stakeholders.
- (2) *Capacity Development for Adaptation to Climate Change and Greenhouse Gas Mitigation (C3D+ project)* (UNITAR): C3D+ develops and tests tools and methods that help developing countries to make planning decisions that take climate change into account.
- (3) *Climate Technology Centre and Network (CTCN)* (UNEP): CTCN is the operational component of the UNFCCC Technology Mechanism.

90. Currently, there are limited partnerships, communication and outreach strategies that exist between developing country governments and global and regional institutions, networks and platforms for addressing adaptation needs, in a collaborative manner. Collaboration is necessary in order to exchange lessons on NAP and NAMA development and coordination. South-South exchange is critical as developing countries can identify with each other on common needs, barriers, and problems as well as common solutions and best practices. Some baseline initiatives currently in place to support North-South and South-South partnerships and communication of lessons learned include:

- (1) *Global Adaptation Network (GAN)* and its regional wings Asia Pacific Adaptation Network (APAN), Regional Gateway for Technology Transfer and Climate Change Action in Latin America and the Caribbean (REGATTA) and Africa Adaptation Knowledge Network (AAKNet) (UNEP): This network coordinates and facilitates the exchange of climate change information.
- (2) *Adaptation Learning Mechanism (ALM)* (UNDP): This platform seeks to provide stakeholders with a common platform for sharing and learning, the ALM bridges knowledge gaps by bringing relevant knowledge and stakeholders together to exchange information, experiences, and expertise.
- (3) *MDG Carbon Facility (MDG CF) Programme* (UNDP) jointly with the World Bank's e-Institute and its climate change team are collaborating in a wide range of knowledge management activities on NAMA-related topics, e.g. measurement, reporting and verification (MRV) standards, Programmes of Activities and other market and sector mechanisms for climate change mitigation evolving from UNDP's preceding capacity development work under the CDM.

³⁹ http://unfccc.int/national_reports/non-annex_i_natcom/training_material/methodological_documents/items/349.php

91. With the support of financial resources from the Government of Japan, activities will be established with the objective of strengthening institutional and technical capacities for iterative development of comprehensive NAPs and NAMAs in selected Caribbean countries. Where countries have already initiated this process (e.g. Jamaica, Grenada), the project will build on and address gaps in current activities. This will operationalise the request by parties to the COP for assistance with their long-term adaptation and mitigation planning needs.

92. The NAP process established under the Cancun Adaptation Framework (CAF) is one of several processes that created both the political and financial space for countries to make systematic efforts to mainstream climate change into national development planning processes. This process is to be country-driven, continuous, participatory, progressive and iterative, multi-stakeholder oriented, and based on and guided by the best available science, rigorous collection and analysis of appropriate data, and consideration of experiences and good practices within, and outside, countries. The process will enable developing countries to identify, finance and implement appropriate measures to ensure that medium- to long-term adaptation needs are taken into account in key sectors at national, sub-national and local levels.

93. The support for the development of NAMAs also emanates from the UNFCCC negotiation process. This assistance also needs to include country-driven processes leading to the identification of opportunities for the design of low-emission development strategies (LEDS) in a context of national priorities, MRV systems of the proposed actions to reduce greenhouse gas (GHG) emissions, GHG inventory management systems, and facilitating the design and adoption of mitigation actions in selected priority sections in the Caribbean.

94. Specifically, resources from the Government of Japan will be used to provide institutional support and technical capacity-building related to the NAP and NAMA process. The technical support will be provided to participant Caribbean countries and will be flexible enough to be tailored as per their needs and national circumstances. The proposed activities will build upon the UNDP/UNEP global support programme that is already supporting less developed countries (LDCs) and non-LDCs to advance their NAPs, in implementation as of June 2013 and operational since August 2013. In addition, UNDP's ongoing NAMA assistance under both the MDG CF and LECB programmes, as well as GEF-funded initiatives in the region provide a strong baseline for incremental support in this area from Japan.

95. Resources will be used to support selected Caribbean countries to:
- develop national-level roadmaps/strategies for advancing the NAPs;
 - train technical and policy officers from planning ministries on relevant tools and approaches to advance key steps of the NAP process;
 - establish business-as-usual GHG emission baselines and identify mitigation options in selected sectors relevant for the region;
 - design and implement NAMAs, and establish MRV systems and registries for monitoring purposes; and,
 - exchange lessons learned and knowledge through South-South and North-South cooperation on effective adaptation and mitigation planning, as per the three components of the project.

Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.

96. Indicative Activities:

- Carry out stocktaking of on-going and completed initiatives of relevance to informing and contributing to the NAP process. This will include:
 - Conducting capacity assessments identifying strengths, gaps and needs in key institutional and technical capacities to fully embark on medium to long-term planning and budgeting for adaptation linked and aligned to national development priorities.
 - Review of national strategic development plans, Growth and Poverty Reduction Strategies, energy and climate change policies, medium-term development strategies, inter alia and resulting initiatives.
 - Examining the outcomes of relevant regional initiatives such as SPACC, Mainstreaming Adaptation to Climate Change (MACC) and Review of the Economics of Climate Change (RECC).
- Conduct stakeholder consultations to identify the scope of the NAP process and expectations for advancing medium to long-term planning for adaptation as part of the on-going planning and budgeting processes at national and sub-national levels
- Identify or strengthen existing country specific coordination mechanism for climate change that will drive the NAP process (institutional assessments of relevant ministries to prepare them for CCA planning, which includes assessing management arrangements, functional analysis, and proposing upgrading of institutional arrangements and skills of personnel).
- Formulate NAP roadmaps in each country

Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.

97. Indicative Activities:

- Undertake a survey to assess the needs and gaps for materials, methods and tools that are relevant for informing the NAP process (institutional analysis carried out to determine work flows, entry points and points of influence to determine the mainstreaming strategy, stocktaking of available cost, impact and adaptation information undertaken together with quality review and evaluation of effectiveness in mainstreaming CCA).
- Promote the use of existing training materials, methods and tools on the basis of the needs identified (Climate Public Expenditure and Institutional Reviews completed for priority sectors e.g. agriculture, water, disaster management, rural livelihoods, and food security; legal, policy and regulatory framework reviews carried out to identify gaps and inconsistencies in incentivising adaptation investments).
- Strengthen leadership within key ministries by targeting national and sub-national policy-makers (especially in finance, planning and other relevant line Ministries) and other stakeholders, on the importance of medium to long-term planning and budgeting for adaptation.
- Integrate adaptation costing into sector plans and public investment plans through macro and micro-economic analysis, use of economic techniques for trade-off analysis and an economic analysis of policy instruments (against criteria such as costs, benefits, efficiency, equity and political acceptability). This must take into account tools and methodologies already existing or being developed in the region, such as RECC (ECLAC/CCCCC), CCORAL (CCCCC) and CAPRA (UNDP).
- Tools, methods and guidelines to advance the NAP process are developed/adopted for countries in partnership with other agencies and organisations:

- Plan preparation guidelines issued to sectors by Ministries of Planning include climate change adaptation, budget preparation guidelines issued to sectors by Ministries of Finance include climate change adaptation
- Screening checklists adjusted for approval of medium-term expenditure frameworks (MTEFs) and annual spending plans and use of CCA performance indicators in budgets
- Ministries of Gender Affairs in association with Ministry of Finance and Planning provide guidelines to sector ministries on using gender disaggregated data in planning, conducting specific assessments on the needs of women and using these in sector adaptation planning and budgeting processes
- Gender checklists prepared by Ministries of Gender Affairs for sector projects include climate considerations
- Efforts will be made to develop technical guidance tools and detailed methodologies by sector, policy materials, guiding principles, case studies on lessons and good practices made accessible in usable formats to Caribbean countries, developed in partnership with relevant stakeholders. Effort will also be made to use and build on existing sector guidance and support, as is being developed by other organisations, rather than create new ones.
- Training materials prepared for use by Caribbean countries as they commence their respective NAP processes. Priority ministries are trained to cost economic losses due to impacts of climate change in their sectors, national statistical bureaux and line ministries are trained and adopt standardised definitions and measurement methodologies for climate relevant indicators in order to measure performance consistently across investments as well as to track progress on CCA relative to the baseline. Every country has different indicators in their National Plan.
- Training delivered on the use of the tools and approaches to advance to medium to long-term planning process
- Monitoring plans designed and implemented⁴⁰, including data collection methods and methodologies to measure CCA causality and impact, participatory and evidence-based monitoring and evaluation (M&E) methods designed in order to promote awareness and ownership among planners and households

Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.

98. Indicative Activities:

- Update or completion of GHG inventories for selected interventions in the Caribbean (e.g. public buildings, community-based infrastructure, energy generation and end-use sectors)
- Determination of national and regional reference baseline associated per selected interventions, including but not limited to: replacement of inefficient electrical appliances; retrofit of inefficient lighting bulbs and fixtures, installation of solar photovoltaic equipment; mini and micro hydropower electricity generation; or alternative fuel, waste and biomass uses
- Development of national marginal abatement cost curves for considered mitigation actions: e.g. replacement of inefficient electrical appliances, such as air conditioning units; retrofit of inefficient lighting bulbs and fixtures, installation of solar photovoltaic equipment for disaster risk management purposes, water pumping or agriculture uses (e.g. greenhouses for crops, irrigation);

⁴⁰ Dinshaw, A. et al. 2014. Monitoring and Evaluation of Climate Change Adaptation: Methodological Approaches. OECD Environment Working Papers, No. 74 http://www.oecd-ilibrary.org/environment/monitoring-and-evaluation-of-climate-change-adaptation_5jxrclrOntjd-en

mini and micro hydropower electricity generation; or, alternative fuel, waste and biomass uses (e.g. in transport, urban or rural communities)

- **Barrier analysis for mitigation options** selected with NAMAs separated in three categories depending on their characteristics: Unilateral NAMAs, Supported NAMAs and Credited NAMAs.
 - Unilateral NAMAs will include mitigation actions that can be implemented voluntarily and unilaterally by the country, such as measures that have negative costs but need policy reforms to be promoted.
 - The category of Supported NAMAs will be composed of actions that need significant technology transfer and that may have higher costs or entry barriers than high emission technologies or current common practice.
 - The option of Credited NAMAs will also be explored for mitigation actions that could be encouraged through market mechanisms at the national and sub-national level, such as sector crediting and sector domestic voluntary carbon markets
- Feasible and consulted NAMAs and regional actions: The implementation of NAMAs and corresponding MRV systems will require a strong capacity and readiness of a broad range of diverse Caribbean stakeholders, **including civil society, the private sector, professional associations, academics, sub-national governments and public institutions.** The participation of these stakeholders in the NAMA development process is essential to ensure that the NAMAs are designed with full consideration of Caribbean circumstances.

Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.

99. Indicative Activities:

- Policy and financial tools to support the implementation of a mitigation actions programme in selected interventions: mitigation actions will be prioritised in the sectors prioritised by the Caribbean (amongst those indicated above), and structured into detailed NAMAs, including the identification and establishment of the instruments that will be used for their implementation. A study to analyse the available policy, regulatory and financial tools to support the implementation of the identified mitigation actions and to estimate their potential impact on emissions will be conducted. The instruments to be assessed will include fiscal incentives, feed in tariffs, concessional credits, guarantee facilities and other mechanisms that can promote mitigation actions.
- Multi-sectorial policy dialogues on potential instruments for the implementation of NAMAs in selected Caribbean interventions: policy dialogue on the potential instruments for the implementation of NAMAs in the selected Caribbean sectors will be supported to ensure a broad stakeholder participation in the selection of appropriate policy instruments for the implementation of NAMAs.
- Coordination mechanisms for NAMA implementation, including national and/or regional registry mechanism for mitigation actions for selected interventions in the Caribbean, and for emission reduction accounting in each sector in partnership with the UNFCCC RCC based in Grenada and the CCCCC.
- Key parameters (quantitative and qualitative) to define and monitor selected NAMAs, and monitoring plan for the selected NAMAs: specific measurement, reporting and verification (MRV) systems will be established and implemented for the NAMAs selected. The MRV systems will be designed to comply with internationally accepted standards and, in the case of Supported and

Credited NAMAs must be accessible to international MRV systems established through the UNFCCC or by countries providing financial support to NAMA implementation. The parameters will allow precise monitoring of the mitigation benefits of the implemented NAMAs in terms of GHG emission reduction, and additional parameters will be selected to evaluate the co-benefits (to be selected once the sectors are confirmed/prioritised, but to include community benefits both in terms of energy as well as access to public services, including water, health, transport and contribution to sustainable livelihoods). A monitoring plan including these parameters will be designed and implemented for the selected NAMAs in conjunction with the implementation of the mitigation actions. Furthermore, national MRV guidelines and standard methodologies for the selected subsectors will be developed.

- Training and certification of MRV and NAMA professionals in the Caribbean: an important aspect of the Japan assistance through this initiative is the learning by doing component. The international framework for climate change is in constant evolution and NAMAs are a central part of Caribbean discussions of the future framework. This initiative will produce key bottom up knowledge on the requirements for effective NAMA implementation in the Caribbean, and will generate important lessons for the international community as the process of defining international guidance for NAMAs and MRV continues to evolve.

Outcome 2

Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient development in the Caribbean

100. Countries will select at least two of the below areas to implement activities based on priorities:

- Water resources management
- Sustainable agriculture
- Community-based climate-smart resilient infrastructure
- Renewable energy and energy efficiency

101. Proposed demonstration projects will be submitted by the countries for review by the Project Manager and Project Board. They will be assessed in terms of alignment with national strategic priorities and context (and with the NAMA/NAP where applicable), expected impact, vulnerability and sustainability criteria (e.g. using CCORAL), and available budget.

102. Stakeholder capacity needs assessment and an analysis of national priorities should be carried out as part of the activity formulation and guide the programme management setup, and form the basis upon which resources are provided for support.

Water resources management:

103. From the scoping mission that UNDP undertook in March/April 2014, it emerged that one key priority area of intervention for the Caribbean countries is in the investment of and support to scale up water harvesting systems. Water supply for domestic and industrial use is a recurring issue in the context of water shortages. Some communities rely on natural springs and some households have rainwater-harvesting mechanisms but these are limited and often not used for drinking water.

104. Some households are applying rooftop rainwater harvesting techniques to complement water supply at a household level. While such technologies are seen to have potential for replication, their use

is not commonplace and sometimes requires substantive initial investment costs. The extent of use of the resource is contingent on regulations governing use of non-potable sources; and there are also issues relating to health and the tanks becoming mosquito breeding sites. Without any support to remove such barriers to effectively adopting a technology that has demonstrated its relevance, its diffusion will be difficult. Without diffusion of the technology, developments in value chains and ultimately in technological advancements that drive down costs, will be slower than necessary. The resources from the Government of Japan will allow this cycle to be broken and promote the widespread adoption of a critical technology for the Caribbean population.

105. In Caribbean countries, innovations for supplementing current water supply through rainwater harvesting and securing small and large sources will be pioneered. Affordable climate-resilient community-based water harvesting capture; storage and distribution systems will have been designed and built on a demonstration basis. More households will have more secured and climate-resilient access to water for household and community uses. The beneficiaries will be fully aware of related water and climate risk management matters and in a position to manage and maintain them effectively.

106. Adapting already existing innovative technologies, a focus will be on water collection during the rainy season and storage for drinking water usage in times of prolonged dry spells and drought. Site-specific interventions will be guided and informed by national climate risk analyses, vulnerability assessments and the documentation of existing coping strategies.

107. Another key area of priority identified during the UNDP scoping mission was energy in its various forms. In relation to the priority on water, those countries richly endowed with the resource (for instance, Dominica, Guyana or St Vincent and the Grenadines) expressed interest in receiving climate technology support in small scale hydropower developments at the community level (both off-grid and, where possible, grid connected applications). The integrated need of this support also emerged very strongly, in particular for countries with water management constraints (e.g. Grenada, Saint Lucia), but also across the region.

108. For instance, in the area of climate-smart agriculture (CSA) the application of climate mitigation technologies in support of irrigation (e.g. solar photovoltaic pumping) or crop production (e.g. solar PV panels for greenhouses) was explicitly requested. In addition to climate-resilient development at the community level, the promotion of low-emission alternatives to support disaster risk management at the national level was also identified (e.g. the application of solar photovoltaic technologies in shelters, community and other public buildings – including schools, hospitals and other public spaces – both in response to disasters and as backup energy source).

109. Additionally, in order to ensure that interventions are successful and sustainable after the project lifetime, the following activities will be undertaken:

- Building strong engagement from the outset across sectors (planning and land use development, environment, water, agriculture, disaster management, finance, etc.) and across levels (communities, civil society, sub-national and national governments, private sector).
- Continuous monitoring of the progress, productivity, feasibility and profitability (using cost-benefit analyses), and acceptance by the end users of each intervention.
- Capacity will be built (through training) within community-based organisations (CBOs) to ensure continuous monitoring and improved management above and beyond technical assistance received.

- Synergies with regional technical agencies and stakeholder groups e.g. CIMH, GWP-C, UWI, CANARI, Caribbean Youth Environment Network (CYEN), development partners, and similar ongoing initiatives in the target countries e.g. CATS
- Lessons will be continually captured during the process by knowledge management experts. These will be documented in the form of technical reports as well as in a feasibility analysis, which will be used for lobbying for policy change and catalysing upscaling.
- Public awareness on the benefits of adaptation will be increased through continuous capturing of lessons and their dissemination to the general public.

Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)

110. The project will support the implementation of community-based water harvesting, storage and distribution systems to support the water supply for domestic and agricultural use. Proper consideration will be made with regards to materials needed to enhance and maintain the collected water quality, and integrated water resource management applications (e.g. micro/small scale hydropower technology addressing the energy-water-food nexus). One of the best-known techniques is a ferro-cement rooftop catchment system to gather rainwater caught on the roof of a house using gutters and down pipes which lead into one or more very large storage container (ideally a ferro-cement tank). The tanks will have to be large and appropriate for long term storage of large quantities of water. Focusing on rainwater collection the design of sustainable community reservoirs (materials and approach depending on the local circumstances) with stand-alone rooftop rainwater harvesting systems, as well as gravity-fed water distribution mechanisms will be implemented. It is also important that the relevant skills are transferred to local professionals, and that materials used can be sourced locally or at low cost to ensure feasibility for later up-scaling of the innovations.

111. Indicative activities:

- Commission design of innovation technologies and infrastructure e.g. constructed wetlands, reverse osmosis, etc.
- Construct rooftop rainwater collection systems with reservoirs. The system will consist of three basic elements: (i) a collection area which is the effective roof area; (ii) a conveyance system usually consisting of gutters or pipes that deliver rainwater falling on the rooftop to cisterns or other storage vessels; (iii) and a storage tank or cistern.
- Establish maintenance procedures including: (i) eliminating the "foul flush" after a long dry spell; (ii) periodic cleaning of the tank; (iii) the cover of the rainfall collection surfaces to reduce the likelihood of frogs, lizards, mosquitoes, and other pests using the cistern as a breeding ground; and (iv) the chlorination of the cisterns or storage tanks.
- Construct the sustainable community reservoirs with standalone rooftop rainwater harvesting systems, as well as gravity-fed water distribution mechanisms.
- Conduct relevant assessments to determine feasibility, cost-effectiveness and due-diligence with respect to environmental and other standards.

Sustainable agriculture:

112. Small-scale agriculture represents about 80% of farming in the region, and contributes as much as 67% of production. However, climate change disproportionately affects small farms, with livelihoods being linked to fragile natural resources presenting the greatest vulnerability. Moreover, 66% of global

poverty is concentrated in rural homes, most of which are farmers, and suffer from social and economic exclusion, lack of access to basic services, and insecure communication systems and services, inter alia. Indigenous communities, such as within the interiors of Guyana, Suriname and Belize, are particularly characterised by extreme poverty, lack of formal education and few productive resources⁴¹.

113. Activities such as improved seed distribution services, improved and extended irrigation, increased agricultural extension advice, and increasing the availability of micro-finance to rural farmers need to be scaled up in Caribbean countries. These interventions have high adaptive value and new types of interventions that would help communities become resilient to climate change are needed. Many of the interventions being tested currently, such as planting early maturing crops and crop diversification are potentially sustainable under climate change conditions, but better information on sustainability and cost effectiveness is needed to help decision-makers allocate resources to scaling these up.

114. The project will implement high priority interventions within target countries aiming to boost agricultural productivity under changing climatic conditions and improving the income streams of vulnerable farmers. For example, crop diversification is an important response to the impacts of climate change on subsistence crops. Other interventions (such as soil and water conservation and soil improvement techniques) will rehabilitate degraded lands, allowing the expansion of agricultural activity.

115. Proposed activities will be interlinked to develop and use water harvesting, storage and irrigation facilities to improve agricultural productivity under changing climatic conditions by providing water to humans, livestock and crops. The interventions will aim to build local capacity to ensure that the adaptation measures are sustainable beyond the project lifespan, aiming to enhance adaptive capacity by improving livelihoods and reducing food insecurity.

116. Additionally, in order to ensure that interventions are successful and sustainable after the project lifetime, the following activities will be undertaken:

- Building strong engagement from the outset across sectors (planning and land use development, environment, water, agriculture, disaster management, finance, etc.) and across levels (communities, civil society, sub-national and national governments, private sector).
- Continuous monitoring of the progress, productivity, feasibility and profitability (using cost-benefit analyses), and acceptance by the farmers of each intervention.
- Promotion of organic farming (certification standard being developed by GEF Small Grants Programme).
- Capacity will be built (through training) within CBOs to ensure continuous monitoring and improved management above and beyond assistance received from extension officers.
- Synergies with regional technical agencies and stakeholder groups e.g. CIMH, CARDI, CANARI, the Caribbean Farmers Network (CAFAN), UWI, specialised development partners e.g. FAO, the Inter-American Institute for Cooperation on Agriculture (IICA), and similar ongoing initiatives in the target countries e.g. CATS
- Lessons will be continually captured during the process by knowledge management experts. These will be documented in the form of technical reports as well as in a feasibility analysis, which will be used for lobbying for policy change and catalysing upscaling.
- Public awareness on the benefits of adaptation will be increased through continuous capturing of lessons and their dissemination to the general public.

⁴¹ FAO. 2014. Agricultura Familiar en América Latina y el Caribe: Recomendaciones de Política

Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.

117. Increasing water scarcity, shortening of the growing season and increased temperatures will alter crop yields as their ideal climatic zones (in which their optimum growing conditions are found) shift. In order to maintain agricultural productivity, alternative crops which are more suited to changing conditions will be identified (e.g. seeds which are drought tolerant, early maturing or tolerant of waterlogging), and cropping practices will be diversified (e.g. planting several different crop types and planting different varieties of the same crop), to prevent widespread crop failure, and address the food-energy nexus (e.g. solar photovoltaic technology in greenhouses for crop production purposes). These measures are of critical importance for improving the adaptive capacity and resilience of communities to climate change.

118. Indicative activities:

- Conduct farmers field school training sessions at all the pilot sites on the importance of crop diversification as well as crop diversification techniques as an adaptive measure to climate change (e.g. planting flood, heat and drought tolerant cultivars, early maturing crops as well as adopting multiple cropping techniques to spread risks).
- Supply farmers with an input pack after successfully completing the training on crop diversification.
- Conduct farm trials to demonstrate alternative crops as climate change adaptive techniques. Local governments will select farmers in the pilot sites on whose farms researchers will conduct the farm trials.
- Facilitate the production of improved seeds (for open pollinated varieties) within the communities in order to boost accessibility to seed. This will be achieved by training the local cooperatives and farmers on seed production methods so that they can produce seed for sale to the community.
- Assess the suitability of techniques in the pilot sites. This will entail undertaking an economic analysis and performing cost-benefit analyses to ascertain whether crop diversification or the use of drought/flood tolerant crops are suitable at each site. In addition, this will identify suitable crop species.
- Form farmer/user groups and establish and training management committees of at least 10 members at each site (with a target of 50% female membership) to facilitate and oversee the adoption of alternative crops by the wider community. In addition to production methods, training of the committees will include financial, administrative and general business management.

Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.

119. In most Caribbean countries despite having access to water resources, irrigated agriculture is still limited. As a result of the reliance of the agriculture sector on rain-fed agriculture, increasing climate variability is causing a greater frequency of crop failure and concomitant food insecurity.

120. Furthermore, climate change projections outlined in National Communications point to a continued increase in temperature and a change in rainfall patterns, leading to more frequent floods, prolonged droughts and sea level rise. Increasing and improving existing rainwater storage capacity and irrigation systems to insure against crop failure are therefore a priority.

121. Among the foreseen works undertaken by the project are: i) building a series of weirs, gabions and dams to capture surface runoff; ii) building reservoirs to store captured water and supply irrigation systems; iii) increasing the capacity of and improving existing irrigation systems; iv) connecting irrigation canals to fields, and v) using solar photovoltaic pumping for irrigation, thus addressing the energy-water-food nexus. Capacity building of the communities will include training in dam, reservoir, weir and irrigation management. Management and performance monitoring will be done by community members while technical backstopping will be provided by the initiative. The participation of community members in all activities and the training provided will establish ownership and ensure that interventions will not fall into disrepair as has previously occurred.

122. Indicative activities:

- Train the previously established farmer/user groups on water management, irrigation techniques (such as scheduling), appropriate water harvesting, extraction and storage methods, appropriate irrigation and mulch technologies, as well as usage of communal water resources.
- Assess the suitability of techniques e.g. undertake all relevant feasibility (environmental, social and cost-benefit) assessments to determine the types of works suitable to the sites.
- Construct canals or other suitable water extraction methods as well as watering points for agriculture and livestock. This may include supply of manual pumps and pipes for irrigation.
- Promote solar photovoltaic pumping technology for irrigation addressing the energy-water-food nexus.
- Establish an appropriate management and sustainability plans, including cost recovery, agreed by all stakeholders.

Output 2.4 Climate-resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.

123. Subsistence agriculture is practiced by the majority of rural farmers on small plots with few exceptions. When the soil fertility of existing farm plots is exhausted, the land is laid fallow and new plantation land cleared from the virgin habitat. Traditional crops are cultivated mainly for domestic use, although surplus products are often sold in the markets. Livestock farming is very popular but often witnesses poor grazing land management. There are limited agricultural inputs to soil fertility improvement, crop production supply (seeds, planting material), and irrigation techniques.

124. While some of the current interventions support agricultural production, climate variability and forecasted climate change will hinder the performance of promoted agro-pastoral practices. Many of the existing strategies, measures and practices are proving to no longer be effective in the face of climate change impacts and therefore are requiring additional support. There is an urgent need to ensure that farmers use practices that maximise the efficiency of inputs, preserve soil structure and fertility, conserve water, and that the supply chain issues pertaining to crop rotation are also addressed.

125. The means through which to ensure sustainable food supply availability, including during increasingly periods of climate-induced stress, is now debated, as well as how to support traditional herders vulnerable to climate change.

126. The project will support the introduction of innovative measures that increase adaptive capacity to climate change. These may include composting, anaerobic digestion and utilisation of biogas. To ensure sustainability and mainstreaming, the technical entry point in each area will be the existing local organisational frameworks and the existing corresponding local development plans.

127. Agro-pastoral adaptation practices and measures, as well as resilient income-generating activities will be supported. This will involve larger or more sophisticated investments in the demonstration of climate-resilient technologies and practices, and in income-generating activities that are resilient to more frequent and intense food security threats. These on-site investments will not only demonstrate appropriate climate risk management approaches, they will also bring direct relief to the most vulnerable communities.

128. In each country, a participatory and community-centred approach will be adopted, and the project will provide overall guidance (towards climate risk resilience) and provide technical and scientific support to the process. The project will support the introduction of innovative measures and the dissemination of traditional practices – both hardware and software – that increase adaptive capacity to climate change.

129. Indicatives activities:

- Develop and implement agro-pastoral practices and technologies, adaptation investments and climate resilient income generating activities.
- Development/promotion of short cycle crop varieties resilient to floods, and production and distribution to farmers of improved seeds.
- Promotion of sustainable water management and irrigation techniques.
- Promotion of improved agricultural techniques including tied and open ridges, off-season crops, green fallow technologies and soil fertility regeneration technologies.
- Access to heat tolerant livestock breeds
- Improvement of livestock feeding (pasture management, storage), promotion of livestock feed banks and rehabilitation, restoration and management of pasture corridors.

Climate resilience and disaster risk management activities:

130. As the climate changes, the alteration of weather patterns coupled with environmental degradation and other physical and socioeconomic vulnerabilities (e.g. deforestation, location of housing in landslide-prone areas and floodplains, poor drainage, squatting and poorly-constructed housing) increases the hazard risk of many communities and farms.

131. Household and village level water infrastructure typically includes household or community-level bore wells, simple gravitational water distribution systems, and some small-scale communal water tanks. Infrastructure in other sectors, such as rural roads, education, health and agriculture are regularly affected and damaged by floods and flash floods. Many small-scale village level solutions such as irrigation schemes or water supply for domestic consumption are built using traditional knowledge, which do not take into account increasing climate risks, either due to lack of knowledge or insufficient local budgets. Government and donor-led infrastructure development programmes follow construction standards that apply business as usual climate scenarios. In many cases this existing investment is already being degraded through increasing climate variability combined with aggravating baseline factors. Given the predicted changing rainfall and temperature patterns in a changing climate, this situation will worsen, leading to further infrastructure failure and negative effects on livelihoods.

132. Project resources will be used to upgrade existing infrastructure to meet climate resilience standards and/or to build new climate resilient infrastructure to meet climate resilience standards with a special emphasis in landslide prevention works and community roads. The selection of such works will be informed by the technical expertise and analysis commissioned by the initiative.

133. Measures could include: (i) improved roadside slope stabilisation through additional retaining structures and bio-engineering works; (ii) improved longitudinal and transverse drainage; (iii) strengthening and improvement to damaged and scoured road shoulders; (iv) pavement repairs ranging from localised patching and edge repair, through rehabilitation where the structure has been completely compromised; and, (v) road safety improvements in populated areas such as improvements to footpaths and pedestrian crossings.

134. Additionally, there is scope for strengthening EWS in terms of hazard monitoring and warning dissemination, particularly at the community level, for improving local resilience to natural hazards. While hazard monitoring and forecasting capacities continue to be reinforced, such as through the GFCS led by CIMH, much remains to be done to improve community-level forecasting, especially for rapid-onset events such as flash floods, and to achieve a risk information flow from forecaster to population at risk, through a coordinated national mechanism. National authorities currently face several challenges in the dissemination of effective, redundant, integrated and timely alerts to community members. The needs of vulnerable and special groups (e.g. persons with disabilities, minority groups, foreign language speakers, etc.) are not adequately considered by usual media such as the radio broadcast.

135. Finally, given the challenge faced by most Caribbean countries in terms of electricity prices, and their dent on the public sector bill, the use of RE technologies and others (e.g. energy efficient lighting and appliances) in government buildings was also underscored. From a strictly mitigation perspective (GHG reduction) all countries also recognised the need for interventions in sectors with the highest contribution to emissions (i.e. transport, electricity generation).

Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster-induced losses

136. The initiative will support the application of low-emission climate-resilient technologies. During year 1 of implementation, the project will focus in training Government staff and communities on community-based infrastructure. Years 2 and 3 will focus on providing inputs to implement these technologies in selected communities. Beneficiaries (sites and communities) will be defined prior to project start-up with each Government based on the following priorities, amongst others:

- Community-based infrastructure, including but not limited to solar energy technologies (e.g. solar water heating equipment, solar photovoltaic installations) for backup, storage and alternative on/off-grid electricity generation for community shelters, health facilities, schools and other government and public buildings used for disaster risk management purposes.
- Improved community/district-level hazard monitoring and/or warning technology, applying CAP-compliant tools, particularly in areas prone to flash flooding and landslides.
- Strengthening the application of existing climate forecasting tools in the agriculture and water sectors to improve planning and decision making and inform adaptation measures.
- Other low-emission climate-resilient technology applications, including but not limited to waste management (e.g. waste-to-energy in urban areas, biomass electricity generation in rural areas).

137. Indicative activities:

- Identify risks and responses and to provide and implement recommendations for upgrading and building new small-scale infrastructure resilient to climate change.
- Construction of structural measures in selected countries.
- Training of community members in operation and maintenance of infrastructure, where relevant.
- Participatory technical review of the effectiveness of infrastructure activities as an adaptation strategy and its social benefits.
- Research, design and development and extension services for (i) the adoption and diffusion of good agricultural practices that demonstrate high yields using principally soil management, water and sunlight; and (ii) covered structures for agricultural production.
- Financing mechanism support for producers to adopt best practices in agriculture, fisheries and forestry production.

Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low-emission climate-resilient technology transfer, development and investments in the Caribbean

138. The project will support the development, operation and maintenance of national capabilities to: i) ensure safety, energy security and disaster risk response; ii) guarantee access to electricity in emergency situations; and, iii) strengthen human and infrastructure resilience consistent with local content, employment generation and sustainable development strategies so that the Caribbean region reaps the social, economic and environmental benefits of sustainable energy technology innovations.

139. While several of these energy technologies may be commercially viable worldwide, not all of them are economically viable in the Caribbean. For instance, using a proposed Sustainable Energy Framework in Barbados as a reference (see Figure 4), the benchmark for the comparison of cost-efficiency is set at US\$0.14/kWh (fuel cost of the most efficient conventional plant). This electricity cost compares to the US\$0.28/kWh cost of solar PV (which is marginally commercial but not economically viable), which competes with current non-residential tariffs (set at US\$0.33/kWh) applicable to public buildings (that is, where a significant part of energy technology installations would take place for adaptation, mitigation and disaster risk response purposes).

140. This output is set to contribute to the reduction of the Caribbean region's energy consumption and dependence on fossil fuel-generated electricity, particularly in the face of extreme weather occurrences, disaster risk situations and climate change vulnerability, with increased access to cleaner and cost-efficient alternative energy sources.

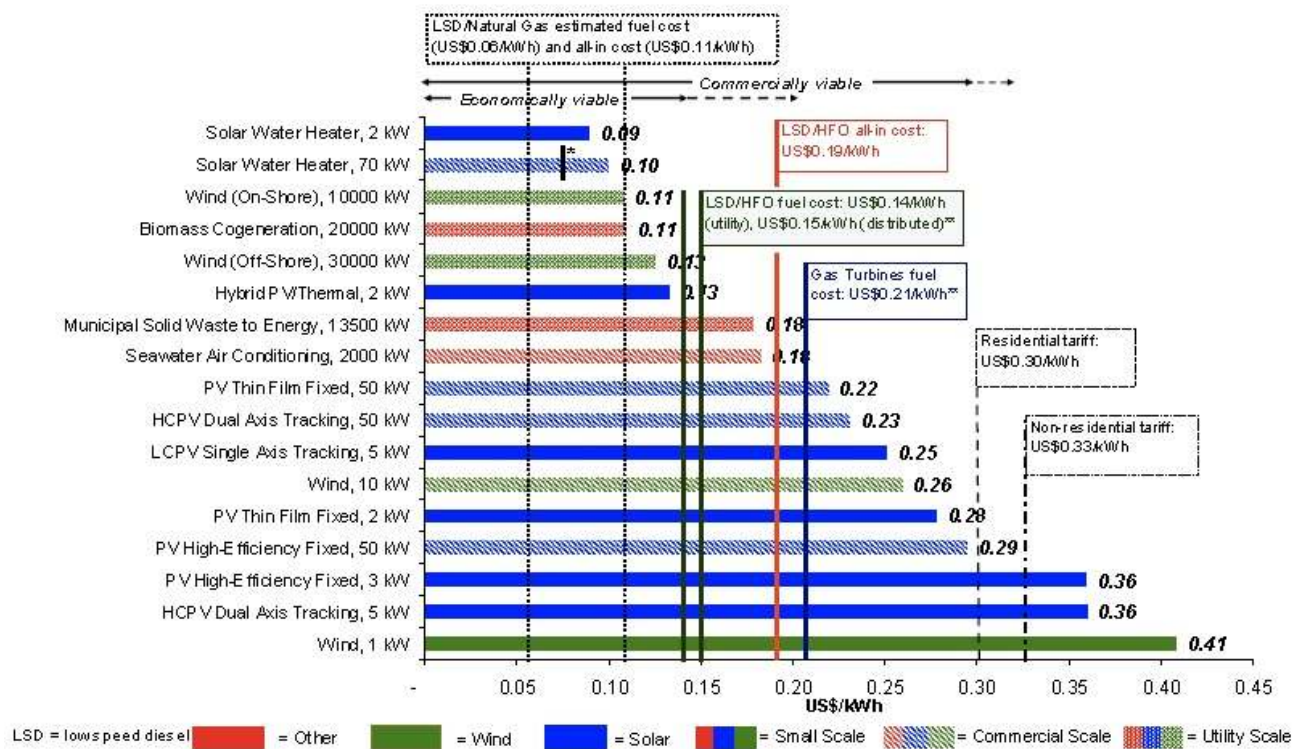


Figure 4: Renewable Energy Technology Cost Comparison vis-à-vis Conventional Tariffs

Source: Castalia and Stantec estimates for the IADB report on the Sustainable Energy Framework for Barbados (2010)

141. Indicative activities

- Specification and assessment of the technical requirements of selected adaptation, mitigation and disaster risk technology applications appropriate for the Caribbean, including capacity development support for operation, repair and maintenance (*integrated across outputs 2.1-2.6 per the project framework, see section 3*);
 - **Community-based infrastructure:** including solar energy technologies (e.g. solar water heating equipment, solar photovoltaic installations) for backup, storage and alternative on/off-grid electricity generation and energy efficient lighting and appliances (e.g. LED retrofits, air conditioning replacement, cooling and heating technologies) for community shelters, health facilities, schools and other government and public buildings used for disaster risk management purposes (*for outputs 2.1, 2.5 and 2.6 as prioritised by countries*);
 - **Climate-smart agriculture for sustainable livelihoods:** including solar photovoltaic pumping for irrigation and crop production purposes (e.g. greenhouses), energy efficient eco stoves and alternative fuels at the community level, utilisation of conversion technologies to use rice husk as a source of energy for the agriculture industry, and integrated water resource management applications (micro/small scale hydropower technology addressing the energy-water-food nexus) (*for outputs 2.2-2.4 as prioritised by countries*);
 - **Other low-emission climate-resilient energy technology applications:** including but not limited to waste management (e.g. waste-to-energy in urban areas, biomass electricity generation in rural areas), energy efficiency (e.g. implementation of a demonstration project on the adoption of hydrocarbon refrigerants in the refrigeration and air conditioning industry,

- particularly in Guyana) and sustainable transport (e.g. biofuels, solar powered vehicles) (*for outputs 2.5-2.6 as prioritised by countries*).
- Procurement of prioritised energy technology applications for the above-selected adaptation, mitigation and disaster risk management interventions.
 - Installation, demonstration and application of technologies for adaptation, mitigation and disaster risk management purposes.

Outcome 3

Knowledge networks strengthened in Caribbean to foster South-South and North-South cooperation through sharing of experiences surrounding climate change, natural hazard risk and resilience

142. Equally indispensable to the overall goal of climate resilient development is the availability, accessibility and reliability of relevant data and information. An ‘open-source’ and ‘open-access’ mechanism should be promoted with regards to data and evidence, both of which constitute the essential building blocks of any sound, evidence-based decision-making process. Identifying hazards, assessing vulnerabilities, predicting potential impacts, and choosing the most cost-effective and “no regrets” options to anticipate and/or minimise impacts requires access to the best available data and information. In climate risk management, mal-information or miscalculations can be almost as detrimental as the disasters sought to be avoided.

143. To date, considerable effort, time, and resources have been expended in the Caribbean in collecting scientific data, conducting vulnerability assessments, and prioritising adaptation and risk management options. A disconnect however persists between the data per se and its ultimate objective of informing, shaping, and defining policy-making, monitoring and evaluation, including tracking progress towards climate resilience. A combination of dependable climate evidence, capacity building and appropriate technologies is thus required to ensure that sound scientific data is: (i) properly analysed and interpreted, (ii) effectively packaged and “translated” for non-scientists and decision-makers at community, national and regional levels, (iii) efficiently disseminated for improved access and application by all sectors, and (iv) effectively incorporated into revised development strategies and sector-based policies in a coordinated and cohesive manner.

144. This initiative will seek to improve the culture of sharing data, experiences, and lessons learned intra-regionally, but would also provide opportunities for the Caribbean to learn from the advances and experiences of countries such as Japan. Technology transfer and customisation of best practices from other regions should be very useful, but they must account for economic and cultural realities of the Caribbean nations and do not unintentionally overlook the Caribbean experience.

145. This is critical to addressing the need for more effective experiences of how countries could adapt to climate change related impacts and use these experiences to develop policy approaches, and at the same time develop sector-based interventions to translate these policies into action. In this regard the CARICOM Secretariat and OECS Commission and their related bodies continue to be key advocates in facilitating knowledge exchanges, scientific data and documenting the lessons of Member States from this and other projects in the area of climate change.

Output 3.1 Capacity building within the region to sustain and enhance approaches to climate change adaptation and mitigation

146. Indicative Activities:

- Policy fora bringing together representatives of Government, private sector, regional and international organisations to review Caribbean experiences on climate change, and to look at effective practices in NAPs and community-based adaptation
- Exposure to financial tools to support the implementation of a mitigation action programme in selected sectors (e.g. fiscal incentives, feed in tariffs, credits and guarantees, crop insurance)

Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low-emission technologies for sustainable cities in island towns and communities

147. Indicative Activities:

- Host side event at SBI on Japan-Caribbean Partnership in June 2016
- Host COP-21 side event on Japan-Caribbean Partnership including press conference
- Participate in annual fora in Caribbean region on NAPs and NAMAs and sharing of results/impact from Japan-Caribbean Programme e.g. Caribbean Renewable Energy Forum (CREF), Caribbean CDM Conference, RELACCX

Output 3.3 Japan-Caribbean transfer of technical and process-oriented information on experiences, good practice, lessons and examples of relevance to medium to long-term national, sector and local planning and budgeting processes

148. Indicative Activities:

- Study visit of Caribbean officials to Japan to learn about Japan's experiences in climate change and disaster risk management
- Study visit of Caribbean private sector to Japan to learn more about climate-resilient technologies from Japan and their potential application in productive processes
- Creation of/participation in a climate-resilient technology transfer, development and investments forum in the Caribbean that will serve as a knowledge hub/innovation ecosystem

2.5. Sustainability

149. The long-term viability and sustainability of interventions will depend greatly on the ownership and on institutionalisation of the proposed interventions. The project aims to support Governments in the Caribbean at the institutional level and sustain on-going government efforts to strengthen sub-national capacities in planning, budgeting and implementation climate change adaptation and mitigation measures. This will also need to be reflected at a regional level, with alignment of interventions to regionally-agreed strategies (see section 2.2), and promotion of regional experience sharing. Moreover, strong engagement with regional entities with mandates for advancing various aspects of the regional development agenda will also be critical, particularly as they also provide various technical support to the countries in the long term (e.g. training, technical advice and assessments, equipment and tools, accessing global resources) for continued sustainability. Of particular note is exploring opportunities to collaborate where countries are not members of these organisations and have specific needs where these entities provide services and capacity building e.g. a keen priority for the Government of Suriname is the establishment of a climate institute to support its work in climate risk issues, and to address the weak structures of meteorology and hydrology which function separately and are clearly (at least meteorology) under-resourced (technically) and have limited engagement.

150. From the adaptation perspective, the upstream activities such as the NAPs process will provide capacity building activities to integrate climate risks into planning and budgeting tools in the medium and long term. The downstream adaptation measures being proposed in Outcome 2 were previously discussed with Governments in the Caribbean and will be carried out with the support from local communities and national and sub-national governments in the region. Sustainability of on-the-ground activities will be achieved through the active participation of local communities in the implementation of the adaptation measures proposed by the project. Community groups, community members, and women's participation will be fostered and strengthened through the implementation of concrete adaptation measures that will promote social organisation and provide alternatives to better cope with the impacts of climate variability.

151. One of the main targets of the projects is to incrementally improve the adaptive capacity for Governments in the Caribbean to address climate risks and opportunities. Adaptive capacity will be strengthened in the following ways:

- Improving institutional coordination between government ministries and departments expected from the NAPs support process.
- Building awareness and a greater understanding of climate change risks and adaptation benefits at all levels (i.e. from community members at the local level to policy-makers at national level) by supporting each country to develop its NAP roadmap.
- Enhancing the technical capacity of stakeholders to integrate adaptation measures through their implementation of concrete interventions on the ground such as community-based water harvesting, storage and distribution systems, irrigation systems, climate-resilient agroforestry techniques.
- Developing the evidence base to make the case for greater levels of investments in adaptation, and to develop national understanding of which policies and strategies can be expected to provide overall net benefits to economic growth in different sectors.

152. From the mitigation perspective, the upstream activities under the NAMA framework will help the Caribbean region to develop LEDS in line with their national priorities and regional strategies. Meanwhile, the downstream climate change mitigation activities are designed to enhance Caribbean stakeholder knowledge about energy technology investments that can steer their low-emission and climate-resilient development in a sustainable direction.

153. The Japan-Caribbean Climate Change Partnership will help ensure that the appropriate conditions are in place for investment in cleaner and more cost-efficient energy technologies by the end of the project. To this effect, the following activities will take place to support sustainability and replication:

- Support the enhancement of the regional energy technology information centre within CCCCC that both helps facilitate investments from the public and private sectors, as well as ensure that knowledge management and awareness raising for civil society is available after project completion.
- Catalysing finance from alternative sources (e.g. national budgets, other bilateral/multilateral funding windows) to deploy additional energy technology investments that further demonstrate their technical and financial feasibility in the Caribbean, in order to improve local and foreign investor confidence in applications adequate for SIDS.
- Training and development of local installers, technicians and SMEs (including local energy service companies (ESCOs) that would enter into energy saving performance contracts with the public and private sectors), in order to ensure that a critical mass of operation, repair and maintenance

services are available to provide quality assurance of equipment and retrofits (e.g. solar PV applications, energy efficient appliances and other applications).

154. The sustainability of the project's benefits will largely depend on the willingness of stakeholders to adopt interventions and continue with them beyond the duration of the project, and the long-term political and financial commitment of policy-makers to provide enabling investment environments for scaling up of successful adaptation and mitigation measures. The upstream and downstream proposed activities aim at increasing the business case for adaptation and mitigation measures and the importance of integrating climate risk and low-emission considerations into planning processes. Through the implementation of pilot adaptation and mitigation initiatives at the community and national levels, this project seeks to have a strong buy-in of adaptation and mitigation interventions from communities and national and sub-national governments, and thus a strong replicability at the community level.

155. The effectiveness and impact of the project also relies on building valuable synergies with ongoing initiatives in the region (such as described in section 2.2). This will entail building and maintaining strong partnerships with key actors in the region to identify opportunities for collaboration to complement, upscale or replicate activities and in identifying vulnerable communities within which to work. Some of these counterparts will also have valuable technical experience on which project activities can capitalise which should be explored.

156. Outcome 3 has been designed as key part of the sustainability and replicability strategy of the project, through systematically documenting and disseminating good practices in the Caribbean region, linking with academia, NGOs, and relevant initiatives, securing broad dissemination of project results and the transmission of know-how and experience to next generations of community practitioners, government planners and policy makers. The project will make use of existing portals such the CCCCC Clearinghouse and the Adaptation Learning Mechanism (ALM) to ensure that the lessons learnt from the project contribute to, and benefit from, experiences in adapting to climate change across the region and the entire UNDP adaptation portfolio. The knowledge centre of UNDP's LECB programme and the MDG Carbon Facility work on raising awareness on NAMAs, LEDS, GHG and MRV systems will help Caribbean countries apply best practices of sector and market mechanisms that help promote energy technology investments.

2.6. Stakeholder Involvement Plan

157. This project was designed after consultation with governments from the eight beneficiary countries, civil society, CARICOM Secretariat, OECS Commission, CCCCC, UNDP/Global Environmental Facility Small Grants Programme in the Eastern Caribbean, UNDP Country Offices, Government of Japan including the Embassy of Japan in Trinidad and Tobago and JICA representation in Georgetown and Castries. The preparatory phase involved a review and consultation phase over a period of 5 months including field missions to conduct a needs assessment in five of the eight beneficiary countries.

158. At the Third Conference on Small Island Developing States in Apia, Samoa, this initiative was launched, providing an opportunity for further stakeholder engagement.

159. A project inception workshop will be organised to initiate project activities. On this occasion the detailed annual work plan will be finalised with the input of all relevant project stakeholders.

160. During the implementation of this initiative, UNDP will continue to consult with key stakeholders. Once implementation commences, UNDP will initiate a series of in-depth discussions in each country to enable government representatives, civil society, academia, the private sector as well as the donor community to provide their views on the overall scope of the project, and gain continuous feedback for project refinement and effectiveness. Such entities may include CCCCC, CIMH, CDEMA, CANARI, CAFAN, UWI, University of Guyana, St George's University, UNFCCC RCC, CARDI, CARPHA, among others. These views will be used by the project implementation team to fine tune and devise annual operational work plans that are fully aligned with other ongoing and planned initiatives. Consultations and agreements with key stakeholders including Government as well as communities will be secured prior to implementation, and feedback solicited during implementation. UNDP will use social media and a project website to continuously post reports and updates on the interventions being undertaken, and obtain feedback.

161. CARICOM, OECS, JICA, Embassy of Japan, and Governments from Guyana, Saint Lucia, Grenada, Dominica, St. Vincent and Grenadines, Suriname, Jamaica and Belize will serve as the main stakeholders in this initiative and would be involved in the stewardship and decision making process.

162. Throughout the process of implementation, women, the vulnerable and marginalised (e.g. persons with disabilities, indigenous populations, youth, the poor) must be actively engaged in consultative processes which shape policy development and community interventions. This will ensure that they are strategically targeted to address their respective needs and reduce physical and economic vulnerabilities.

2.7. UNDP Safeguards Policies

163. Fundamentally, this project will provide support to its beneficiary countries to become more resilient to climate change by integrating anticipated climate impacts into national planning and development processes and demonstrating the application of appropriate technologies that contribute to improved resilience.

164. UNDP's Social and Environmental Standards (SES) underpin UNDP's commitment to mainstream social and environmental sustainability in its Programmes and Projects to support sustainable development. The SES strengthen UNDP's efforts to attain socially and environmentally beneficial development outcomes and present an integrated framework for achieving a consistent level of quality in UNDP's programming. The SES require that all UNDP Programmes and Projects enhance positive social and environmental opportunities and benefits as well as ensure that adverse social and environmental risks and impacts are avoided, minimised, mitigated and managed. Through application of the SES, UNDP enhances the consistency, transparency and accountability of its decision-making and actions, improves performance, and strengthens achievement of positive development outcomes. The SES assist UNDP staff and Implementing Partners to manage social and environmental risks and impacts of UNDP Programmes and Projects.

165. In this regard, UNDP SES has been applied and will be continuously adhered to in the implementation of this initiative. A screening of the project during the design phase suggests it has a moderate level of risk (see Annex 4). In some cases, determining the significance of these impacts or risks will require environmental and social assessment which, in turn, will lead to the identification of specific environmental and social management measures that need to be incorporated into the project. In compliance with corporate policy, all project related activities will be screened during project

implementation and an appropriate mitigation plan will be developed to ensure minimal environmental and social impacts. The safeguards plan will be reviewed by UNDP Country Offices as part of oversight responsibilities.

III. PROJECT RESULTS FRAMEWORK

<p>Intended Outcome as stated in the Country Programme Results and Resource Framework: This project will contribute to achieving the following Country Programme Outcome as defined in UNDP Regional Programme for LAC:</p> <p>1) Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded (SP outcome 1).</p> <p>4) Regional Programme Outcome 4. Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change (SP outcome 5).</p>					
<p>UNDP Regional Programme Outcome Indicators:</p> <p>Outcome 1: Annual emissions of carbon dioxide (in million metric tons) (SP indicator 3, outcome 1) Coverage of cost-efficient and sustainable energy, disaggregated by energy source and beneficiary, sex, rural/urban and excluded groups (SP indicator 4, outcome 1) Hectares of land that are managed sustainably under a conservation, sustainable use or access and benefits sharing regime (SP indicator 5, outcome 1)</p> <p>Outcome 4: Percentage of countries with disaster and climate risk management plans fully funded through national, local and sector development budgets (SP indicator 4, outcome 5)</p>					
<p>Applicable Key Result Areas (2014-17 Strategic Plan): Sustainable Development Pathways – Climate Change</p>					
<p>Applicable Outcomes (2014-17 Strategic Plan):</p> <p>Outcome 1. Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded (Outputs 1.4 and 1.5)</p> <p>Outcome 5. Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change (Outputs 5.1, 5.2 and 5.3)</p>					
<p>Applicable Outcome Indicators:</p> <p>Outcome 1: 1.3 Annual emissions of carbon dioxide (in million metric tons) 1.4 Coverage of cost-efficient and sustainable energy, disaggregated by rural/urban 1.5 Hectares of land that are managed sustainably under a conservation, sustainable use or access and benefits sharing regime</p> <p>Outcome 5: 5.2 Economic loss from natural hazards (e.g. geo-physical and climate-induced hazards) as a proportion of Gross Domestic Product (GDP)</p>					
<p>Applicable Outputs (2014-17 Strategic Plan):</p> <p>Output 1.4. Scaled up action on climate change adaptation and mitigation across sectors which is funded and implemented</p> <p>Output 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)</p> <p>Output 5.1. Mechanisms in place to assess natural and man-made risks at national and sub-national levels</p> <p>Output 5.2. Effective institutional, legislative and policy frameworks in place to enhance the implementation of disaster and climate risk management measures at national and sub-national levels</p>					
Project Objective ⁴² (equivalent to output in ATLAS)	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
To support countries in advancing the process of low-emission risk-resilient development by	Number of plans and programmes that are informed by multi-hazard national and sub-national disaster and climate risk assessments, taking into	Few countries have a systematic process for incorporating disaster and climate risk into national planning and budgeting processes. Often “mainstreaming” of these	6 countries have completed NAPs, which explicitly address disaster and climate risk resilience and gender impacts	NAP roadmaps Stocktaking/gap assessment reports Workshop reports	Evolving UNFCCC, Adaptation Committee and LEG guidance continues to support the medium to long-term adaptation planning process. Key Government representatives and stakeholders recognise the value engaging in

⁴² Objective (Atlas output) monitored quarterly ERBM and annually in APR

<p>improving energy security and integrating medium to long-term planning for adaptation to climate change</p>	<p>account differentiated impacts on women and men (SP 5.1.2)</p>	<p>issues is left with the key ministry and is not sufficiently integrated across sectors.</p>	<p>All implemented demonstration activities are based on community-level risk and vulnerability assessment, which include gender analysis</p>	<p>regular debate about the medium to long-term implication of climate risks and adaptation. Senior planners and decision-makers continue to recognise the importance of climate change adaptation and are committed to support necessary policy changes.</p>
<p>Number of national/sub-national development and key sectorial plans that explicitly address disaster and/or climate risk management being implemented, disaggregated by those which are gender responsive (e.g. include the collection of disaggregated data, gender analysis and targeted actions) (SP 5.3.1)</p>	<p>Gender responsiveness and even mainstreaming of CCA and DRR are limited</p>	<p>Community capacity assessment reports (or supplemental analysis where capacity assessment previously completed) Demonstration projects assessment criteria and selection justification Engineer monitoring reports Field visit reports</p>	<p>Gender inequalities and imbalances may affect the implementation efficiency of community activities as well as their sustainability. It is assumed that these imbalances can be identified early in order to adjust the project's strategy. Key community stakeholders will be open and receptive to government's initiatives at community level, and that political considerations will not infer negatively in the implementation of the project, if for instance the communities have strong expectation on a topic unrelated to CC, disaster management, or even resilience.</p>	<p>Senior planners and decision-makers continue to recognise the importance of climate change adaptation and are committed to support necessary policy changes.</p>
<p>Number of new jobs and other livelihoods generated, disaggregated by sex (SP 1.1.1)</p>	<p>Youth unemployment is high in the region, and women tend to have higher unemployment and less access to employment opportunities than men</p>	<p>50 persons develop new/enhanced skills with which they generate livelihoods, disaggregated by sex, age and sector</p>	<p>Tools and approaches developed by the project are considered practical, locally appropriate, innovative, sustainable and cost effective. Key Government representatives and stakeholders recognise the value of project-related training initiatives.</p>	<p>Low capacities of committees to support the implementation of appropriate climate resilient technologies.</p>
<p>Number of countries where implementation of comprehensive measures - plans,</p>	<p>Some Caribbean countries have developed urgent and immediate plans for adaptation and other related</p>	<p>6 countries have completed NAPs, which explicitly address disaster and climate risk resilience and gender impacts</p>	<p>Evolution UNFCCC, Adaptation Committee and LEG guidance continues to support the medium to long-term adaptation planning process.</p>	<p>Evolution UNFCCC, Adaptation Committee and LEG guidance continues to support the medium to long-term adaptation planning process.</p>
<p>Outcome 1⁴³ <i>NAMAs and NAPs to promote alternative low-emission and climate-</i></p>	<p>Number of countries where implementation of comprehensive measures - plans,</p>	<p>6 countries have completed NAPs, which explicitly address disaster and climate risk resilience and gender impacts</p>	<p>Evolution UNFCCC, Adaptation Committee and LEG guidance continues to support the medium to long-term adaptation planning process.</p>	<p>Evolution UNFCCC, Adaptation Committee and LEG guidance continues to support the medium to long-term adaptation planning process.</p>

⁴³ All outcomes monitored annually in the APR. It is highly recommended not to have more than 4 outcomes.

<p><i>resilient technologies that can support energy transformation and adaptation in economic sectors are formulated and institutionalised</i></p>	<p>strategies, policies, programmes and budgets - to achieve low-emission and climate-resilient development objectives have improved (SP 1.4.2)</p> <p>Number of countries with disaster reduction and/or integrated disaster reduction and adaptation plans (disaggregated by gender responsiveness), and dedicated institutional frameworks and multi-stakeholder coordination mechanisms (SP 5.2.1)</p> <p>Number of national/sub-national development and key sectorial plans that explicitly address disaster and/or climate risk management being implemented, disaggregated by those which are gender responsive (SP 5.3.1)</p>	<p>climate change strategies and started their implementation, with some having coordination mechanisms in place to integrate them into the development process as well as other elements which could be used for medium to long-term planning.</p> <p>Almost all Caribbean countries report on lack of capacity, data, expertise, institutions and financial resources to undertake medium- to long-term oriented impact assessment and adaptation planning.</p> <p>1 beneficiary country has submitted a NAMA to the UNFCCC (Dominica)</p> <p>At least 3 countries have projects underway to develop NAPs/LEDS/GE Strategy (Grenada, Jamaica, Saint Lucia)</p>	<p>6 countries supported under this initiative have submitted NAMAs to UNFCCC</p>	<p>Workshop reports</p> <p>Coordinating mechanisms for the implementation of LEDS (e.g. NAMA registry, MRV and GHG inventory systems) and certified professionals for MRV, LEDS and NAMA oversight</p> <p>Approved NAPs and NAMAs</p>	<p>Key Government representatives and stakeholders recognise the value engaging in regular debate about the medium to long-term implication of climate risks and adaptation.</p> <p>Senior planners and decision-makers continue to recognise the importance of climate change adaptation and are committed to support necessary policy changes.</p> <p>Tools and approaches developed by the project are considered practical, locally appropriate, innovative, sustainable and cost effective.</p> <p>Key Government representatives and stakeholders recognise the value of project-related training initiatives.</p>
<p>Outputs to deliver Outcome 1:</p> <p><i>Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.</i></p> <p><i>Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.</i></p> <p><i>Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.</i></p> <p><i>Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.</i></p>					
<p>Outcome 2</p> <p><i>Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient</i></p>	<p>Number of people with improved access to energy (SP 1.5.2)</p> <p>Number people with improved access to energy as a result of</p>	<p>Few positive measures exist (water harvesting, micro-dams, water saving incentives) but are limited in reach and need up-scaling</p>	<p>20% increase in kWh of RE capacity installed in vulnerable communities</p> <p>20% increase in kWh of RE capacity installed in agricultural operations</p>	<p>APR</p> <p>Local level assessments at demonstration sites</p> <p>Physical inspections</p>	<p>Target population do not see the benefit of new practices.</p> <p>Low capacities of committees to support the implementation of appropriate climate resilient technologies.</p>

<p><i>development in the Caribbean</i></p>	<p>UNDP-supported interventions</p> <p>% of households benefitting from improved access to energy which are female-headed households</p> <p>Number of schemes which expand and diversify the productive base based on the use of sustainable production technologies (SP 1.1.3)</p> <p>Number of communities where sector-specific risk reduction measures are being implemented, disaggregated by urban and rural areas</p>	<p>Some countries have incentives and mechanisms to encourage sustainable practices within various sectors.</p>	<p>150 people with improved access to energy</p> <p>55% of households benefitting from improved access to energy are female-headed households</p> <p>5% decrease in or avoided tCO₂ emissions</p> <p>10 agricultural sites implementing climate adaptation and sustainable production methods</p> <p>12 communities implementing risk reduction measures, disaggregated by urban/rural area</p>	<p>Field visit reports</p> <p>Infrastructure designs and plans</p> <p>Official country documents such as national reports</p>	<p>Insufficient awareness of climate change by farmers.</p> <p>Availability of technical expertise and equipment locally</p>
<p>Outputs to deliver Outcome 2:</p> <p><i>Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)</i></p> <p><i>Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.</i></p> <p><i>Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.</i></p> <p><i>Output 2.4 Climate-resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.</i></p> <p><i>Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster-induced losses</i></p> <p><i>Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low-emission climate-resilient technology transfer, development and investments in the Caribbean</i></p>					
<p>Outcome 3</p> <p><i>Knowledge networks strengthened in Caribbean to foster South-South and North-South cooperation through sharing of experiences surrounding climate change, natural hazard risk and resilience</i></p>	<p>Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or sub-national level (SP 1.3.1)</p>	<p>Several formal and informal relationships exist within the region, and opportunities for cooperation originate in many forms, including through regional bodies as well as projects</p>	<p>3 partnership mechanisms agreed</p>	<p>Reports from workshops/policy dialogues</p> <p>MOUs, partnership agreements, letters of agreement</p> <p>Mid-term evaluation</p> <p>Final evaluation</p>	<p>Experience and lessons sharing among beneficiary countries will lead to formal partnership for sharing of technical capacity, data and other resources.</p>

	Number of case studies disseminated and available on regional knowledge platforms	Often project results can be lost after project ends or only confined to a small number of users	10 case studies shared on at least 2 regional platforms	e.g. CCCCC, CIMH, CDEMA websites UNDP website, ALM	It is assumed that all institutions will collaborate in information sharing
<p><u>Outputs to deliver Outcome 3:</u> <i>Output 3.1 Capacity building within the region to sustain and enhance approaches to climate change adaptation and mitigation</i> <i>Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low emission technologies for sustainable cities in island towns and communities</i> <i>Output 3.3 Japan-Caribbean transfer of technical and process-oriented information on experiences, good practice, lessons and examples of relevance to medium to long-term national, sector and local planning and budgeting processes</i></p>					

IV. TOTAL BUDGET AND WORK PLAN

Project Outcomes / Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Notes
OUTCOME 1	UNDP	TBC	Japan	71200	International Consultants	84,000	84,000	24,000	192,000	1
				71300	Local Consultants	150,000	406,000	348,000	904,000	2
				71600	Travel	198,022	188,741	188,022	574,785	3
				75700	Training, workshops and conferences	79,880	79,880	79,880	239,640	4
				61300	Service contractors	103,802	103,802	103,802	311,406	5
74500	Miscellaneous	15,000	25,000	10,000	50,000					
					Total Outcome 1	630,704	887,423	753,704	2,271,831	
OUTCOME 2	UNDP	TBC	Japan	61300	Service contractors	288,000	288,000	288,000	864,000	6
				71200	International Consultants	224,000	168,000	0	392,000	7
				71300	Local Consultants	160,000	100,000	0	260,000	8
				71600	Travel	10,000	20,000	20,000	50,000	9
				72100	Contractual services-companies	215,000	410,000	410,000	1,035,000	10
				72300	Goods and materials	655,000	1,310,000	1,310,000	3,275,000	11
				72200	Equipment and Machinery	420,000	840,000	840,000	2,100,000	12
				75700	Training, workshops and conferences	18,000	20,000	18,000	56,000	13
				74500	Miscellaneous	25,243	25,243	25,243	75,730	
									Total Outcome 2	2,015,243
OUTCOME 3	UNDP	TBC	Japan	71200	International Consultants	101,000	123,000	123,000	347,000	14
				71300	Local Consultants	102,000	102,000	102,000	306,000	15
				71600	Travel	168,445	301,890	173,445	643,780	16
				74200	Audiovisual production	95,333	108,333	108,333	312,000	17

Project Outcomes / Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	Atlas Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	Notes
				75700	Training, workshops and conferences	110,000	115,000	100,000	325,000	18
				74500	Miscellaneous	15,000	15,000	15,000	45,000	
					Total Outcome 3	591,778	765,223	621,778	1,978,780	
				61100	Salaries	200,949	200,949	200,949	602,847	19
				61300	Service Contractors	31,200	31,200	31,200	93,600	20
				71200	International consultants	25,000	20,000	35,000	80,000	21
				71300	Local consultants	0	20,000	35,000	55,000	22
				71600	Travel	70,000	65,000	65,000	200,000	23
				72200	Equipment and machinery	32,000	6,000	6,000	44,000	24
				72400	Communication	17,900	12,600	12,600	43,100	25
				75700	Training, workshops and conferences	12,000	9,000	9,000	30,000	26
				74110	Audit	0	20,000	0	20,000	27
				74500	Miscellaneous	14,000	14,000	14,000	42,000	28
				74599	Direct project costs	140,000	90,000	90,000	320,000	29
					Total Management	543,049	488,749	498,749	1,530,547	
SUB-TOTAL	UNDP	TBC	Japan			3,780,775	5,322,639	4,785,475	13,888,888	
GMS (8%)	UNDP	TBC	Japan			302,462	425,811	382,838	1,111,111	
PROJECT TOTAL						4,083,237	5,748,450	5,168,313	14,999,999	

Budget notes

1. Support to NAP process; GHG inventory

2. Support to NAP and NAMA processes; trainers
3. Country missions by NAP and NAMA Technical Specialists; regional thematic workshops
4. Regional thematic workshops
5. NAP and NAMA Technical Specialists
6. National Focal Points
7. Baseline needs assessments and technical recommendations
8. Baseline needs assessments and technical recommendations
9. Training on operation, repair and maintenance of equipment
10. Shipping, installation and testing of goods and materials relating to agriculture and climate-resilience interventions
11. Water and agricultural interventions
12. Energy and infrastructure interventions
13. Community consultations and national meetings on adaptation measures
14. Communications Specialist; design and editing
15. Communication campaign implementation
16. Japan study tour, policy fora, capacity building
17. Promotional and learning materials; video production; other media for knowledge capture and sharing
18. Policy fora, advocacy activities, capacity building
19. Project Manager
20. Project Associate
21. M&E; mid-term and final evaluations
22. M&E; mid-term and final evaluations
23. Monitoring missions; inception workshop
24. Office equipment (computers, printers, etc)
25. Internet, telephone; website development and maintenance
26. Inception workshop; Project Board meetings
27. As determined by HQ
28. May include e.g. bank charges, insurance, sundry, etc.
29. Cost recovery for UNDP RSC and UNDP COs

V. MANAGEMENT ARRANGEMENTS

166. The project is directly aligned with the UNDP Strategic Plan 2014-2017 Outcomes 1 and 5 and will be executed under UNDP's Direct Implementation Modality (DIM). UNDP's Sub-Regional Office for the Eastern Caribbean based in Barbados has agreed to function as Responsible Party for services related to recruitment of project staff and consultants, travel, sub-contracting, organisation of regional workshops, etc. The costs of the UNDP SRO services will be borne from the Project Management Cost budget.

167. As agreed with Japan, the UNDP-GEF Unit of the UNDP Bureau for Policy and Programme Support (BPPS) provided project cycle management services to idea identification, project formulation, development, appraisal, partner and donor clearances for the Japan-Caribbean Climate Change Partnership to the beneficiary Governments of selected countries in the Caribbean region that will be participating in this project.

168. Implementation of project activities at the national level may rely on implementing partners including Government entities, NGOs and/or other regional or UN organisations. Potential options include, but are not limited to the CARICOM Secretariat (in Guyana), the OECS Commission (in Saint Lucia), the CCCCC, and the UNFCCC Regional Collaboration Centre for the Caribbean (in Grenada).

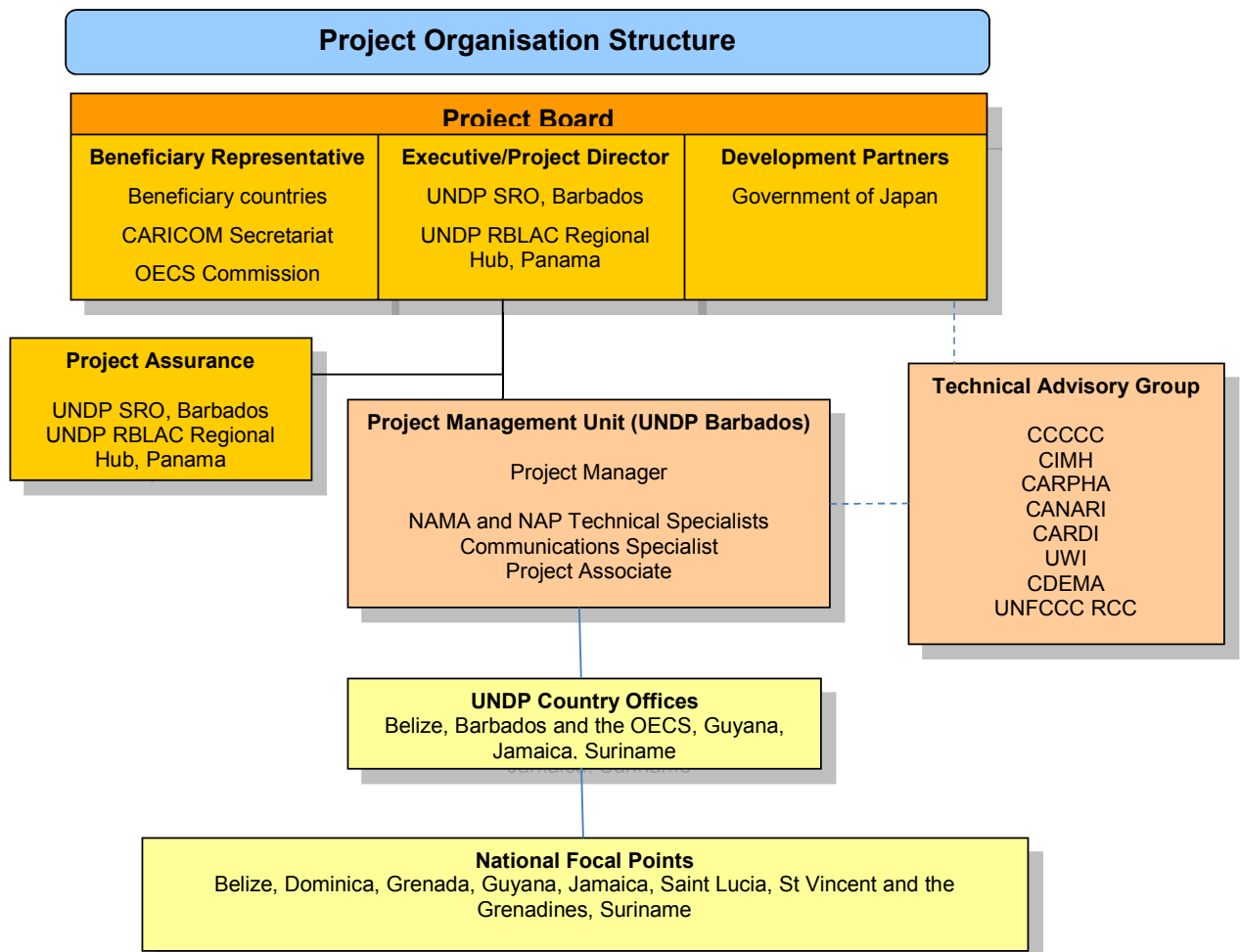
169. Having responsibility for project implementation, UNDP Barbados and OECS will recruit a dedicated project team, referred to as a Project Management Unit (PMU). The PMU will be entrusted to support the SRO to deliver on the outputs outlined in this project document. The PMU will be responsible for the day-to-day management and coordination of the project, under the supervision of the SRO.

170. The PMU will be comprised, at a minimum, of a full time Project Manager, two Technical Specialists (which may be cost shared with other UNDP projects) and a dedicated Project Associate. Other short-term support may be contracted by the PMU. The PMU will be under the day-to-day guidance from the Deputy Resident Representative of UNDP Barbados and OECS or their designate. The PMU will be provided the authority to manage components on a daily basis as per the boundaries established by this project document.

171. UNDP will undertake regular oversight of project implementation including management arrangements, annual work planning and in-situ monitoring, financial and results management, evaluation and project closure.

172. UNDP SRO, assuring the overall quality control and oversight for this initiative (especially on substantive results monitoring and financial management), will report to GOJ (via UNDP Japan Liaison Unit) on an annual basis with the use of Annual Project Implementation Reviews (the first one to be submitted 12 months after the project document has been signed). More frequent updates can also be provided between project performance evaluations in response to any particular requirements or preferences of the donor. The Japan focal point within the UNDP Bureau of External Relations and Advocacy (BERA) will also be regularly updated of project progress and other relevant matters.

173. The project has been designed with an emphasis and ability to disburse quickly from the start. Special efforts will be made for adequate and effective outreach on the results and impacts of the programme, throughout its implementation period, including media events in Japan and the Caribbean and other events deemed appropriate.



174. The **Project Board** is responsible for making management decisions for a project, in particular when guidance is required by the Project Manager. 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 2.

175. 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 the UNDP.

176. 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 Board contains four distinct roles:

- **Executive/Project Director:** individual representing the project ownership to chair the group. For this project the UNDP Resident Representative in Barbados and OECS will assume this role.
- **Development Partners/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. GOJ will assume this role.
- **Beneficiary Representative:** 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. Nominated representatives of the beneficiary countries will serve on the Project Board in this capacity.
- **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 Manager, ensuring appropriate project management milestones are managed and completed. The Deputy Resident Representative of UNDP Barbados and the OECS, or their designate, will provide quality assurance oversight. The UNDP-GEF and DRR units within the UNDP Regional Hub may be requested to provide technical, policy advisory or operational support on a cost-recovery basis, to be charged to the direct project costs (DPC) budget line⁴⁴. The Regional Hub will be responsible for independent monitoring, ensuring quality assurance, compliance with UNDP policies and procedures, oversight of implementation progress based on the monitoring mechanism designed as part of the project, and compliance with ATLAS project management.

5.1 Project Management and Implementation Team⁴⁵

177. **Project Manager:** The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager's primary responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner's representative in the Outcome Board.

178. The **Project Support** role provides project administration, management and technical support to the Project Manager as required by the needs of the individual project or Project Manager. Such functions include administrative services, project documentation management, financial management, monitoring and reporting, and provision of technical support services.

- **Technical Specialists:** responsible for NAMA and NAP-related technical inputs to all project activities under the Japan-Caribbean Climate Change Partnership, and assures the quality of field activities. They are also responsible for providing technical advice and mentoring to project staff and national counterparts, in close coordination with UNDP oversight staff.
- **Communications Specialist:** responsible for the implementation of the project visibility and communications strategy and support the project on the knowledge sharing works. He or she will be based in the PMU located in Barbados but will also support project staff in other countries
- **Project Associate:** responsible for financial reporting, logistical arrangements, administration, management of project documentation, etc.
- **National Focal Points:** 8 National Focal Points will be appointed to superintend country based project activities and coordination. These individuals will ensure that country level results are

⁴⁴ UNDP-GEF will maintain timesheets throughout the project on the services provided and records will be available should they be necessary for any reconciliation.

⁴⁵ Incorporates several lessons learned from the evaluation of the Japan-funded Africa Adaptation Programme

achieved within available time and budget. They will work with PMU (inclusive of technical staff) based in the SRO and the CO assigned to ensure quality project outputs.

179. A **Technical Advisory Group** is proposed to provide strategic technical oversight to the Project Manager for effective implementation, including building synergies with ongoing activities in the countries and the region and ensuring alignment with regional objectives. This would be inclusive of a number of technical agencies, research and educational institutions and NGOs such as CCCCC, CIMH, CADRI, UWI, CARPHA, CANARI, etc. The Group would also provide direct input to the Project Board as deemed necessary to guide decision making. Membership may be determined so as to best provide guidance in relation to the specific project activities. Meetings of the Group may be once or twice a year, or as otherwise determined.

180. The UNDP COs (Belize, Barbados and the OECS, Guyana, Jamaica, Suriname) will be responsible for overseeing the implementation of activities under Outcome 2 in their respective programme countries. The COs will be instrumental in building relationships with stakeholders at national and local levels, and with NGOs and development partners in the country. The COs will also They will support the work of the National Focal Points, including provision of salaries, procurement, contract management and monitoring, and field monitoring.

181. The National Focal Points will report via a matrix reporting structure to their respective COs and the Project Manager.

182. Each CO will receive a disbursement of the total value allocated for country activities upon approval of a country level AWP, derived from the overall project AWP, by the Project Manager based in Barbados. The approval of the AWP will be done by the Project Manager under delegated authority of the Resident Representative of UNDP Barbados and the OECS. The budget allocated to each country will be equitable initially, to be further refined based on needs assessments and monitoring of activities as outlined under section 2.4 outcome 2.

183. Project Boards need to fully understand their roles and responsibilities, and ensure that they meet regularly, be fully engaged and function in accordance with applicable UNDP rules and regulations, and provide effective and timely oversight, guidance and decisions on key programmatic and operational matters for regional projects. In previous programmes, it has proven challenging for regional PBs in large complex programmes to provide sufficient guidance to solve bottlenecks; other mechanisms as technical/operational subcommittees might be needed.

184. Therefore, for more detailed oversight of project progress at a national level, it is proposed that national committees be established, or existing inter-ministerial coordination mechanisms be used to provide guidance and management, similar to the function of the Project Board. This is particularly given the multi-sectorial nature of the actions of the project, need for coherence with national policy processes, and need to ensure synergies with related initiatives governments and development partners engaged in countries.

VI. MONITORING AND EVALUATION FRAMEWORK

185. The project will be monitored through the following M&E activities. The M&E budget is provided in the table below. The M&E framework some outputs will be based on experimental design principles in order to generate evidence based lessons.

6.1 Project decision points⁴⁶

186. The project should be entered into the UNDP Project Quality Assurance platform. It is an opportunity at regular project decision points (appraisal, annually during implementation and, finally, closure) to comprehensively consider aspects of a project and determine what changes can be made to improve quality. The process aims to

- Support **continuous improvement and results based management** through improved project performance information for managers;
- Strengthen **accountabilities** for effective project and programme management;
- Strengthen **organisational learning and knowledge sharing**; and
- Develop a more rigorous project assessment base from which to **demonstrate and report on programme quality** to stakeholders.

Project start:

187. A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organisation structure, UNDP country office and where appropriate/feasible UNDP global/regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

188. The Inception Workshop should address a number of key issues including:

- Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP staff vis à vis the PMU. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- Based on the project results framework, finalise the first AWP for submission to the Project Board. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

189. An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalise various agreements and plans decided during the meeting.

Quarterly:

190. Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.

⁴⁶ Typically 1. Design and Appraisal, 2. Implementation Monitoring, and 3. Closure

191. Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high.

192. Based on the information recorded in ATLAS, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.

193. Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

194. Annual Project Reports (APR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period.

195. The APR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual)
- Lesson learned/good practice
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR

Periodic monitoring through site visits:

196. UNDP will conduct visits to project sites based on the agreed schedule in the project's Inception Report/AWP to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and will be circulated no less than one month after the visit to the PMU and Project Board members.

Mid-term of project cycle:

197. The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organisation, Terms of Reference and timing of the Mid-Term Evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-Term Evaluation will be prepared by the UNDP PMU based in Barbados in close consultation with the Government of Japan. The management response to the review will be prepared and the project team will need to take actions as outlined in the recommendations.

End of project:

198. An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GOJ guidance. The Final Evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the Mid-Term Evaluation, if any such correction took place). The Final Evaluation will examine impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP Project Management team based on guidance from the RSC.

199. The Final Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to the UNDP Evaluation Office Evaluation Resource Centre (ERC).

200. At the commencement of the last three months of the project's duration, the project team will prepare the Project Terminal Report. This comprehensive report will summarise the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

6.2 Learning and knowledge sharing

201. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and fora.

202. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

203. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

6.3 Communications and visibility requirements

204. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used.

205. Full compliance is also required with the Government of Japan visibility requirements and strategies. Any output produced through this project must bear the UNDP and Government of Japan logo. For details on the communications plan for this project, please refer to Annex 1.

6.4 M&E work plan and budget

Type of M&E activity	Responsible Parties	Budget US\$	Time frame
Inception workshop and report	<ul style="list-style-type: none"> ▪ Project Manager ▪ UNDP Barbados and OECS 	10,000	Within first two months of project start
Measurement of means of verification of project results	<ul style="list-style-type: none"> ▪ Project Manager ▪ UNDP Barbados and OECS 	25,000	Start, mid and end of project (during evaluation cycle) and annually when required.
Establishment of a M&E framework that is based in theory of change and randomised controlled trials principles			
Measurement of means of verification for project progress on outputs and implementation	<ul style="list-style-type: none"> ▪ PMU ▪ National Focal Points ▪ UNDP RBLAC Regional Hub 	195,000	Annually prior to APR and to the definition of annual work plans
Visits to field sites	<ul style="list-style-type: none"> ▪ UNDP COs ▪ UNDP RBLAC RH (as appropriate) ▪ GOJ representatives (as appropriate) 		Yearly
Annual Project Report	<ul style="list-style-type: none"> ▪ PMU ▪ UNDP Barbados and OECS 	0	Annually
Periodic progress reports	<ul style="list-style-type: none"> ▪ PMU 	0	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> ▪ PMU ▪ UNDP Barbados and OECS ▪ UNDP RBLAC RH technical units (as required) ▪ External consultants (i.e. evaluation team) 	40,000	At the mid-point of project implementation
Final Evaluation	<ul style="list-style-type: none"> ▪ PMU ▪ UNDP Barbados and OECS ▪ UNDP RBLAC RH technical units (as required) ▪ External consultants (i.e. evaluation team) 	70,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> ▪ PMU ▪ UNDP Barbados and OECS ▪ National Focal Points 	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> ▪ UNDP Barbados and OECS ▪ Project Manager and Project Associate 	20,000	As determined by HQ
Project Board and Technical Advisory Group meetings	<ul style="list-style-type: none"> ▪ Project Manager 	25,000	Biannually
TOTAL indicative COST Excluding project team and UNDP staff time		385,000	

VII. LEGAL CONTEXT

This project forms part of an overall programmatic framework under which several separate associated country level activities will be implemented. When assistance and support services are provided from this Project to the associated country level activities, this document shall be the "Project Document" instrument referred to in: (i) the respective signed SBAs for the specific countries; or (ii) in the Supplemental Provisions attached to the Project Document in cases where the recipient country has not signed an SBA with UNDP, attached hereto and forming an integral part hereof.

This project will be implemented by the agency UNDP in accordance with its financial regulations, rules, practices and procedures.

The responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. The Implementing Partner shall: (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried; (b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document 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/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

The UNDP Resident Representative in Barbados and OECS is authorised to effect in writing the following types of revisions to this Project Document, provided that s/he has verified the agreement thereto by the UNDP Headquarters (BPPS and RBLAC) and is assured that other signatories to the Project Document have no objections to the proposed changes:

- Revision of, or addition to, any of the Annexes to the Project Document;
- Revision which do not involve significant changes in the immediate objectives, outputs or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation;
- Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility; and
- Inclusion of additional attachments only as set out here in the Project Document

VIII. ANNEXES

ANNEX 1: COMMUNICATIONS AND VISIBILITY PLAN

Effective communication utilising multiple channels to inform and engage various stakeholders is a key focus of the Japan-Caribbean Climate Change Partnership (CTI). The project will help advance the use, diffusion and development of climate technology applications in small island developing states (SIDS) of the Caribbean in line with their ongoing efforts under the Nationally Appropriate Mitigation Actions (NAMA) and National Adaptation Plan (NAP) frameworks.

This initiative aims to participate in various awareness raising and knowledge management events in the Caribbean and globally where Japan support for this initiative will be showcased in diverse channels of communications tailored for each audience (see box “CTI Communication Plan”). During the project implementation, various communication channels will be established, activated, and shared in order to support the scale up of technology investment through the dissemination of best practices and lessons learned during their demonstration, deployment and diffusion in the region.

1. Project Formulation and Inception Phase

Design and Consultation

The initiative will take part in high-level policy events involving Caribbean SIDS to solicit relevant stakeholder inputs (government, private sector, civil society), to ensure appropriation by project beneficiaries, and align the initiative with multilateral processes to help raise its strategic profile (e.g. SIDS 2014 Conference, COP and pre-COP UNFCCC Meetings, GEF 2014 Assembly & Caribbean Constituency Workshops). It is expected that these interfaces will help build and share knowledge on South-South/North-South climate technology transfer for input into the final project document. To this effect UNDP NY Headquarters, Regional Service Centre for LAC in Panama, the Sub-Regional Office for Barbados and the OECS, and the Guyana, Jamaica, Belize and Suriname Country Offices will participate in SIDS-related meetings, undertake field visits and engage relevant CARICOM technical counterparts.

Clearance and Approval

The final project document will require high-level political engagement nationally (Japan and Caribbean governments) and internationally (e.g. UN, GEF and UNFCCC Secretariats) ahead of its signature. The initiative will use other platforms to position the project and its relevance to promote climate technology investment (e.g. UNFCCC Technology Executive Committee and other NAMA/NAP-related events).

Inception and Launch

The start-up of the project upstream (NAMA/NAP institutional capacity strengthening) and downstream (climate technology applications and installations) activities will include the showcase of both adaptation and mitigation technology demonstrations. Once these activities are underway, it will facilitate the communication of the tangible and intangible benefits of these technologies, and how the initiative is contributing in the Caribbean with support from the Government of Japan.

2. Project Implementation Phase

Communication Tools and Outputs

Through the course of the project period, multiple communication channels will be utilised to inform and engage stakeholders of the project. The range of communication channels and platforms envisioned may include:

- Project brochures

- Project Facebook page
- Quarterly newsletters
- Conference presentations
- Publication of success stories
- Documentary video/audio visual materials
- Press interview/articles
- Policy/industry briefs
- Awareness raising and/or educational materials for youth

All communication outputs generated through the project will be managed and disseminated through the project website and UNDP and/or Adaptation Learning Mechanism websites and other regional platforms as relevant. Wherever appropriate and feasible, local and international media, such as television, magazine, newspapers and professional journals will also be engaged.

Full acknowledgement of the Government of Japan will be given in all of communication products and other relevant materials through the display of logo. The UNDP and Government of Japan logos will appear on all relevant project hardware and other purchases with project funds. The logos of UNDP and Government of Japan should appear on all project publications, knowledge products and will be placed in flags and stickers during workshops and meetings and at project sites.

A diagrammatic overview of the Communication Plan during the implementation phase is illustrated on the following page.

Mainstreaming Communication into Project Management and Implementation

In order to ensure streamlining of information gathering, dissemination, and management, each activity at the country and/or regional level will include a communication deliverable which will be outlined within the terms of reference of each workshop, events, site visits, and any other project activities.

Furthermore, all staff working on the project will allocate at least 20% of their time to supporting and/or leading the delivery of communication outputs of the project to ensure Japan's visibility in the region, which will be incorporated in their annual evaluation process and criteria.

In order to ensure creative and effective communication will be executed throughout the project lifetime, members of the project management team as well as key partners will be trained on practical and useful communication and media training during the project inception. This training may include:

- Press release writing
- Presentation
- Web authoring and reflective blogging
- Social media (e.g. Facebook, twitter, Instagram)
- Basic video and photo editing and story telling
- Basic data visualisation and infographics
- Participatory media for community engagement and mobilisation

To this end, all events related to the project during inception and implementation phases will revolve around showcasing objectives, activities on-the-ground and results of the initiative, emphasising the support provided by the Government of Japan to the Caribbean region in diverse channels to different audiences.

CTI COMMUNICATION PLAN | IMPLEMENTATION PHASE

INFO SOURCE	CONTENT	PLATFORM / CHANNELS / FREQUENCY	TARGET AUDIENCES
Project Manager (PM) from Project Document	Project Objective scope, timeline, partners, etc.	Project Brochures Project Briefs and Separated Assets	Donor Caribbean Government & Policy Makers Private Sector Businesses & Investors Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT
In Country Project Coordinators (CICs), National/ Regional Partners (N/RSs), Ambassadors (W)	Real-time photo updates and short news contributions from the field, reflections	Facebook Page Real-time information updates	Donor Youth, Future Leaders & Entrepreneurs
CICs, PM	Photo and narrative reporting on activities, programs, achievements and facts	Newsletters Quarterly throughout project period	Donor Caribbean Government & Policy Makers SIDS Community NGOs and other international/ national partners working on OGT
N/RSs, CICs, PM	Project overview/ Achievements/ Lessons learned/ Good practices/ Advocacy	Conference Presentations At least 3 times over the project lifetime	Donor Caribbean Government & Policy Makers Private Sector Businesses & Investors Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT
Donor, Project Beneficiaries, N/RSs, CICs, PM	Best practices/ Interviews/stories from the field	Publication of Success Stories Once a year at project annual reporting	Donor Caribbean Government & Policy Makers Private Sector Businesses & Investors Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT
Donor, Project Beneficiaries, N/RSs, CICs, PM, Documentary Film Maker, Artists	Stories from the field	Documentary Video / Audio Visual Materials At least one documentary video and/or audio visual product	Donor Caribbean Government & Policy Makers Private Sector Businesses & Investors Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT
Donor, CICs, PM	Press release, event coverage	Press Interview / newspaper article At least three media coverage for the project lifetime	Donor Caribbean Government & Policy Makers Private Sector Businesses & Investors Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT
N/RSs, CICs, PM, University/ Thematic Experts/ Consultants	Advocacy and marketing of analytical findings on climate technology, NMAAs and NAs	Policy/ Industry Briefs At least three policy and/or industry briefs for the project lifetime	Donor Caribbean Government & Policy Makers Private Sector Businesses & Investors Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT
N/RSs, CICs, PM, Educator, Artists	Advocacy and marketing of analytical findings on climate technology, NMAAs and NAs	Awareness Raising/ Educational Materials for Youth At least three awareness raising educational material	Donor Caribbean Government & Policy Makers Youth, Future Leaders & Entrepreneurs Academia & Expert Groups SIDS Community NGOs and other international/ national partners working on OGT

ANNEX 2: TERMS OF REFERENCE



I. Position Information	
<p>Job title: <i>Project Manager</i></p> <p>Organisational unit: UNDP Barbados and the OECS</p> <p>Supervisor: Deputy Resident Representative or their designate</p> <p>Duty station: Barbados</p> <p>Beneficiary countries: Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname</p>	<p>Source of Funding: Japan-Caribbean Climate Change Partnership (CCP)</p> <p>Type of Contract: FTA P3</p> <p>Duration: 1 year renewable</p>

II. Organisational Context
<p>Caribbean region countries share similar economic and sustainable development challenges, including a small population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.</p> <p>The Government of Japan has been one of leading donors in the target of climate change. Japan has delivered development assistance total of \$17.6 billion to vulnerable countries from October 2009 to December 2012 for mitigation and adaptation. The Government of Japan intends to continue its assistance in this area to create enabling environment with a view to formulate a new framework applicable to all Parties by COP 21 in 2015. Especially, the Government of Japan sees it important to assist Small Islands Developing States (SIDS), and in this context, is interested in establishing a new regional assistance programme for Caribbean and/or CARICOM in the area of climate change under the framework of the Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)⁴⁷.</p>

⁴⁷ http://www.mofa.go.jp/region/latin/caricom/mc_1009/psp.html

The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change. In the pursuit of this objective, the initiative will support policy innovation through the development of a number of NAMAs and NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. The initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

UNDP wishes to engage a Project Manager with a strong climate change and project coordination background, and who can quickly and effectively lead project implementation with relevant country and regional counterparts in the Caribbean.

III. Functions / Key Results Expected

Under the direct supervision of the Programme Manager, Climate Change and Disaster Risk Resilience for UNDP Barbados and the OECS, and with assistance from the Project Management Unit will help to achieve the following outcomes:

Outcome 1: NAMAs and NAPs to promote alternative low emission and climate resilient technologies that can support energy and adaptation in Agriculture and Water sectors are formulated and institutionalised

Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.

Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.

Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.

Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.

Outcome 2: Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient development in the Caribbean

Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)

Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.

Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.

Output 2.4 Climate resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.

Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster induced losses

Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low emission climate resilient technology transfer, development and investments in the Caribbean.

Outcome 3 – Knowledge Network created in Caribbean to foster South-South and North-South cooperation through sharing of experiences, and knowledge in the area of climate change

Output 3.1 High level policy events and financial tools to support the implementation of a mitigation actions programs in selected sectors (e.g. fiscal incentives, feed in tariffs, credits and guarantees) and to look at effective practices in NAPs and Community Based Adaptation.

Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low emission technologies for sustainable cities in island towns and communities

Output 3.3 Japan-Caribbean transfer of technical and process-orientated information on experiences, good practice, lessons and examples of relevance to medium to long-term national, sector and local planning and budgeting processes

Summary of key functions

The Project Manager will be primarily responsible for ensuring that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. This task will be conducted in coordination with UNDP Barbados and the OECS and other UNDP Country Officers in Belize, Guyana, Jamaica and Suriname. S/he will work with UN agencies, governments, inter-governmental organisations, NGOs, donors, and the private sector in accordance with the objective and outcomes of the Japan-Caribbean CCP Project Document.

In order to achieve the above outcomes, the Project Manager will be expected to conduct the following activities:

Partnership building

- Develops and maintains relationships with counterparts within each country and regionally to ensure buy-in and successful implementation
- Builds strategic partnerships and synergies to enhance the impact and sustainability of the project outcomes
- Liaises with key personnel of project partners to ensure adequate and timely technical inputs to the project
- Development of strategic linkages with Japan, particularly in terms of technology transfer and knowledge sharing

Project development, planning and implementation

- Coordinates the general planning, execution and monitoring of the project's activities

- Guides and supervises the work of the members of the Project Management Unit and the National Focal Points
- Prepares annual work plans for endorsement by the Project Board
- Prepares quarterly and annual financial and project progress reports for review by the Project Board
- Assists in the mobilisation of goods and services to initiative activities, including drafting TORs and work specifications, with guidance from the Technical Specialists, and coordinating procurement processes
- Supervises the execution of all contracts, approves intermediate payments against review of deliverables, and prepares final evaluations as a condition for final payment
- Ensure that the administrative, technical and financial processes are carried out in conformity with UNDP regulations, policies and procedures

Project monitoring

- Monitors and analyses project development and implementation, including coordinating and participating in monitoring missions
- Monitors events as determined in the Annual Work Plan, and updates the plan as required
- Uses Atlas and the Enhanced Resource Based Management platforms to periodically update project progress, achievement of targets, risk logs, etc.
- Monitors financial resources and accounting to ensure accuracy and reliability of financial reports and oversees the overall financial processes for the project in collaboration with the Project Associate
- Coordinates and serves as secretary to Project Board meetings
- Manages and monitors the project risks initially identified; submits new risks to the Project Board for consideration and decision on possible actions if required; and updates the status of these risks by maintaining the Project Risk Log
- Coordinates periodic project evaluations, including developing and implementing the management response

Knowledge sharing

- Develops, in collaboration with the Communications Specialist, a Communications/Visibility Plan for the project and support knowledge sharing activities
- Facilitates information sharing and coordination of activities amongst beneficiary countries and the Government of Japan

Other activities

- Undertakes such travel as may be required from time to time in connection with project execution
- Undertakes any other activities required for the fulfilment of the mandate of the post

IV. COMPETENCIES AND CRITICAL SUCCESS FACTORS

Professionalism:

- Knowledge and understanding of theories, concepts and approaches relevant to climate change, risk management and sustainable development, especially in relation to SIDS and the Caribbean.
- Ability to identify issues, analyse and participate in the resolution of issues/problems.
- Analytical and evaluative skills
- Ability to apply judgment in the context of assignments, plan own work and manage conflicting priorities.
- Shows pride in work and in achievements; demonstrates professional competence and mastery of subject matter; is conscientious and efficient in meeting commitments, observing deadlines and achieving results; is motivated by professional rather than personal concerns; shows persistence when faced with difficult problems or challenges; remains calm in stressful situations.
- Demonstrates commitment to UNDP’s mission, vision and values
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- Takes responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work.

Teamwork:

- Ability to work together with the Technical Specialist, National Focal Points, the UNDP Country Offices and RBLAC, and the lead state agencies and local consultants; also works in close collaboration with national counterparts and other partner institutions.
- Works collaboratively with colleagues to achieve organisational goals; solicits input by genuinely valuing others' ideas and expertise; is willing to learn from others
- Builds and promotes effective teams
- Responds positively to feedback and differing points of view
- Creating and promoting enabling environment for open communication
- Places team agenda before personal agenda; supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; shares credit for team accomplishments and accepts joint responsibility for team shortcomings.

Planning and organising:

- Develops clear goals that are consistent with agreed strategies; identifies priority activities and assignments; adjusts priorities as required
- Allocates appropriate amount of time and resources for completing work
- Foresees risks and allows for contingencies when planning; monitors and adjusts plans and actions as necessary

Communication

- Outstanding communication and presentation skills
- Excellent interpersonal and cross-cultural communication skills
- Strong partnership building and networking skills

VI. Recruitment Qualifications

Education:	<ul style="list-style-type: none"> • Master’s degree in international development, climate change and development, environmental sciences, natural resource management, disaster risk management, law, applied economics, social sciences, sustainable development or a related field.
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	<ul style="list-style-type: none"> • Certification in project management is highly desirable
Experience:	<ul style="list-style-type: none"> • At least 6 years of experience in related areas such as policy analysis and inter-sectoral issues; providing knowledge services, and support to institutional capacities for planning and strategic advocacy to governments and other partners • At least 4 years of progressively responsible experience in project or programme management • Sound understanding of climate change, adaptation, environmental management, risk resilience, vulnerability and impact, and other related sustainable human development issues • Sound understanding of national and local development planning processes, especially in SIDS • Extensive contacts with international experts and organisations involved in international studies on climate change and natural resource management in a changing climate • Previous work experience in a UN organisation • Previous work in any of the beneficiary countries is highly desirable • Previous experience in Japan or with Japanese institutions would be a distinct asset • Demonstrable computer skills including Word processing, spread sheets, PowerPoint
Language:	<ul style="list-style-type: none"> • Fluency in written and spoken English and Japanese. • Working knowledge of other UN languages is an asset.



**UNITED NATIONS DEVELOPMENT PROGRAMME
JOB DESCRIPTION**

I. Position Information

Job title: *Technical Specialist - National Adaption Plans (NAPs)*

Organisational unit: UNDP Barbados and the OECS

Supervisor: Japan-Caribbean CCP Project Manager

Duty station: Barbados

Beneficiary countries: Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname

Source of Funding: Japan-Caribbean Climate Change Partnership (CCP)

Type of Contract: Service Contract

Duration: 1 year renewable

II. Organisational Context

Caribbean region countries share similar economic and sustainable development challenges, including a small population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.

The Government of Japan has been one of leading donors in the target of climate change. Japan has delivered development assistance total of \$17.6 billion to vulnerable countries from October 2009 to December 2012 for mitigation and adaptation. The Government of Japan intends to continue its assistance in this area to create enabling environment with a view to formulate a new framework applicable to all Parties by COP 21 in 2015. Especially, the Government of Japan sees it important to assist Small Islands Developing States (SIDS), and in this context, is interested in establishing a new regional assistance programme for Caribbean and/or CARICOM in the area of climate change under the framework of the Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)⁴⁸.

The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change. In the pursuit of this objective,

⁴⁸ http://www.mofa.go.jp/region/latin/caricom/mc_1009/psp.html

the initiative will support policy innovation through the development of a number of NAMAs and NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. The initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

The Japan-Caribbean Climate Change Partnership will help develop the capacity of the Caribbean through its national governments, to advance the National Adaptation Plan (NAP) processes of beneficiary countries, and to identify, structure and implement Nationally Appropriate Mitigation Actions (NAMAs) in various sectors for low-emission climate-resilient sustainable development. The NAP process will support Caribbean countries to assess medium- to long-term planning within the framework of national priorities for low emissions and climate resilient development so as to align and sustain growth and poverty reduction.

UNDP wishes to engage an experienced practitioner, who both has a strong climate change and NAPs background and who can quickly and effectively provide technical expertise to advance NAPs processes in the Caribbean.

III. Functions / Key Results Expected

Under the direct supervision of the Japan-Caribbean CCP Project Manager based in Barbados, the Technical Specialist in NAPs (TS NAPs) will help to achieve the following outcomes, particularly *Outcome 1*:

Outcome 1: NAMAs and NAPs to promote alternative low emission and climate resilient technologies that can support energy and adaptation in Agriculture and Water sectors are formulated and institutionalised

Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.

Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.

Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.

Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.

Outcome 2: Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient development in the Caribbean

Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)

Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.

Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.

Output 2.4 Climate resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.

Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster induced losses

Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low emission climate resilient technology transfer, development and investments in the Caribbean.

Outcome 3 – Knowledge Network created in Caribbean to foster South-South and North-South cooperation through sharing of experiences, and knowledge in the area of climate change

Output 3.1 High level policy events and financial tools to support the implementation of a mitigation actions programs in selected sectors (e.g. fiscal incentives, feed in tariffs, credits and guarantees) and to look at effective practices in NAPs and Community Based Adaptation.

Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low emission technologies for sustainable cities in island towns and communities

Output 3.3 Japan-Caribbean transfer of technical and process-orientated information on experiences, good practice, lessons and examples of relevance to medium- to long-term national, sector and local planning and budgeting processes

Summary of key functions

The TS NAPs will be primarily responsible for providing high quality technical support, as well as knowledge and capacity development services, to partner countries in coordination with UNDP Country Offices. S/he will work with UN agencies, governments, inter-governmental organisations, NGOs, donors, and the private sector in accordance with the objective and outcomes of the Japan-Caribbean CCP Project Document.

The TS NAPs will be expected to deliver results in the areas of:

Innovation, strategic leadership, dialogue and advocacy:

- Support beneficiary countries in the NAP programme to activate and update national teams on supporting the NAP process, including identification of champions and key stakeholders, including sub-national and regional partners engaged in relevant research and projects.
- Identify possible areas of strategic collaboration and shared knowledge management.
- Guide country level consultations to identify the scope and direction of the NAP process and expectations for advancing according to the Japan-Caribbean CCP project document
- Maintain a strategic understanding of, and engagement with, the substantive technical issues, institutions, and processes within the countries served of relevance to the NAP

process, including establishing contact with and developing strategic partnerships with other agencies, donors, NGO's, the private sector, and scientific institutions etc. as they relate to advancing key elements of the NAP process.

Development impact:

- Assist inception, contracting and start-up of programmes/projects including establishment of indicators, benchmarks and work plans, annual status and financial reports.
- Support beneficiary countries in liaising with national partners on NAP-related issues.
- Supervise, coordinate and lead the overall UNDP Japan-Caribbean CCP NAP component in discharging their duties at an optimum level through ensuring efficient and effective resources utilisation.

Learning, knowledge management and self-development:

- Coordinate with relevant stakeholders to formulate/use existing UNFCCC technical guidance tools and policy materials⁴⁹, guiding principles, case studies on lessons and good practices, and ensure that these are made accessible to all SIDS as they commence NAP processes
- Evaluate, capture, codify and synthesise lessons and stimulate the uptake of best practices and knowledge, including the development of resource kits and other knowledge materials
- Respond to queries on demonstration activities' progress, impacts and lessons

Indicative activities/results (more details within the project document):

- Carry out stocktaking of on-going and completed initiatives of relevance to informing and contributing to the NAP process.
- Conduct stakeholder consultations to identify the scope of the NAP process and expectations for advancing medium- to long-term planning for adaptation as part of the ongoing planning and budgeting processes at national and sub-national levels
- Identify or strengthen existing country specific coordination mechanism for climate change that will drive the NAP process (institutional assessments of relevant ministries to prepare them for CCA planning, which includes assessing management arrangements, functional analysis, and proposing upgrading of institutional arrangements and skills of personnel).
- Formulate NAP roadmaps in each country
- Undertake a survey to assess the needs and gaps for materials, methods and tools that are relevant for informing the NAP process.
- Promote the use of existing training materials, methods and tools on the basis of the needs identified.
- Strengthen leadership within key ministries by targeting national and sub-national policy-makers (especially in finance, planning and other relevant line Ministries) and other stakeholders, on the importance of medium to long-term planning and budgeting for adaptation.

⁴⁹ http://unfccc.int/national_reports/non-annex_i_natcom/training_material/methodological_documents/items/349.php

- Integrate adaptation costing into sector plans and public investment plans through macro and micro-economic analysis, use of economic techniques for trade-off analysis and an economic analysis of policy instruments (against criteria such as costs, benefits, efficiency, equity and political acceptability).
- Tools, methods and guidelines to advance the NAP process are developed/adopted for countries in partnership with other agencies and organisations.
- Training delivered on the use of the tools and approaches to advance to medium to long-term planning process
- Monitoring plans designed and implemented⁵⁰, including data collection methods and methodologies to measure CCA causality and impact, participatory and evidence-based monitoring and evaluation (M&E) methods designed in order to promote awareness and ownership among planners and households

IV. Competencies and Critical Success Factors	
	<ul style="list-style-type: none"> • Ability to work together with the UNDP Japan CCP Project Manager, TS NAMA, and National Focal Points, and the lead state agencies and local consultants • Demonstrate commitment to UNDP’s mission, vision and values • Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability • Outstanding communication and presentation skills • Excellent interpersonal and cross-cultural communication skills • Outstanding time management and organisational skills • Respond positively to feedback and differing points of view • Creating and promoting enabling environment for open communication • Planning, organising and multi-tasking • Good partnering and networking skills • Analytical thinking

VI. Recruitment Qualifications	
Education:	<ul style="list-style-type: none"> • Master’s degree in climate change and development, international development, natural resource management, environmental sciences, risk assessment, social sciences, applied economics, or a related field
Experience:	<ul style="list-style-type: none"> • At least 7 years of experience in related areas such as policy analysis and inter-sectoral issues; providing knowledge services, and support to institutional capacities for planning and strategic advocacy to governments and other partners

⁵⁰ Dinshaw, A. et al. 2014. Monitoring and Evaluation of Climate Change Adaptation: Methodological Approaches. OECD Environment Working Papers, No. 74 http://www.oecd-ilibrary.org/environment/monitoring-and-evaluation-of-climate-change-adaptation_5ixrclr0ntjd-en

	<ul style="list-style-type: none"> • Sound understanding of climate change, sustainable human development, environmental management issues, adaptation, vulnerability and impact, and other related sustainable human development issues • Previous leadership/key role in at least 3 NAP processes • Sound understanding of national and local development planning processes, especially in SIDS • Extensive contacts with international experts and organisations involved in international studies on climate change and natural resource management in a changing climate • Previous work experience in a UN organisation is desirable • Previous work in any of the beneficiary countries is highly desirable • Demonstrable computer skills including Word processing, spread sheets, PowerPoint
Language:	<ul style="list-style-type: none"> • Fluency in written and spoken English • Working knowledge of other UN languages is an asset
Other:	<ul style="list-style-type: none"> • Legal status to work in Barbados e.g. CARICOM Graduate/Skilled National Certificate



**UNITED NATIONS DEVELOPMENT PROGRAMME
JOB DESCRIPTION**

I. Position Information

Job title: *Technical Specialist – Nationally Appropriate Mitigation Actions (NAMAs)*

Organisational unit: UNDP Barbados and the OECS

Supervisor: Japan-Caribbean CCP Project Manager

Duty station: Barbados

Beneficiary countries: Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname

Source of Funding: Japan-Caribbean Climate Change Partnership (CCP)

Type of Contract: Service Contract

Duration: 1 year renewable

II. Organisational Context

Caribbean region countries share similar economic and sustainable development challenges, including a small population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.

The Government of Japan has been one of leading donors in the target of climate change. Japan has delivered development assistance total of \$17.6 billion to vulnerable countries from October 2009 to December 2012 for mitigation and adaptation. The Government of Japan intends to continue its assistance in this area to create enabling environment with a view to formulate a new framework applicable to all Parties by COP 21 in 2015. Especially, the Government of Japan sees it important to assist small islands developing states (SIDS), and in this context, is interested in establishing a new regional assistance programme for Caribbean and/or CARICOM in the area of climate change under the framework of the Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)⁵¹.

The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change. In the pursuit of this objective,

51 http://www.mofa.go.jp/region/latin/caricom/mc_1009/psp.html

the initiative will support policy innovation through the development of a number of NAMAs and NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. The initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

The Japan-Caribbean Climate Change Partnership will help develop the capacity of the Caribbean through its national governments, to advance the National Adaptation Plan (NAP) processes of beneficiary countries, and to identify, structure and implement Nationally Appropriate Mitigation Actions (NAMAs) in various sectors (e.g. energy, land use land use change and forestry (LULUCF), urban/city infrastructure, transport and/or other economic sub-sectors), both at upstream and downstream levels for low-emission climate-resilient sustainable development.

UNDP wishes to engage an experienced practitioner, who both has a strong climate change and NAMA background and who can quickly and effectively provide technical expertise to establish and trigger feasible voluntary emission reduction targets in selected sectors in the Caribbean.

III. Functions / Key Results Expected

Under the direct supervision of the Japan-Caribbean CCP Project Manager based in Barbados, the Technical Specialist in NAMAs (TS NAMAs) will help to achieve the following outcomes, particularly *Outcome 1*:

Outcome 1: NAMAs and NAPs to promote alternative low emission and climate resilient technologies that can support energy and adaptation in Agriculture and Water sectors are formulated and institutionalised

Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.

Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.

Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.

Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.

Outcome 2: Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient development in the Caribbean

Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)

Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.

Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.

Output 2.4 Climate resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.

Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster induced losses

Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low emission climate resilient technology transfer, development and investments in the Caribbean.

Outcome 3 – Knowledge Network created in Caribbean to foster South-South and North-South cooperation through sharing of experiences, and knowledge in the area of climate change

Output 3.1 High level policy events and financial tools to support the implementation of a mitigation actions programs in selected sectors (e.g. fiscal incentives, feed in tariffs, credits and guarantees) and to look at effective practices in NAPs and Community Based Adaptation.

Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low emission technologies for sustainable cities in island towns and communities

Output 3.3 Japan-Caribbean transfer of technical and process-orientated information on experiences, good practice, lessons and examples of relevance to medium to long-term national, sector and local planning and budgeting processes

Summary of key functions

The TS NAMAs will be primarily responsible for providing high quality technical support, as well as knowledge and capacity development services, to partner countries in coordination with UNDP Country Offices. S/he will work with UN agencies, governments, inter-governmental organisations, NGOs, donors, and the private sector in accordance with the objective and outcomes of the Japan-Caribbean CCP Project Document.

The TS NAMAs will be expected to deliver results in the areas of:

Innovation, strategic leadership, dialogue and advocacy:

- Support beneficiary countries in the NAMA programme to activate and update national teams on supporting the NAMA process, including identification of champions and key stakeholders, including sub-national and regional partners engaged in relevant research and projects.
- Identify possible areas of strategic collaboration and shared knowledge management.
- Guide country level consultations to identify the scope and direction of the NAMA process and expectations for advancing according to the Japan-Caribbean CCP project document.
- Maintain a strategic understanding of, and engagement with, the substantive technical issues, institutions, and processes within the countries served of relevance to the NAMA

process, including establishing contact with and developing strategic partnerships with other agencies, donors, NGOs, the private sector, and scientific institutions etc. as they relate to advancing key elements of the NAMA process.

Development impact:

- Assist inception, contracting and start-up of demonstration activities including establishment of indicators, benchmarks and work plans, annual status and financial reports.
- Support beneficiary countries in liaising with national partners on NAMA-related issues.
- Supervise, coordinate and lead the overall UNDP Japan-Caribbean CCP NAMA component in discharging their duties at an optimum level through ensuring efficient and effective resources utilisation.

Learning, knowledge management and self-development:

- Coordinate with relevant stakeholders to formulate/use existing UNFCCC technical guidance tools and policy materials⁵², guiding principles, case studies on lessons and good practices, and ensure that these are made accessible to all SIDS as they commence NAMA processes
- Evaluate, capture, codify and synthesise lessons and stimulate the uptake of best practices and knowledge, including the development of resource kits and other knowledge materials
- Respond to queries on demonstration activities' progress, impacts and lessons

Indicative activities/results (more details within the project document):

- Update or completion of GHG inventories for selected interventions in the Caribbean (e.g. public buildings, community-based infrastructure, energy generation and end-use sectors)
- Determination of national and regional reference baseline associated per selected interventions.
- Development of national marginal abatement cost curves for considered mitigation actions.
- Barrier analysis for mitigation options selected with NAMAs.
- Policy and financial tools to support the implementation of a mitigation actions programme in selected interventions. A study to analyse the available policy, regulatory and financial tools to support the implementation of the identified mitigation actions and to estimate their potential impact on emissions will be conducted.
- Multi-sectorial policy dialogues on potential instruments for the implementation of NAMAs in selected Caribbean interventions.
- Coordination mechanisms for NAMA implementation, including national and/or regional registry mechanism for mitigation actions for selected interventions in the Caribbean, and for emission reduction accounting in each sector in partnership with the UNFCCC RCC based in Grenada and the CCCCC.
- Key parameters (quantitative and qualitative) to define and monitor selected NAMAs, and monitoring plan for the selected NAMAs: specific measurement, reporting and

⁵² http://unfccc.int/national_reports/non-annex_i_natcom/training_material/methodological_documents/items/349.php

verification (MRV) systems will be established and implemented for the NAMAs selected.

- Training and certification of MRV and NAMA professionals in the Caribbean.

IV. Competencies and Critical Success Factors

- Ability to work together with the UNDP Japan CCP Project Manager, TS NAP, and National Focal Points, UNDP COs, and the lead state agencies and local consultants
- Demonstrate commitment to UNDP's mission, vision and values
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability
- Outstanding communication and presentation skills
- Excellent interpersonal and cross-cultural communication skills
- Outstanding time management and organisational skills
- Sharing knowledge and experience, communicating ideas and managing information flow
- Respond positively to feedback and differing points of view
- Creating and promoting enabling environment for open communication
- Planning, organising and multi-tasking
- Good partnering and networking skills
- Analytical thinking

VI. Recruitment Qualifications

Education:	<ul style="list-style-type: none"> • Master's degree in a field related to renewable energy and climate change mitigation (e.g. engineering, applied economics, carbon finance markets, energy sector business administration), or relevant training
Experience:	<ul style="list-style-type: none"> • Minimum 7 years of experience in climate change mitigation and the renewable energy sector (with key exposure to NAMAs as an advantage) • Experience with carbon market and climate finance schemes and mechanisms (such as CDM, JI, NAMAs) • Practical experience in financial and economic analysis and incremental cost analysis • Previous leadership/key role in at least 3 NAMA processes • Sound understanding of national and local development planning processes, especially in SIDS • Extensive contacts with international experts and organisations involved in international studies on climate change and sustainable energy • Previous work experience in a UN organisation is desirable

	<ul style="list-style-type: none"> • Previous work experience in any of the beneficiary countries is highly desirable • Demonstrable computer skills including Word processing, spread sheets, PowerPoint
Language:	<ul style="list-style-type: none"> • Fluency in written and spoken English • Working knowledge of other UN languages is an asset
Other:	<ul style="list-style-type: none"> • Legal status to work in Barbados e.g. CARICOM Graduate/Skilled National Certificate



UNITED NATIONS DEVELOPMENT PROGRAMME JOB DESCRIPTION

I. Position Information

Job title: *Project Associate*

Organisational unit: UNDP Country Offices (Barbados and the OECS, Belize, Guyana, Jamaica, Suriname)

Supervisor: Japan-Caribbean CCP Project Manager

Duty station: Barbados

Beneficiary countries: Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname

Source of Funding: Japan-Caribbean Climate Change Partnership (CCP)

Type of Contract: Service Contract

Duration: 1 year renewable

II. Organisational Context

Caribbean region countries share similar economic and sustainable development challenges, including a small population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.

The Government of Japan has been one of leading donors in the target of climate change. Japan has delivered development assistance total of \$17.6 billion to vulnerable countries from October 2009 to December 2012 for mitigation and adaptation. The Government of Japan intends to continue its assistance in this area to create enabling environment with a view to formulate a new framework applicable to all Parties by COP 21 in 2015. Especially, the Government of Japan sees it important to assist Small Islands Developing States (SIDS), and in this context, is interested in establishing a new regional assistance programme for Caribbean and/or CARICOM in the area of climate change under the framework of the Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)⁵³.

The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change. In the pursuit of this objective,

⁵³ http://www.mofa.go.jp/region/latin/caricom/mc_1009/psp.html

the initiative will support policy innovation through the development of a number of NAMAs and NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. The initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

UNDP wishes to engage a Project Associate with a strong financial and project administration background and who can quickly and effectively facilitate and support project implementation with relevant country and regional counterparts in the Caribbean.

III. Functions / Key Results Expected

Under the direct supervision of the Japan-Caribbean CCP Project Manager based in Barbados, the Project Associate will help to achieve the following outcomes:

Outcome 1: NAMAs and NAPs to promote alternative low emission and climate resilient technologies that can support energy and adaptation in Agriculture and Water sectors are formulated and institutionalised

Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.

Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.

Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.

Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.

Outcome 2: Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient development in the Caribbean

Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)

Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.

Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.

Output 2.4 Climate resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.

Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster induced losses

Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low emission climate resilient technology transfer, development and investments in the Caribbean.

Outcome 3 – Knowledge Network created in Caribbean to foster South-South and North-South cooperation through sharing of experiences, and knowledge in the area of climate change

Output 3.1 High level policy events and financial tools to support the implementation of a mitigation actions programs in selected sectors (e.g. fiscal incentives, feed in tariffs, credits and guarantees) and to look at effective practices in NAPs and Community Based Adaptation.

Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low emission technologies for sustainable cities in island towns and communities

Output 3.3 Japan-Caribbean transfer of technical and process-orientated information on experiences, good practice, lessons and examples of relevance to medium to long-term national, sector and local planning and budgeting processes

Summary of key functions

The Project Associate will be primarily responsible for providing high quality project and administrative, coordination and monitoring support for the implementation of the project. S/he will work with the Project Manager to maintain key strategic and monitoring functions with the UNDP COs, government, and the National Focal Points to coordinate project implementation in line with the objective and outcomes of the Japan-Caribbean CCP Project Document. Their focus will primarily be oriented toward the implementation of Outcome 2 in their respective country.

In order to achieve the above results the Project Associate:

Partnership building

- Develops and maintains relationships with main counterparts within country (e.g. with government departments, NGOs, farmers' organisations, community leaders) to ensure buy-in and successful implementation

Administration and coordination

- Establishes and maintains project files
- Collects project-related information and data
- Updates work plans and budgets in Atlas
- Administers the quality review process
- Assists in the coordination of project meetings, including Project Board meetings, and administers and provides secretarial support to meetings

Project documentation management

- Administer project revision control
- Establish document control procedures
- Compile and distribute all project reports

Project development and implementation

- Participates in the development and implementation of national activities related to the Japan-Caribbean Climate Change Partnership; reviews relevant documents and reports.
- Provides coordination support to consultations and capacity building activities in-country and regionally, including logistics and travel, in coordination with NFPs and UNDP COs.
- Supports the Project Manager in procurement and contract management
- Facilitate the activities of other consultants e.g. identifying and coordinating with relevant stakeholders

Financial management, monitoring and reporting

- Assist in the financial management tasks under the responsibility of the Project Manager, including processing approved payments
- Provide support in the use of Atlas for monitoring and reporting
- Supports activities related to budget planning and monitoring

Other activities

- Performs other duties related to the work of the project as required.

IV. Competencies and Critical Success Factors

Professionalism:

- Ability to identify issues, analyse and participate in the resolution of issues/problems.
- Ability to apply judgment in the context of assignments given, plan own work and manage conflicting priorities.
- Shows pride in work and in achievements; demonstrates professional competence and mastery of subject matter; is conscientious and efficient in meeting commitments, observing deadlines and achieving results; is motivated by professional rather than personal concerns; shows persistence when faced with difficult problems or challenges; remains calm in stressful situations.
- Takes responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work.

Teamwork:

- Works collaboratively with colleagues to achieve organisational goals; solicits input by genuinely valuing others' ideas and expertise; is willing to learn from others
- Places team agenda before personal agenda; supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; shares credit for team accomplishments and accepts joint responsibility for team shortcomings.

Planning and organising:

- Develops clear goals that are consistent with agreed strategies; identifies priority activities and assignments; adjusts priorities as required
- Allocates appropriate amount of time and resources for completing work
- Foresees risks and allows for contingencies when planning; monitors and adjusts plans and actions as necessary; uses time efficiently

VI. Recruitment Qualifications	
Education:	<ul style="list-style-type: none"> • Associate degree or equivalent in business administration, management, economics, or a climate change related field.
Experience:	<ul style="list-style-type: none"> • A minimum of 5 years of progressively responsible experience in project or programme administration. • Experience in the Caribbean region desired. • Demonstrated appreciation of climate change and disaster management issues, and other related sustainable human development issues • Demonstrable computer skills including Word processing, spread sheets, PowerPoint
Language:	<ul style="list-style-type: none"> • Fluency in written and spoken English. • Working knowledge of other UN languages is an asset.
Other:	<ul style="list-style-type: none"> • Legal status to work in Barbados e.g. CARICOM Graduate/Skilled National Certificate

VI. Recruitment Qualifications	
Education:	<ul style="list-style-type: none"> • Bachelor's degree in business administration, management, economics, or a climate change related field.
Experience:	<ul style="list-style-type: none"> • A minimum of 5 years of progressively responsible experience in project or programme administration. • Experience in the Caribbean region desired. • Demonstrated appreciation of climate change and disaster management issues, and other related sustainable human development issues • Demonstrable computer skills including Word processing, spread sheets, PowerPoint
Language:	<ul style="list-style-type: none"> • Fluency in written and spoken English. • Working knowledge of other UN languages is an asset.
Other:	<ul style="list-style-type: none"> • Legal status to work in Barbados



**UNITED NATIONS DEVELOPMENT PROGRAMME
JOB DESCRIPTION**

I. Position Information

Job title: National Focal Point (8)

Organisational unit: UNDP Country Offices (Barbados and the OECS, Belize, Guyana, Jamaica, Suriname)

Supervisor: Japan-Caribbean CCP Project Manager

Duty stations: Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname

Source of Funding: Japan-Caribbean Climate Change Partnership (CCP)

Type of Contract: Service Contract

Duration: 1 year renewable

II. Organisational Context

Caribbean region countries share similar economic and sustainable development challenges, including a small but rapidly growing population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.

The Government of Japan has been one of leading donors in the target of climate change. Japan has delivered development assistance total of \$17.6 billion to vulnerable countries from October 2009 to December 2012 for mitigation and adaptation. The Government of Japan intends to continue its assistance in this area to create enabling environment with a view to formulate a new framework applicable to all Parties by COP 21 in 2015. Especially, the Government of Japan sees it important to assist Small Islands Developing States (SIDS), and in this context, is interested in establishing a new regional assistance programme for Caribbean and/or CARICOM in the area of climate change under the framework of the Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)⁵⁴.

The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change. In the pursuit of this objective, the initiative will support policy innovation through the development of a number of NAMAs and

54 http://www.mofa.go.jp/region/latin/caricom/mc_1009/psp.html

NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. The initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

UNDP wishes to engage a National Focal Point to serve in each of the Japan-Caribbean CCP beneficiary countries (Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St. Vincent and the Grenadines, Suriname) with a strong climate change and project coordination background and who can quickly and effectively facilitate and support project implementation with relevant country and regional counterparts in the Caribbean.

III. Functions / Key Results Expected

Under the supervision of the Japan-Caribbean CCP Project Manager based in Barbados and their respective UNDP Country Office, and with assistance from the NAPs and NAMAs Technical Specialists, the National Focal Point (NFP) will help to achieve the following outcomes, specifically under *Outcome 2*:

Outcome 1: NAMAs and NAPs to promote alternative low emission and climate resilient technologies that can support energy and adaptation in Agriculture and Water sectors are formulated and institutionalised

Output 1.1. Technical support towards national and sub-national institutional and coordination arrangements in Caribbean countries to support the formulation of national roadmaps on the NAP process, including elements for monitoring the progress of their implementation.

Output 1.2. National teams are trained in the use of tools, methods and approaches to advance the NAP process and budgeting.

Output 1.3. Business-as-usual greenhouse gas emission baselines established, and climate change mitigation options for selected sectors relevant for the Caribbean region identified.

Output 1.4. Design and implementation of NAMAs in the Caribbean with MRV systems and NAMA registries in place to monitor their execution.

Outcome 2: Selected mitigation and adaptation technologies transferred and adopted for low emission and climate resilient development in the Caribbean

Output 2.1 Affordable climate-resilient community-based water harvesting, storage and distribution systems designed, built and rehabilitated in selected target areas (e.g. communal reservoirs, rooftop catchment, rainwater storage tanks and conveyance systems)

Output 2.2 Crop diversification practices tested for their ability to improve resilience of farmers to climate change impacts.

Output 2.3 Community-based water capacity and irrigation systems improved or developed to test their ability to raise agricultural productivity.

Output 2.4 Climate resilient agro-pastoral practices and technologies (e.g. water management and soil fertility) demonstrated in selected target areas.

Output 2.5 Small-scale infrastructure implemented to reduce climate change and disaster induced losses

Output 2.6 Energy pilot demonstrations applied to selected adaptation, mitigation and disaster risk management interventions to catalyse low emission climate resilient technology transfer, development and investments in the Caribbean.

Outcome 3 – Knowledge Network created in Caribbean to foster South-South and North-South cooperation through sharing of experiences, and knowledge in the area of climate change

Output 3.1 High level policy events and financial tools to support the implementation of a mitigation actions programs in selected sectors (e.g. fiscal incentives, feed in tariffs, credits and guarantees) and to look at effective practices in NAPs and Community Based Adaptation.

Output 3.2 Communication campaign on the benefits of mitigation and adaptation, mitigation and disaster risk management interventions to catalyse low emission technologies for sustainable cities in island towns and communities

Output 3.3 Japan-Caribbean transfer of technical and process-orientated information on experiences, good practice, lessons and examples of relevance to medium to long-term national, sector and local planning and budgeting processes

Summary of key functions

The NFP will be primarily responsible for providing high quality technical support at a national level in coordination with the respective UNDP Country Office. S/he will work with government, inter-governmental organisations, NGOs, donors, and the private sector in the recipient country, to coordinate project implementation in line with the objective and outcomes of the Japan-Caribbean CCP Project Document. The NFP will be the principal liaison between the national government and the Project Manager.

In order to achieve the above results the NFP:

Partnership building

- Develops and maintains relationships with main counterparts within country (e.g. with government departments, NGOs, farmers' organisations, community leaders) to ensure buy-in and successful implementation

Project development and implementation

- Participates in the development, formulation, implementation and evaluation of national activities related to the Japan-Caribbean Climate Change Partnership; reviews relevant documents and reports.
- Researches, analyses and presents information gathered from diverse sources related to climate change mitigation/adaptation; prepares various knowledge products, e.g. draft background papers, analysis, sections of reports and studies, inputs to publications, etc.
- Assists in policy development, including the review and analysis of issues and trends, preparation of impact evaluation or equivalent studies, etc.

- Provides substantive support to consultative and other meetings and conferences to include proposing agenda topics, identifying participants, preparation of documents and presentations, etc.
- Supports capacity building activities in-country: undertakes outreach and advocacy activities; conducts training workshops, seminars, etc.; makes presentations on assigned topics/activities.
- Supports the work of the NAPs and NAMAs Technical Specialists, including research and data collection, coordinating stakeholder consultations, conducting surveys, identifying strategic partners and synergies
- Facilitate the activities of other consultants e.g. identifying and coordinating with relevant stakeholders

Project monitoring

- Monitors and analyses project development and implementation, including coordinating and participating in monitoring missions, conducting field visits,
- Identifies problems and issues to be addressed and proposes corrective actions; liaises with relevant parties; identifies and tracks follow-up actions, captured in periodic monitoring reports
- Participates in or leads field missions, including provision of guidance to external consultants, government officials and other parties and drafting mission summaries, etc.

Other activities

- Coordinates activities related to budget and financing (project preparation and submission, progress reporting, financial statements, etc.) and prepares related documents/reports (pledging, work programme, programme budget, etc.).
- Performs other duties related to the work of the project as required.

IV. Competencies and Critical Success Factors

Professionalism:

- Knowledge and understanding of theories, concepts and approaches relevant to climate change, risk management and sustainable development.
- Ability to identify issues, analyse and participate in the resolution of issues/problems.
- Conceptual analytical and evaluative skills to conduct independent research and analysis, including familiarity with and experience in the use of various validated research and data sources, including electronic sources on the internet, intranet and other databases are required.
- Ability to apply judgment in the context of assignments given, plan own work and manage conflicting priorities.
- Shows pride in work and in achievements; demonstrates professional competence and mastery of subject matter; is conscientious and efficient in meeting commitments, observing deadlines and achieving results; is motivated by professional rather than personal concerns; shows persistence when faced with difficult problems or challenges; remains calm in stressful situations.

<ul style="list-style-type: none"> • Takes responsibility for incorporating gender perspectives and ensuring the equal participation of women and men in all areas of work. <p>Teamwork:</p> <ul style="list-style-type: none"> • Works collaboratively with colleagues to achieve organisational goals; solicits input by genuinely valuing others' ideas and expertise; is willing to learn from others • Places team agenda before personal agenda; supports and acts in accordance with final group decision, even when such decisions may not entirely reflect own position; shares credit for team accomplishments and accepts joint responsibility for team shortcomings. <p>Planning and organising:</p> <ul style="list-style-type: none"> • Develops clear goals that are consistent with agreed strategies; identifies priority activities and assignments; adjusts priorities as required • Allocates appropriate amount of time and resources for completing work • Foresees risks and allows for contingencies when planning; monitors and adjusts plans and actions as necessary; uses time efficiently
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VI. Recruitment Qualifications	
Education:	<ul style="list-style-type: none"> • Bachelor's degree in international development, natural resource/environmental management, management, economics, or a climate change related field. • Certification in project management is desirable
Experience:	<ul style="list-style-type: none"> • A minimum of 3 years of progressively responsible experience in project or programme management. • Experience in the Caribbean region desired, specific beneficiary country preferred. • Sound understanding of climate change, sustainable human development, environmental management issues, adaptation, vulnerability and impact, and other related sustainable human development issues • Very strong understanding of national and local development planning processes in specific beneficiary country • Demonstrated evidence of research and reporting skills (e.g. published papers, policy analysis) • Demonstrable computer skills including Word processing, spread sheets, PowerPoint
Language:	<ul style="list-style-type: none"> • Fluency in written and spoken English. • Working knowledge of other UN languages is an asset.
Other:	<ul style="list-style-type: none"> • Legal status to work within the specific beneficiary country e.g. CARICOM Graduate/Skilled National Certificate

TERMS OF REFERENCE PROJECT BOARD

1.0 BACKGROUND

Caribbean region countries share similar economic and sustainable development challenges, including a small but rapidly growing population, remoteness, susceptibility to natural disasters, and most importantly, vulnerability to climate change. Given the current condition of the marine environment, most coastal areas have few defences against the raging surfs of hurricanes and tropical storms, and the likely consequences would be significant coastal damage including beach erosion and infrastructure damage. Negative impacts associated to climate change on land, water resources and biodiversity have also been predicted, and ultimately, tourism and agriculture will be negatively impacted by these changes. Meanwhile, Caribbean countries emit such relatively small amounts of greenhouse gas emissions, which mean that they will suffer disproportionately from the impacts of climate change.

The Government of Japan has been one of leading donors in the target of climate change. Japan has delivered development assistance total of \$17.6 billion to vulnerable countries from October 2009 to December 2012 for mitigation and adaptation. The Government of Japan intends to continue its assistance in this area to create enabling environment with a view to formulate a new framework applicable to all Parties by COP 21 in 2015. Especially, the Government of Japan sees it important to assist Small Islands Developing States (SIDS), and in this context, is interested in establishing a new regional assistance programme for Caribbean and/or CARICOM in the area of climate change under the framework of the Partnership for Peace, Development and Prosperity between Japan and the Member States of the Caribbean Community (CARICOM)⁵⁵.

The Japan-Caribbean Climate Change Partnership aims to support countries in advancing the process of low-emission risk-resilient development by improving energy security and integrating medium to long-term planning for adaptation to climate change. In the pursuit of this objective, the initiative will support policy innovation through the development of a number of NAMAs and NAPs that will help guide Caribbean countries towards a green, low-emission and climate-resilient development pathway. The initiative will then also support the implementation of actual technology that is both low-emission and advances climate risk management, including demonstration in the target countries. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven, and based on existing national/sub-national development priorities, strategies and processes. Each country will be able to tailor the specific assistance it will receive as informed by its priorities and needs.

2.0 COMPOSITION

Representatives from the following organisations shall comprise the Project Board:

- One national representative as Chair
- United Nations Development Programme (UNDP)
 - Barbados and the OECS Sub-regional Office
 - Regional Service Centre, Panama
- Government of Japan
- Caribbean Community (CARICOM) Secretariat

⁵⁵ http://www.mofa.go.jp/region/latin/caricom/mc_1009/psp.html

- OECS Commission
- National representatives of 3 additional beneficiary countries

National representation will operate on a rotational basis, to change annually. Rotation is proposed to operate in groupings: Jamaica/Belize, Guyana/Suriname, and two from Dominica/Grenada/Saint Lucia/St Vincent and the Grenadines. Country representatives are designed to represent the interests of the entire group of beneficiaries in the most effective and impactful implementation of the project.

3.0 FUNCTIONS OF THE PROJECT BOARD

1. Offer overall policy and technical guidance and direction towards the implementation of the project, ensuring it remains within any specified constraints
2. Provide input into work plans, budgets and implementation schedules to guide the achievement of project objectives
3. Approve project implementation schedule, annual work plan (AWP) and indicative project budget at the commencement of each project year within its remit
4. Provide guidance and agree on possible countermeasures/management actions to address specific project risks
5. Address project issues as raised by the Project Coordinator
6. Agree on Project Coordinator's tolerances as required, and provide ad-hoc direction and advice for situations when tolerances are exceeded
7. Review and endorse changes in project work plans, budgets and schedules as necessary
8. Monitor project implementation and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans
9. Review and make decisions on recommendations related to project management from the Executing Agency or Implementing Agency
10. Arbitrate where necessary and decide on any alterations to the programme
11. Endorse an overall project evaluation and monitoring function for the duration of the project through a mechanism agreeable to all Project Board parties
12. Providing necessary oversight to ensure sustainability of project

4.0 MEETINGS

The Project Board will meet at least every six months, at a time and place convenient to all members. A quorum will be constituted by 51% of the representatives listed at 2.0, and this must be present for meetings of the Project Board to be convened.

5.0 CHAIRPERSON

The Project Board Chair will chair the Project Board meeting.

The Chair will be responsible for:

1. The conduct of the meeting
2. Ensuring that an accurate record of the discussions and decisions of each meeting is prepared and forwarded to all members
3. Ensuring adequate follow-up on the undertakings of the members of the Project Board.

6.0 SECRETARIAT OF THE COMMITTEE

The Project Coordinator will provide secretariat services to the Project Board.

7.0 COMMUNICATION

Documentation being presented for review at any meeting of the Project Board will, as far as possible, be distributed two weeks prior to the meeting. The preparation of the records of all official meetings of the Project Board will be the responsibility of the secretary. These records must be forwarded to Project Board members no later than two weeks after its conclusion.

8.0 DURATION

The Project Board will exist for the duration of the project.

9.0 FUNDING OF PROJECT BOARD ACTIVITIES

Project resources will be used to support the participation of country representatives and other members as required.

10.0 MEETING LOCATION

Meetings of the Project Board will be held at locations agreeable to all members.

ANNEX 3. RISK ANALYSIS

Project Title: Japan-Caribbean Climate Change Partnership	Award ID: 00088096	Date: March 2015
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#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response
1	Community not supportive of proposed interventions	December 2014	Social/Political	Most of the interventions identified have not been validated with community level stakeholders. P = 2, I = 5	UNDP has developed a visibility, communication and stakeholder engagement strategy which will ensure that all community based actions are implemented with the free, prior and informed consent of all stakeholders at community level.
2	Slow financial delivery due to limited national absorption capacity	December 2014	Financial	Slow financial delivery can result in disrupting the project's timeframe and result in inability to achieve results on time P = 3, I = 4	UNDP has decided to use the Direct Implementation Modality, which gives greater control for organisation or project outputs
3	Natural hazard impact	December 2014	Environmental	Hazard impact such as from a hurricane could severely delay project activities and result in inability to deliver project activities or even cause destruction to infrastructure. It would also divert national priorities and resources to response, recovery and reconstruction efforts. P = 5, I = 5	In compliance with its corporate policy, the operation of PMU in Barbados will be covered by UNDP's Barbados Business Continuity Plan. This is also applicable to other project operations in other UNDP offices'. This would provide an opportunity for demonstrating the value of the project investment in execution of the capacities built; or through support from the wider region in applying such capacities to the affected country if not yet built locally.
4	Change in Government	December 2014	Political	Change in government can mean new priorities and, in some cases unwillingness to continue with development initiatives of a previous administration P = 3, I=5	UNDP is undertaking wide consultations with national actors and ensuring alignment between project priorities and national development needs.

#	Description	Date Identified	Type	Impact & Probability	Countermeasures / Mngt response
5	Unclear management and monitoring of the project between UNDP RSC, SRO and COs	February 2015	Operational	The unclear division of responsibilities for management and monitoring will impact the overall transparency/effectiveness in delivering services P = 3, I = 4	SRO will clarify the roles and responsibilities among offices with guidance from RBLAC

ANNEX 4. SOCIAL AND ENVIRONMENTAL SCREENING PROCEDURE

Project Information

Project Information	
1. Project Title	Japan-Caribbean Climate Change Partnership
2. Project Number	00088096
3. Location (Global/Region/Country)	Caribbean – Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St Vincent and the Grenadines, Suriname

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project integrate the overarching principles in order to strengthen social and environmental sustainability?

Briefly describe in the space below how the Project mainstreams the human-rights based approach

Emphasis is placed on the participation and inclusion of marginalised and vulnerable groups (e.g. persons with disabilities, indigenous peoples, the poor, the elderly, the unemployed, children, etc) during policy development and design and implementation of community-level interventions. The consultative and needs assessment mechanisms envision an approach which is equitable and non-discriminatory in giving all stakeholders a voice and contribution to the decision making process, accountability and rule of law. Emphasis will also be placed on ensuring that information will be shared in a way that all stakeholders understand, in addition, the outputs of the project will promote the reduction of vulnerability and building of resilience to climate change which will advance people's rights to clean air, reduced risks to natural disasters, sustainable livelihoods and safety and security.

Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

In several respects, females face disproportionately higher vulnerability than males with regard to disaster risk and capacities to cope. For instance, female unemployment is typically higher than for males, single female-headed households are more likely to be poor, and there are notable disparities in the dependency ratio for such households, with women primarily carrying the burden of care. This impacts their ability to prepare for and respond to risks, as well as potentially hindering their capacities to recover after an event. The participation of women is highlighted in consultative and decision-making aspects, especially where their vulnerability is very high e.g. poor female-headed households. This initiative, as a core principle, will ensure that gender considerations are fully integrated into Nationally Appropriate Mitigation Plans and National Adaptation Plans. Specifically, all NAMAs and NAPs supported will be assessed to identify the extent to which gender concerns have been taken on board in relevant sectors. Where relevant, the project will provide opportunities for skills development of both men and women in the training to be provided at a community level, e.g. for installation and maintenance of solar PV and other technology. Also, being major transmitters of information within communities, the project will ensure that women are a part of the information building and sharing processes. At a community level, the project will ensure that all community level interventions conduct a gender needs assessment to ensure that the interventions are gender informed, and provide opportunities for reinforcing positive gender norms.

Efforts will also made to achieve gender parity in the recruitment of project staff.

Briefly describe in the space below how the Project mainstreams environmental sustainability

The Project is designed to approach climate change mitigation and adaptation from a policy perspective through the collaborative multi-sector development of Nationally Appropriate Mitigation Actions and National Adaptation Plans. This approach intends to promote integration of low-emission and climate-resilient approaches into economic sectors and medium to long-term national planning and development. The programme will strengthen institutional and technical capacities in selected countries for iterative development of comprehensive NAMAs and NAPs that are country-driven. The implementation process, especially at policy level must be oriented around a multi-sector multi-disciplinary approach. Given the wide-reaching impacts of climate change, and existing challenges in mainstreaming climate change and risk resilience into national planning frameworks, it is paramount that these processes not be isolated within a Ministry of Environment or Climate Change Unit. Of particular note, Ministries of Finance and Planning are among the key players that must be integral to the process. The project will also build on and complement other regional and national initiatives to mainstream environmental sustainability in development planning. While mainstreaming climate change imperatives at the national level is important, the project will also seek to strengthen and build mechanisms to enable mainstreaming at the local and community levels.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the potential social and environmental risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses). If no risks have been identified in Attachment 1 then note “No Risks Identified” and skip to Question 4 and Select “Low Risk”. Questions 5 and 6 not required for Low Risk Projects.</i>	QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>	QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for risks with moderate and high significance)?
Risk Description	Impact and Probability (1-5)	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
Risk 1: Commercial use of climate-adapted crop varieties (checklist 1.9)	I = 3 P = 3	Existing agricultural field assessments will be used
Risk 2: Relating to possible interventions in indigenous communities (6.1, 6.2, 6.4)	I = 3 P = 3	Project implementation will include culturally-appropriate stakeholder engagement process
Risk 3: Generation of non-hazardous waste from small-scale infrastructure (e.g. metals, PVC), agricultural waste (7.2)	I = 1 P = 4	
QUESTION 4: What is the overall Project risk categorisation?		

Select one (see SESP for guidance)		Comments
Low Risk	<input type="checkbox"/>	
Moderate Risk	<input checked="" type="checkbox"/>	
High Risk	<input type="checkbox"/>	
QUESTION 5: Based on the identified risks and risk categorisation, what requirements of the SES are relevant?		
Check all that apply		
<i>Principle 1: Human Rights</i>	<input type="checkbox"/>	Comments
<i>Principle 2: Gender Equality and Women's Empowerment</i>	<input type="checkbox"/>	
<i>1. Biodiversity Conservation and Natural Resource Management</i>	<input checked="" type="checkbox"/>	
<i>2. Climate Change Mitigation and Adaptation</i>	<input type="checkbox"/>	
<i>3. Community Health, Safety and Working Conditions</i>	<input type="checkbox"/>	
<i>4. Cultural Heritage</i>	<input type="checkbox"/>	
<i>5. Displacement and Resettlement</i>	<input type="checkbox"/>	
<i>6. Indigenous Peoples</i>	<input checked="" type="checkbox"/>	
<i>7. Pollution Prevention and Resource Efficiency</i>	<input checked="" type="checkbox"/>	

Final Sign Off

Signature	Date	Description
QA Assessor (Danielle Evanson)	2 Mar 2015	UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver (Lara Blanco)	9 Mar 2015	UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair (Rebeca Arias)	17 Mar 2015	UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		Answer (Yes/No)
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	N
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups? ⁵⁶	N
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalised individuals or groups?	N
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalised groups, from fully participating in decisions that may affect them?	N
5.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	N
6.	Is there a risk that rights-holders do not have the capacity to claim their rights?	N
7.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	N
8.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	N
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	N
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	N
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	
4.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	N
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	N
1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognised as such by authoritative sources and/or indigenous peoples or local communities?	N

⁵⁶ Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	N
1.4	Would Project activities pose risks to endangered species?	N
1.5	Would the Project pose a risk of introducing invasive alien species?	N
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	N
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	N
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	N
1.9	Does the Project involve utilisation of genetic resources? (e.g. collection and/or harvesting, commercial development)	Y
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	N
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	N
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant ⁵⁷ greenhouse gas emissions or may exacerbate climate change?	N
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	N
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	N
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	N
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	N
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	N
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	N
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	N

⁵⁷ In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tonnes per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	N
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	N
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO fundamental conventions)?	N
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	N
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	N
4.2	Does the Project propose utilising tangible and/or intangible forms of cultural heritage for commercial or other purposes?	N
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	N
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	N
5.3	Is there a risk that the Project would lead to forced evictions? ⁵⁸	N
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	N
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	Y
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	Y
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognised as indigenous peoples by the country in question)? <i>If the answer to the screening question 6.3 is “yes” the potential risk impacts are considered potentially severe and/or critical and the Project would be categorised as either Moderate or High Risk.</i>	N
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC ⁵⁹ on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	Y

⁵⁸ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

⁵⁹ Free, prior and informed consent

6.5	Does the proposed Project involve the utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	N
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	N
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	N
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	N
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialisation or use of their traditional knowledge and practices?	N
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	N
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	Y
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	N
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	N
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	N