
Country programme

Antigua and Barbuda

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ANTIGUA AND BARBUDA

CLIMATE CHANGE COUNTRY PROGRAMME

2020

SUSTAINABLE DEVELOPMENT CONTEXT FOR ANTIGUA AND BARBUDA

Economic Profile

Antigua and Barbuda is ranked as a high-income country by the World Bank¹. Despite this status, ~14% of the population are unemployed and ~18% live below the poverty line^{2,3}, with a further 10% at risk of falling into poverty if there is a shock to the economy⁴. Therefore, Antigua and Barbuda's citizens are highly vulnerable to climate change impacts that can have a significant effect on the economy. Baseline information on population, socio-economic and vulnerability indicators is listed in Table 1. The Human Development Index (HDI) for the country has increased over the last decade from 0.766 in 2005 to 0.780 in 2017, indicating an improvement in overall human development^{5,6}.

Table 1. Baseline population, socio-economic and vulnerability indicators for Antigua and Barbuda⁷.

Indicator	Value	Year
Population ^{8,9}	Total population	~96,300 people
	Population growth (per 1,000 population)	~1%
	Percentage of population with access to electricity	~98%
	Total net enrolment in primary education (men and women)	~88%
	Mean years of schooling (of adults)	~9 years
Five-year indicators ^{10,11}	Life expectancy at birth	~76 years
	Average annual rate of population change	~1%
	Crude death rate	~6 deaths per 1,000 population
	Infant mortality rate	0.54%
	Under-five mortality	~12 deaths per year
Economy	Gross Domestic Product (GDP) per capita; PPP	~US\$ 21,000
	Gross National Income (GNI) per capita; PPP	~US\$ 25,160
	Inflation; consumer prices	~2%
Capacity	Roads; total network	~1,160 km
	Proportion of the population using improved drinking water sources	~98%
	Global Needs Assessment (GNA) Crisis Index	0

¹ This is because the country's GNI per capita is larger than US\$12,376. From: The World Bank. 2019. Data: World Bank Country and Lending Groups. Available at: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

² The poverty line is a monetary measure of the minimum amount of money a household would need to spend to meet its minimum food and non-food requirements. In Antigua and Barbuda, the poverty line is US\$2,366 per annum, or an average of US\$6.57 per day.

³ The World Bank. 2017. Data: Antigua and Barbuda. Available at: <https://data.worldbank.org/country/antigua-and-barbuda>.

⁴ For example, a shock to the economy brought about by an extreme weather event.

⁵ The Human Development Index considers three dimensions of human development, namely a long and healthy life, access to knowledge and a decent standard of living. Higher HDI values indicate higher overall human development.

⁶ UNDP. 2018. Human Development Indices and Indicators: 2018 Statistical Update — Antigua and Barbuda. Available at: http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/ATG.pdf.

⁷ Humanitarian Data Exchange (HDX). 2017. Antigua and Barbuda Baseline Data. HDX V1.8.7. Available at: https://data.humdata.org/dataset/atg_baseline_data

⁸ The World Bank. World Development Indicators. Available at: <http://datatopics.worldbank.org/world-development-indicators/>.

⁹ Available at: <https://ourworldindata.org/country/antigua-and-barbuda>.

¹⁰ Available at: <https://ourworldindata.org/country/antigua-and-barbuda>.

¹¹ The World Bank. World Development Indicators.

¹² Available at: <https://ourworldindata.org/country/antigua-and-barbuda>.

¹³ The World Bank. World Development Indicators.

¹⁴ Available at: <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?locations=AG>.

¹⁵ Humanitarian Data Exchange (HDX). 2017. Antigua and Barbuda Baseline Data. HDX V1.8.7.

Indicator		Value	Year
Vulnerability ^{16;17}	GNA Vulnerability Index	1	2012
	Proportion of the population using improved sanitation facilities	~91%	2011
	Per capita food supply	~2,417 kcal capita ⁻¹ day ⁻¹	2013

Major economic sectors in Antigua and Barbuda

Antigua and Barbuda has a service-based economy¹⁸, with tourism contributing: i) nearly 60% of the GDP; ii) 40% of investment; and iii) employment for 70% of the population¹⁹. Other prominent economic sectors are industry and agriculture, which accounted for a respective 21% and 2% of GDP in 2017²⁰. Figure 1 shows land used on Antigua for agriculture, as well as other economic sectors.

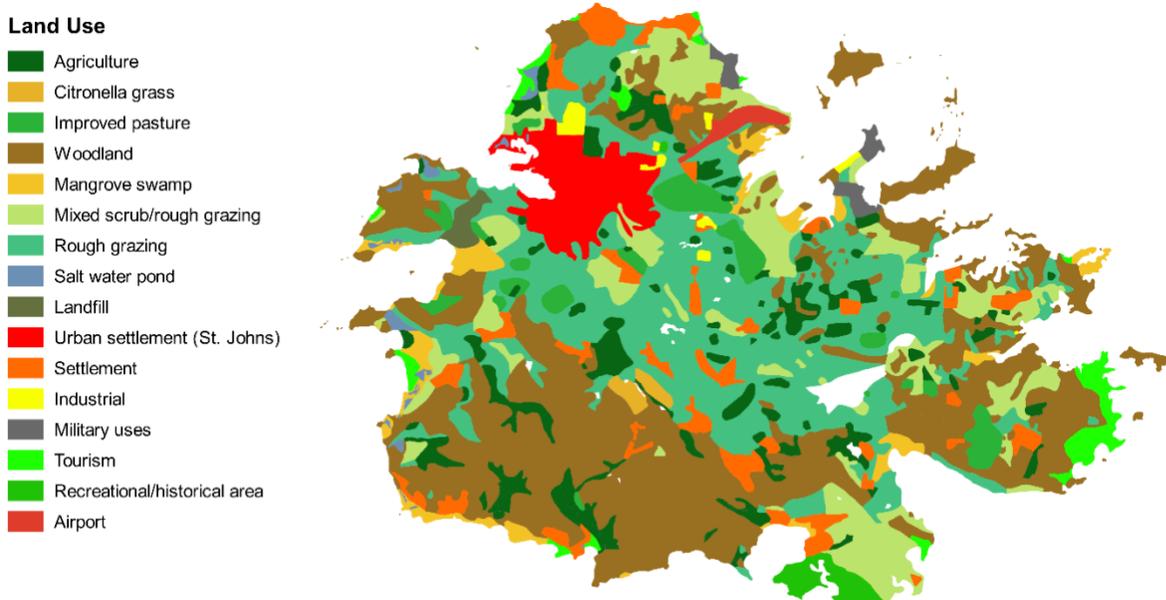


Figure 1. Map indicating land-use on Antigua²¹.

Because of its dependence on tourism, the country’s economy is sensitive to changes in the global economy²². For example, Antigua and Barbuda’s economy was severely impacted by the 2007/8 global economic crisis²³, experiencing a 4% decline in tourism activity, the loss of ~8,000

¹⁶ Available at: <https://ourworldindata.org/country/antigua-and-barbuda>.

¹⁷ Humanitarian Data Exchange (HDX). 2017. Antigua and Barbuda Baseline Data. HDX V1.8.7.

¹⁸ Global Water Partnership Caribbean. 2013. The Post 2015 Water Thematic Consultation: Antigua and Barbuda.

¹⁹ Antigua and Barbuda economy — overview. Available at: https://www.indexmundi.com/antigua_and_barbuda/economy_overview.html.

²⁰ Antigua and Barbuda economy — overview. Available at: https://www.indexmundi.com/antigua_and_barbuda/economy_overview.html.

²¹ Sustainable Island Resource Management Zoning Plan (SIRMZP) for Antigua and Barbuda (including Redonda). 2011. GENIVAR Trinidad and Tobago, in association with Ivor Jackson and Associates and Kingdome Consultants Inc.

²² Caribbean Development Bank. 2018. Antigua and Barbuda: Country Economic Review. Available at: <https://www.caribank.org/publications-and-resources/resource-library/economic-reviews/country-economic-review-2018-antigua-and-barbuda>.

²³ Central Intelligence Agency (CIA). 2017. The World Factbook – Central American and Caribbean: Antigua and Barbuda. Available at: <https://www.cia.gov/library/publications/the-world-factbook/geos/ac.html>.

jobs and a resulting ~16% decrease in GDP (2008–2011)^{24,25}. Recently, the COVID-19 pandemic has caused disruptions to the tourism industry as most activities, and new arrivals have been halted, which, combined with the impacts of the pandemic on other economic sectors, is projected to cause a 20% decline in GDP and a 40% decrease in government revenues below initial projections for 2020²⁶.

Along with global economic volatility, the country's economy is also vulnerable to the effects of extreme climate events. From 2008 to 2017, the total cost of damages incurred by named hurricanes in Antigua and Barbuda was US\$232 million, and over half of this value (US\$ 136 million) was the result of just two hurricanes in 2017 — hurricanes Irma and Maria²⁷. On average, hurricanes account for ~8% of annual GDP losses²⁸. Although these financial impacts are already severe, climate change is predicted to exacerbate the impact of extreme climate events as they are projected to increase in intensity (see the Climate Change Context section below).

The economy of Antigua and Barbuda is relatively small with consistently high levels of public debt, which is typical of small island developing states. The country has embarked upon a rigorous debt restructuring and fiscal reform programme, which was partially successful in reducing the public debt burden. Antigua and Barbuda is constrained in its ability to service these debts largely due to the increased financial and economic burden of climate change, now compounded by the negative effects of the COVID-19 pandemic.

High public and private (i.e. businesses and individuals) debt levels limit fiscal capacity to invest in climate change mitigation and adaptation interventions, which would reduce the vulnerability of infrastructure and businesses to future extreme climate events²⁹. Additionally, they limit the government's and the private sector's ability to fund damage recovery interventions in the aftermath of an extreme weather event as well as the permanent loss of assets and income. The frequency and intensity of these events as such often results in further increases in public and private debt³⁰ and undermines financial institutions due to loss of assets.

Private sector debt is also rising in Antigua and Barbuda. Many financial institutions cite non-performing loans as a result of post-hurricane job losses. This trend will be compounded by the ongoing COVID-19 pandemic, during which many Antiguan and Barbudans have lost their jobs, reducing their ability to fulfil bank obligations and prompting them to borrow to purchase food and other essentials.

Social and Environmental Profile

Antigua and Barbuda is a small island developing state (SIDS) in the Caribbean Sea, consisting of two main inhabited islands and several smaller islands, with a total land area amounting to ~456 km³¹. Antigua is the larger of the two islands at 280 km, while Barbuda — which is 40 km north of Antigua — has a land area of 176 km. Both islands are low-lying with 70% of the land in

²⁴ Trading Economics — Antigua and Barbuda GDP. Available at: <https://tradingeconomics.com/antigua-and-barbuda/gdp>

²⁵ Browne, G. 2020. Statement to the Nation on Government's COVID-19 Response.

²⁶ Informal figures from the Ministry of Finance – Assessments are ongoing.

²⁷ Government of Antigua and Barbuda. 2018. Hurricane Irma Needs Assessment. Available at:

<https://www.gfdrr.org/en/publication/hurricane-irma-and-maria-recovery-needs-assessment-antigua-and-barbuda>.

²⁸ Acevedo S. 2016. Gone with the wind: estimating hurricane climate change costs in the Caribbean. International Monetary Fund Working Paper.

²⁹ UNCTAD. 2017. Environmental Vulnerability and Debt Sustainability in the Caribbean: Do We Have Enough Tools to Address Catastrophic Risk? *Policy Brief No. 62*. [online] Available: https://unctad.org/en/PublicationsLibrary/presspb2017d11_en.pdf

³⁰ IMF. 2014. *IMF Country Report No. 15/189*.

³¹ GoAB. 2020. Antigua and Barbuda's First Biennial Update Report.

Antigua less than 30 m above mean sea level and most of Barbuda only 3 m above mean sea level.

Despite their high-income ranking, approximately 18% of the total population falls below the poverty line³² and 14% is unemployed³³. When considering the proportion of the population that is at risk of falling into poverty if there is a shock to the economy³⁴, the percentage rises to 28%. This barrier has placed a strain on the country, limiting its ability to maintain economic growth and requiring the diversion of critical financing away from health and other development sectors to climate change loss and damage response programmes.

Key Challenges

Antigua and Barbuda is highly dependent on tourism, making it highly vulnerable to fluctuations in the global economy.³⁵ The recent COVID-19 pandemic has halted most tourism activities. This disruption is projected to provoke a GDP contraction of at least 20%, with Government revenues declining by over 40%³⁶. These disruptions, combined with high debt, are expected to have major ramifications for Antigua and Barbuda's development and ability to fund its adaptation programme.

As part of its desperate attempts to shore up the economy, the government of Antigua and Barbuda (GOAB) is contemplating conversion of protected natural areas into new areas for development. There is also a thrust to convert agricultural land into housing developments for expatriates. These steps are under active consideration as a result of the country's inability to meet the financing demand for climate action.

Opportunities

On the matter of opportunities, GOAB seeks to attain a state of sustainable development and achieve the goals of *Paris Agreement 2015* through a gender-responsive, just transition to a low emission, climate-resilient economy. Our 2020 Country Programme is the first step in this transition. The Government envisions that it will perform a catalytic role in this transition through the proposed climate change project pipeline presented in this Country Programme while managing transition risks via programmes for the just transition of the workforce, enhancing respective enabling environments for key thematic areas, and socially inclusive investment.

Gender considerations in Antigua and Barbuda

Female-headed households in Antigua and Barbuda comprise ~44% of total households. The differential between male- and female-headed households can be attributed to the country's patriarchal social organisation, which is premised on conservative interpretations of Christian religious texts³⁷. A gendered division of labour persists in the household, such that men are more commonly the breadwinners, while women are responsible for unpaid labour including food

³² The poverty line is a monetary measure of the minimum amount of money a household would need to spend to meet its minimum food and non-food requirements. In Antigua and Barbuda, the poverty line is US\$2,366 per annum, or an average of US\$6.57 per day.

³³ The World Bank. 2017. Data: Antigua and Barbuda. Available at: <https://data.worldbank.org/country/antigua-and-barbuda>.

³⁴ For example, a shock to the economy brought about by an extreme weather event.

³⁵ Caribbean Development Bank. 2018. Antigua and Barbuda: Country Economic Review. Available at: <https://www.caribank.org/publications-and-resources/resource-library/economic-reviews/country-economic-review-2018-antigua-and-barbuda>.

³⁶ Informal Figures from the Ministry of Finance. Assessments are still ongoing.

³⁷ GoAB. 2020. Gender Assessment and Gender and Social Inclusion Action Plan.

preparation, child-care, cleaning and other domestic duties. This unpaid labour is not covered by social security programmes, such that women often lack access to government services and cannot accrue certain social benefits such as pensions³⁸.

The largest occupational category amongst women is the services sector, clerical support work, sales and professionals (**Error! Reference source not found.** below). Men typically dominate craft and related trade occupations, followed by service and sale workers and technical and associate professionals. Given their dominance in services sectors, women are vulnerable to climate change, as these sectors are the most susceptible to climate impacts³⁹. For example, the tourism sector was the worst impacted by the 2017 hurricanes Irma and Maria, and damages and losses amounted to US\$ 72.6 million⁴⁰. In 2015, the average female unemployment rate (14.5%) was higher than its male counterpart (12.9%), and women were also more likely to be underemployed⁴¹ compared with men — the 2015 underemployment rate was 5.3% for women and 4.6% for men. Men earned more than women on average and were overrepresented in the top two income brackets⁴².



Figure 2. Employment by Occupation and Sex in Antigua and Barbuda, 2015⁴³.

Women are usually the primary users of free government services, including health, education and security services and will be disproportionately impacted by any fiscal restructuring that would

³⁸ Huggins, T. 2014. *Country Gender Assessment: Antigua and Barbuda (Vol. 1)*. Caribbean Development Bank, Barbados.

³⁹ GoAB. 2020. Gender Assessment and Gender and Social Inclusion Action Plan.

⁴⁰ GoAB. 2018. *Hurricane Irma Recovery Needs Assessment: A Report by the Government of Antigua and Barbuda*. [online] Available:

https://www.gfdr.org/sites/default/files/publication/Antigua%20and%20Barbuda%20executive%20summary_print_text%282%29.pdf

⁴¹ 'Underemployment' refers to a situation where an individual's labour potential is being underutilised. This can either be because the individual has capacity to work more hours (a high prevalence of [involuntary] part-time work), or because the individual is in an employment position where their skills and/or qualifications are not being fully utilised. From: GoAB. 2015. Labour Force Survey Report.

⁴² GoAB. 2015. Labour Force Survey Report.

⁴³ GoAB. 2015. Labour Force Survey Report.

reduce social service provision⁴⁴. This dependence also increases women’s vulnerability to climate change as the reliable provision of these services is often compromised in the aftermath of extreme climate events. For example, extensive damages incurred to Barbuda’s only health facility after the 2017 hurricane season resulted in the complete shut-down of the hospital, with full operating capacity only being restored by early 2020⁴⁵.

Under the GCF 4 Readiness project, a baseline gender assessment is being conducted to identify multiple cases of vulnerability to climate change among men and women well as identify the differential adaptive capacity to climate change. The overall outcome is to ensure that the Department of Environment Country Programme is gender responsive, such that it aims to go beyond gender sensitivity to actively promoting gender equality and women’s empowerment.

Climate Change Context

Antigua and Barbuda is extremely vulnerable to projected climate change impacts, which will result in higher-intensity hurricanes, more frequent droughts, higher temperatures, and sea level rise⁴⁶. In 2012, the Global Facility for Disaster Reduction and Recovery ranked Antigua and Barbuda amongst the top five countries most exposed to multiple hazards, with 100% of their population and land area exposed to two or more environmental hazards⁴⁷.

A. Tropical Cyclones (Tropical Storms and Hurricanes)

Estimates indicate that the island of Antigua could experience a tropical cyclone passing within 120 miles every 1-2 years and see a close or direct hit by a storm every 6-7 years. Category 4 and 5 hurricanes are also on the rise. Future forecasts suggest that this trend in high-intensity hurricanes will continue, averaging one to two Category 4 storms and one Category 5 storm per decade.

The social, economic, and environmental costs of frequent tropical cyclones are high. In 2008-2017, tropical storms and hurricanes cost Antigua and Barbuda US\$232 million. On average, hurricanes account for 8.4% of the country’s annual loss in GDP.⁴⁸ The combined immediate post-event damages caused by hurricanes Irma and Maria in 2017—equalling US\$136 million—lowered Antigua and Barbuda’s GDP growth rate by 1.1% due to damaged tourism infrastructure and increased spending on relief efforts and repairs⁴⁹. The increased onset of high-intensity hurricanes also necessitates new building codes.

B. Droughts

Droughts have also increased in intensity, with the country experiencing its worst drought on record in 2013–2016. The probability of a serious to severe drought in Antigua and Barbuda at

⁴⁴ Huggins, T. 2014. *Country Gender Assessment: Antigua and Barbuda (Vol. 1)*.

⁴⁵ UNDP. 2020. Resilient Restoration of the Hannah Thomas Hospital in Barbuda. [online] Available:

<https://www.bb.undp.org/content/barbados/en/home/presscenter/articles/2019/resilient-restoration-of-the-hannah-thomas-hospital-in-barbuda.html>

⁴⁶ GOAB. 2020. Antigua and Barbuda’s First Biennial Update Report.

⁴⁷ World Bank Group. 2012. Disaster Risk Management in Latin America and the Caribbean Region: GFDRR Country Notes. *Report No. 64260*. [online] Available:

<http://documents1.worldbank.org/curated/en/826811468010903390/pdf/642600WP0Box3700LAC0CountryPrograms.pdf> [Accessed 08/05/2020]

⁴⁸ Acevedo S. 2016. Gone with the wind: estimating hurricane climate change costs in the Caribbean. International Monetary Fund Working Paper.

⁴⁹ Government of Antigua and Barbuda. 2018. Hurricane Irma Needs Assessment. Available at:

<https://www.gfdr.org/en/publication/hurricane-irma-and-maria-recovery-needs-assessment-antigua-and-barbuda>.

least once a year is 28.9%. This increases to 81.8% over a five-year period and 96.7% over a decade.

The 2013-2016 drought strained an already limited water supply and forced the government to increase desalination from 40% to 80% of national water consumption, with desalination levels reaching ~90% of national water supply during the peak of the drought.⁵⁰ The energy costs of operating desalination facilities at this level were ~US\$9.9 million, and this increase was still unable to meet national demand⁵¹. Desalination facilities rely on (non-renewable) electricity supplied from the transmissions grid, which increases vulnerability to electricity supply disruptions and the resulting curtailment of the water supply.⁵² Both the incidence and intensity of droughts are projected to increase in the future as average rainfall declines by ~26% between 2021–2099 under a business-as-usual scenario, compared with historical values⁵³.

C. Sea Level Rise (SLR)

Since the 1950s, sea levels in Antigua and Barbuda have risen at a rate of 0.06 to 0.08 in (1.6 to 2.0 mm) per year⁵⁴, and recent trends in global warming and sea level rise heighten the risk for coastal inundation.

Most infrastructure and settlements in Antigua and Barbuda are located on or near the coast, including government, health, commercial and transportation facilities. Sea level rise also threatens agricultural lands, port facilities, and residential properties, thereby endangering lives, livelihoods, and energy and food security. Wetlands and other coastal and marine resources are at risk of degradation, and saline intrusion threatens groundwater, thereby exacerbating freshwater scarcity (particularly in Barbuda). Water and sanitation infrastructure are also at risk of being affected by sea level rise.

Current studies indicate that 1 m SLR places 10% of Antigua and Barbuda's major tourism properties at risk, along with 2% of road networks and 100% of seaports. With 2 m SLR, 18% of major tourism resorts and 100% of airports would be impacted.

Synergy: Climate Change and Sustainable Development

Antigua and Barbuda's GCF Country Programme has been specifically designed to take a holistic approach to climate change adaptation and mitigation in Antigua and Barbuda. Each project addresses a specific element of climate risk in the country, with the concept of complementarity underpinning the entire portfolio. These projects are focused on *inter alia* climate-proofing the country's built environment, mainstreaming climate resilience into Antigua and Barbuda's agricultural and financial sectors, initiating a paradigm shift within the transport and electricity sectors towards low-emissions development, promoting a just transition of workers affected by this transition to low-emissions economies, and leveraging debt servicing towards financing climate change adaptation and mitigation initiatives using a microfinancing approach.

⁵⁰ GOAB. 2020. Antigua and Barbuda's First Biennial Update Report.

⁵¹ GOAB. 2015. Third National Communication on Climate Change under the UNFCCC.

⁵² GOAB. 2016. Request for Proposals (RFP) for the Procurement of a Framework Agreement to Design Systems and Purchase Equipment for Wind/Diesel Hybrid and Wind Only Grid Interactive Power Systems for Installation within the Water, Health and Essential Services of the Government of Antigua and Barbuda. [online] Available: https://caricom.org/documents/procurement/15077-revised_rfp_wind_final.pdf [Accessed 19/06/2020]

⁵³ This was modelled using daily CORDEX data for the Eastern Caribbean, using nine models including: MIROC5; HadGEM2-ES; MPI-ESM-LR; NorESM1-M; GFDL-ESM2M; CanESM2; CNRM-CM5; CSIRO-Mk3-6-0 and CM5A-MR.

⁵⁴ Church et al. 2006.

In addition to ensuring alignment between the prioritised projects, this Country Programme has been designed to scale up and complement planned and ongoing projects in Antigua and Barbuda funded by different sources to the GCF, such as the Global Environment Facility (GEF), Adaptation Fund (AF), Special Climate Change Fund (SCCF), Global Climate Change Alliance (GCCA) and the Government of Antigua and Barbuda (Figure 3). For example, GCF Build, which was approved at B.26, built on four different baseline projects to maximise the impact potential of ongoing work in Antigua and Barbuda focused on increasing the resilience of critical infrastructure and the broader built environment to Category 4 and 5 hurricanes. Similar opportunities to scale up and complement ongoing climate change initiatives in Antigua and Barbuda will continue to be sought during the development of all projects prioritised under this Country Programme. Figure 3 below highlights how the resources from multiple sources will strategically interact and contribute towards achieving climate-resilient and low emissions development within the built environment, agricultural, financing, energy and transport sectors. Further details on each of the prioritised projects under this GCF Country Programme are presented in the following sections.

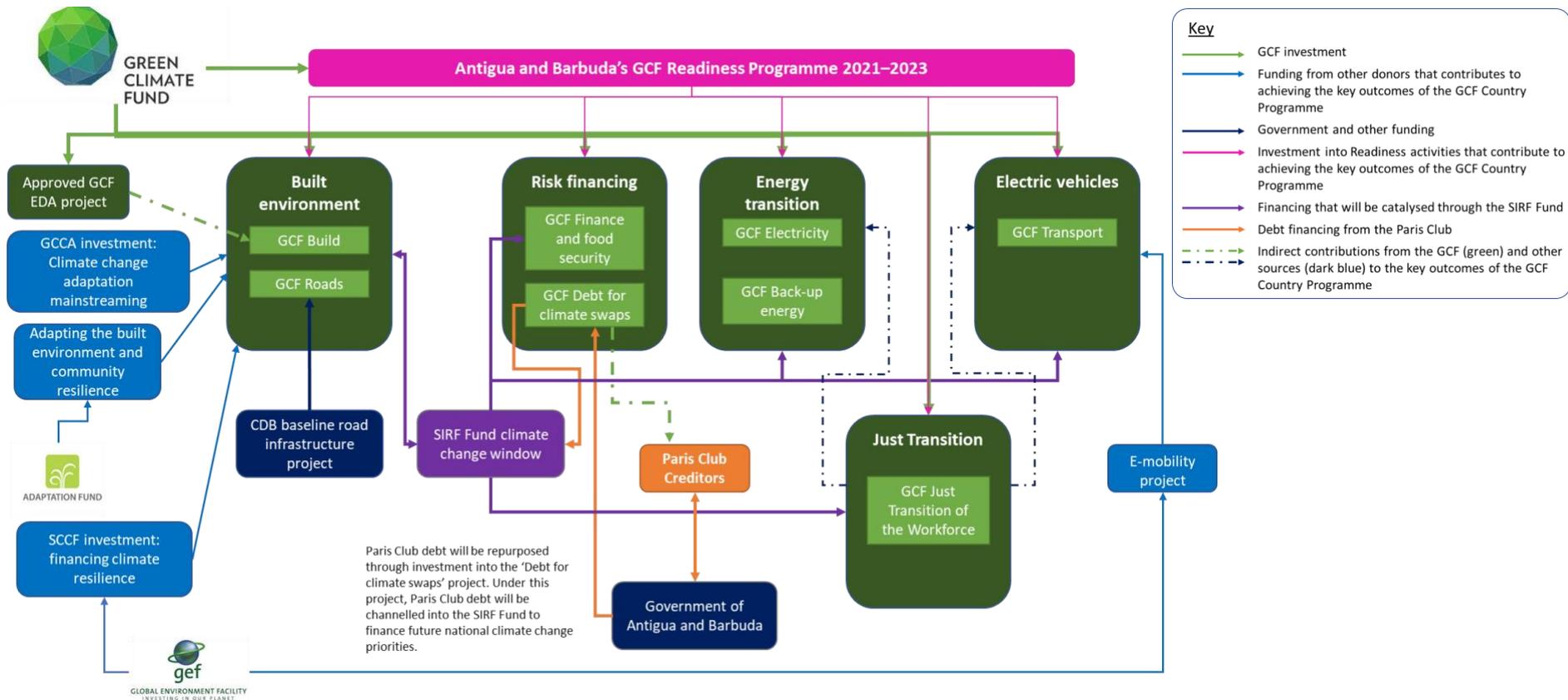


Figure 3. Complementarity and strategic interaction between support providers and national resources to increase climate resilience and low-emissions development in Antigua and Barbuda.

Debt-for-Climate Swap

Antigua and Barbuda, despite being rated as a high-income *per capita* country by the World Bank, has a consistently high public debt-to-GDP ratio which has historically increased vulnerability to climate threats such as hurricanes, as well as reduced fiscal space available to invest in climate change adaptation and mitigation projects and programmes⁵⁵. Between 1998–2009, public debt-to-GDP averaged ~115%⁵⁶, and has since declined because of rigorous reforms and debt restructuring, although this ratio remains high⁵⁷.

A debt-for-climate swap project could promote the three pillars of sustainable development—society, economy, and environment—while combating climate change. First, it would ease the government’s financial burden and create much needed fiscal space for addressing the adverse effects of climate change. Moreover, the proceeds from the debt swap would enable local small businesses and private citizens, which are also highly indebted, to retool their property and assets to be more financially resilient and take advantage of new business opportunities emerging from Antigua and Barbuda’s low-emission, climate-resilient transition.

The GCF would, in the proposed debt-for-climate swap, support or partially finance the redirection of ~US\$147 million in debt owed by the GoAB to Paris Club creditors⁵⁸ towards investment in domestic climate change mitigation and adaptation projects. This would allow for the simultaneous easing of external debt obligations to Paris Club creditors and allow for increased investment in climate change action. Allowance for debt swaps using GCF funds is described in Section 2.2.6 of GCF’s Business Model Framework: Financial Instruments⁵⁹. The framework describes that “the Fund could utilise debt conversions for climate adaptation as an innovative financing mechanism that supports highly indebted poor countries (HIPC) and the most vulnerable small countries to devote additional resources for climate change adaptation efforts”. Although not an HIPC, as a Caribbean SIDS, Antigua and Barbuda is amongst the small countries most vulnerable to projected climate change impacts⁶⁰. A menu of phases and options — outlined below — have been developed for the proposed debt swap, to be considered for pursuing with GCF support.

Phase 1

Under this phase, GCF funds would be accessed — most likely through Readiness financing — to establish financial and institutional mechanisms to facilitate the debt swap. This would include financing the: i) negotiations with creditors; ii) establishment of legal and contractual frameworks; iii) reaching of agreements with all relevant participating institutions (e.g. GCF; DoE; MoF; and Paris Club); and iv) capacity building and institutional development of relevant GoAB and financial institutions.

⁵⁵ IMF. 2014. *IMF Country Report No. 15/189*.

⁵⁶ GoAB Ministry of Finance, the Economy, and Public Administration. 2014. *Alternative Options for Finalising the Debt Rescheduling Agreement with the Government of Brazil*.

⁵⁷ Debt-to-GDP declined to ~71% in 2018. From: GoAB Ministry of Finance and Corporate Governance. 2019. *Government of Antigua and Barbuda Prospectus*. [online] Available: <https://www.ecseonline.com/PDF/2019/Jan/GANB%20Prospectus%202019.pdf>

⁵⁸ The Paris Club is an informal group of major creditor governments who have extended financial resources to debtor governments, in the form of either Official Development Assistance (ODA) or non-ODA. From: Clubdeparis. N.d. About Us. [online] Available: <https://clubdeparis.org/>

⁵⁹ Green Climate Fund. 2013. *Business Model Framework: Financial Instruments GCF/B.04/06*. [online] Available: <https://www.greenclimate.fund/document/gcf-b04-06>

⁶⁰ World Bank. 2012. *Disaster Risk Management in Latin America and the Caribbean Region: GFDRR Country Notes*.

Phase 2

Phase 2 would build upon the preparations developed under Phase 1 and is dependent upon GCF agreeing to the terms of the approach. In this phase GCF resources would repay 30% of Antigua and Barbuda's Paris Club debt (or part thereof). In exchange, the GoAB (Ministry of Finance) would commit to 'repaying' the remaining 70% of the debt (or part thereof) into the Sustainable Island Resource Framework (SIRF) Fund over a 10-year period. These committed funds would be earmarked for specific initiatives towards addressing the impacts of climate change and would be delivered to beneficiaries in the form of blended grants and low-interest loans. This would amount to a more than two-fold 'return' on GCF investment through the government's financial commitment to climate change adaptation and mitigation, which would provide secure funding and financing for on-granting, loans or co-finance for other projects. This programme would be enshrined into an Act of Parliament and would be designed with a robust monitoring and evaluation programme to ensure compliance. Pending the outcome of the negotiations and discussions of Phase 1, the Phase 2 debt swap may take one of the following forms.

Option A

Given that Antigua and Barbuda's accreditation cap for GCF projects is only for 'Small' projects, this may require the GCF-financed trilateral debt swap to be limited to US\$50 million in total. This would include the 30% upfront repayment using a US\$ 15 million GCF grant and the 70% GoAB co-finance of US\$35 million invested in the SIRF fund over 10 years.

Option B

Option B is an increased version of Option A but using the same mechanism and approach. If the 70% GoAB contribution was considered external to the project — and not as co-finance to be 'counted' under the US\$50 million threshold — this would allow for a higher contribution by GCF than under Option A, whilst remaining within the GoAB's Accreditation Cap. This second option would thus seek to restructure (up to) all of Antigua and Barbuda's outstanding Paris Club debt (~US\$147 million), with (up to) ~US\$44 million and (up to) ~US\$103 million in contributions by GCF and GoAB, respectively.

Social Inclusion and Investment Programme

The Social Inclusion and Investment Programme (still under development) seeks to expand small-scale and commercial investment opportunities in renewable energy in Antigua and Barbuda. The Programme involves four components:

- i) Investment in human capital and industry skills fit for the future energy industry;
- ii) Lowering costs and adding value and resilience to vulnerable homes;
- iii) Investment in small and medium-sized enterprises (SMEs) and business asset value creation; and
- iv) Promoting citizen engagement with the nation's energy future.

The Programme promotes economic development aligned with 'green' pathways, and in so doing, contributes equally to climate change and sustainable development goals.

Major Adaptation and Mitigation Investment Opportunities

A. Fossil Fuel Phase-Out

The GOAB intends to implement a Fossil Fuel Phase-out Programme with complementary mitigation and adaptation components. This proposed programme is aims to:

- i) Save over USD 80 million per year by 2030 through transitioning the national transportation and electricity sectors using a sector coupling approach;
- ii) build more resilient energy systems by increasing back-up energy in homes, farms and community businesses from 10% to 60% by 2030; and
- iii) manage significant transition risks by implementing parallel projects for just transition of the workforce and the provide opportunities for local Antiguan and Barbudans to invest into the transition, thus leveraging local capital.

The initial cost of this transition is predicted to range between USD 500-700 million by 2030, presenting a significant investment opportunity with high-magnitude social, economic, and environmental effects.

The roadmap under development is based on a scenario analysis conducted by the International Renewable Energy Agency (IRENA) as well as assessment by the NDC Partnership's 2021 NDC development process. Both returned optimal scenarios based on the capital expenditure (capex) and resultant cost to generate energy.

B. Just Transition of the Workforce

To support a fossil fuel phase-out, the GOAB must facilitate a just transition of the workforce. This transition will require investments in physical and human capital as well as institutional development.

A just transition approach would target workers in fossil fuel-dependent industries (e.g., energy and transportation) alongside those with key roles in developing climate resilience for the islands (e.g., building and construction). The GOAB has developed a Workforce Development Strategy (2016) which serves to identify and support the enabling activities required to create a “sufficient and appropriately trained workforce” to support the implementation and achievement of their NDC targets. Transition courses will be available at national institutions, including UWI and Antigua and Barbuda Institute of Continuing Education (ABICE).

Climate Finance Context

Antigua and Barbuda is ineligible for grant or concessional financing such as official development assistance due to its ranking as a high-income country by the World Bank⁶¹. As climate threats increase, high levels of public debt combined with limited access to concessional finance inhibit the government's ability to sustain economic prosperity.

PROJECT AND PROGRAMME PRIORITIES

Strategic Impact of GCF Support for Antigua and Barbuda

Antigua and Barbuda's size and small population inhibits its ability to invest in adaptation. Antigua and Barbuda also has a high public debt burden, which reached ~US\$1.4 billion in 2018—more

⁶¹ This ranking was determined based on their GNI *per capita*, which was US\$ 20,520 in 2018. From: World Bank Data. N.d. GNI per capita, PPP (current international S) – Antigua and Barbuda. [online] Available: <https://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD?locations=AG> [Accessed 24/07/2020]

than 88% of the country's GDP⁶². Extreme climate events exacerbate this burden, with recovery needs reducing economic growth and the country's ability to repay public debt.

The DOE ATG has considered several financing options for the priority projects under this Country Programme, including government funding. However, drawing exclusively upon government funds to finance priority projects under the Country Programme is not feasible due to Antigua and Barbuda's existing financial and economic constraints. Accordingly, the GOAB requires external support to facilitate a transformative shift toward climate-resilient, low-emission development. The GOAB fully understands that accessing such support from the GCF must be conditional on progress toward Antigua and Barbuda's nationally determined contribution (NDC) under the *Paris Agreement 2015*.

Wherever feasible, the GCF investment will be supported by public and private sector co-financing, including grants and loans. This will further advance efforts towards achieving transformative change as well as maximise the impact of the climate change adaptation and mitigation solutions implemented under each priority project. Antigua and Barbuda's legislative environment provides a starting point for encouraging private sector co-finance and investment in climate change adaptation and mitigation, specifically through the enactment of the *Environmental Protection and Management Act (2019)* and ratification of the *Escazu Agreement on Access to Information, Public Participation and Justice in Environmental Matters*. These two instruments create a legal mandate on the government to actively engage with private sector representatives when developing and implementing its climate actions.

The *Multi-Year Readiness Proposal (RS-5, under development)* will improve the operational readiness of private sector interest groups in line with GCF's fiduciary standards on prohibited practices, ESS and Gender, procurement, and monitoring and evaluation, with the aim of enhancing the private sectors' ability to support the implementation of the priority project pipeline (Table 1). The fifth readiness proposal has resultantly improved the technical capacity of, *inter alia*, private sector interest groups to engage in programming and implementing GCF funded activities. This has been achieved through the provision of: i) technical assistance support; ii) training to improve their standing with their respective regulatory bodies and compliance with corporate and financial requirements; and iii) support in updating legal and regulatory frameworks in line with the Paris Agreement regulations on these standards. Extensive engagement with representatives from the public sector, private sector, local communities, and NGOs during the project development and implementation phases will enhance the scalability and replicability of Country Programme priority projects nationally and across the Caribbean.

Country Priorities for Support from the GCF

Adaptation

- Improving water security. Antigua and Barbuda must approach 100% reverse osmosis as droughts are becoming more frequent and lasting longer. There is also a need for additional on-site water storage for community buildings (e.g., schools and clinics) to decentralise supply and build resilience when centralised supplies are disrupted by extreme climate events.

⁶² Caribbean Development Bank. Country Economic Review 2018; Antigua and Barbuda. Available at: https://www.caribank.org/sites/default/files/publication-resources/CDB%20Economic%20Brief%202018%20-%20Antigua%20and%20Barbuda_0.pdf.

- Improving energy sector resilience. The country already has approximately 40% redundancy⁶³ at the national level via back-up diesel generators. The backup energy is primarily in the business sector. One of the resilience targets is a 60–70% increase in renewable back-up energy systems in vulnerable homes and for community businesses over the next four (4) years to build resilience, as the centralised power supply can be disrupted for weeks due to extreme climate events.
- Increasing flood and high-intensity hurricane resilience of the national grid infrastructure.
- Increasing resilience of buildings. The revised Building Codes for climate resilience will establish guidelines for the construction of new buildings or upgrading of existing buildings that can withstand Category 5 hurricanes. As a key area of concern for Antigua and Barbuda, financing should be secured for this response, particularly at reasonable rates for private homes and businesses.
- Improving protection of beaches and coastal areas. The DOE has not yet conducted a significant assessment in this area. Antigua and Barbuda is currently undertaking its national adaptation plan (NAP), which is expected to provide more details on the impact of sea level rise as well as storm surge.
- Protecting watersheds and waterways to reduce flooding and control surges in vector populations (e.g., mosquitoes).

Mitigation

- Mitigating energy-related emissions, specifically in the electricity and transport sectors.
- Protecting watersheds and the country's remaining forest areas.
- Improving energy efficiency and renewable energy use for buildings.
- Instituting a sustainable procurement policy to reduce the use of carbon-intensive products.

Just Transition

- Sustaining a just transition to low-carbon and more climate-resilient development.
- Education, training and certification programmes for persons of all ages, sex, and educational levels, including for those entering the workforce and also those individuals whose current livelihoods will become redundant.
- Integrating specialist programmes into existing educational institutions, particularly at a local university, in order to attract local and regional applicants.
- Multi-stakeholder consultations and social dialogues with workers, employers, unions and other relevant bodies.
- Diversifying the economy by providing new and innovative job opportunities.

Capacity Building

- Land-use zoning and local-area planning to build the technical and institutional capacity among communities for climate-resilient land-use planning.
- Short- and long-term training in all areas of climate adaptation and mitigation.

Finance and Fund Management to Promote the Social and Investment Inclusion Practices

- Increasing SIRF Fund capacity to leverage resources from the GEF, AF, GCF and local sources.
- Developing micro-grids to incentivise commercial activity.

⁶³ The duplication of components within an electrical system which allows the entire system to continue to operate if particular components are out of order. EPP. 2019. The concept of redundancy in the power circuits. Available at: <https://electrical-engineering-portal.com/redundancy-power-circuits>

- Encouraging vulnerable groups and women to invest in renewable energy (RE) to improve and expand their businesses.
- Adapting low minimum investment to the minimum income sector of society, coupled with domestic bank/credit union loan offerings with low-rate long tenor fixed to the lifetime of the RE asset with tailored, gender-sensitive offerings.
- Incentivising agricultural or small-scale industry cooperatives to invest in RE and share energy with cooperative members, households, women, and youth.
- Creating incentives for the development of a second hand RE and leasing market.
- Developing a home improvement micro-loans programme to create a risk profile local banks could use to assess creditworthiness for larger ticket items, such as solar panels.

Alignment with GCF Strategic Impact Areas and Investment Criteria

Antigua and Barbuda’s approach to achieving transformational change towards a low-emission, climate-resilient development pathway includes five interconnected elements:

- (i) identifying primary sources of greenhouse gas (GHG) emissions;
- (ii) improving understanding of Antigua and Barbuda’s core vulnerabilities to climate change;
- (iii) developing a pipeline of projects that will have the optimal on-the-ground impact — demonstrating innovative and sustainable financing mechanisms to ensure long-term impact;
- (iv) incorporating interventions into national legislation, standards, policies and regulations; and
- (v) implementing projects that involve a high degree of collaboration and coupling between relevant sectors (including government, NGOs, local communities and the private sector) to maximise local buy-in and ownership of interventions.

Antigua and Barbuda’s Country Programme is aligned with the GCF’s six investment criteria, and each of the priority projects under this Programme will achieve significant co-benefits. The GCF Country Programme will benefit from the integration of adaptation into development processes, thereby avoiding the entrenchment of climate-vulnerable infrastructure.

Alignment of the GCF Country Programme with Antigua and Barbuda’s INDC

Antigua and Barbuda’s INDC mitigation analysis indicated potential to reduce national emissions by 36% below BAU trajectories by 2025. The sustainable development potential of the Country Programme is reflected in the strategic coupling of dual-vulnerable sectors, including electricity and transportation, energy and agriculture, energy and water, and energy and resilience-building, particularly in the back-up energy sector.

Currently, the GOAB is conducting a new assessment for a fossil fuel phase-out as well as other ESS, gender, and adaptation targets. This exercise was delayed due to the COVID-19 pandemic but is expected to finish in late 2020.

Pipeline of Priority Projects and Programmes under Antigua and Barbuda’s GCF Country Programme:

Antigua and Barbuda’s current project portfolio under the GCF Country Programme takes a holistic approach to climate change adaptation and mitigation, all while contributing towards achieving the objectives of the country’s proposed NDC 2021 targets. Each project addresses a specific element of climate risk in the country. Complementarity, and sector coupling where possible, underpins the entire portfolio.

Projects emphasise, *inter alia*, climate-proofing the built environment, incorporating climate resilience into the financial sector, initiating a paradigm shift within the transport and electricity sectors towards low-emissions sustainable development, promoting a just transition of affected workers, and leveraging debt servicing towards financing adaptation using a microfinancing approach. The complementarity between the priority projects and their strategic impact areas is represented in the Theory of Change diagram below.

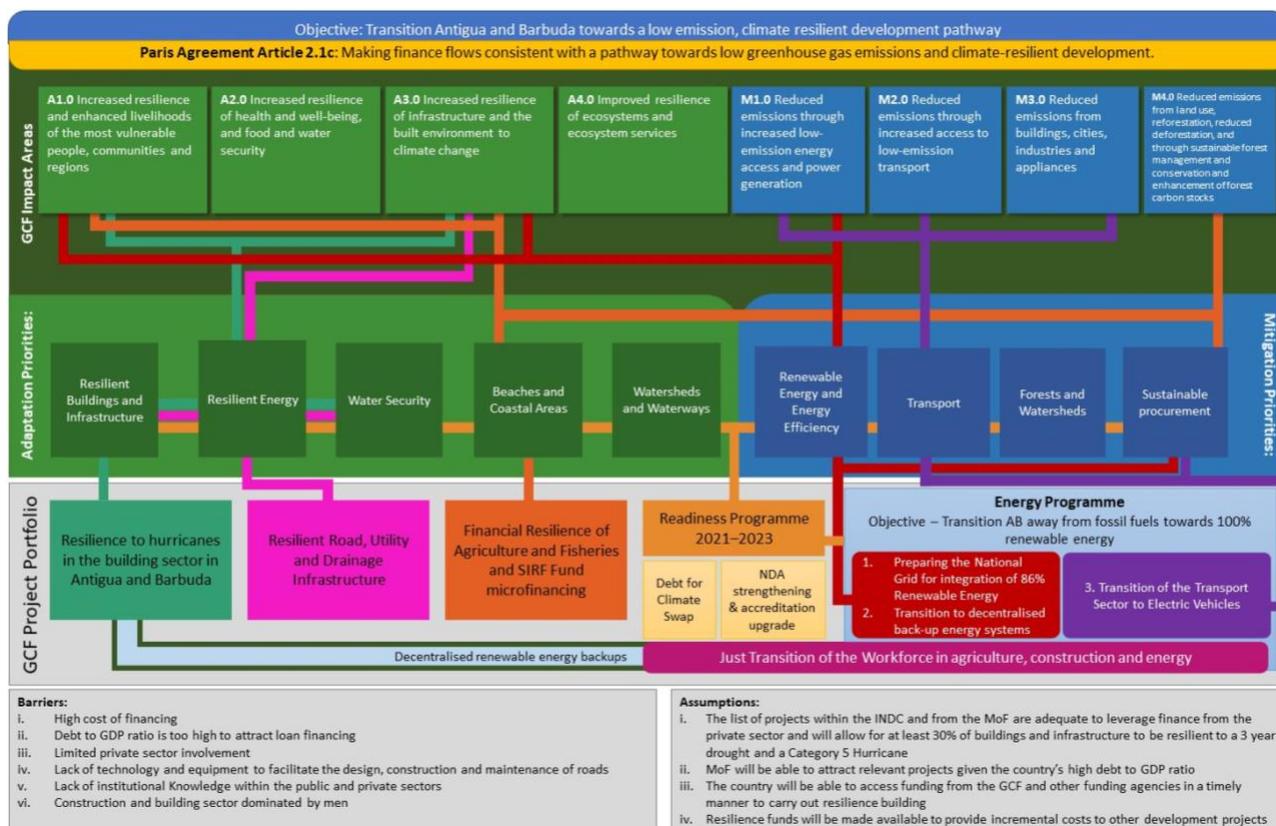


Table 2. Pipeline of priority projects under Antigua and Barbuda’s GCF Country Programme (2020).

Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
A Blueprint for adapting road infrastructure to projected climate extremes in Antigua and Barbuda	As a small island developing state (SIDS), Antigua and Barbuda is particularly vulnerable to the impacts of extreme climate events, such as hurricanes, floods and droughts. These events are already having severe impacts on the country’s built environment and these impacts are expected to become increasingly severe under future climate change conditions.	A3: Increased resilience of infrastructure and the built environment to climate change threats	Indicative GCF grant request: USD 27 million Indicative co-financing	DOE ATG	TBD

	<p>To address this problem, the proposed GCF Roads project will build on the existing Road Infrastructure Rehabilitation and Reconstruction Programme (RIRRP) to increase the climate resilience of critical road infrastructure and utilities in Antigua and Barbuda. In particular, the proposed project will climate-proof four primary roads and their associated infrastructure as well as adapting target utilities to withstand the impacts of extreme climate events including Category 4 and 5 hurricanes, as well as climate-induced floods and droughts.</p>		<p>: USD 14 million</p>		
<p><i>Actions</i></p>	<p><i>Status</i></p>				
<p>1. Carry out required revisions to the Concept Note and PPF Application as required by the GCF.</p> <p>2. Undertake the activities stipulated in the Project Preparation Facility Application.</p> <p>3. Develop the full Funding Proposal package taking into consideration feedback received from the GCF on the</p>	<p>A Concept Note and Project Preparation Facility Application were submitted to the GCF for consideration in Q1 of 2020.</p>				

Concept Note.					
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Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
<i>GCF Energy (Transport): Transition from ICE to EVs in the public and private transportation sector using a Sector coupling of the transport and electricity sectors</i>	<p>This project will upscale the GEF project entitled Antigua and Barbuda Sustainable Low-emission Island Mobility (SLIM) project". The main focus on the project would be to:</p> <p>Create an enabling institutional and regulatory environment for the transition to EVs in the public and private sectors;</p> <p>Facilitate the procurement of EVs in the government sectors and charging infrastructure to demonstrate bidirectional charging</p>	<p><i>M2:</i> Reduced emissions through increased access to low-emission transport</p> <p><i>M3:</i> Reduced emissions from buildings, cities, industries and appliances</p>	TBD	DOE ATG	TBD
<i>Action</i>	<i>Status</i>				
Submit the Concept Note package to the GCF for consideration.	A Concept Note and Pre-Feasibility Study are currently under development by Antigua and Barbuda's Department of Environment.				
Submit MYR with Project Pipeline Development Activities for this project					

Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
<i>GCF Energy: (Back-Up Energy) Resilient and renewable back-up energy systems for vulnerable homes and community businesses to facilitate rapid recovery from extreme weather</i>	<p>This project will facilitate the expansion and transition of back-up power supply from reliance on diesel generators to renewable energy ('RE') systems for vulnerable homes and community businesses to facilitate rapid recovery from extreme weather events. The following are the main components of this project:</p> <p>Increasing the number of homes with back-up RE systems to 60% of all homes (approx. 30MW). Only approx. 10% of homes have back-up energy systems in Antigua and Barbuda. Without this energy in</p>	<p><i>M1:</i> Reduced emissions through increased low-emission energy access and power generation</p> <p><i>A1:</i> Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions</p>	TBD	DOE ATG	TBD

<p>events and strengthen adaptation approaches in the water and food security sectors of Antigua and Barbuda</p>	<p>place, families, particularly female headed homes, cannot recover rapidly from extreme weather events. The RE systems will be designed to provide homes with 3–5 KWh systems with 4–12 hours of battery storage;</p> <p>Initiating the just transition of the electricity sector work force and to increase the number of installers to be all existing and new electricians;</p> <p>Developing an enabling environment and investment capital for social and community investment into RE to develop micro-IPPs. For e.g. an approach for farmers to have access to RE for their products as well as to sell excess energy to the grid to diversify income.</p>				
<p><i>Action</i></p>	<p><i>Status</i></p>				
<p>Submit the Concept Note package to the GCF for consideration.</p> <p>Submit MYR with Project Pipeline Development Activities for this project</p>	<p>A Concept Note and Pre-Feasibility Study are currently under development by Antigua and Barbuda’s Department of Environment.</p>				

Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
<p><i>GCF Energy (Electricity): Preparing the National Grid for integration of 86% Renewable Energy</i></p>	<p>This project will prepare the national grid for the transition to renewable energy as well as increasing the resilience of grid infrastructure to Category 4 and 5 hurricanes. The main outcomes of this project will be:</p> <p>Development/select training on software that can allow for the integration of many Independent Power Producers (‘IPPs’) and Power Purchase Agreements (‘PPAs’) that are much smaller. This would allow the public utility corporation to increase number of private sector actors and reduce</p>	<p>M1: Reduced emissions through increased low-emission energy access and power generation</p> <p>M3: Reduced emissions from buildings, cities, industries</p>	<p>TBD</p>	<p>DOE ATG</p>	<p>TBD</p>

	<p>financial risks caused by exposure to Category 5 hurricanes;</p> <p>Building resilience and gaining experience in the resilience grid by burying forty (40) miles (i.e. 3%) of key utility lines to high density and low-income areas of Antigua and Barbuda;</p> <p>Installation of 50MWh RE battery systems to allow for the utility to have experience in managing and installing this technology as well as to allow for more integration of RE into the grid.</p>	and appliances			
<i>Action</i>	<i>Status</i>				
<p>Submit the Concept Note package to the GCF for consideration.</p> <p>Submit MYR with Project Pipeline Development Activities for this project</p>	<p>A Concept Note and Pre-Feasibility Study are currently under development by Antigua and Barbuda's Department of Environment.</p>				

Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
Antigua and Barbuda Debt-for-Climate Swap	<p>The proposed project considers options for a trilateral Debt for Climate Swap with the Green Climate Fund (GCF) and the country's Paris Club member creditors. Under the proposed debt swap arrangement, GCF funds would support or partially finance the redirection of Antigua and Barbuda's ~US\$147 million debt towards domestic investment in climate change projects. The intention of such an arrangement is to simultaneously ease the country's external debt obligations and increase investment in climate change adaptation and mitigation interventions. These investments would be operationalised through the country's Sustainable Island Resource Framework (SIRF) Fund, which will be a key</p>	<p>Directly</p> <p>Number of technologies and innovative solutions transferred or licensed to support low-emission development as a result of Fund support</p> <p>M5: Strengthened institutional and regulatory systems for low-emission</p>	TBD	DOE ATG	TBD

	<p>instrument in the implementation modality and will program these funds for vulnerable sections of Antigua and Barbuda including community businesses and community groups. GCF Readiness funds could be used to support the establishment of financial and institutional mechanisms to facilitate the debt swap.</p> <p>This would include financing: (i) negotiations with creditors; (ii) establishment of legal and contractual frameworks; (iii) reaching of agreements with all relevant participating institutions (e.g. GCF, DOE, MOF, and Paris Club); (iv) capacity building and institutional development of relevant GOAB and financial institutions; (v) development of the operational procedures and policies for the SIRF Fund.</p>	<p>planning and development</p> <p>Number of technologies and innovative solutions transferred or licensed to promote climate resilience as a result of Fund support</p> <p>A5: Strengthened institutional and regulatory systems for climate-responsive planning and development</p>			
<i>Action</i>	<i>Status</i>				
<p>Submit Discussion Paper to the GCF for consideration.</p> <p>Submit MYR with Project Pipeline Development Activities for this project</p>	<p>A Discussion Paper, providing project context, justification and optioning is currently under development by Antigua and Barbuda's Department of Environment.</p>	<p>Indirectly</p> <p>Through increased investment through the SIRF Fund:</p> <ul style="list-style-type: none"> • M1-M4, M6-M9 • A1-A4, A6-A8 			

Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
<i>Strategy for a Just Transition of the Workforce</i>	<p>Pursuing a transition to a low-carbon economy and more climate-resilient development will require a significant policy shift that will have a major impact on, inter alia, the labour market. In this regard, the Government of Antigua and Barbuda (GOAB) seeks to facilitate a 'Just Transition' of affected sector workforces, through institutional and regulatory reforms, retraining and employment schemes, and economic diversification.</p>	<p>Directly</p> <p>Number of technologies and innovative solutions transferred or licensed to support low-emission development as a result of Fund support</p> <p>M5:</p>	TBD	DOE ATG	TBD

	<p>A Just Transition approach will target those employed in affected fossil fuel-dependent industries (like energy, building and construction, and transportation). Interventions will ensure these employees are supported and protected to guarantee that they have viable livelihoods throughout the transition period, and beyond. Additionally, this approach can also promote the creation and expansion of decent work and quality jobs through the process of building resilience to climate change. This approach will also provide a window of opportunity for women to become involved into sectors normally dominated by men.</p> <p>The Just Transition strategy will have two dimensions. First, to mainstream interventions which support a Just Transition of the workforce in the electricity and transport sectors, through the projects focused on the two projects, entitled <i>90% Transition of the electricity sector — Preparation of the national grid of Antigua and Barbuda for the integration of renewable energy to support a fossil fuel phase out</i>; and <i>Transition of the transport sector — Sector coupling of the electricity and the transportation sectors for the efficient and effective transition to a low carbon and energy resilient economy</i>, respectively. Second, to develop a standalone Just Transition proposal which will advance the transition through high-level institutional and regulatory reform and promoting an enabling environment for a just transition in other sectors.</p>	<p>Strengthened institutional and regulatory systems for low-emission planning and development</p> <p>Indirectly</p> <p>Through de-risking and leveraging investment in the transition to a low-emission economy:</p> <ul style="list-style-type: none"> • M1-M3, M6-M8 initially • possibly M4 and M9 in future. <p>If the strategy also targets sectors or industries building resilience to climate change:</p> <ul style="list-style-type: none"> • A1-A4, A6-A8 			
<i>Action</i>	<i>Status</i>				

<p>1. Mainstream interventions to support a Just Transition of the workforce in the electricity and transport sectors, through two projects, entitled <i>90% Transition of the electricity sector — Preparation of the national grid of Antigua and Barbuda for the integration of renewable energy to support a fossil fuel phase out</i>, and <i>Transition of the transport sector — Sector coupling of the electricity and the transportation sectors for the efficient and effective transition to a low carbon and energy resilient economy</i>, respectively.</p> <p>2. Submit standalone Just Transition Concept Note package to the GCF for consideration.</p> <p>3. Submit MYR with Project Pipeline Development Activities for this project</p>	<p>1. Relevant interventions are being considered for their feasibility in the <i>90% Transition of the electricity sector</i> and <i>Transition of the transport sector</i> projects, currently under development by Antigua and Barbuda's Department of Environment.</p> <p>2. A framework is being developed to facilitate engagement with the GCF on the approach for the development of a Strategy for a Just Transition of the Workforce in Antigua and Barbuda.</p> <p>3. Following approval in principle from the GCF of the framework for this strategy, a SAP Concept Note and Funding Proposal will be submitted to the GCF for consideration.</p>				
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Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
<i>Transformation of the Finance Sector to meet the needs of Climate Change – Insurance and resilience in the fisheries and</i>	As a means of achieving the finance goal of the <i>Paris Agreement 2015</i> outlined in Article 2(1)(c), this project aims to provide the enabling environment for the alignment/development of the specific products from the private financial sector (i.e. banking and	TBD	TBD	DOE ATG	TBD

<p>agriculture sectors of Antigua and Barbuda</p>	<p>insurance) in order to de-risk climate-resilient development for the fisheries and agriculture sectors in Antigua and Barbuda. The project will mainstream climate-resilient investment and de-risking options into Antigua and Barbuda's key economic sectors, including agriculture and fisheries. It has two primary objectives:</p> <ul style="list-style-type: none"> • to build climate resilience in the financial sector; and • strengthen the resilience of farmers and fisherfolk to improve food security. <p>The financial resilience will be created by developing alternative finance models, focussing on financial tools to derisk investments and improve insurance options, particularly for farmers and fisherfolk.</p> <p>The project will also increase climate resilience prior to, and after extreme climate events by engaging the private sector to facilitate investment in climate-smart adaptation interventions in these sectors, as well as rebuilding following extreme events. In addition to the financial resilience, the project will work with farmers and fisherfolk to build the resilience of their livelihood activities to extreme events, including exploring options for renewable energy and land/ocean management frameworks</p> <p>This will be achieved by, inter alia:</p> <ul style="list-style-type: none"> • assessing financial exposure to climate change; • developing and piloting climate-resilient financial products/solutions targeting the private sector including agriculture and fisheries, households and public sector management frameworks; • developing new legislation and regulations for new climate-resilient financial 				
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	<p>services that are in line with OECS standards; and</p> <ul style="list-style-type: none"> establishing the knowledge base and data systems to implement financial risk reduction solutions that are scalable and replicable nationally, as well as and across the Caribbean region. 				
<i>Action</i>	<i>Status</i>				
Submit the Concept Note package and PPF Application to the GCF for consideration and approval of the request for project preparation support.	A Concept Note and Project Preparation Facility Application are currently under development by Antigua and Barbuda's Department of Environment.				

Project Title	Description	GCF Fund-level impacts and project outcomes	Total financing	Accredited Entity	Submission timeline
GCF Readiness Programme (2021–2023)	<p>ATG's Readiness Support was requested for the purposes of:</p> <ul style="list-style-type: none"> i) further support the NDA capacity building to review projects consistent with the new NDC; ii) development of six (6) Funding Proposals within the EWP; iii) identification and assessment of new technologies, policy, legal framework and investment climate needed to support fossil fuel phase out in electricity and transportation sectors using a sector coupling bidirectional charging approach; iv) to support the possible upgrade of the DOE ATG accreditation specialized fiduciary standard for on-lending/blending (for loan) from Micro to Small Size and (for Equity) Micro Size as well as our environmental and social risk category from Category B to Category A. 	Readiness Project Objectives 1, 2, 4, & 5	TBD	DOE ATG	August 2020

	<p>All of these activities are to support the country's transition to a low emission, climate resilient economy able to reasonable withstand the new climate projections from the IPCC. These include:</p> <ul style="list-style-type: none"> i) Adaptation actions aimed at establishing resilience towards: Category 5 Hurricanes predicted affected in the region every 5 years; increased predicted frequency of droughts to every 5 years; and increases in temperature and sea level rise ii) Creating the fiscal space for the Government through innovative financial approaches while supporting climate action at the Bottom of the Pyramid (BoP) via the SIRF Fund and other financial entities; iii) Identifying and managing transitional risks associated with climate change 				
<i>Action</i>	<i>Status</i>				
Submit the Readiness Programme to the GCF for consideration and approval.	Submitted the Readiness Programme to the GCF for consideration and approval.				

GCF ACCREDITATION PIPELINE

Entity Name	Entity type	GCF accreditation sought	Action	Lead	Timeline
Department of Environment of Antigua and Barbuda ('DOE ATG')	Direct Access Accredited Entity Government of Antigua and Barbuda	Upgrade the DOE ATG's accreditation specialized fiduciary criteria for: - On-lending and/or blending (for loans) from Micro to Small Upgrade the DOE ATG's environmental and social risk category from Category B to Category A Consideration of further accreditation specialized fiduciary criteria of the DOE ATG's for: - On-lending and/or blending (for equity and guarantees)	TBD	DOE ATG	2021 - 2023

The Country Programme will rely on partnering with Accredited Entities that can programme the required financing (e.g. grants, reimbursable grants and loans) to enable the implementation of the priority projects under this programme. Antigua and Barbuda's Department of Environment (DOE) is the Direct Access Entity (DAE) accredited to submit and implement GCF projects. To ensure that the projects developed under this Country Programme align with the priorities of both the GCF and Antigua and Barbuda, the DoE and MoF as co-NDAs will continue: i) using Readiness including Technical Assistance to enhance the development of the investment priorities; and ii) to seek early feedback — prior to official submission — from the GCF on the Concept Notes currently being developed to ensure alignment with country priorities and GCF result areas. Importantly, the DoE ensures that its Concept Notes are designed in such a way so as to allow them to be readily adapted for submission to an alternative fund, should the GCF feedback deem the project to be too far removed from the GCF's priority areas.

The DOE is expected to programme at least about one-third of the projects under this Country Programme, given its proven track record of implementing resilience building projects from the Special Climate Change Fund (SCCF), the Adaptation Fund (AF), the Global Environment Facility (GEF) and the Green Climate Fund (GCF). Key resilience projects implemented in recent years are listed below.

- An integrated approach to physical adaptation and community resilience in Antigua and Barbuda's northwest McKinnon's watershed – Adaptation Fund (US\$10 million)
- Sustainable Pathways Protected Areas and Renewable Energy UNEP (SPPARE) – GEF (US\$2.6 million)
- Building climate-resilience through innovative financing mechanisms for Ecosystem-based Adaptation – SCCF (US\$5 million)
- Energy for Sustainable Development in Caribbean Buildings (ESD) – GEF (US\$0.9 million)
- Sustainable Energy Facility (SEF) – GEF (US\$1.02 million)
- Enhanced Direct Access (EDA) project 'Integrated physical adaptation and community resilience through an enhanced direct access pilot in the public, private, and civil society sectors of three Eastern Caribbean small island developing states' – GCF (US\$20 million)
- Resilience Back-Up Energy project – ADFD Loan (US\$15 million)

Antigua and Barbuda's Ministry of Finance (MoF), which supports the DOE as NDA to the GCF, has the necessary technical expertise to support the implementation of the priority projects under this Country Programme and the capacity to provide financial risk mitigation measures (insurance, in-kind and cash). The MoF has a proven track record of managing and implementing multiple national and regional projects with a focus on climate change adaptation, sustainable development and public sector social and digital transformation. The projects that the MoF has supported over the last five years are listed below.

- World Bank - Public Sector Social Transformation Project (US\$6 million)
- 10th European Development Fund Project (€3 million)
- 11th European Development Fund Project (€2.4 million)
- World Bank – Caribbean Resilience Facility (US\$15 million)
- World Bank – Caribbean Digital Transformation Program (US\$2 million)
- World Bank – ECPCGC (US\$2 million)
- Government of Canada – Eastern Caribbean Debt Management Advisory Services (CAD US\$7 million)

Where support from other Accredited Entities is required for the submission and implementation of specific projects under this Country Programme, the DoE will approach established Accredited Entities in accordance with its No objection procedure to support the project development and implementation phases. This will include “*assessing the Accredited Entity’s(ies’) capacity and track record of programming projects and delivering results within a reasonable timeframe, and history in working with other countries in the region*”.

Assessments carried out under Antigua and Barbuda’s Readiness Proposal 2 (2016) concluded that national entities besides DoE, including the private sector, do not yet have the capacity to fulfil the role of Accredited Entity to the GCF. This is largely because of the high transaction cost of operating as an Accredited Entity to the GCF and the limited economies of scale for smaller institutions to take on these transaction costs given that they will likely only have capacity to take on micro projects. Consequently, where additional support is required, Antigua and Barbuda will engage with entities that are already accredited until such time that the capacity of other institutions can be strengthened. To this end, the Multi-year Readiness Proposal (under development) will seek to absorb these transition costs through providing training to, *inter alia*, private sector interest groups on GCF policies and procedures in order to assist private sector partners to effectively programme projects in line with GCF fiduciary standards in the future. In the interim, the Government of Antigua and Barbuda is prioritising strengthening the capacity of entities to execute priority projects. This involves engaging with organisations such as the CARICOM Development Fund and the OECS that can execute the specific elements of a project that align with these entities’ expertise and competitive advantages. Additional agencies which have previously collaborated with the Department of Environment include the Global Green Growth Institute, ECLAC, UK’s Centre for Environment, Fisheries and Aquaculture Science and the UK Meteorological Office. The Multi-year Readiness Proposal is prioritising the enhancement of these partnerships to facilitate the ongoing provision technical and other support by these agencies in the implementation of the Country Programme. Further details on the engagement and partnership process with such entities is presented in the section of this Country Programme document entitled *Multi-stakeholder engagement process*.

POLICY, STRATEGY, PLANNING, AND INSTITUTIONAL NEEDS

Needs Assessment

Antigua and Barbuda places tremendous weight on achieving the goals of Paris Agreement through its gender-responsive transition to a low emission, climate resilient economy. Using the Paris Agreement’s main objectives as direction for its proposed climate change response, the government focuses its energies on:

- Reducing greenhouse gas emissions through renewable energy generation with storage (as well as sector coupling with electric mobility to provide additional storage, grid stability and less costly transition);
- Increasing climate adaptation capacity by supporting back-up energy, financial security, food security, and resilient buildings, transportation, and infrastructure;
- Ensuring financial flows are consistent with a low-emission, climate-resilient development pathway through public and private sector financial institutions.

Antigua and Barbuda’s proposed 2021 National Determined Contribution (‘NDC’) targets outline the government’s vision. The country’s Readiness Needs are linked to accomplishing these proposed 2021 NDC targets. The GOAB anticipates that it will perform this catalytic role through

its proposed climate change project pipeline while managing transitional risks via programmes for the just transition of the workforce, enhancing enabling environments for thematic areas, and social investment.

Addressing these targets and goals requires a corresponding Readiness Support project. A multi-year approach to addressing these Readiness Needs is prudent to complete the comprehensive baseline work for these goals and targets and the corresponding project pipeline.

Needs Assessment Strategy

Since 2019, the GOAB has undertaken extensive baseline research and stakeholder consultations on the technical and financial feasibility, and human, institutional, technical and capacity requirements to guide specification and implementation of the proposed 2021 NDC targets, with intent to submit these to the UNFCCC in March 2021. This work was conducted under a number of national, regional and international initiatives and projects such as the NDC Partnership Climate Action Enhancement Package ('CAEP'), 4th National Communication to the UNFCCC, the GCF funded National Adaptation Plan, and UNFCCC Needs Based Finance Project ('NBF Project'). The work to develop the NDC targets is still ongoing. Based on its current outcomes, however, the needs requirement for Antigua and Barbuda includes, *inter alia*: the DOE ATG as a direct access Accredited Entity ('DAE'), the National Designated Authority ('NDA') and the Private Sector & NGOs span across all four main areas of GCF Readiness Needs (i.e., Institutions and Governance, Policy Environment, Pipeline Development, and Information, Data and Knowledge).

The COVID-19 pandemic has adversely impacted the GOAB's ability to dedicate resources to these efforts. The Government, however, see the potential embedded in 'greening' COVID-19 recovery efforts to meet GCF co-financing requirements and achieve overall climate adaptation targets. This need for 'greening' is reaffirmed in several of the following proposed targets and projects, which focus on achieving financial resilience.

The following sections provide an overview of the challenges, needs and proposed activities under the each of the four main areas of GCF Readiness Needs.

Institutions and Governance

A. Challenges/Barriers/Needs

National Designated Authority – Antigua and Barbuda's GCF co-NDA arrangement shares the role of NDA between the Ministry of Finance ('MOF') and the Ministry with responsibility for the Environment. The responsibilities of each ministry are outlined within the country's No-Objection Procedure. Since their appointment in 2014, capacity within these institutions have grown collectively to serve as the interface between the country and the GCF, and more broadly the main coordinating mechanism to coordinate and track climate finance in Antigua and Barbuda. In 2019, the Government revised its *Environmental Protection and Management Act* to include greenhouse gases as pollutants that can be regulated. This set the stage for Antigua and Barbuda to begin exploring facilitative as well as punitive measures to address mitigation. The country is updating its building codes and *Physical Planning Act 2003* to address adaptation. With these enabling environments, the NDA has a clear mandate to carefully chose the projects with the most impact potential.

The NDA's capacity has been built over the past four (4) years and to this end was able to work with the DOE in its capacity as a DAE to access significant GCF funding. The NDA, however, as with all microstates, still faces challenges in relation to the following:

- Based on new climate change predictions which have indicated the frequency and intensity of climate events, the rate at which Government needs to therefore adapt has to increase dramatically and urgently. The country will still be paying back for the last event when the next one hits if this challenge is not addressed
- The required amount of diverse technical capacity needed for priority identification and setting, tracking climate finance flows, assessment of fiscal and monetary policy in line with Article 2(1)(c) of the Paris Agreement, strategic impact assessments on the proposed actions, stakeholder engagements, and coordination of both its transitional project pipeline outlined in this Country Programme (See Table 7) as well as its approved project portfolio;
- staff turnover and institutional memory loss/brain drain experienced challenge have affected the NDA an DAE's ability to fully execute its core functions;
- economic impacts of the COVID-19 pandemic in which the government is experiencing a massive reduction in revenue;
- Recent Category 5 hurricanes coupled with COVID-19 have escalated the national debt of the Government as well as the private sector. If the country is to be hit with another hurricane any time soon the financial sector will be at risk of collapse. This poses an unprecedented challenge and the needs at this time are unclear.

GCF-funded Projects being overseen by ATG's NDA

Project Name	Project Full Name	GCF Funding Amount (USD)
GCF Readiness Support ATG-RS-003	National Adaptation Planning in Antigua and Barbuda	3,000,000
GCF Readiness Support ATG-RS-004	Accelerating a transformational pipeline of Direct Access climate adaptation and mitigation projects in Antigua and Barbuda	931,000
GCF Readiness Support DOM-RS-002	National Adaptation Planning in the Commonwealth of Dominica	2,940,000
GCF Readiness Support GRD-RS-004	Accelerating Grenada's DAE Modality for the Effective Implementation of the Country's Goal Towards a Small Smart State	180,560
GCF Funded Activity FP061	Integrated physical adaptation and community resilience through an enhanced direct access pilot in the public, private, and civil society sectors of three Eastern Caribbean small island developing states	20,000,000
GCF Funded Activity FP133	Resilience to hurricanes in the building sector in Antigua and Barbuda	32,700,000

Direct Access Accredited Entity – DOE ATG is Antigua and Barbuda's only national DAE to the GCF (Accreditation Date: 2018) and it is the only DAE in the Organization of Eastern Caribbean States sub-region. In line with Paragraph 5 of the GCF's Updated Accreditation Framework, Antigua and Barbuda via the DOE ATG is seeking to promote greater country ownership through its proposed 2021 updated NDCs and a complementary project pipeline to lead the transition to a low emission, climate resilience economy.

B. Project Development Needs

Since its accreditation, the DOE ATG's technical capacity for project development, implementation, monitoring and evaluation, as well as the maintenance of the accreditation standards, has grown to accommodate both its current project pipeline and portfolio, which include two (2) GCF Funding Proposals and four (4) Readiness Proposals along with over USD 30 million of projects funded by the Abu Dhabi Fund for Development. Nevertheless, the proposed 2021 NDCs target and the development of an updated and corresponding project pipeline will require additional capacity support to the PMU as well as to allow it to provide technical assistance to the MOF and other government entities to perform detailed technical, economic and financial data collection and analysis for project development aimed at addressing the new climate change impact projections. This includes the NDC's main thematic focus areas, inter alia:

- transition from fossil fuel to renewable energy generation and storage for the energy, transportation, and back-up energy sectors;
- national climate resilience insurance scheme for vulnerable groups (including farmers, fisherfolk, and certain households);
- debt-for-climate swap; and
- just transition of the workforce.

In addition to this human and technical capacity gap for project development, the DOE ATG also would require human and technical capacity to identify entry points and mainstream low emission, climate resilient considerations into the government's recovery plans post-COVID-19 pandemic.

C. Accreditation Needs

On the matter of the accreditation for the DOE ATG, it has indicated a strategic interest in re-accreditation and an upgrade of its status in the following areas as a means of maximising on enhanced country ownership and use of a wide variety of financial instruments via its proposed project pipeline:

- Loans (Size: Small)
- Equity (Size: Micro)
- Guarantees (Size: Micro)
- ESS Risk Category A

With this suite of financial instruments, and the capacity to engage in potential activities at a high-risk level, the DOE ATG via its SIRF Fund will aim to maximise transformational impact and cater to broader range and number of beneficiaries in areas required for the timely achievement of the country's proposed 2021 NDC targets. There is a clear challenge in establishing whether the DOE ATG has the potential with its growing track record and capacity to upgrade for any or all of the mentioned accreditation standards.

Private Sector & NGOs – It is evident that government will play a catalytic role in transitioning to a low emission, climate resilient economy for downstream private sector and NGO mobilization. Moreover, the government committed to involving the private sector in environmental decision-making when it enacted the *Environmental Protection and Management Act 2019* and ratified the *Escazu Agreement on Access to Information, Public Participation and Justice in Environmental Matters*. These two instruments create a legal mandate on the government to actively engage with private sector when developing and implementing its climate actions.

Building off of this legal commitment, the readiness of the private sector and NGOs to mobilize based on the government's action is crucial to overall achievement of the proposed 2021 NDC targets. Based on initial consultations with some of these private sector entities through the process of setting these targets, it is clear that their participation needs to be enhanced in the development of the corresponding project pipeline. Furthermore, there is need for enhanced operational readiness of the private sector interest groups and NGOs to programme climate finance in line with GCF's fiduciary standards on prohibited practices, ESS and Gender, procurement, etc. Technical assistance support, training and suggested reforms for their regulatory framework on these standards will be instrumental to accomplishing this set of readiness.

It should also be noted that one of the main thematic areas of the proposed 2021 NDC targets focuses on ensuring that socially inclusive investments are integrated, to the extent possible, into climate actions towards this low emission, climate resilient transition.

The broader and targeted participation of key sector entities (such as fossil fuel supply and distribution companies, banks, insurance companies, Paris Club creditors, transportation associations, car dealers, gas stations, fisheries and agriculture cooperatives, educational and vocational institutions, trade unions, and micro, medium and small enterprise) from project inception is crucial to the uptake of the lessons learned from the proposed project pipeline. Without this participation, there will be massive challenges with the private sector efforts to scale-up of these actions.

Proposed Activities

The following are proposed activities for addressing the capacity needs, challenges and barriers for our three main types of institutions and governance structures outlined above:

National Designated Authority

Technical assistance to support:

- **RPSP-Outcome 1.1:** strengthening institutional capacity, and supporting the appropriate oversight of GCF activities (i.e. project portfolio) at a national level;
- **RPSP-Outcome 1.1:** assessment of 1) climate finance flows in the Government Budget, 2) harmful taxes and subsidies in the Government budget process to achieving the Paris Agreement goal visa s; and 3) gender disaggregated financial impacts of climate change and policies options for the NDA to guide project portfolio development

Training & Travel to build capacity for:

- **RPSP-Outcome 1.1:** Project and programme tracking using Smartsheet software; sustainable procurement; climate change finance capacity building; accounting; monitoring and evaluation; participation in oversight committees focused on audit, risk, and investment

Direct Access Accredited Entity

Technical assistance to support:

- **RPSP-Outcome 1.2:** Development and implementation of GCF activities (i.e. project portfolio) at a national level

Consultancies to provide services for:

- **RPSP-Outcome 1.2:** Re-accreditation preparatory activities for the DOE ATG, including an institutional capacity assessment
- **RPSP-Outcome 1.2:** Accreditation upgrade preparatory activities for the DOE ATG focus possible upgrade for lending and blending and environmental and social risk category

Training & travel to build capacity for:

- **RPSP-Outcome 1.2:** Strengthening institutional capacity of DOE ATG based on institutional capacity assessment
- **RPSP-Outcome 1.2:** Accreditation upgrade on equity, guarantee and environmental and social risk category
- With a regional partner (e.g. UN Economic Commission for Latin America and the Caribbean and/or Caribbean Development Bank) and an international partner with proven track record and experience (e.g. European Investment Bank)

Private Sector and NGOs

Technical assistance to support:

- **RPSP-Outcome 1.3:** Local NGOs in ensuring they are in good standing with their respective regulatory body for corporate (i.e. Company Registrar) and financial (i.e. Inland Revenue Department) requirement in order to enhance the ability of the DAE (i.e. DOE ATG) to engage with them during project implementation
- **RPSP-Outcome 1.3:** Local NGOs with project proposal development for potential grants

Consultancies to provide services for:

- **RPSP-Outcome 1.3:** Development of Stakeholder Map for proposed project pipeline
- **RPSP-Outcome 1.3:** Development of preparatory materials/studies for developing the relationship with the relevant stakeholders particularly local financial institutions
- **RPSP-Outcome 1.3:** Development of a Consultation Strategy for the proposed project pipeline in line with Escazu Agreement on Access to Information, Public Participation and Justice in Environmental Matters
- **RPSP-Outcome 1.3:** Conducting training with Local NGOs on GCF ESS and Gender Policy
- **RPSP-Outcome 1.3:** Conducting training with Local NGOs on GCF Policy on Prohibited Practices, and Good Procurement Practices
- **RPSP-Outcome 1.3:** Development of draft revisions for the *Friendly Societies Act 1928* and *Companies Act 1995* to incorporate Environmental, Social and Corporate Governance ('ESG') considerations/requirements for NGOs and corporations.

Consultations/Workshops to support:

- **RPSP-Outcome 1.3:** Participation of at least three (3) NGOs and five (5) private sector interest group to in project portfolio development
- **RPSP-Outcome 1.3:** Workshop on GCF ESS and Gender Policies
- **RPSP-Outcome 1.3:** Workshop on GCF Policy on Prohibited Practices, and Good Procurement Practices

Policy Environment

A. Challenges/Barriers/Needs

Bearing in mind the proposed 2021 NDC targets, there is a manifest need to evaluate the existing paradigm in order to effectively transition away from business-as-usual to a low emission, climate resilient society. The bedrock of the existing paradigm is its policy and regulatory environment. This environment enables the main actors of the paradigm to function in Antigua and Barbuda via requisite incentives and/or compliance measures. As it relates to current work on this matter, there are a number of ongoing policy-related initiatives which will feed into Antigua and Barbuda's proposed 2021 NDC targets. This includes, inter alia:

- Preliminary thematic analysis for these 2021 NDC targets under the NDC Partnership's Climate Action Enhancement Package;
- Baseline and downscaled adaptation data collection and analysis, climate change risk modelling and mapping, sectoral adaptation planning with corresponding strategic impact assessments, and adaptation enabling environment development under the GCF Readiness Project; and
- Reporting on national measures responding to climate through the 4th National Communication to the UNFCCC under the GEF-funded enabling activity project.

There is still a need to build off of these initiatives and take a deeper and more focussed dive into what are the gaps, barriers and needs from a policy, regulatory, and market point of view for the proposed project pipeline areas. The need for gap and barrier analyses would require not only a detail review of the relevant legislation but also the corresponding policies and market structures for the proposed 2021 NDC's thematic areas.

Proposed NDC Thematic Area	Some Relevant Legislation within its Policy and Regulatory Environment
Energy	Petroleum Act 1949 Petroleum Industry (Encouragement) Act 1963 Public Utilities Act 1973 Physical Planning Act 2003 Renewable Energy Act 2015 Environmental Protection and Management Act 2019
Transportation	Motor Vehicles (Customs Duty Exemption) Act 1931 Vehicle and Road Traffic Act 1947 External Trade Act 1958 Motor Vehicles (Control of Hire) Act 1962 Public Works and Road Act 1989 National Solid Waste Management Act 1995 Environmental Levy Act 2002 Antigua and Barbuda Sales Tax Act 2006
Just Transition	Labour Code 1975 Education Act 2008 National Training Agency Act 2008 University College of Antigua and Barbuda (CUWI) Act 2017
Finance	Stamp Act 1887 Building Societies Act 1955 Co-operative Societies Act 1959 Insurance Act 1969 Inland Revenue Administration Act 1977 Constitution Order 1981 Eastern Caribbean Central Bank Agreement Act 1983 Financial Institutions (Non-Banking) Act 1985 Property Tax Act 2000 Antigua and Barbuda Sales Tax Act 2006 Finance Administration Act 2006

	Money Services Business Act 2011 Tax Administration and Procedure Act 2012 Finance Services Regulatory Commission Act 2013 Banking Act 2015
Socially Inclusive Investment	Friendly Societies Act 1928 Building Societies Act 1955 Co-operative Societies Act 1959 Companies Act 1995 National Economic and Social Council Act 2004 Investment Authority Act 2006 National Training Agency Act 2008 Investment Funds Act 2020 Securities Act 2020
Road Infrastructure	Public Works and Roads Act 1871 Crown Lands (Regulation) Act 1917 Public Utilities Act 1973 Surveyors Act 1975 Disaster Management Act 2002 Physical Planning Act 2003 Environmental Protection and Management Act 2019
Food Security	Fisheries Act 2006 External Trade Act 1958

Based on the Government's current capacity, there is a need for human and technical capacity to analyse and assess the policy, regulatory, technological and market barriers within Antigua and Barbuda for progressing the proposed project pipeline on the following thematic area, *inter alia*:

- Electricity sector transition and corresponding sector coupling approaches
- Transportation sector transition and corresponding sector coupling approaches
- Back-up energy transition
- Electricity grid transition
- Finance resilience of vulnerable sectors through de-risking solutions from financial sector
- Finance resilience of the country through fiscal space creation from debt-for-climate swap
- Road infrastructure transition
- Just transition of the workforce in light of proposed climate actions

B. Proposed Activities

The following are proposed activities for addressing the needs, challenges and barriers outlined above:

Consultancies to provide services for:

Renewable Energy 2.2.1

- **RPSP-Outcome 2.2:** Conducting institutional review of existing policies and legislation to identify gaps and needs in the regulatory framework for achieving renewable energy targets for the proposed 2021 NDCs
- **RPSP-Outcome 2.2:** Conducting a market and technological barrier assessment for renewable energy independent power producers and household photovoltaic systems in Antigua and Barbuda (including an assessment on repurposing, decommissioning, and disposing stranded assets from any technological transitions)

- **RPSP-Outcome 2.4:** Conducting an assessment of potential financial incentives for uptake of rooftop photovoltaic in Antigua and Barbuda including the impact on tax revenues
- **RPSP-Outcome 2.2:** Conducting a capacity assessment of the electricity sector workforce including back-up energy sector in Antigua and Barbuda
- **RPSP-Outcome 2.2:** Development of draft policy and/or legislation necessary for renewable energy transition

Debt-for-Climate Swap 2.2.2

- **RPSP-Outcome 2.2:** Conducting institutional review of existing policies and legislation to prepare for the debt-for climate swap
- **RPSP-Outcome 2.2:** Development of recommendations, guidelines, policy briefs to support debt-for-climate swap
- **RPSP-Outcome 2.2:** Development of suite of potential adaptation interventions to be programmed through the SIRF Fund as the ‘swap’ element for the debt-for-climate swap
- **RPSP-Outcome 2.2:** Development of contractual agreements for the debt-for-climate swap to be entered into between GCF, SIRF Fund, and Paris Club creditors
- **RPSP-Outcome 2.2:** Development of draft policy and legislation for debt-for-climate swap to codify commitment of restructured debt servicing to SIRF Fund

Electric Vehicles 2.2.3

- **RPSP-Outcome 2.2:** Conducting institutional review of existing policies and legislation to identify gaps and needs in the regulatory framework for achieving Electric Vehicle targets for the proposed 2021 NDCs
- **RPSP-Outcome 2.2:** Conducting a market and technological barrier assessment for electric vehicles in Antigua and Barbuda, and an assessment on repurposing, decommissioning, and disposing stranded assets from any technological transitions
- **RPSP-Outcome 2.4:** Conducting an assessment of potential financial incentives for uptake of electric vehicles in Antigua and Barbuda including the impact on tax revenues
- **RPSP-Outcome 2.2:** Conducting a capacity assessment of the road transportation sector in Antigua and Barbuda
- **RPSP-Outcome 2.2:** Development of draft policy and/or legislation necessary for electric vehicle transition;

Sector Coupling 2.2.4

- **RPSP-Outcome 2.2:** Development of draft policy and legislation for relevant sectors to allow for sector coupling (i.e. electricity and transportation sectors)

Just Transition 2.2.5

- **RPSP-Outcome 2.2:** Development of a Just Transition Roadmap (including extensive engagement with workers and other stakeholders in the sectors to be affected by the INDC and NDC 2021)

Consultations and travel for:

- **RPSP-Outcome 2.4:** Undertaking consultations with key stakeholders for the debt-for-climate swap, including negotiation with Paris Club creditors

Training on:

- **RPSP-Outcome 2.2:** Development of debt-for-climate swap framework and engagement with DOE ATG, its SIRF Fund, and NDA

- **RPSP-Outcome 2.2:** Regulating renewable energy and distributed independent power producers with energy sector regulators

Pipeline Development

A. Challenges/Barriers/Needs

GCF Readiness 4 has provided the government with a good basis for concept note ('CN') development in line with the country's proposed 2021 NDCs. The focus of a number of draft CNs, however, involves the use of technology that are relatively novel to the country's population as well as decommissioning of old technology in areas such as renewable energy, transportation, and electricity. It also involves proposed use of new business models and innovative financial mechanisms such as debt swaps, just transition of the workforce, and socially inclusive investments. There is, therefore, the need for further technical inputs to CN development concentrating on these areas.

Since our accreditation, DOE ATG's technical capacity for coordinating the project development process has also grown to accommodate the approval of its current project portfolio. As the government embarks on development of its corresponding and ambitious project pipeline, there is need for human capacity to manage and coordinate this process, especially, the further inputs to CN development mentioned above as well as consolidating these inputs into the final versions of the CNs.

B. Proposed Activities

The following are proposed activities for addressing the needs, challenges and barriers outlined above:

Technical assistance to support:

- **RPSP-Outcome 4.2:** Coordination of the project development process primarily focused on ensuring all the further inputs for the CNs from the various consultants are streamlined and adequately consolidated into the CNs for submission and approval by the GCF

Consultancies to provide services for:

- **RPSP-Outcome 4.2:** Assessment of specific aspects of the current E-Mobility project for scaling up in the proposed GCF sector coupling transportation and electricity projects;
- **RPSP-Outcome 2.2:** Identification and prioritization of appropriate climate technology solutions (including corresponding approaches for decommissioning the old technology) for climate actions particularly related to renewable energy, e-mobility, and electricity grid;
- **RPSP-Outcome 2.2:** Assessing and incorporating the feasibility of selected technologies (including corresponding approaches for decommissioning the old technology as well as site feasibility) for climate actions particularly related to renewable energy, e-mobility, and electricity grid;
- **RPSP-Outcome 2.4:** Incubating new business models and innovative financial mechanisms for piloting under the projects including debt swaps, just transition of the workforce, and socially inclusive investments; and
- **RPSP-Outcome 2.2:** Undertaking necessary studies including environmental and social risk screening and financial and economic modelling efforts to inform the development of the climate actions

- **RPSP Outcome 4.2:** Finalization of the CNs based on the corresponding baseline work under the Multiyear Readiness Programme

Information, Data, and Knowledge:

A. Challenges/Barrier/ Needs

On the matter of information, data and knowledge needed for climate action, Antigua and Barbuda continues to make strides towards enhancing its repository and institutional systems through initiatives such as the NDC CAEP, NAP, and 4NC. The country's First Biennial Update Report ('BUR1') to the UNFCCC (submitted in early 2020) affirmed that:

'International support, particularly, through the Global Environment Facility, has allowed Antigua and Barbuda to advance a framework for integrated environmental information systems and, thereby, its capacity to transparently report on MEAs, including its progress towards implementing its Nationally Determined Contributions under the Paris Agreement. Previous and ongoing projects, such as the NAP, [Cross Cutting Capacity Development or] CCCD and the [Capacity Building for Improved Transparency on Climate Action or] CBIT, have been supporting Antigua & Barbuda in advancing technically towards establishing the integrated environmental information system as well as on general capacity for reporting'⁶⁴

BUR1, however, noted that *'unfortunately, as a SIDS, Antigua and Barbuda is challenged in providing data due to limited human, technical, and infrastructural resources dedicated to the process of data collection and management.'*

Under the UNFCCC NBF Project and GCF Readiness 4, there was also the development and trial run of a fit-for-purpose methodology for tracking domestic and international climate finance flows in Antigua and Barbuda. This first effort at national climate finance tracking was constrained with human and technical capacity issues and the Assessment and Overview sections noted the following, inter alia:

- *'There is a lack of datasets on private finance flows for climate change, which is a common global datasets limitation. Further engagement with private sector actors and investment in the application of existing methods to map private finance flows would help to fill this datasets gaps';*
- *'The method for assessing climate-related budget expenditure could be developed further ... [and] there are challenges in identifying off-budget flows to SOEs in Antigua and Barbuda'*
- *'While this report has taken steps to identify the green finance flows in Antigua and Barbuda, further efforts might consider the identification of brown finance flows, or of grey flows that are likely to be neutral in climate impact.'⁶⁵*

As it pertains to MRV for the proposed project pipeline, this is a need for the development of preliminary performance metrics and associated indicators for the proposed projects in the pipeline.

⁶⁴ Antigua and Barbuda, 'First Biennial Update Report to the UNFCCC' (2020) p 51

⁶⁵ Watson C, Robertson M, Ramdin A and Bailey C, 'Assessment and Overview of Climate Finance Flows: Antigua and Barbuda 2014–2017' (2020) p 70-1

On knowledge sharing over the next three years for Multi-Year Readiness Proposal, there is a need for constant sharing of direct access climate finance and pipeline development lessons learned and best practices both regionally and amongst other small island developing States ('SIDS') as well as building awareness on the outcomes of Antigua and Barbuda's Readiness Support, and its ambition climate action development and implementation. It is envisioned that this would be done through Antigua and Barbuda's membership in regional groups such as Organization of Eastern Caribbean States ('OECS') Climate Change Committee and Caribbean Community ('CARICOM'). Also, Antigua and Barbuda's 2021-2022 Chairmanship of Alliance of Small Island States ('AOSIS') provides a unique opportunity and platform for dissemination of best practices with its particularly vulnerable SIDS membership.

B. Proposed Activities

Technical assistance to support:

- **RPSP-Outcome 4.2:** Enhancement of MRV processes which are fit-for-purpose for Antigua and Barbuda's proposed project pipeline;
- **RPSP-Outcome 1.2:** Enhancement of climate finance flow MRV system based on existing work conducted by UNFCCC NBF Project and GCF Readiness 4

Consultancies to provide services for:

- **RPSP-Outcome 4.2:** Development of performance metrics and associated indicators to assess and monitor the impacts of proposed project pipeline
- **RPSP-Outcome 5.1:** Undertake regional knowledge sharing on best practices on direct access climate finance and portfolio development with OECS countries via the OECS Climate Change Committee and the AOSIS membership via Antigua and Barbuda's 2021-2022 AOSIS Chairmanship based on corresponding MYR activities
- **RPSP-Outcome 5.1:** Produce a knowledge product (guidelines, lessons-learned, policy brief etc.) to showcase the innovative approach of the Debt-for-Climate Swap for replication in St Vincent and the Grenadines, St Lucia, OECS Sub-region and CARICOM region based on corresponding MYR activities
- **RPSP-Outcome 5.1:** Produce a knowledge product (guidelines, lessons-learned, policy brief etc.) to showcase the Just Transition during RE, transport and adaptation projects based on corresponding MYR activities
- **RPSP-Outcome 5.1:** Produce a knowledge product (guidelines, lessons-learned, policy brief etc.) to showcase the Just Transition of the Work Force and socially inclusive investment based on corresponding MYR activities

Workshops and travel for:

- **RPSP-Outcome 5.1:** Undertaking regional knowledge sharing on best practices on direct access climate finance and portfolio development with OECS countries via the OECS Climate Change Committee and AOSIS via Antigua and Barbuda's 2021-2022 AOSIS Chairmanship based on corresponding MYR activities

Training Costs to provide:

- **RPSP-Outcome 5.2:** Ten (10) internships per year at the DOE ATG for individuals in the OECS

MULTI-STAKEHOLDER ENGAGEMENT PROCESSES

Roles and responsibilities of Antigua and Barbuda's Department of Environment

The DOE ATG's mandate is to serve as Antigua and Barbuda's co-National Designated Authority (NDA) to the Green Climate Fund (GCF), with the Ministry of Finance serving as a co-signatory for the GCF's No-Objection Procedure. This procedure was developed with Antigua and Barbuda's first Readiness grant received from the GCF and approved by the PMC in March 2017.

In addition to its role as the NDA to the GCF, the DOE ATG is the focal point for the Adaptation Fund and Global Environment Facility (GEF), and therefore is in a position to coordinate the implementation of multilateral environmental agreements (MEAs) in the country as well as climate finance. These agreements pertain to *inter alia* climate change, biodiversity, and land degradation. Antigua and Barbuda's context as a small island developing state (SIDS) necessitates streamlining of its institutional structures. The government, therefore, aims to strategically build capacity for MEAs in one agency (i.e. the DOE ATG) to provide enhanced accountability and coordination across all agencies and stakeholders.

Roles and responsibilities of Antigua and Barbuda's Ministry of Finance

In addition to serving as a co-NDA and co-signatory for the GCF's No-Objection procedure, the primary role of the Ministry of Finance (MoF) in project development and implementation is to focus on financial risk management. Specifically, the MoF is responsible for: i) identifying potential financial risks associated with climate change projects; ii) designing financial risk assessment criteria; and iii) ensuring that projects progressing to the implementation phase are approved according to the specified criteria and that the relevant consultations have been undertaken.

Supporting entities

In accordance with its mandate, the DOE ATG coordinates the work of the NDA with the support of multi-stakeholder technical and oversight committees. Several other entities and stakeholders also assist the NDA in performing its responsibilities, namely: i) the overseas Missions in New York and London; ii) the Ministry of Public Works; iii) the Antigua Public Utilities Authority; iv) the private sector and; v) non-governmental organisations.

Evaluating GCF proposals

Antigua and Barbuda's No-Objection Procedure presents criteria for evaluating its GCF proposals. These include consultation with affected communities and relevant members of civil society, public sector entities, and private sector entities. These parties should also be actively involved in planning and implementation.

National Climate Engagements with International Partners

In Antigua and Barbuda, climate change projects are developed to align with and further the implementation of national policies, goals and strategies. As mentioned earlier, the SIRF Fund is the designated national fund for climate change adaptation and mitigation measures. As such, it acts as the mechanism through which international climate finance catalyses sustainable climate change interventions while leveraging national sources of financing in the private sector to achieve transformational outcomes for the country. The SIRF Fund works particularly in microfinancing sector of the economy.

The DOE ATG's climate change coordination work is assisted by consultation by the Technical Advisory Committee (TAC), as well as oversight by the PMC. This system is aimed at efficient programme design of climate finance, technology transfer and capacity building.

Entity/Partner name	Area/s of focus	Engagement in country	Efforts to strengthen engagement
Organization of Eastern Caribbean States (OECS) Commission	Vulnerability; Adaptation; Sustainable Development	The OECS Commission is implementing a sub-regional GCCA project with the objective of developing the climate change policy for Antigua and Barbuda. The Commission serves as the Secretariat for the OECS Climate Change Working Group.	Antigua and Barbuda has allocated USD100,000 of its Readiness support for the OECS Commission to be accredited to the GCF.
UNEP	Ecosystem Adaptation; Sustainable Procurement; enabling activities for the GEF.	There is no in-country presence for UNEP. However, Antigua and Barbuda assists UNEP in programming the country's GEF Portfolio.	The engagement with UNEP is very strong and will utilise funding from project development facility to assist the partnership to develop projects in the programme.
CARICOM Climate Change Center (5Cs)	Renewable energy and adaptation.	There is no in-country presence for 5Cs. However, Antigua and Barbuda has participated in several regional projects being executed by 5Cs.	Antigua and Barbuda plans to identify a project for 5Cs to programme on behalf of Antigua and Barbuda.
UNDP	Sustainable Financing, Environment and Social and gender. Protected areas Management.	The UNDP country office is in Barbados. Antigua and Barbuda has a long-standing and productive relationship with UNDP, which implemented the first full-size GEF project, with the DOE serving as Executing Entity.	The NDA plans to continue to build the relationship with UNDP.
Caribbean Development Bank (CDB)	Loans for renewable energy (RE) and energy efficiency (EE) ongoing with Antigua and Barbuda.	The Bank is based in Barbados and has a significant loan portfolio with Antigua and Barbuda.	The Ministry of Finance intends to engage actively with the bank to further promote the Climate portfolio.
CARICOM Development Fund	Grants and loans. Interested in providing Guarantees	The fund is based in Barbados and was established by the regional to assist the member states raise funding.	Intends to undertake accreditation and will provide technical assistance and co-financing to the DOE.

Entity/Partner name	Area/s of focus	Engagement in country	Efforts to strengthen engagement
Adaptation Fund (AF)	Adaptation; Climate Financing for developing countries	The AF was established to finance adaptation projects and programmes in developing country Parties to the Kyoto Protocol.	The NDA continues to build on the relationship with the AF through projects currently in implementation and in development.

Roles and Contributions of Key Stakeholders

Key Stakeholders and Consultations

As a small island developing state (SIDS), Antigua and Barbuda's national circumstances allow for close consultative engagement with key stakeholders. Since 2014, monthly meetings have been held via the Technical Advisory Committee (TAC) which includes representatives from 17 key government agencies, 3 non-governmental organizations and one private sector coalition. The TAC has been an important consultative body in formulating Antigua and Barbuda's NDC and engagement with the Green Climate Fund, providing technical guidance and policy recommendations as well as facilitating communication and cooperation between relevant stakeholders during the project development and implementation phases. Consistent engagement with all relevant stakeholders during both of these phases allows for:

- i. insight into the social consequences of the project;
- ii. an appropriate gauge on the stakeholders' expectations of the project;
- iii. identification and analysis of social, political, environmental, economic contexts in the target area; and
- iv. the determination of appropriate responses and strategies for mitigation of conflict.

Consultations for the development of Antigua and Barbuda's GCF Country Programme began with the development of the INDC in 2015. The process included reviewing and synthesizing consultation reports and household surveys from the CARIBSAVE climate change vulnerability assessment, TAC and PMC discussions, and several rounds Government Cabinet meetings. Special meetings were held with non-governmental organizations, while joint meetings were held with Government stakeholders on specific projects identified under the Country Programme.

While consultations with the government and civil society delivered beneficial results, engagement with the private sector has not been as successful. The Country Programme — which includes the reimbursable grant program designed for the private sector — will require additional consultations particularly more in dept market, spending and social surveys. The DOE will be revising its engagement with the private sector and have commission a study on social and inclusive investments opportunities. This has been the area of most potential for new inputs for the private sector. This type of investment is being investigated with the intention of including into the project designs.

Roles and responsibilities of project stakeholders in the implementation of the Country Programme

Continuous stakeholder engagement with government representatives, NGOs and the private sector throughout the project cycle is important for bringing about behavioural change, aligning with the GCF investment criteria and achieving the transformational goals of the priority projects

under Antigua and Barbuda's GCF Country Programme. Stakeholders are expected to participate in project implementation as well as technical and policy advice. Private sector engagement in all pipeline projects will be particularly important for enhancing the sustainability of all project interventions, increasing the scalability of interventions and maximising the adaptation and/or mitigation impact of the projects.

Overview of consultation processes

Stakeholder group	Date of consultation	Type or objective of consultation	Outcome
National stakeholder consultation	20 November 2014	Consultations on the National Vulnerability Analysis for Antigua and Barbuda: Vulnerability Impact and Adaptation Analysis in the Caribbean (VIAAC)	Validation of the National Vulnerability Impact and Adaptation Analysis for Antigua and Barbuda
National stakeholder consultation	25 February 2015	Climate change workshop under the Regional Gateway for Technology Transfer and Climate Change Action in Latin America and the Caribbean	Capacity building in climate change
Parliament of Antigua and Barbuda	March–April 2015	Parliamentary consultation and discussion on the Environmental Protection and Management Act	Passage of the EPMA (2015) in Parliament
Multi-sector Committee	26 August 2015	INDC stakeholder consultation workshop	Submission of the NDC
Cabinet of Antigua and Barbuda	23 September 2015	A high-level presentation on Climate Change and the Paris Agreement	Approval of NDC targets
Multi-sector Committee	30 March 2016	Consultations under the first Readiness proposal on the implementation plan for project activities	Strategy for implementing Readiness capacity building support
Communities on the northwest coast of Antigua	June–August 2016	Door-to-door household surveys on climate vulnerabilities and their demand for concessional loans for adaptation	Market research paper on the demand for concessional loans for adaptation
Parliament of Antigua and Barbuda	September 2016	Ratification of the Paris Agreement	Ratification of the Paris Agreement
Key climate change stakeholders in all sectors	December 2016	Launch of the Special Climate Change Fund (SCCF) project in Antigua and Barbuda	Approval of the project implementation plan
Multi-sector Committee	7 February 2017	Review of Antigua and Barbuda's country programme to the GCF	Official submission of country programme
Cabinet of Antigua and Barbuda	21 March 2017	Presentation to Cabinet on the draft Regulations for the SIRF Fund and the Revolving Fund Programme for Adaptation	Cabinet noted the draft Regulations
Consultations for the EDA project	October 2017 – January 2018	Meeting with stakeholders in Antigua and Barbuda, Dominica and Grenada.	EDA Project approved by the

Stakeholder group	Date of consultation	Type or objective of consultation	Outcome
		Stakeholders in the project area of cashew hill.	GCF at B18 meeting.
Consultations for the No-Objection Procedure for the NDA	2017 – 2018	No objection procedure consulted with various stakeholders.	No-Objection procedure Agreed and on the website of the DOE and the GCFs
Parliament of Antigua and Barbuda	May – June 2019	Parliamentary consultation and discussions to revise the Environmental Protection and Management Act	Revised EPMA gazetted in June 2019
Enhanced Private sector consultations	2019 – 2020	Over 1500 surveys to assess local communities and the private sector as part of the GCF Readiness 4 outcomes	Inputs into the Country Programme – Still ongoing
Consultations for ATG's NAP	2019 - 2020	Consultations with Ministry of Finance and other relevant stakeholders on adaptation priorities	Finalised NAP including 6 sectoral and 3 local area adaptation plans – Still ongoing
Consultations for ATG's Assessment and Overview of Climate Finance Flows	2019 - 2020	Consultations with Ministry of Finance, TAC and key private entities of the local finance sector on the approach to achieving Article 2(1)(c) of the Paris Agreement (Finance Goal)	Report to the UNFCCC and inputs into the Country Programme – Still ongoing
Consultations for ATG's 4 th National Communication	2020	Consultations with relevant stakeholders on the actual and proposed mitigation actions for the country	Report to the UNFCCC and inputs into the Country Programme – Still ongoing
Cabinet of Antigua and Barbuda	2019 – 2020	Consultations on the NDC targets, GCF build project and the GCF/DAE work programme.	Still ongoing;

MONITORING AND EVALUATION

The Country Programme is a living document that will be revised on an ongoing basis, including through the GCF pipeline reviews that will be facilitated by the co-National Designated Authority to the GCF in Antigua and Barbuda on an annual basis.

Monitoring of the Country Programme will be in line with DOE ATG's policies. The Monitoring, Evaluation and Data Management Unit (DMU) within the DOE ATG has primary responsibility for monitoring the Country Programme and reviewing progress made in achieving targets detailed in the logical framework. The DMU will conduct routine monitoring, provide support for data collection, analysis of data and preparation of key reports.