

**CARIBBEAN DEVELOPMENT BANK**



**NOTIFICATION OF APPROVAL BY THE PRESIDENT OF A GRANT  
TECHNICAL ASSISTANCE -CAPACITY DEVELOPMENT FOR THE WATER AND  
SEWERAGE COMPANY INC FOR INTEGRATING CLIMATE RESILIENCE INTO  
POLICIES, PLANNING AND DEVELOPMENT OF INVESTMENT PROGRAMME – SAINT  
LUCIA**

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Notified at the Three Hundred and Fifth Meeting of the  
Board of Directors on March 19, 2024

Coordinator, Environmental Sustainability Unit (ESU)	Ms. Valerie Isaac
Senior Programme Manager ESU	Dr. Yves Robert Personna

**MARCH 2024**

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**CARIBBEAN DEVELOPMENT BANK**

**THREE HUNDRED AND FIFTH MEETING OF THE BOARD OF DIRECTORS**

**TO BE HELD IN GUYANA**

**MARCH 19, 2024**

**PAPER BD 15/24**

**NOTIFICATION OF APPROVAL BY THE PRESIDENT OF A GRANT  
TECHNICAL ASSISTANCE -CAPACITY DEVELOPMENT FOR THE WATER AND  
SEWERAGE COMPANY INC FOR INTEGRATING CLIMATE RESILIENCE INTO  
POLICIES, PLANNING AND DEVELOPMENT OF INVESTMENT PROGRAMME –  
SAINT LUCIA**

In accordance with the authority delegated by the Board of Directors at its Two Hundred and Eighty-Third Meeting (Minute 283.27), the President approved a grant to the Water and Sewerage Company Inc Saint Lucia of an amount not exceeding the equivalent of seven hundred and forty-nine thousand, six hundred and nineteen United States dollars (USD749,619) from the Caribbean Development Bank's Special Funds Resources allocated from the Caribbean Action for Resilience Enhancement Programme to assist with financing the costs of procuring consultancy services for: (a) improving institutional capacities to assess climate risks and plan for climate resilience within the water sector; and (b) developing a climate-resilient water supply and wastewater masterplan.

2. It is a condition of the aforementioned authority that each technical assistance project approved by the President and the terms and conditions thereof be reported to the Board at its first convenient scheduled meeting after approval of the project.

3. The Board is therefore asked to note the approval by the President of the above-mentioned project and the terms and conditions thereof.

**CARIBBEAN DEVELOPMENT BANK**

**RECOMMENDATION AND APPROVAL OF TECHNICAL ASSISTANCE  
(USD750,000 AND UNDER)**

1. <b>Country:</b> Saint Lucia	2. <b>Project Title:</b> Capacity Development for the Water and Sewerage Company Inc for Integrating Climate Resilience into Policies, Planning and Development of Investment Programme – Saint Lucia	3. <b>PRN:</b> 300141
4. <b>Grantee:</b> Water and Sewerage Company Inc (WASCO) Saint Lucia	5. <b>Beneficiary:</b> WASCO Saint Lucia	6. <b>Executing/Implementing Agency:</b> WASCO Saint Lucia
7. <b>Sector:</b> Water Supply	8. <b>Date of Application:</b> March 27, 2023	9. <b>Type of Financing:</b> Grant
10. <b>Source of Funds:</b> Special Fund Resources (SFR) allocated from the Caribbean Action for Resilience Enhancement (CARE) Programme		
11. <b>Legal Status:</b> WASCO is a limited liability company incorporated and existing under the laws of Saint Lucia with the capacity to carry out the Project and accept the grant on the standard terms and condition of the Caribbean Development Bank (CDB) and on the terms and conditions set out in Appendix 1 to this Paper.		
12. <b>Objectives and Priorities:</b>		
<b>CDB’s Strategic Objective/s:</b>	Building Environmental Resilience	
<b>CDB’s Corporate Priority/ies:</b>	Increasing resilience and adaptive capacity of national and local institutions and communities to disaster risk and climate change (CC) impacts	
<b>CDB’s Country Objective/s:</b>	Effective adaptation actions across all sectors and at all levels of society for safeguarding Saint Lucia’s water resources and services under a changing climate.	
<b>Regional/National Objective/s:</b>	Regional Strategic Action Plan for the water sector in the Caribbean, particularly: Pillar 2: Decision support and Pillar 6: Capacity building and public sensitisation. (a) Enhanced enabling environment and improved behaviour for water-related climate adaptation action; (b) Increased water access, availability and quality; (c) Increased water efficiency and conservation; and (d) Strengthened preparedness to climate variability and extremes. Supporting the achievement of Sustainable Development Goals (SDGs): SDG 6 – Clean Water and Sanitation.	
<b>CDB’s Technical Assistance Policy and Operational Strategy:</b>	Assisting BMCs to accelerate economic development through planning, programme development and institutional support.	

**13. Gender Marker:**

The Gender Marker Analysis is summarised in Table 1 below. The Project is marked as Gender Mainstreamed: the Project has the potential to contribute significantly to gender equality.

**TABLE 1: GENDER MARKER SUMMARY**

<b>Gender Marker</b>	<b>Analysis</b>	<b>Design</b>	<b>Score</b>	<b>Code</b>
	2.0	1.0	3.00	<b>GM</b>

Further details on the Gender Marker Analysis are outlined in Appendix 2.

**14. Budget:** The Proposed Budget is summarised below. Details provided at Appendix 3.

<b>Contributors</b>	<b>Amount USD</b>	<b>%</b>
CDB	749,619	81
WASCO	180,025	19
<b>Total</b>	<b>929,644</b>	<b>100</b>

**15. Project Background:**

WASCO is a public-owned company established in 1999, with all its shares held by the Government of Saint Lucia (GOSL). Its Board of Directors is appointed by the GOSL. Ministerial oversight of WASCO falls under the Ministry of Infrastructure, Ports, Transport, Physical Development, and Urban Renewal. Further details on WASCO’s structure, operations and financial sustainability are shown at Appendix 4.

WASCO is mandated to supply water and sewerage services in Saint Lucia. However, the company faces major challenges in effectively fulfilling its mandate due to technical, managerial and financial limitations. WASCO has several capacity constraints, mainly due to a deficiency in both the quantity and expertise of its human resources. Over the years, the company's human resource pool has markedly decreased, leading to sustained constraints across all organisational levels. In recent years, climate-related hazards have had significant adverse impacts on the water infrastructure. The existing facilities were not originally designed to withstand such climate-related challenges, leading to operational disruptions for WASCO and, consequently, interruptions in services to its clients. These disruptions can disproportionately impact the most vulnerable groups, such as the elderly, persons with disabilities, children, households led by women, low-income families, and residents of isolated and rural communities who already struggle with limited access to clean water. Water shortages can increase the workload and household demands of women and girls, negatively affect their livelihoods and economic productivity, and educational outcomes by decreasing time for productive activities, pursuit of education, income generation and leisure, which contribute to health outcomes.

Saint Lucia’s Third National Communication, Intergovernmental Panel on Climate Change (IPCC) Reports (6th Assessment) and other reports predict that Saint Lucia will experience an increase in average temperature, reduced annual rainfall, increased sea surface temperatures, and an increase in the intensity of storms. These predictions align with findings in the State of the Caribbean Climate Report (2020), prepared by the Climate Studies Group Mona of the University of the West Indies with financing from CDB. A summary of historical climate data and projections for Saint Lucia from the report is presented at Appendix 5.

As emphasised in the Water Sectoral Adaptation Strategy and Action Plan (Water SASAP 2018-2028) and the WASCO Climate Risk and Vulnerability Assessment (CRVA) 2022 and WASCO Adaptation Plan of Action (APA) 2022, anticipated CCs are having, and will continue to have significant impacts on Saint Lucia’s water sector, including:

### Short Term

- (a) An increase in the frequency and intensity of extreme precipitation events, resulting in heightened soil erosion, damaged watersheds, increased water turbidity, and disruptions to water storage, treatment, and distribution. These factors negatively affect WASCO's revenue potential, financial viability, and Saint Lucia's sustainable development prospects. Concurrently, the risks of flooding and landslides become more pronounced.
- (b) The increasing intensity and frequency of tropical storms and hurricanes poses a significant threat to Saint Lucia's vulnerable water infrastructure, as well as the watersheds and surface water resources.

### Medium Term

- (a) A decrease in average annual precipitation, coupled with rising average annual temperatures (resulting in increased evaporation and evapotranspiration) will lead to reduced water availability on the island. These factors could increase the frequency and duration of disruptions in WASCO services, revenue generation and financial viability, thereby further undermining Saint Lucia's sustainable development prospects. These interconnected challenges will become increasingly pronounced over the coming decades, reinforcing the need for adequate preparation of WASCO and other national entities to address CC impacts on the water sector.

In 2014, CDB funded an Assessment of the Water Sector in the Caribbean, which encompassed the preparation of water sector profiles for its Borrowing Member Countries, including Saint Lucia. The profile for Saint Lucia outlined CC projections and sector-specific impacts. In addition, the National Adaptation Planning process in 2018 identified climate impacts on the water sector. CDB has since continued supporting WASCO's agenda in providing safe, reliable and climate resilient supply of potable water to residents and businesses. CDB has financed projects such as the Sixth Water (View Fort Water Supply Redevelopment) Project, Seventh Water (John Compton Dam Rehabilitation) Project and Eighth Water (Dennery North Water Supply Redevelopment) Project. These interventions have all contributed to enhancing and strengthening resilience in WASCO's infrastructure.

The WASCO CRVA (2022) for Saint Lucia's water sector highlighted several key findings. These include declining water resources, particularly affecting marginalised rural communities due to an already unequal distribution of these resources, inadequate rural water supply, and water contamination from sedimentation and excessive chemical use from the agricultural and industrial sectors, deteriorating water quality, posing significant public health risks. According to UN Women, in rural communities, women as the main collectors of water for households, are more likely to be affected by water scarcity. Additionally, the CRVA indicated issues like the undervaluation of water as a resource, underdeveloped conservation efforts, poor land use and soil management, sewerage facility gaps, and the impact of increased agricultural productivity. There are also challenges related to escalating energy costs, institutional fragmentation, inadequate decision support, and weak human resource capacity, particularly in critical areas such as water and wastewater management, pollution control, finance, integrated water resource planning and infrastructure operation and maintenance. This shortage of skilled personnel is exacerbated by the sector's unattractiveness due to non-competitive compensation at WASCO compared with other utilities companies like St. Lucia Electric Services, Telecoms, Flow, Digicel, making it challenging to recruit personnel, and an aging workforce at WASCO.

The CRVA also highlighted significant climate-related impacts on WASCO's infrastructure. Floods, tropical storms and hurricanes routinely damage buildings and storage facilities, often leading to power outages that disrupt operations and delivery of services. Heavy rainfall increases turbidity, compromising water quality. Prolonged droughts affect both water supply and quality. Landslides, frequently triggered by heavy rainfall, storms, and flooding, cause sediment buildup, damaging critical infrastructure such as the John Compton Dam reservoir, water intake facilities, utility pipelines, and distribution systems. Intake blockages and sedimentation pose operational challenges. Extreme weather events also impact WASCO staff, impeding their ability to carry out their duties. Post-storm communication disruptions further complicate response efforts, while accessing vital sites becomes challenging due to storm-related disruptions, hampering essential maintenance and repairs. These challenges collectively impact water supply, quality, and storage capacity.

Another significant challenge arises from substantial non-revenue water (NRW) loss. WASCO estimates that NRW loss ranges from 40% to 60%, attributable to deteriorating infrastructure, water theft, meter inaccuracies, and billing discrepancies. Proposals for a five-year national NRW loss reduction programme are under consideration as part of a project under the Saint Lucia Green Climate Fund (GCF) country programme. The GCF project envisions conducting asset inventory and condition surveys, performing water audits on major networks, implementing phased infrastructure replacement, providing staff training, and enhancing leak detection methods to improve NRW management. Additionally, the GCF has recently approved a two-year readiness project<sup>1</sup> aimed at strengthening WASCO's institutional capacity to integrate climate resilience into water sector planning and development in Saint Lucia. This initiative is designed to address key barriers, including limited access to concessional financing, inadequate institutional capacity, underdeveloped climate-resilient infrastructure projects, and the need to increase public awareness regarding climate-related water supply issues.

In light of the existing institutional capacities and the numerous climate-related challenges on WASCO's infrastructure and operations, it is imperative to adopt a strategic approach to incorporate climate adaptation and resilience measures into all facets of water infrastructure development, daily operations, and policy formulation. This includes not only protecting the current infrastructure but also building its resilience to withstand the escalating impacts of climate change. Thus, the development of a climate-resilient water supply and wastewater masterplan for WASCO in St. Lucia is an immediate and high-priority. In addition, institutional capacity of key stakeholders in the sector is urgently needed to ensure the long-term sustainability and reliability of water services in a changing climate.

Under the 10<sup>th</sup> European Development Fund African Caribbean Pacific-European Union-CDB Natural Disaster Risk Management (ACP-EU-CDB NDRM) in CARIFORUM Countries Programme (in short NDRM Programme), a training manual was produced to enhance the integration of climate resilience in the Caribbean's water sector. The manual provides a structured framework, including guidelines, technical notes, case studies, and tools. Its purpose is to incorporate a climate perspective in evaluating national water sector needs, identifying adaptation options, and prioritizing investments. Tailored for water professionals, the manual facilitates integrating climate resilience into decision-making processes. Its adaptation for WASCO/Saint Lucia can serve as a basis for strengthening capacity among WASCO and other stakeholders in integrating climate resilience into the water sector in Saint Lucia.

The proposed technical assistance (TA) project, financed through the CARE Programme, is informed by the earlier work undertaken under the NDRM Programme and will complement the GCF readiness project by assisting with the development of a climate-resilient water supply and wastewater masterplan. It will also facilitate the organisation of capacity-building initiatives to improve the institutional capacities of key stakeholders, including WASCO, Water Resource Management Agency (WRMA), Saint Lucia Meteorological Services, Ministry of Public Utilities (MPU), Ministry of Sustainable Development (MSD), National Integrated Planning and Programme Unit (NIPPU), and National Utilities Regulatory Commission (NURC) enabling them to better assess climate risks and develop investment plans for climate resilience in the water sector. Extensive collaboration is anticipated between this TA project and the GCF readiness projects, particularly concerning the streamlining of training activities. Consultants for the GCF readiness projects are currently being engaged and are expected to come on board in the first quarter of 2024, aligning with the anticipated start of this technical assistance implementation.

CDB is committed to increasing the participation of women in decision-making and effectively infusing gender equality in the region's water sector, which has a high proportion of males in jobs in management, construction and maintenance, with women being employed mainly in administrative functions. The training workshops and capacity-building initiatives will target women to participate and ensure that sex-disaggregated data is collected as part of the monitoring of the recruitment and training activities.

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<sup>1</sup> Project title: "Mainstreaming Climate Resilience into Water Sector Planning, Development and Operations in Saint Lucia", approved by GCF on February 16, 2023.

**16. Proposal/Description:**

It is proposed that CDB approve a grant to WASCO of an amount not exceeding the equivalent of seven hundred and forty-nine thousand, six hundred and nineteen United States dollars (USD749,619) (Grant) from its SFR allocated from the CARE Programme to assist with financing the costs of procuring consultancy services for:

- (a) improving institutional capacities to assess climate risks and plan for climate resilience within the water sector; and
- (b) developing a climate-resilient water supply and wastewater masterplan.

**Outputs and Main Activities**

The expected outputs and main activities of this TA are:

- (a) Output 1.1: Country-specific training manual and associated resources to support the integration of climate resilience in Saint Lucia's water sector updated.

**Main Activities**

- (i) Review and update of the training manual on the integration of climate resilience in the water sector, originally prepared under the NDRM Programme, to align with the specific context of WASCO, Saint Lucia.
- (b) Output 1.2: Training-of-trainers events and workshops for the enhancement of climate resilience-building skills in the water sector facilitated.

**Main Activities**

- (i) Design of training modules
- (ii) Organisation of training events/workshops (total of 3 events) in CRVA and development of investment plans
- (c) Output 1.3: Capacity development and training in the assessment of climate risks and the development of investment plans for climate resilience in the water sector delivered to WASCO and key stakeholders.

**Main Activities**

- (i) Conduct of stakeholder consultation to assess capacity needs.
- (ii) Design of training modules.
- (iii) Facilitation and delivery of training to key stakeholders (75 persons) in climate risk and vulnerability assessment, as well as climate-resilient development plan.
- (d) Output 1.4: Climate-Resilient Water Supply and Wastewater Masterplan developed.

**Main activities**

- (i) Development of stakeholder consultation and communication plan.
- (ii) Assessment of WASCO's water supply and sewerage system, covering aspects such as water distribution, transmission systems, production facilities, and treatment plants, along with the physical condition and performance of wastewater collection, treatment, and discharge facilities.
- (iii) In-depth analysis of key factors contributing to NRW loss, accompanied by recommendations to address these issues.
- (iv) Assessment of the alignment of WASCO's service provision with national development plans.
- (v) Development of Climate-Resilient Water Supply and Wastewater Masterplan.

A Results Framework for the Project is presented at [Appendix 6](#).



**17. Project Outcome**

The expected outcome of the TA is improved institutional capacities to assess climate risk and plan for climate resilience within the water sector.

**18. Project Justification and Benefits:**

WASCO faces multiple challenges in fulfilling its mandate of providing adequate water supply and sewerage services. These include technical, managerial, financial limitations, as well as the impacts of CC and natural hazards on its infrastructure and operations. Addressing these challenges requires commitment, capacity development, policy and planning improvements, along with substantial investments in more resilient infrastructure.

The proposed TA project is designed to facilitate the development of a masterplan, a critical tool that will offer comprehensive guidance for climate-resilient investments in the water sector over the short, medium, and long terms. This plan aims to ensure the efficient and sustainable provision of safe drinking water and wastewater management services. The masterplan development process will entail comprehensive assessments and analyses of crucial aspects of the water supply and sewerage systems. This will lead to the development of key recommendations to mitigate non-revenue water loss, as well as the formulation and evaluation of proposals for expanding WASCO's services.

Recognising WASCO's ongoing human resource constraints, which have impeded its ability to execute its current water supply and wastewater investment programme, the proposed TA will allocate resources to strengthen institutional capacities. This aims to empower the company to proactively address the impacts of CC on its operations. The TA will focus on strengthening WASCO's institutional capacities to assess climate-related risks, identify, prioritise, and execute suitable programmes and projects that enhance the resilience of water supply and sewerage services to CC and extreme weather events. Targeting women for training and capacity building is critical to the sustainability of water and sanitation initiatives, particularly in technical and managerial roles to ensure their presence in the decision-making process. Therefore, encouraging the recruitment of women and the promotion of the collection of sex-disaggregated data will emphasise the role of women in decision-making and capacity building and integrate gender equality into the water sector.<sup>2</sup> This effort will result in the delivery of more reliable, resilient, and sustainable water supply and sewerage services, ultimately improving lives and well-being of Saint Lucia's residents and visitors. Notably, this service improvement will directly benefit approximately 80% of the population currently served by WASCO's water service connections while also accommodating new customers, which have been growing at a steady annual rate of 1.6%.

The Project has a performance assessment score of 3.5. The Performance Rating System is shown at Appendix 7.

**19. Risks and Mitigation Measures:**

Risk Category	Risk Type	Description of Risk	Mitigation Measures
Operational	Implementation	Insufficient WASCO human resources.	The existing Project Management Unit (PMU) of CDB-funded projects will support project implementation. In addition, consultants will be engaged for implementing main project activities.

<sup>2</sup> Inter-agency Task Force on Gender and Water (GWTF): Gender, Water and Sanitation: A Policy Brief

		<p>Low representation of women due to limited access to job opportunities in the water sector.</p>	<p>Collaboration with PMU and stakeholders to provide support for available women to ensure participation and collection of sex-disaggregated data.</p>
		<p>Failure to operationalise new CC tools and resilience-building measures into practice.</p>	<p>The project includes training for all staff levels, and there will be general sensitisation of resilience building measures within the organisation.</p>
		<p>Slow provision of data from relevant agencies to facilitate effective implementation of project components.</p>	<p>All stakeholders commit to expedite data input requests. WASCO will continue to engage all stakeholders to actively provide their inputs and facilitate project implementation.</p>
Operational	Fiduciary	<p>Value for Money risk – risk to budget sizing for the project activities, deliverables, outcomes.</p>	<p>A comprehensive project cost estimation was conducted, taking into account current market conditions and drawing insights from costs incurred in previous similar assignments.</p> <p>A 15% contingency was added to the direct eligible project cost to address potential variations during implementation.</p>
Operational	Third party Consulting	<p>Risk to quality and timely of project delivery.</p>	<p>Under the leadership of the PC, a PMU will be in place to coordinate the execution of project activities, ensuring effective project planning, technical project supervision, deliverable timeliness and quality, and reporting to CDB. In addition, WASCO and key water sector stakeholders will collaborate to involve skilled personnel in supporting consultant work, ensuring timely reviews, and upholding quality control standards for consultancy deliverables.</p>

## **20. Environmental and Social Impact**

The proposed TA project aims to enhance institutional capacities, with gender considerations in water resource management, to plan for climate resilience in the water sector in Saint Lucia. The project is anticipated to yield tangible and positive outcomes, without any adverse environmental or social impacts. Specifically, it will provide comprehensive guidance for making climate-resilient investments in the water sector, covering short, medium, and long-term planning horizons. By doing so, it will ensure the efficient and sustainable delivery of water supply and sewerage services, ultimately improving lives and well-being of Saint Lucia's residents and visitors. Major positive effects would be expected for rural population groups as water scarcity still impacts rural Saint Lucia. Women are the most affected as health and sanitation in the household are highly dependent on a reliable supply of drinkable water and these areas are mostly in the responsibility of women.

## **21. Project Implementation:**

The project will be executed by WASCO through the existing PMU<sup>3</sup> of CDB-funded Projects. The Head of the PMU will be assigned as Project Coordinator (PC). Under the leadership of the PC, the PMU will be responsible for coordinating the execution of project activities, ensuring the project technical supervision and quality of deliverables, and reporting to CDB. The assignment of the PC by WASCO shall be a condition precedent to the first disbursement of the grant. Key roles and responsibilities of the PC are presented at Appendix 8.

Consultancy Services will be required for the implementation of project activities as per the following Draft TORs:

- (a) Appendix 9A: Improving Institutional Capacities to Assess Climate Risks and Plan for Climate Resilience with the Water Sector in Saint Lucia.
- (b) Appendix 9B: Preparation of Climate-Resilient Water Supply and Wastewater Masterplan.

The project will be executed over a 18-month period according to the Work Implementation Schedule presented at Appendix 10.

The GOSL is expected to submit the initial grant disbursement application to CDB no later than March 31, 2024. The disbursement of the grant funds is scheduled to be completed by September 30, 2025.

## **22. Cost and Financing**

The total cost of the Project is estimated at USD929,644. CDB will fund 81% (USD749,619) of the project costs as outlined in Section 14 above. CDB's contribution will be met through a grant from its SFR allocated from the CARE Programme with counterpart funding of 19% (USD180,025).

## **23. Procurement:**

Procurement of consultancy services shall be in accordance with the CDB Procurement Policy for Projects Financed by CDB (November 2019) and CDB's Procurement Procedures for Projects Finance by CDB (January 2021). Financing shall be provided under the CARE agreement and thus, in accordance with that agreement, eligibility shall be extended to countries which are eligible for procurement under the EU-funded Programme, which are not CDB member countries, in accordance with the [EU Eligibility Rules](#). The Procurement Plan is shown at Appendix 11.

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<sup>3</sup>The PMU consists of a Head of Unit with project management experience, a project Engineer, a project accountant, and project administrative staff. Additional project management support is supplied by designated WASCO personnel, following the standard practice for all projects.

**24. Adjudication and Review Committee Recommendation:**

The Adjudication Review Committee considered this proposal on December 20, 2023, and agreed to recommend it for the approval of the President.

**25. Recommendation:**

It is recommended that the President approve a grant to WASCO in an amount not exceeding the equivalent of seven hundred and forty-nine thousand, six hundred and nineteen United States dollars (USD749,619.00) from CDB's SFR allocated from the CARE Programme to assist WASCO in financing the Project as stated in paragraph 16 above on CDB's standard terms and conditions and on the terms and conditions set out in Appendix 1.

*Therese Turner-Jones*

*December 22, 2023*

Therese Turner-Jones  
Director, Projects Department

Date

**26. Approved by:**

*Hyginus 'Gene' Leon*

*December 28, 2023*

Hyginus 'Gene' Leon  
President

Date

**SUPPORTING DOCUMENTATION**

Appendix 1	Terms and Conditions
Appendix 2	Gender Marker Analysis
Appendix 3	Detailed Budget
Appendix 4	Water and Sewerage Company Inc St. Lucia - Organisational Structure
Appendix 5	Summary of Historical Climate Data Projections for Saint Lucia
Appendix 6	Results Monitoring Framework
Appendix 7	Performance Rating System
Appendix 8	Key Roles and Responsibilities of Project Coordinator
Appendix 9A	Draft TOR - Capacity Building for the Integration of Climate Change into Water and Sewerage Company Inc. Operations
Appendix 9B	Draft TOR - Preparation of Integrated Water Supply and Wastewater Masterplan
Appendix 10	Work Implementation Schedule
Appendix 11	Procurement Plan

**TERMS AND CONDITIONS**

It is proposed that the grant be made on CDB's standard terms and conditions and on the following terms and conditions:

<b>No</b>	<b>Subject</b>	<b>Terms and Conditions</b>
1.	<b>Parties</b>	<u>Bank</u> : Caribbean Development Bank (CDB)  <u>Beneficiary</u> : Water and Sewerage Company Inc. (WASCO)
2.	<b>Amount of Grant</b>	The Bank agrees to make available to the Beneficiary by way of grant, an amount not exceeding the equivalent of seven hundred and forty-nine thousand six hundred and nineteen United States dollars (USD749,619) (the Grant) the Special Funds Resources (SFR) of the Bank allocated from the Caribbean Action for Resilience Enhancement (CARE) Programme.
3.	<b>Purpose</b>	The purpose for which the Grant is being made is to assist the Beneficiary in financing the costs of procuring consultancy services for: (a) improving institutional capacities to assess climate risks and plan for climate resilience within the water sector; and (b) developing a climate-resilient water supply and wastewater masterplan, more particularly described in paragraph 16 of the Paper (the Project).
4.	<b>Disbursement of Grant</b>	Except as the Bank may otherwise agree, disbursement of the Grant shall be made by the Bank to the Beneficiary as follows:  (a) an amount not exceeding the equivalent of one hundred and forty-nine thousand nine hundred and twenty-three thousand United States dollars and eighty cents (USD149,923.80) shall be paid to the Beneficiary as an advance (the Advance) on account of expenditures in respect of the Project after receipt by the Bank of: (i) a request in writing from the Beneficiary for such funds; and (ii) evidence, acceptable to the Bank that the conditions precedent to first disbursement of the Grant set out below have been satisfied; and  (b) the balance of the Grant (the Balance) shall be paid to the Beneficiary periodically after receipt by the Bank of an account and documentation satisfactory to the Bank, in support of expenditures incurred by the Beneficiary in respect of, and in connection with, the Project.  The Bank shall not be under any obligation to make:  (a) the first such payment of an amount of the Balance until the Bank shall have received an account and documentation satisfactory to the Bank, in support of

No	Subject	Terms and Conditions
		<p>expenditures incurred by the Beneficiary with respect to the Advance;</p> <p>(b) any subsequent payment of the Balance until the Bank shall have received: (i) an account and documentation, satisfactory to the Bank, in support of expenditures incurred by the Beneficiary in respect of or in connection with the Project; and (ii) the requisite number of copies of the reports or other deliverables, in form and substance acceptable to the Bank, required to be furnished by the Beneficiary to the Bank in accordance with the Terms of Reference (TOR) for the Consultancy Services (as defined below); and (bb) the <b>Reporting Requirements</b> (as defined below); and</p> <p>(c) payments exceeding the equivalent of six hundred and seventy four thousand six hundred and fifty-six United States dollars and ten cents (USD674,657.10) representing (90%) percent of the amount of the Grant until the Bank shall have received: (i) the requisite number of copies of the reports or other deliverables, in form and substance acceptable to the Bank, required to be furnished by the Beneficiary to the Bank in accordance with (aa) the TORs for the Consultancy Services; and (bb) the <b>Reporting Requirements</b>; and (ii) a certified statement of the expenditures incurred by the Beneficiary in respect of, and in connection with the Project.</p> <p>The Beneficiary shall comply with the Bank’s “<i>Disbursement Guidelines for CDB-Financed Projects</i>” published in January 2019, which may be amended from time to time by the Bank.</p>
5.	<b>Period of Disbursement</b>	<p>The Bank shall have received an application for first disbursement of the Grant by March 31, 2024, or such later date as may be specified in writing by the Bank.</p> <p>The Grant shall be disbursed up to September 30, 2025, or such later date as may be specified in writing by the Bank.</p>

No	Subject	Terms and Conditions
6.	<b>Procurement</b>	<p>Except as provided below, procurement of goods, works and/or services to be financed from the grant resources shall be in accordance with the following policy and procedures or such other policy or procedures as the Bank may from time to time specify in writing:</p> <p><i>Procurement Policy for Projects Financed by CDB (November 2019)</i>  <i>Procurement Procedures for Projects Financed by CDB (January 2021)</i></p> <p>The following procurement exceptions apply:</p> <p>Eligibility for procurement shall be extended to countries eligible for procurement under EU-funded projects, which are not Member Countries of the Bank.</p> <p>The Beneficiary shall comply with the procurement requirements set out in the <b>Procurement Plan</b>. Any revisions to the <b>Procurement Plan</b> shall require the Bank’s prior approval in writing.</p>
7.	<b>Additional Condition(s) Precedent to First Disbursement</b>	<p>The Bank shall not be obliged to make the first disbursement of the Grant until the Beneficiary has furnished or caused to be furnished to the Bank, evidence acceptable to the Bank, that the following condition(s) have been satisfied:</p> <p>(a) the PC has been assigned.</p>
8.	<b>Project Execution</b>	<p>Except as the Bank may otherwise agree, the Beneficiary shall execute the Project.</p>
9.	<b>Project Management</b>	<p>The Beneficiary shall assign as PC a person from among the staff of the Executing Agency, with qualifications and experience acceptable to the Bank, to carry out the duties and responsibilities set out in the Key Roles and Responsibilities of the Project Coordinator.</p> <p>The qualifications and experience of any person subsequently assigned to the position of PC, shall be acceptable to the Bank.</p>
10.	<b>Engagement of Consultant(s)</b>	<p>The Beneficiary shall, in accordance with the procurement policy and procedures applicable to the Grant, select and engage consultant(s) to provide the following consulting services identified for financing by the Bank in Section II of the Procurement Plan (the</p>

No	Subject	Terms and Conditions
		<p>Consultancy Services).</p> <p>The Beneficiary shall, within a timeframe acceptable to the Bank, implement such recommendations arising from the Consultancy Services, as may be acceptable to the Bank.</p>
11.	<b>Beneficiary's Contribution to the Project</b>	<p>Except as the Bank may otherwise agree, the Beneficiary shall:</p> <p>(a) meet or cause to be met:</p> <ul style="list-style-type: none"> <li>(i) the cost of the items designated for financing by the Beneficiary in the <b>Budget</b>;</li> <li>(ii) any amount by which the cost of the Project exceeds the cost set out in the <b>Budget</b>; and</li> <li>(iii) the cost of any other items needed for the purpose of, or in connection with, the Project; and</li> </ul> <p>(b) provide all other inputs required for the punctual and efficient implementation of the Project, which are not being financed by the Bank.</p>
13.	<b>Reports and Information</b>	<p>Except as the Bank may otherwise agree, the Beneficiary shall furnish or cause to be furnished to the Bank the reports and information required to be furnished to the Bank in accordance with the TORs for the Consultancy Services, in the form specified therein, or in such form or forms as the Bank may require, not later than the times specified therein for so doing (<b>Reporting Requirements</b>).</p>
14.	<b>CARE Programme</b>	<p><u>Information and Visibility:</u></p> <p>Unless the European Commission requests or agrees otherwise, the Beneficiary shall take all appropriate measures to publicise the fact that the Action has received funding from the EU. Information given to the press, as well as all related publicity material, official notices, reports and publications shall acknowledge that the Action was carried out "with funding by the European Union" and shall display the EU logo (twelve yellow stars on a blue background) in an appropriate way. Publications by the Beneficiary pertaining to the Action, in whatever form and whatever medium, including the internet, shall carry the following disclaimer: "This document was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union." Such measures shall be carried out in accordance with the Communication and Visibility Requirements for EU External Action published by the European Commission, or</p>



No	Subject	Terms and Conditions
		<p>with any other guidelines agreed between the European Commission and CDB.</p> <p><u>Access and financial checks:</u></p> <ul style="list-style-type: none"><li>• The Beneficiary shall allow the European Commission, or any authorised representatives, to conduct desk reviews and on-the-spot checks on the use made of the EU Contribution on the basis of supporting accounting documents and any other document related to the financing of the Action:</li><li>• The Beneficiary agrees that OLAF may carry out investigations, including on-the-spot checks and inspections, in accordance with the provisions laid down by EU law for the protection of the financial interests of the EU against fraud, corruption and any other illegal activity.</li><li>• The Beneficiary undertakes to provide officials of the European Commission, OLAF and the European Court of Auditors and their authorised agents, upon request, information and access to any documents and computerised data concerning the technical and financial management of operations financed under the Agreement, as well as grant them access to sites and premises at which such operations are carried out. The Beneficiary shall take all necessary measures to facilitate these checks in accordance with its Regulations and Rules.</li></ul>

**GENDER MARKER**

Project Cycle Stage	Criteria	Score
<b>Analysis: Background</b>	Sex-disaggregated data included in the background analysis, and/or baselines and indicators, or collection of sex-disaggregated data required in TOR.	1
	Socioeconomic/Sector/Institutional analysis considers gender disparities, or TOR requiring the identification of socioeconomic, sectoral and institutional gender issues.	1
<b>Design: Project Proposal/Definition /Objective</b>	TA interventions are designed, or will be identified as part of the project, that address gender disparities or enhance gender capacities.	0
	Project objective/outcome includes the enhancement of gender capacities, gender data collection, gender equality or the design of gender-responsive policies or guidelines.	1
<b>Score:</b>		3.00
<b>GM: gender mainstreamed: the project has the potential to contribute significantly to gender equality.</b>		

**BUDGET**

<b>Budget Item</b>	<b>CDB Contribution (USD)</b>	<b>Counterpart Contribution (USD)</b>	<b>Total Cost (USD)</b>
<b>Improving Institutional Capacities to Access Climate Risks and Plan for Climate Resilience within the Water Sector</b>	327,200	58,743	385,943
<b>Preparation of Climate Resilient Water Supply and Wastewater Masterplan</b>	324,520	97,800-	422,320
<b>Total Direct Eligible Cost</b>	<b>651,720</b>	<b>156,543</b>	<b>808,263</b>
<b>Contingency (15%)</b>	<b>97,899</b>	<b>23,482</b>	<b>121,381</b>
<b>Grand Total</b>	<b>749,619</b>	<b>180,025</b>	<b>929,644</b>

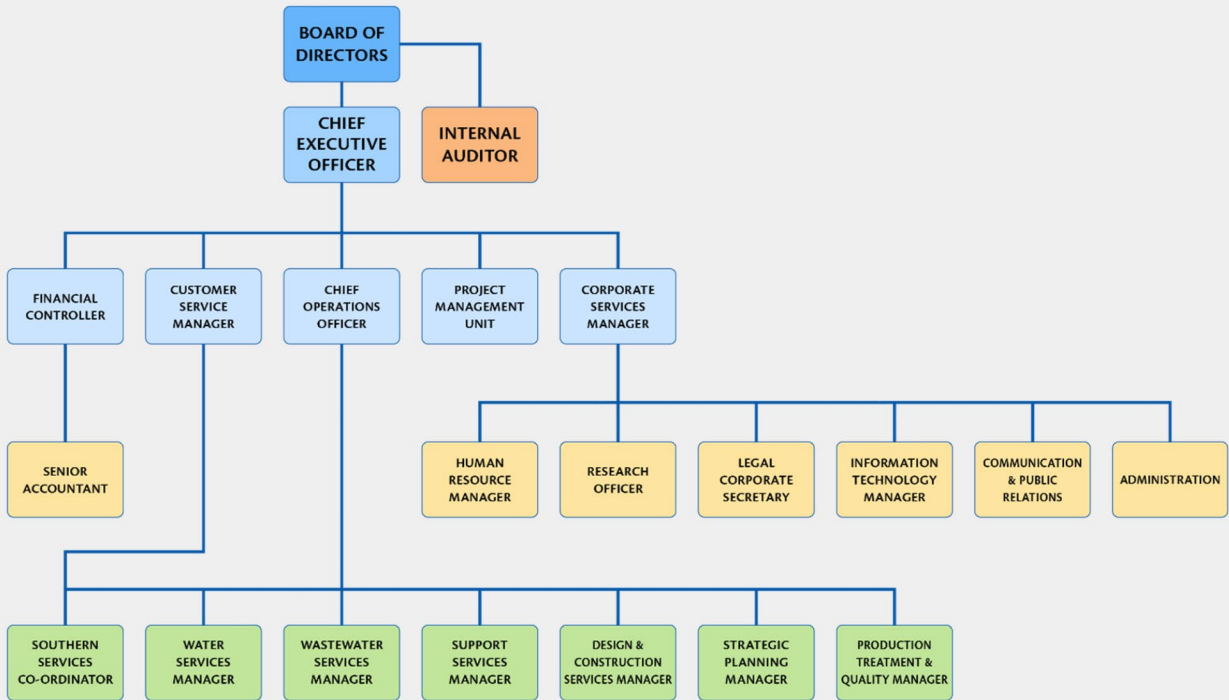
**WATER AND SEWERAGE CO. INC. SAINT LUCIA:  
ORGANISATION AND STRUCTURE, OPERATIONS, FINANCIAL SUSTAINABILITY**

- 1. Organization and Structure:** The Water and Sewerage Company Inc. (WASCO) was established as a public company on August 9, 1999, with full ownership by the Government of Saint Lucia (GOSL), and governance overseen by GOSL-appointed Board of Directors. Ministerial oversight of WASCO falls under the Ministry of Infrastructure, Ports, Transport, Physical Development, and Urban Renewal. In accordance with the Water and Sewerage Act No. 14 of 2005 (as amended in 2008), WASCO is regulated by the Water Resources Management Agency, which is responsible for the management of water resources, and reports to the Ministry of Agriculture, Fisheries, Food Security and Rural Development. The National Utilities Regulatory Commission (NURC), an independent multi-sector body established by the NURC Act 2016, is responsible for regulating water supply and sewerage services. Additionally, the Ministry of Health, Wellness, and Elderly Affairs monitors drinking water quality.
- 2. Operations of WASCO:** WASCO operates through four main divisions with a staff of 400 employees. Ongoing reforms seek to bolster management capacity and enhance internal systems and processes. A comprehensive upgrade of the customer information and billing system, involving the implementation of seven modules since 2018, is in progress. An institutional assessment, financed by CDB, led to a detailed assessment of the Finance and Accounting Department in 2018. This assessment yielded crucial outputs, including a Financial Operations and Policy Manual, Training and Assessment Report, Standard Operating Procedures Manual, and Training Plan. While running both old and new systems concurrently poses challenges, plans are underway to implement five additional modules, ensuring comprehensive coverage and the integration of multiple functional areas to enhance governance. The pursuit of technical studies and interventions, supported by the Green Climate Fund (GCF) readiness project, aims to provide timely information for informed decision-making and strategic planning.
- 3. Financial Sustainability:** Despite the adverse impact of the COVID-19 pandemic, WASCO maintains stable financial performance, partly attributed to a tariff increase in 2013. The customer base experiences an annual growth rate of 1.6%, with approximately 1,000 new customer connections annually. Operating profits, working capital, and liquidity have, although persistent high receivables levels require implementing mitigation measures.



**WASCO**  
WATER & SEWERAGE COMPANY, INC.

# ORGANISATIONAL STRUCTURE



**SUMMARY OF HISTORICAL CLIMATE DATA AND  
PROJECTIONS FOR SAINT LUCIA**

1. Historical data and projections for Saint Lucia are largely consistent with those for the overall region as follows:

- (a) Historical: Mean annual temperature in Saint Lucia has increased by around 0.7°C since 1960, at an average rate of 0.16°C per decade. Mean rainfall over Saint Lucia has increased between September-November, by 16.1mm per month (6.1%) per decade since 1960, but this increase is not statistically significant. This increase is offset partially by decreases of approximately 9.0mm per month (3.2%) per decade between June-August. Although the country did not experience significant changes in average annual precipitation, it did experience changes in precipitation extremes. Despite the fact that Saint Lucia has not been directly hit by major hurricanes as frequently as some other islands over the past 40-50 years, this does not suggest that the country is not at risk. As a matter of fact, 24 hurricanes have come within 200km of countries in the Caribbean's Precipitation Zone 5 (which includes Saint Lucia and other Eastern Caribbean countries) since 1980, of which 7 have been Category 4 storms.
  
- (b) Projected: Mean annual temperatures in Saint Lucia are projected to increase (relative to a 1961-1990 baseline) by: 0.78-1.35°C in the 2020s; 1.34-2.28°C by the 2050s; and 1.78-3.38°C by the end of the Century, with the most significant warming expected to occur in the dry (winter) season. Meanwhile, projections related to changes in annual average precipitation vary significantly, but consistently point toward a drying trend. The range of projected changes (relative to a 1961-1990 baseline) is: between -20.15% and +4.09% in the 2020s; between -35.15% and +3.53% in the 2050s; and between -46.19% and -13.74% by the end of the Century. These drying trends are expected to affect three (of four) seasons in the 2020s and all seasons from the 2050s onwards. In addition, available modelling indicates that Saint Lucia will likely continue to experience an increase in the frequency and intensity of extreme precipitation events, including for RX1 (maximum 1-day rainfall) and RX5 (maximum 5-day rainfall). Although projections regarding hurricanes contain considerable uncertainty, regional projections support the conclusions of the IPCC Special Report on Extremes (2012) that by the latter half of the Century, tropical cyclone precipitation rates are likely to increase by around 20-30% within 100km of storm centers and about 10% at radii of 200km or more. Maximum sustained wind speeds are projected to increase, reaching +2-11% by the end of the Century. In addition, the frequency of Category 4 and 5 hurricanes in the Atlantic is expected to increase with estimates ranging from +40-80% in the post-2050 period.

**RESULTS MONITORING FRAMEWORK**

<b>DESIGN SUMMARY</b>	<b>PERFORMANCE TARGETS/INDICATORS</b>	<b>DATA SOURCES/REPORTING MECHANISMS</b>	<b>ASSUMPTIONS</b>
<b>Impact:</b> To strengthen institutional capacities for the effective planning and implementation of climate-resilient initiatives in the water sector.			
<p><b><u>Outcome</u></b></p> <p>Improved institutional capacities to assess climate risks and plan for climate resilience within the water sector.</p>	<p><u>By September 2025</u></p> <p>Percentage of staff members of WASCO and key stakeholders (WRMA, MPU, MSD, NIPPU, and NURC with increased knowledge and skills in CRVA and development of investment plan.</p>	<p>Pre- and post-training survey reports with staff members of WASCO and stakeholders.</p>	<p>WASCO and stakeholder staff members actively participate in training sessions and surveys.</p>
	<p><u>By September 2025</u></p> <p>Climate-Resilient Water Supply and Wastewater Masterplan Approved by WASCO Board of Directors.</p>	<p>Project completion report.</p>	<p>New practices for integrating climate resilience in planning and development of investment programme are adopted by WASCO and key stakeholder staff.</p>
	<p><u>By December 2026</u></p> <p>Climate change adaptation actions incorporated into WASCO annual budget.</p>	<p>WASCO annual budget.</p>	<p>GOSLU increases WASCO budget appropriately.</p>
<p><b><u>Outputs</u></b></p> <p>Output 1.1 Country -Specific Training Manual and associated resources to support the integration of climate resilience in Saint Lucia’s water sector updated.</p>	<p><u>By June 2024</u></p> <p>Updated Training Manual completed.</p>	<p>Consultant report (approved by WASCO).</p>	<p>Timely engagement of consultant.</p>

<b>DESIGN SUMMARY</b>	<b>PERFORMANCE TARGETS/INDICATORS</b>	<b>DATA SOURCES/REPORTING MECHANISMS</b>	<b>ASSUMPTIONS</b>
Output 1.2. Training of Trainers events and workshops for the enhancement of climate resilience building skills in the water sector facilitated.	<p><u>By September 2024</u></p> <p>3 training events and workshops conducted.</p>	<p>Consultant report (approved by WASCO).</p>	<p>Timely engagement of consultant.</p>
Output 1.3: Capacity Development and Training in CRVA and development of climate resilience investment plan delivered to WASCO and key stakeholders.	<p><u>By March 2025</u></p> <p>75 persons (disaggregated by sex) trained in CRVA.</p> <p>A costed climate-resilient investment plan developed.</p>	<p>Consultant report (approved by WASCO).</p>	<p>Timely engagement of consultant.</p>
Output 1.4. Climate-Resilient Water Supply and Wastewater Masterplan developed.	<p><u>By June 2024</u></p> <p>Water Supply and Wastewater Masterplan complete.</p>	<p>Consultant report (approved by WASCO).</p>	<p>Timely engagement of consultant.</p>



**PERFORMANCE RATING SYSTEM**

<b>Criteria</b>	<b>Score</b>	<b>Justification</b>
<b>Relevance</b>	<b>4</b>	<p>GOSL has given high priority to improving the water sector, as it is critical to continued economic growth and social stability as identified in the National Adaptation Plan 2018. Especially, the project is consistent with the Water SASAP Outcome 1: Enhanced enabling environment and improved behaviour for water-related climate adaptation action with the strategic objective of scaling-up national human capacity for the design and implementation of water-related climate adaptation projects. The Project is also in sync with the Regional Strategic Action Plan (RSAP 2022) which was endorsed by the Ministers responsible for the water sector in the region. The RSAP for climate resilience in the water sector in the Caribbean is built along six main pillars, with two of them specifically targeted by this project: namely: Pillar 2: Decision support and Pillar 6: Capacity building and public sensitization.</p> <p>The Project is aligned with CDB’s strategic objective of building environmental resilience. It is consistent with CARE Programme Outcome 1 “Governance on disaster risk management and climate change adaptation in the BMCs improved” and Outcome 2 “Evidence-based and gender sensitive decision making and financial response of the BMC’s to climate change effects and natural hazards strengthened”.</p>
<b>Effectiveness</b>	<b>4</b>	<p>A dedicated and experienced Project Coordinator will be appointed from within the existing Project Management Unit at WASCO to oversee project management and coordination. Key stakeholders in the water sector will be actively engaged to ensure their alignment with project needs and expectations, and to secure their support during project implementation. External consultants with expertise in climate resilience integration in water systems and familiarity with Saint Lucia's context will be brought on board. Moreover, the project will involve thorough planning, diligent implementation, continuous monitoring, robust risk management, quality control, and comprehensive reporting, along with knowledge sharing among critical water sector stakeholders. Consequently, the project is well-positioned to deliver its outputs in a timely manner and achieve the intended outcomes, ultimately enhancing climate resilience in Saint Lucia's water sector.</p>
<b>Efficiency</b>	<b>3</b>	<p>WASCO, through the Project Management Unit (PMU), will rigorously adhere to fiduciary requirements specified in CDB guidelines and terms and conditions, as well as those set forth by the ACP-EU CARE Programme. The estimated project costs have been carefully evaluated, considering the current professional rates applicable to this consultancy work. In addition, the project will draw upon the expertise and lessons learnt from previous water sector projects to ensure that project activities are implemented timely and within the allocated budget.</p>

<b>Criteria</b>	<b>Score</b>	<b>Justification</b>
<b>Sustainability</b>	<b>3</b>	The project will strengthen WASCO's capacity to systematically integrate climate resilience into water sector projects. Training is expected to have a positive impact on technical staff, ensuring project development through a climate resilient lens. The Water Sector Masterplan, which will incorporate prioritized climate resilient projects, will strengthen WASCO's ability for long-term planning and enhancing sector sustainability. This is valuable for securing funding for pipeline projects from Green Climate Fund and Adaptation Fund.
<b>Overall Score</b>	<b>3.5</b>	

**KEY ROLES AND RESPONSIBILITIES OF THE PROJECT COORDINATOR**

**1. The Project Coordinator will have the following responsibilities:**

**(a) Project Management:**

- (i) Develop and maintain a detailed project plan, including timelines, milestones, and deliverables.
- (ii) Coordinate and oversee all project activities, ensuring their timely and successful completion.
- (iii) Monitor project progress, identify potential risks and issues, and develop mitigation strategies.
- (iv) Facilitate effective communication and collaboration among project stakeholders.
- (v) Oversee all incoming and outgoing project documentation.
- (vi) Update project procurement plan as necessary and at least annually.
- (vii) Prepare regular progress reports and submit them to CDB.

**(b) Financial Management:**

- (i) Assist with the financial management of the project, including budgeting, tracking expenditures, and ensuring compliance with funding requirements.
- (ii) Coordinate the engagement of consultants and the procurement of goods and services.
- (iii) Monitor project expenditures and ensure efficient utilisation of project funds.

**(c) Technical Implementation:**

- (i) Work closely with key water stakeholders to coordinate and oversee the implementation of project activities.
- (ii) Coordinate capacity-building initiatives to enhance the technical staff capacity WASCO and other key water sector stakeholders (e.g. WASCO, Water Resource Management Agency, Ministry of Public Utilities, Ministry of Sustainable Development, National Integrated Planning and Programme Unit, and National Utilities Regulatory Commission).

**(d) Stakeholder Engagement:**

- (i) Facilitate engagement/consultations with key water sector stakeholders.
- (ii) Foster effective relationships and partnerships with key stakeholders to achieve project objectives.

**(e) Reporting and Deliverables**

- (i) The Project Coordinator will report to CDB. Key deliverables include:
- (ii) Preparation of a Work Plan with timeline for the project.
- (iii) Preparation of progress narrative and financial reports bi-monthly to highlight project advancement, challenges and adjustments.

## **2. Qualifications and Experience**

2.01 The ideal candidate for the position of Project Coordinator should possess the following qualifications and skills:

- (a) A Bachelor's (with a minimum of 8 years of experience) or Master's (with a minimum of 6 years of experience) degree in a relevant field (e.g. project management, environmental sciences, disaster management).
- (b) Proven experience in project management, preferably in the field of climate resilience, disaster risk reduction and water management.
- (c) A demonstrable track record of strong organisational and leadership skills, with the ability to manage multiple tasks and stakeholders simultaneously.
- (d) Excellent communication and interpersonal skills, with the ability to engage and collaborate with diverse stakeholders.
- (e) Proficiency in English is essential.
- (f) Familiarity with the institutional and operational aspects of Water Utility Operations is an advantage.
- (g) Knowledge of the cultural and socio-economic context of the Caribbean and experience working in the Caribbean.

**DRAFT TERMS OF REFERENCE**

**CONSULTANCY SERVICES: IMPROVING INSTITUTIONAL CAPACITIES TO ASSESS CLIMATE RISKS AND PLAN FOR CLIMATE RESILIENCE WITH THE WATER SECTOR IN SAINT LUCIA**

**1. BACKGROUND**

1.01 The Water and Sewerage Company Inc. (WASCO) is the utility with responsibility for the provision of potable water and sewerage services for Saint Lucia. In 2014, the Caribbean Development Bank (CDB) funded an Assessment of the Water Sector in the Caribbean (January 2015), which included the preparation of water sector profiles for CDB's Borrowing Member Countries.

1.02 The profile for Saint Lucia presented climate change projections and identified specific impacts on the sector. One of the investment options recommended to support the water and sanitation sector in Saint Lucia was capacity building to improve standardisation and application of an assessment, monitoring and reporting process. Water Utilities are usually knowledgeable about their systems but less so about the climate risks that may constrain their ability to meet the organisation's goals. The staff are usually addressing many pressing issues and have limited time to focus on adaptation planning for the future. Low participation of women in decision-making in the water sector, which has a high proportion of males in jobs in management, construction and maintenance with women being employed mainly in administrative functions, has also served as a constraint. In addition, because of resource constraints, water utility companies can only plan for adaptation to climate change impacts within the confines of those limited resources. Despite these challenges, the utility company must incorporate climate change considerations in its planning in order to realise organizational goals.

1.03 In 2018, CDB initiative, "Planning for the Integration of Climate Resilience in the Water Sector in the Caribbean" project executed under the African Caribbean Pacific- European Union-CDB Natural Disaster Risk Management (ACP-EU-CDB NDRM) in CARIFORUM Countries programme, produced a training manual and various tools to support the integration of climate resilience in the water sector in the Caribbean. This initiative is aimed at reducing vulnerability to long-term impacts of natural hazards, including potential impacts of climate change.

**2. OBJECTIVE**

2.01 The purpose of this consultancy is to strengthen WASCO's capacity to identify and implement climate resilient water policies, plans and investment programmes, as part of a systematic approach to manage climate risks. In doing so, the project supports the mainstreaming of climate resilience and gender equality in the water services sector in Saint Lucia.

**3. SCOPE OF WORK**

3.01 As part of a regional initiative under the Planning for the Integration of Climate Resilience in the Water Sector in the Caribbean project, a Training Manual was prepared to support the integration of climate resilience in the water sector in the Caribbean. The Manual presents a systematic framework for applying a climate 'lens' to assessment of national water sector needs, identification of adaptation options and prioritisation of investments to strengthen climate resilience. It comprises guidelines, technical notes, case examples and other tools that can be used by water professionals and practitioners across the region to help mainstream climate resilience.

The Training Manual and associated resources were prepared as generic resources applicable to the Caribbean region rather than being country specific. It is recommended that the Training Manual and associated resources be adapted and modified to make them specific to the WASCO/Saint Lucia context and thus provide a foundation for strengthening the capacity of WASCO and other stakeholders for the integration of climate resilience in the Saint Lucia water sector.

3.02 The integration of climate resilience in the water supply sector entails investment in physical assets as well as action in policy, planning, management and operation. It also requires commitment and capacity to make long term and sustained changes, in order to realise the long-term benefits in the face of a changing climate. Catalysing change and improving climate resilience is therefore an iterative process to move action forward on all these fronts. Strengthening climate resilience in the water supply sector entails building more resilient infrastructure as well as improving water resources management and reforming the enabling environment to ensure climate change is mainstreamed in policies, plans and legislation. In practice this means, creating greater climate resilience awareness among decision-makers responsible for economic policy and strategy, applying a ‘climate lens’ to water-related planning and management, and creating more effective channels for communication and shared decision-making on priority actions.

3.03 The activities of the Consultants should include, but not be limited to the following:

- (a) Task 1: Review and Update Training Manual. Activities to be carried out as part of this task include:
  - (i) Review of Training Manual to make it specific to the Saint Lucia context and WASCO’s needs.
  - (ii) Provide specifications for the updates to the Manual and associated resources, including updates to the associated presentation slides, planning tools and Training of Trainers guidance.
  - (iii) Collation of recent literature including studies on climate change and its impact on Saint Lucia, and the region, and measures to build resilience.
  - (iv) Collation of national case studies and lessons learned to ensure the guidance materials are relevant to national stakeholders and grounded in country-specific realities.
- (b) Task 2: Capacity Development and Training. Activities to be carried out as part of this task include:
  - (i) Consultation with country focal points and stakeholders, carrying out a needs assessment to identify specifically which elements of the Framework process are of most interest as a pre-cursor to determining specific support activities tailored to WASCO (and Saint Lucia’s) needs.
  - (ii) Assessing risks, setting objectives and identifying options for mitigating those risks.
  - (iii) Prioritising options using a multicriteria analysis and planning for implementation.
  - (iv) Monitoring and evaluating progress.
  - (v) Facilitating/undertaking capacity development and training workshops.
  - (vi) Prioritising the recruitment of women to participate in the capacity development and training workshops and the collection of sex-disaggregated data.

3.04 The Framework for the integration of climate resilience (as detailed in the Training Manual) provides an overarching process within which national capacity development and training can be anchored

and adapted to meet Saint Lucia's individual country needs and circumstances. This framework will be structured around four workshops to be facilitated/led by the Consultant. At each workshop, the participants will be provided with the information needed to execute the selected tasks. Once the workshops are concluded the Consultant will prepare the briefs and documentation resulting from the workshop. Each stage is therefore defined by a preparation phase, where the required materials are researched and summarised for the participants. The workshop consists of a series of previously defined tasks the participants will accomplish. The results from the workshop will then be edited and summarised as inputs for the next stage, or as final products for consideration of the decision makers.

#### **4. REPORTING REQUIREMENTS AND DELIVERABLES**

4.01 The Consultants shall make available all studies, reports, and data relevant to the completion of the exercise.

4.02 The Consultants will submit the following deliverables to CDB and WASCO:

- (a) **Inception Report** to be presented within 14 days of commencement of the consultancy. This report will confirm the Consultant's detailed work schedule and methodology.
- (b) **An Interim Report** to be submitted within 4 months of commencement of the assignment on completion of Task 1. The Report should include Updated Training Manual, presentations and tools for use in the Capacity development activities; the Report should also provide the proposed programme for Capacity Building and Training to be conducted for water sector personnel.
- (c) **Workshop Reports:** At the completion of each stage of the Capacity Development framework the Consultant will submit the following Reports:
  - (i) **Stage 1: Workshop Report:** this Report should be submitted two weeks after the workshop is completed and should include identification of the stakeholders participating in the consultation exercise, a summary of workshop activities and outcomes; an implementation plan and timeline for the completion of the capacity building activities, as well as identification of the broad priorities to be addressed.
  - (ii) **Stage 2: Workshop Report:** This Report should be submitted two weeks after the Stage 2 Workshop and provide a synopsis of activities carried out in phase 2 – a review of water sector institutional landscape, and the key policies, plans, legislation and regulation governing the sector. The Report should also identify and assess all foreseeable climate risks for the sector as part of the exercise, and actions for improving the Enabling Environment.
  - (iii) **Stage 3: Workshop Report:** This Report should be submitted two weeks after the workshop is completed and provide an Action plan with measures to increase climate resilience, as part of the training exercise. In addition, the Report should also include a Draft Investment Plan and financing strategy including how investments will be integrated within organisation's strategic plans and annual plans.
  - (iv) **Stage 4: Workshop Report:** Training activities in stage 4 should include finalizing an Investment Plan and financing strategy. The Report should include

a proposed Monitoring and Evaluation system which would be expected to trigger periodic reviews of actual performance against progress of the Investment Plan. These Reports should be circulated to workshop participants for their comments and feedback. Comments on these reports should be submitted within two weeks of receipt, and the Consultant will adjust the ongoing work, based on comments received.

- (d) **Draft Final Report** to be submitted 30 days after completion of services. This Report should include a preliminary assessment of the training activities undertaken and should be submitted for review and comments by WASCO and CDB.
- (e) **Final Report:** The Draft Final Report will be presented within four (4) weeks after receiving comments on the Draft Final Report from WASCO. It will include details on the results of the consultancy and make recommendations for further actions required to sustain initiative. The Consultant(s) will be required to submit four (4) hard copies and one (1) electronic copy (in MS Word) of each Report to WASCO, and the Caribbean Development Bank (CDB):

## **5. IMPLEMENTATION ARRANGEMENTS**

5.01 WASCO will appoint a Project Coordinator (PC). The PC will facilitate the work of the consultant(s) and make available all relevant studies, reports and data, relevant to completion of the exercise and will act as liaison between the Consultant(s) and WASCO.

## **6. QUALIFICATIONS AND EXPERIENCE**

6.01 The Consulting team should consist of persons having the appropriate professional and academic qualifications required to satisfy the full requirements of the terms of reference (TOR). All of the members of the Consulting Team must have excellent communication and interpersonal skills and must be fluent in English. The key experts required for the Consultant's Team and their minimum qualifications and experience are as follows:

- (a) **Key Expert No.1: Water Resources and Climate Change Adaptation Specialist -Team Leader:**

**Education:** Master's Degree or higher in Environmental Policy, Water Resources, Climate Change, or a related area.

**Experience:** Professional experience of at least 10 years. Expertise in adaptation and disaster risk reduction; familiarity with donor agencies and institutions involved in climate change.

- (b) **Key Expert No.2: Capacity Building, Knowledge Management and Communication Specialists:**

**Education:** Master's Degree or higher in Education, climate change, environment, natural resources, engineering, or a related area.

**Experience:** Extensive experience (at least 8 years), in capacity building, knowledge management, and development and implementation of communications strategies.



(c) **Key Expert No.3: Gender Mainstreaming Specialist:**

**Education:** Master's degree or higher in education, environment, or a related area.

**Experience:** At least 6 years of experience in mainstreaming cross cutting issues (e.g., environment, gender, and governance), with experience in implementing gender programs and will be knowledgeable about climate change impacts on women.

(d) **Key Expert No.4: Water and Climate Change Specialist**

**Education:** Master's degree or higher in Water Resources Management, Climate Change, Environmental policy, or a related area.

**Experience:** At least 6 years of experience with a sound knowledge of climate risk assessment and management, and have extensive experience in applying them in support of decision making, particularly in the context of water infrastructure investments.

(e) **Key Expert No.5: Climate Change Monitoring and Evaluation Specialist:**

**Education:** Master's degree in social science preferably in development planning, economics or management; Academic degree in Engineering would be an added advantage.

**Experience:** Knowledge and experience in designing M&E systems and conducting evaluations; • At least five (5) years of experience in monitoring and evaluation, results-based management.

**7. DURATION**

7.01 The Consultancy is to be implemented over a period of 14 months.

**DRAFT TERMS OF REFERENCE**

**PREPARATION OF A CLIMATE-RESILIENT WATER SUPPLY  
AND WASTEWATER MASTERPLAN**

**1. INTRODUCTION**

1.01 The Water and Sewerage Company Inc. (WASCO) was established in 1999, and is incorporated under the Companies Act, with responsibility for the provision of water supply and sewerage services. It is regulated in accordance with the provisions of the Water and Sewerage Act (2005). The state-owned company operates under a 25-year license for water and a 15-year license for sewerage. It is estimated that 80% of the population of Saint Lucia have direct water service connections from WASCO, with the balance depending mainly on public standpipes. The service coverage for sewerage is only about 15% in the North and negligible in the South.

1.02 WASCO employs approximately 400 staff divided over seven departments namely Information Technology, Finance and Accounts, Corporate Services, Customer Services, Human Resources, Southern Services, Strategic Planning and Operations (Wastewater Services, Water Services, Production, Treatment and Quality, Support Services and Design and Construction). The Production, Treatment and Quality Department is responsible for the production and treatment of potable water, whereas the Water Services Department is responsible for the distribution of potable water on the island. The Wastewater Services Department is responsible for the provision of sewer services in available regions. Southern services are responsible for the provision of both water and sewer services in the south of the island for customers from Dennery to Vieux Fort in the south and then as far as Canaries in the west.

1.03 Saint Lucia depends solely on surface water to meet to its water requirements. Spatial and temporal distribution of rainfall varies annually from 1,524 mm in the northwest and south-east, to more than 3,048 mm in the mountainous interior. The island's freshwater needs are supplied via an integrated network of river intakes, treatment plants, transmission pipelines and distribution systems, under the operation and control of WASCO.

1.04 The island is divided into thirty-seven watersheds, of which those at Marquis, Dennery, Roseau/Millet, Soufriere, Woodlands/Grace, Troumassee, Desruisseaux/ Canelles and Patience/Fond, are classified as major sources of surface water. Roseau/Millet and Vieux Fort watersheds are important due to the fact that water to the majority of the population is supplied from these watersheds. In 1995, a new water supply system was developed to serve the northern half of the island. This system is supplied from the John Compton Dam and Millet Reservoir, with a total capacity of 3.182 million (M) cubic meters. Water production is approximately 18.9 M cubic metres per year; however, according to the Saint Lucia Sectoral Adaptation Plan for Water (Water SASAP), this figure is actually closer to 16.55 M cubic metres per year, due to water losses in the distribution system. WASCO has also made several capital investments to improve water supply through the Sixth Water (Vieux Fort), Seventh Water (John Compton Dam) and Eighth Water (Dennery) Projects. Dry season water production island-wide is estimated to be at least 25% less than during the wet season by at least 3.182 M cubic metres Significant investments are being made to improve the raw water transmission and treatment facilities between the Dam and the consumer bases in the north.

1.05 Water demand continues to change rapidly in certain regions due to high infrastructural development and migration of people to more densely populated regions. Water use for farm irrigation, and household water use for cooking, has made the domestic sector the largest consumer of water in Saint Lucia; accounting for 57% of all water used. The hotel sector consumes 17% of the water, the commercial sector, 13% and the Government (buildings and staff) consumes 12%. Saint Lucia is vulnerable to the

effects of climate change (CC), including rising sea levels and storm surges, increased variability in annual rainfall and increasing numbers of tropical storms and hurricanes. In addition, issues such as erosion and landslides cause serious damage to WASCO's infrastructure. Apart from the impact of increased demand, Saint Lucia's public water supply has in recent years been severely impacted by degradation of upper watersheds, increasing exploitation of the rivers and wetlands, and an inefficient and aging water distribution network. Low river base flows experienced during the dry season and high turbidity during the rainy months, combine to significantly constrain the ability of WASCO to meet the current demand for water island wide.

1.06 A strategic direction for investments in infrastructure and related systems and operations of WASCO is required to efficiently meet the demand for water and wastewater services for Saint Lucia in the short, medium and long term, in consistency with the outcomes and strategic objectives of the Water Sectoral Adaptation Strategy and Action Plan (Water ASAP 2018-2028). A master plan for water and wastewater is therefore needed to guide future policy, standards and investments in the sector. The Master plan should include a thorough assessment of the vulnerability of WASCO's infrastructure to CC and include proposals for projects and measures to enhance resilience of these assets.

## **2. OBJECTIVE**

2.01 The proposed services will support the preparation of Climate-Resilient Water Supply and Wastewater Master Plan for Saint Lucia, covering a 20-year period. This plan is crucial to ensuring water security for the growing population of Saint Lucia and contributing to sustainable economic development. The technical assistance (TA) will produce two main outputs (i) a climate-resilient master plan for water supply and wastewater for Saint Lucia; and (ii) a prioritised and costed list of medium and long-term investment programs and projects.

## **3. SCOPE OF SERVICES**

3.01 All the services of the Consultant should be carried out in close cooperation with WASCO. The Consultant will be required to conduct an assessment of the existing water supply and sewerage systems, identify actions to be taken to improve resiliency, and to prepare short, medium and long-term investment plans to enable WASCO to support economic growth and development in Saint Lucia for the next 20 years. Socially inclusive consultation workshops with representatives of relevant government agencies, non-government organisations and other concerned stakeholders, including women and other vulnerable groups, shall be conducted by the consulting firm to obtain stakeholder views, comments, and other inputs for the formulation of the Master Plan.

3.02 The main tasks of the Consultants should include, but not be limited to:

- (a) Stakeholder consultation and communications plan - develop a detailed stakeholder consultation and communications plan to guide implementation of the consultation process. The details of this plan will be developed in consultation with WASCO. The stakeholder consultation process is intended to promote effective communication between government agencies responsible for water resources management and supply; watershed management; planning and development; agriculture and forestry and other identified stakeholders, including residents, women and other vulnerable groups, to solicit input from stakeholders at key stages of the process and provide residents and stakeholders with an opportunity to understand the issues in the sector. The Plan should prioritise the collection of disaggregated data to represent the input from stakeholders.
- (b) Assessment of the current water supply and sewerage system - during the initial phase of

the assignment, the Consultant should collect, review and assess existing studies and relevant data and information, including legal and regulatory information related to water resources management and water supply and sanitation in Saint Lucia, existing water quality data and reports on CC risks related to Saint Lucia.

- (c) The Consultant should review the current status, design and performance of the water distribution and transmission system(s), production facilities, and water treatment plants, and the physical condition and performance of current wastewater collection treatment and discharge facilities operated by WASCO. This will include, but not be limited to the following activities:
- (i) Collection of all required data on the existing water production and supply facilities such as water intakes, raw water transmission lines, water treatment facilities, potable water transport systems, reservoirs, main water distribution networks and secondary and tertiary networks, wastewater treatment plants and collection systems.
  - (ii) Review of existing data and information on past water production and consumption, and wastewater generation in current and potential future supply areas.
  - (iii) Analysis of the current performance and operational and maintenance problems and deficiencies in the system.
  - (iv) Assess current and forecast non-revenue water trends as supply and demand change across the planning cycle.
  - (v) Inventory and assessment of the performance of current wastewater treatment plants and collection system including, technical and operational design criteria, treatment processes in place, water quality monitoring facilities and practices.
  - (vi) Preparation of schematic map of both existing water supply and sewerage systems in GIS-compatible format.
- (d) Assessment of water resources - The Consultant should assess the current and future availability of water resources suitable for water supply and consider the impact of climate projections for Saint Lucia on freshwater availability. This activity will include, but not be limited to the following:
- (i) Review existing studies and data on the availability of surface water resources in Saint Lucia, including dams, rivers and springs and assess the long-term capacity to provide a sustainable volume of water for water supply under current and future, climate conditions.
  - (ii) Review existing studies and data regarding the availability of groundwater in Saint Lucia and carry out further geological investigations in areas with high potential, to assess the feasibility of using groundwater as a source for water supply. If positive, prepare a Terms of Reference (including cost estimates) for carrying out test drilling in defined areas, to confirm the availability, volumes and quality of groundwater that could be used for water supply in Saint Lucia.

- (iii) Assess alternative water sources including availability and use of rainwater, stormwater and the re-use of wastewater, and the feasibility of desalination as a potential source of water.
  - (iv) Review the legal and regulatory framework for water resource management and water management practices in Saint Lucia and identify potential future constraints and risks for the water supply and wastewater sector.
  - (v) Prepare recommendations relating to the future availability and use of water resources for the water supply sector in Saint Lucia.
- (e) Forecast of the demand for water supply and wastewater collection and treatment - based on existing data and assessments, the Consultant should collect and analyse all relevant socio-economic data as necessary for the master plan study. The preparation of the demand forecast will include, but not be limited, to the following activities:
- (i) Assessment of population projections for Saint Lucia and for the individual districts on the island. Analyse and identify regions in line with potential future water supply.
  - (ii) Review future economic development plans and assess growth prospects for key sectors, such as tourism, industry, and agriculture.
  - (iii) Implement socially inclusive customer satisfaction surveys among a representative sample of the population of Saint Lucia regarding water supply and wastewater services, with considerations for differential needs of women and men, and other vulnerable groups, and assess willingness and ability to pay for better service levels.
  - (iv) Assess current consumption levels for domestic, commercial, institutional, industrial and other relevant groups of customers, including cruise ships and hotels in order to prepare water demand and wastewater flows forecasts.
  - (v) Estimate the future demand for water and wastewater flows for the different customer groups for the different regions, taking into account the potential effects of water demand management measures.
  - (vi) Assess current and future peak factors for the various supply zones.
  - (vii) Develop water demand projections for Saint Lucia for the period of the Masterplan and subdivide demand among the different regions. Assess and present different scenarios for high/medium and low growth.
- (f) Selection of the preferred scenarios and option(s) - based on the work done in the previous sections, the required service levels and standards, and taking into account the impact of CC on WASCO's infrastructure, the Consultant should develop alternative (combinations of) options for meeting the future demand for water supply and wastewater services in Saint Lucia. This may include a combination of rehabilitation of existing assets to optimise current operations and performance, an aggressive non-revenue water (NRW) reduction strategy and/or the development of new infrastructure, as well as a range of complementary measures. The Consultant should, in close consultation with WASCO, develop two to

three alternative scenarios for Water Supply and Wastewater. The criteria for evaluating the preferred option should include least cost analyses, as well as expected hydraulic performance, ease of operation, and sustainability.

- (g) Prepare Preliminary designs and costs for the identified option. Based on the identified evaluation criteria, the consultants should recommend the preferred options to WASCO for approval.
- (h) Defining the preferred scenarios and option(s) - Once WASCO has approved the Preferred Option(s), the Consultant should prepare the following:
  - (i) Conceptual design of the preferred (combination of) options for both water supply and wastewater collection and treatment.
  - (ii) A hydraulic analysis under various system conditions for the main water supply system(s).
  - (iii) Investment costs estimates and the cost of operation and maintenance.
  - (iv) Preparation of maps (of appropriate scale) showing:
    - (aa) The general layout of the transmission and distribution systems in the current and future growth scenario, including rehabilitation and extension, with details of all basic elements of the revised system for the proposed target years.
    - (bb) The proposed zoning of distribution networks and the location and size of the proposed structures (reservoirs, pumping stations).
    - (cc) Investment packages for both water supply and wastewater infrastructure, comprising a logical sequence of physical investment packages, including the costs of related design, supervision and other consultancy costs.
- (i) Other activities - After selecting the preferred scenarios for water supply and for wastewater investments, Consultants will carry out the following complementary studies. Each study should result in a separate report.
  - (i) Review and assess WASCO's ongoing Non-Revenue Reduction Programme and similar programmes aimed at achieving improved efficiencies and prepare recommendations for (a) reducing non-revenue water; (b) improving energy efficiency; and (c) introducing water saving technology.
  - (ii) Conduct a strategic environmental and social impact assessment (ESIA) for the masterplan based on the proposed investments and complementary measures. The assessment should take account of the legal requirements for environmental assessment in Saint Lucia.
  - (iii) Review and assess WASCO's current and future financial costs, revenues, and financial performance. Analyse the effects of the proposed scenarios in the Masterplan for water and wastewater on WASCO's projected financial performance and make recommendations for:

- (aa) Current and future tariff regimes for WASCO aimed at achieving full cost recovery.
- (bb) Identification of potential sources of finance to fund the proposed master plan investments.
  
- (iv) Review current institutional setting and organisational capacity of WASCO and related institutions and make recommendations for institutional reforms, best practice approaches and proactive asset management needed for the efficient and effective management of water supply and sanitation in Saint Lucia, including capacity building requirements.
  
- (v) The Consultants should prepare a short report which will define the future service levels and standards to be used in the development of the Masterplan. This Report on Service Levels and Standards for the Master plan will be presented to WASCO for approval.
  
- (vi) Develop a monitoring and evaluation system and define key performance indicators and targets for water supply and sanitation in Saint Lucia and propose a system for monitoring these indicators.
  
- (j) Preparation of an investment schedule - based on the physical investment packages proposed for the preferred option and the results of the activities completed in (g). The Consultant should formulate a prioritised list of investment packages and measures. In arriving at this investment package, the following activities should be carried out:
  - (i) Formulate and obtain approval from WASCO on a set of criteria to prioritise the proposed investments and measures.
  - (ii) Prepare a prioritised list of investments divided into short, medium and long-term investments.
  - (iii) Prepare investment plan for the 20-year period.

#### **4. REPORTING REQUIREMENTS AND DELIVERABLES**

4.01 The Consultant(s) should submit the following reports:

- (a) Inception Report to be submitted within six weeks of the start of the study, including:
  - (i) An analysis and review of the available data.
  - (ii) An updated approach and workplan based on the analysis of the available data.
  - (iii) A detailed workplan for the implementation of the TA.
  
- (b) An Interim Report to be submitted within 4 months of the start of the project, including:
  - (i) The inventory and assessment of current water supply and wastewater infrastructure.

- (ii) The proposed options and scenarios for future water supply and wastewater investments.
- (iii) The proposed preferred option.
- (c) A Draft Master Plan. The Consultant will summarise the findings of all the sub reports prepared above into one report called Masterplan for Water Supply and Wastewater Management in Saint Lucia. The Report will describe the objectives and methodology applied in the Masterplan and present the preferred options, and the resulting Investment Schedule. The document will be submitted to WASCO and CDB for comments.
- (d) A Final Master Plan for Water Supply and Wastewater Management in Saint Lucia will be submitted within 10 months of the start of the project. The Consultant shall allow four weeks for comments and approval by WASCO. All reports will be provided in digital format/softcopies (MS Word and pdf-format, MS Excel, drawings in AutoCAD and pdf-format, map in GIS, Water CAD files (open and editable formats)).

## **5. IMPLEMENTATION ARRANGEMENTS**

5.01 The master plan study will be managed by the Strategic Planning Department of WASCO. WASCO will appoint a Project Coordinator (PC), who will be the focal point for the Consultant. The PC will facilitate the work of the Consultant and make available all relevant studies, reports and data, relevant to completion of the exercise and will act as liaison between the Consultant(s) and WASCO.

## **6. QUALIFICATIONS AND EXPERIENCE**

6.01 The consulting team should consist of persons having the appropriate professional and academic qualifications required to satisfy the full requirements of the terms of reference (TOR). All of the members of the consulting team must have excellent communication and interpersonal skills and must be fluent in English. The Consultant should feel free to add experts, as necessary and appropriate to accomplish the task based on professional judgement. The key experts required for the Consultant's team and their minimum qualifications and experience are as follows:

- (a) **Key Expert No.1: Water Resources and Climate Change Adaptation Specialist -Team Leader:**
  - (i) Education: Master's Degree or higher in civil or water resource engineering with specialisation in environmental Management, CC, or a related area.
  - (ii) Experience: At least 7 years of relevant experience in the areas directly related to project management, CC adaptation and mitigation, and experience in conducting CC vulnerability and impact assessments.
- (b) **Key Expert No.2: Water and Climate Change Specialist**
  - (i) Education: a Master's Degree in a relevant field, including atmospheric science, engineering with concentration on climate related issues
  - (ii) Experience: At least seven years' work experience in the area of CC impacts adaptation and mitigation. Experience with Climate Vulnerability



Assessments/Climate Risk Vulnerability Assessments (CVA/CRVA) procedures is a requirement. He/she should demonstrate experience identifying the CC parameters to be assessed; identifying the probabilities of specific climate change occurrences; conducting field investigations with local stakeholders to identify existing vulnerabilities; and the identification of adaptation options, including their costs and benefits and prioritisation.

(c) **Key Expert No.3: Capacity Building, Knowledge Management and Communication Specialist:**

- (i) Education: Master's Degree in Education, CC, Environment, Natural Resources, Engineering, or a related area.
- (ii) Experience: The Consultants should have extensive experience in capacity building, knowledge management, and development and implementation of communications strategies.

(d) **Key Expert No.4: Water Supply and Sanitation Specialist:**

- (i) Education: Degree in Engineering, Urban Planning, with a Master of Science Degree in Water Supply and Sanitation or related areas.
- (ii) Experience: At least 15 years of work experience in the appraisal and design of urban water supply and sanitation systems and utility performance management. Specific experience in NRW management, the analysis and optimisation of water supply network systems, pumping stations, reservoir capacity, would be ideal.

(e) **Key Expert No.5: Climate Change and Hydrology Specialist:**

- (i) Education: An advanced degree in hydrology, hydrological engineering, climate science, or a closely related discipline.
- (ii) Experience: At least 7 years of experience encompassing hydrological modeling, civil engineering, infrastructure design, and CC assessment and risk management.

(f) **Key Expert No. 6: Economist/Financial Management Specialist:**

- (i) Education: Economist, Engineer with a Master's Degree in Economics or MBA.
- (ii) Experience: At least 7 years' work experience in economic and financial analysis, financial model formulation and financial projections.

(g) **Key Expert No. 7: Social and Gender Specialist:**

- (i) Education: A Master's Degree in Social Sciences, Gender and Development Studies or related discipline.
- (ii) Experience: The Consultant should have 10 years' experience in development projects using participatory qualitative and quantitative research methods in accordance with the policy, guidelines and requirements of major International

Financial Institutions. Experience with infrastructure, and/or climate resilient projects will be distinct assets.

(h) **Key Expert No 8: Environmental Management Specialist**

- (i) Education: Civil or Environmental Engineering or equivalent, preferably with a Master's Degree in Environmental Science.
- (ii) Experience: At least 7 years' work experience in the area of environmental assessment and in the preparation of environmental management plans. Experience with ESIA/EIS procedures will be a requirement.

**7. DURATION**

7.01 The Consultancy is to be implemented over a period of 12 months.



**PROCUREMENT PLAN**

**I. General**

**1. Project Information:**

Country: Saint Lucia

Borrower: Water and Sewerage Company Inc. (WASCO)

Project Name: Capacity Development for the Water and Sewerage Company Inc. – Saint Lucia for Integrating Climate Resilience into Policies, Planning and Development of Investment Programme

Project Implementing Agency (PIA): WASCO

**2. Bank’s Approval Date of the Procurement Plan:** TBA

**3. Period Covered by This Procurement Plan:** December 2023 – December 2024

**II. Consulting Services**

**1. Prior Review Threshold:** Procurement decision subject to Prior Review by the Bank as stated in the Procurement Procedures:

	<b>Selection Method</b>	<b>Prior Review Threshold</b>	<b>Comments</b>
1.	Firms: Direct Selection	■	-

**2. Reference to (if any) Project Operational/Procurement Manual:** Procurement Policy for Projects Financed by CDB (November 2019) and Procurement Procedures for Projects Financed by CDB (January 2021).

**3. Any Other Special Procurement Arrangements:** To comply with the requirements of the CARE Finance Agreement the following is required:

- (a) Financing shall be provided under CARE and thus eligibility shall be extended to countries which are eligible for procurement under EU-Funded projects, which are not CDB member countries, in accordance with the [EU Eligibility Rules](#).

**4. Procurement Packages with Selection Methods and Time Schedule**

1	2	3	4	5	6	7
Ref No.	Assignment (Description)	Estimated Cost (USD)	Selection Method	Review by Bank (Prior/Post)	Expected Proposal Submission Date	Comments
1.	Capacity Building for the Integration of Climate Change into WASCO Operations	■	Direct Selection	Prior	January 2024	HR Wallingford successfully provided consultancy services to create guidance materials and tools for enhancing climate resilience in the Caribbean water sector. This project was funded by CDB as part of the 10 <sup>th</sup> European Development Fund African Caribbean Pacific-European Union-CDB Natural Disaster Risk Management (ACP-EU-CDB NDRM) in CARIFORUM Countries programme. HR Wallingford was selected for this task through a competitive process. In 2022, HR Wallingford also updated WASCO's Climate Risk and Vulnerability Assessment and Adaptation Plan of Action, originally developed in 2018, with financing provided by CDB under the 7 <sup>th</sup> Water (John Compton Dam Rehabilitation) Project. Given their previous work under related CDB-funded projects, as well as their experience and qualifications, HR Wallingford will be procured under the direct selection method for this consultancy.
2.	Integrated Water Supply and Wastewater Masterplan	■	Direct Selection	Prior	January 2024	See above comment.

**III. Executing Agency Procurement Capacity Building Activities with Time Schedule**

In this section the agreed Procurement Capacity Building Activities are listed with time schedule.

No .	Expected Outcome/ Activity Description	Estimated Cost	Estimated Duration (days)	Start Date	Comments
1.	Project launch workshop (virtual or in-person) with CDB and Implementing Agency to increase the capacity of Implementing Agency to follow CDB’s procurement procedures	0	2	Q1 2024	
2	Increased capacity of Implementing Agency to undertake procurement in accordance with CDB’s Procurement Procedures through CDB’s Online Procurement Training.	0	5	Q1 2024	2 persons from WASCO passed CDB’s eLearning Course 1.

**IV Summary of Proposed Procurement Arrangement**

	CDB (USD)				NBF (USD)		
	Primary	Secondary			Country	Institution	Total Cost
	DS	LB	NCB	RB			
1. Improving Institutional Capacities to Assess Climate Risks and Plan for Climate Resilience with the Water Sector in St. Lucia							
2. Preparation of Climate-Resilient Water Supply and Wastewater Masterplan							
<b>Sub total</b>							
3. Contingency (15%)							
4. Finance Charges							
<b>Total Project Costs</b>							

ICB	International Competitive Bidding	QBS	Quality Based Selection
NCB	National Competitive Bidding	QCBS	Quality and Cost-Based Selection
DS	Direct Selection	FBS	Fixed Budget Selection
LB	Limited Bidding	LCS	Least Cost Selection
RB	Regional Bidding	CQS	Consultants Qualifications Selection
FA	Force Account	ICS	Individual Consultant Selection
NBF	Non-Bank Financing		

This information is withheld in accordance with one or more of the exceptions to disclosure under the Bank’s Information Disclosure Policy.