

CSRI INITIATIVE

Roadmap for engaging the
private sector for climate
resilient water security in SIDS

HEAT



Implemented by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

This document was developed by

Stefanie I. Korswagen; Alexandre F.
Borde; M. Umer Sarfaraz; Irene Papst
HEAT GmbH
Habitat, Energy Application &
Technology
Seilerbahnweg 14
61462 Königstein /Ts.
Germany

The logo for HEAT, consisting of the word "HEAT" in a bold, green, sans-serif font.

in collaboration with

Lena Dovidat
the greenwerk.
climate advisory network
Große Theaterstraße 14
20354 Hamburg
Germany



Leena Wokeck
FutureWays
88 Thirteenth Street
M8V 3H6, Toronto, ON
Canada

The logo for FutureWays, with the word "Future" in a teal color and "Ways" in a light blue color, both in a sans-serif font.

CONTENTS

01	Introduction	6
02	Climate change and water security in SIDS	8
	2.1 Climate change impacts on water security in SIDS	8
	2.2 Priority resilience measures for water security in SIDS	10
03	Private sector engagement for climate resilient water security in SIDS	11
	3.1 Benefits of engaging the private sector for climate resilient water security	11
	3.2 Mapping key stakeholders	12
	3.2.1 Private sector	12
	3.2.2 Broader stakeholder ecosystem	14
04	Barriers and solutions for private sector engagement security in SIDS	16
	4.1 Policy and regulatory environment	16
	4.2 Water management and economic valuation	18
	4.3 Financial instruments and access to finance	19
	4.4 Capacity Development	21
05	Recommendations for the CSRI Initiative to facilitate private sector engagement	22
06	References	30

List of figures

Figure 1	Types of private sector engagement, of partnership and collaboration models
Figure 2	Overview of the Climate Resilient Water Security Programme design
Figure 3	Steps to engage the private sector and develop country pilot projects on climate resilient water security

List of tables

Table 1	Challenges related to climate resilient water security faced by SIDS grouped per region
Table 2	Key private sector stakeholders for climate resilient water security per sector
Table 3	Steps to integrate private sector in the CSRI Climate Resilient Water Security Programme, focussing on country pilot projects.

List of abbreviations

CAFF	Climate Action Financial Facility
CARICOM	Caribbean Community
CBA	Cost-benefit analysis
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CDEMA	Caribbean Disaster Emergency Management Agency
CIS	Climate Information Services
CSR	Corporate Social Responsibility
CSRI	Climate Smart Resilient Islands Initiative
CWA	Central Water Authority of Mauritius
DAE	Direct Access Accredited Entities
DINEPA	National Directorate for Water Supply and Sanitation of Haiti
EbM	Ecosystem-based management
ECSE	Eastern Caribbean Securities Exchange
ENSO	El Niño Southern Oscillation
ESG	Environmental and Social Safeguards and Gender
FACE	Finance for Acting on Climate in the Eastern Caribbean
GCF	Green Climate Fund
GCPF	Global Climate Partnership Fund
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
IDB	Inter-American Development Bank
IIT	Infrastructure Investment Trusts
IPCC	Intergovernmental Panel on Climate Change
IWRM	Integrated Water Resources Management
MSME	Micro, Small and Medium Enterprises
MofMA	Ministry of Fisheries, Marine Resources and Agriculture of the Maldives
MWSC	Maldives Water and Sewerage Company of the Maldives
NAP	National Adaptation Plan

NAWASA	National Water and Sewerage Authority of Grenada
NDA	National Designated Authority
NDCs	Nationally Determined Contributions
PCRIC	Pacific Catastrophe Risk Insurance Company
PEWA	Palau Energy & Water Administration
PfR	Partnering for Readiness project
PIC	Pacific Island Countries
PPP	Public-private Partnership
PPUC	Palau Public Utilities Corporation of Palau
PSDI	Pacific Private Sector Development Initiative
PSF	Private Sector Facility
R&D	Research and Development
SDG	Sustainable Development Goals
SIDS	Small Island Developing States
SME	Small and medium enterprises
SOE	State-owned Enterprises
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
TNA	Technical Needs Assessment
TVET	Technical and Vocational Education and Training
UNFCCC	United Nations Framework Convention on Climate Change
WASCO	Water and Sewerage Company Inc of Saint Lucia

01 INTRODUCTION

The Climate Smart Resilient Islands (CSRI) Initiative aims to provide a holistic approach for small island developing states (SIDS) to address climate change in the context of sustainable development. This is to be achieved by unlocking the great potential of mutual learning on an inter-regional scale and mobilizing climate finance for the implementation of SIDS projects across 11 action areas.¹ The CSRI Initiative was launched by the Republic of the Maldives at the United Nations Climate Action Summit in 2019 and supported by 27 SIDS in the Pacific, Caribbean, Atlantic, Indian Ocean, South China Seas, and international partner agencies.

Water security is one of the action areas of the CSRI Initiative. The Initiative developed its flagship **Climate Resilient Water Security Programme** in a consultation process with SIDS, regional Direct Access Entities (DAEs) and Green Climate Fund (GCF) representatives, under GCF readiness and preparatory support.² It is a global and SIDS-driven approach working towards the goal of achieving climate-resilient and water-secure island nations. It seeks to deliver a paradigm shift for SIDS, through a phased approach, to deliver solutions in the areas of freshwater management and wastewater management that are tailored to the island-specific context and improve water security and climate change preparedness. A crucial aspect in achieving the programme's mission is to engage in global and inter-regional knowledge exchange as well as to bring the private sector on board.

This roadmap identifies opportunities and priorities for private sector engagement in the design and implementation of solutions for climate resilient water security, including the CSRI Climate Resilient Water Security Programme. Recognizing the high vulnerability of SIDS to climate change that can only partly be addressed by the public sector, this roadmap presents solutions the private sector can offer in the context of climate resilient water security. The private sector, although heterogeneous across SIDS, is essential in providing and mobilizing funding, accelerating innovation, implementing climate solutions that range from infrastructural to social and/or financial interventions, and building bridges with other stakeholders, such as the government and civil society. The opportunities for private sector engagement presented in this roadmap are based on countries' priorities, focusing on countries which took part in the development of the CSRI Climate Resilient Water Security Programme³, as identified in their Technical Needs Assessments (TNAs) and Nationally Determined Contributions (NDCs) as well as stakeholder input collected in the consultation process.

Furthermore, this roadmap assesses barriers preventing private sector action for climate resilient water security and identifies key actions for the public sector to create an environment that enables the private sector to implement water security solutions. While the private sector offers potential solutions to address issues around water security and thereby fill the gaps of what the public sector can do, barriers for realizing these solutions persists in many SIDS. These barriers relate to the fiscal and regulatory policy environment, finance, capacity and information, technology and innovation. This roadmap presents approaches for public sector action to remove these barriers. It is addressed to the

¹ Environmental protected areas, Climate services, Inter-island connectivity, Food security, Green tourism, Integrated waste management, Climate-proof infrastructure, Self-sustaining, sustainable and smart energy systems, Waters security, Smart health facilities, Gender equality and inter-generational partnership.

² Stakeholder panel: Cabo Verde, Caribbean Development Bank, Dominica, Fiji, GCF, Grenada, Haiti, Kiribati, Maldives, Mauritius, Micronesia Conservation Trust, Palau, Saint Lucia, Secretariat of the Pacific Community (SPC), Secretariat of the Pacific Regional Environment Programme (SPREP), Tuvalu, Vanuatu.

³ As above.

CSRI Initiative, as well as the National Designated Authorities (NDAs) of its member countries, to move forward climate action by involving the private sector as a crucial ally.

Following the introduction, **chapter 2** introduces the main climate-related challenges in water security as well as benefits of engaging the private sector for addressing these challenges.

Chapter 3 details the barriers that currently impede private sector implementation of solutions for enhanced climate resilience of water security and explores options to overcome these barriers and to successfully engage the private sector and catalyse investment. Finally, **chapter 4** provides practical recommendations for engaging the private sector for the implementation of water security solutions.

02 CLIMATE CHANGE AND WATER SECURITY IN SIDS

This chapter presents key challenges that SIDS face related to climate change impacts on water security and priority resilience measures to address those impacts.

2.1 Climate change impacts on water security in SIDS

SIDS across the world share common geographic characteristics that result in their very high vulnerability to climate change impacts. SIDS are small states that often consist of multiple small islands, which can be spread across vast ocean regions. Long distances and remote locations can create logistical challenges that exacerbate SIDS' vulnerability to the impacts of climate change and the hurdles they face in accessing international climate finance and technical assistance.

Due to this context, climate change impacts can disproportionately affect the economies of SIDS, livelihoods, and ecosystems, exacerbating existing social and economic inequalities.

Climate change impacts of increasing frequency and intensity of extreme weather events, alongside sea level rise, **pose significant challenges to water management systems in SIDS and threaten water security.** Changes in air and water temperatures, coupled with more frequent storms and flooding, strain infrastructure and lead to disruptions in services. Moreover, increased temperatures, together with accelerating urbanization and unsustainable practices, induce higher consumption levels of water, exacerbating the strain on resources. The interdependencies between water and energy systems compound the challenges, as electricity is essential for water extraction and delivery, while water is integral to power generation and cooling processes. The table below illustrates SIDS' main challenges related to water security in the context of climate change as reported in their TNAs.⁴

¹ UNFCCC: Fourth synthesis of technology needs identified by Parties not included in Annex I to the Convention. Fifty-second session of the Subsidiary Body for Implementation, 4–12 October 2020 (FCCC/SBI/2020/INF.1).

Table 1 Challenges related to climate resilient water security faced by SIDS grouped per region

Region/Challenges	Asia-Pacific ¹	Indian Ocean ²	The Caribbean ³	The Atlantic Ocean ⁴
Limited water resources	Dependence on rainfall and thin freshwater lenses that are susceptible to pollution and over-extraction.	Small land area limits natural freshwater sources, leading to reliance on desalination and rainwater harvesting.	Scarce freshwater resources due to small land area and over-reliance on rainfall.	- Small landmass limits the availability of freshwater sources. - High reliance on rainwater (rainwater harvesting), making them vulnerable to climate variability. - Reliance on water imports.
Impact of climate change on rainfall and drought	Changes in rainfall patterns affecting water availability.	Freshwater resources are heavily dependent on rainfall and drought.	Rising temperatures and changing rainfall patterns affect water availability and quality, especially during droughts.	Irregular rainfall patterns and frequent droughts stress water supplies, especially during dry periods.
Extreme weather events such as cyclones and storm surges	Frequent cyclones damage infrastructure, affect water supply and contaminate freshwater resources.	Impact mostly via monsoon regime.	Hurricanes and storms exacerbate water scarcity and damage water infrastructure.	
Sea Level Rise and saline intrusion	- Very high risk due to small landmasses. - Threatens freshwater resources through saltwater intrusion into aquifers.	Pose a risk to freshwater resources through saltwater intrusion.	Rising sea levels and over-extraction of groundwater lead to saltwater intrusion, affecting freshwater quality.	High risk due to small landmasses.
Sanitation and water infrastructure	Challenges in providing access to clean water in rural areas and limited access to improved sanitation facilities affects water quality	Aging water infrastructure leads to water losses and inefficiencies in water supply.	- Aging infrastructure, high leakage rates, insufficient investment in water systems; inefficient water management and distribution systems. - Deficiencies on water and sanitation infrastructure lead to waterborne diseases. - Industrial and agricultural runoff pollute water bodies and affect their quality.	Aging water infrastructure leads to water losses and inefficiencies in water supply.
Urbanization, land use change and environmental degradation	High population density and urbanization strain water supply systems and increase pollution.	High population density and urbanization strain water supply systems and increase pollution.	Significant deforestation has led to soil erosion, reducing water quality and availability.	Land degradation and deforestation affect water catchment areas.

Source: Own elaboration based on TNAs.

¹Asia-Pacific: Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.

²Indian Ocean: Maldives, Mauritius.

³The Caribbean: Antigua and Barbuda, Barbados, Bahamas, Dominica, Grenada, St. Kitts and Nevis, St. Vincent and the Grenadines, St. Lucia, Trinidad and Tobago.

⁴The Atlantic Ocean: Cabo Verde, Comoros, Guinea-Bissau, São Tomé and Príncipe, Seychelles.

2.2 Priority resilience measures for water security in SIDS

Measures for enhancing the climate resilience of water systems in SIDS need to address these climate- and resource-related challenges to build societies and economies that use their water and land resources efficiently, adapt to climate impacts and extreme weather events, protect vulnerable people and ecosystems, and invest in building and improving their human, technical and institutional capacities.

Some examples of measures and actions that are part of and help to describe the climate resilient water security approach comprise:

+ Addressing physical vulnerability to sea level rise and extreme weather events, for example by protecting coastal zones (i.e. establishing nature parks and reserves), planting mangroves to protect the shores from storms, or relocating vulnerable infrastructure and communities. Disaster risk reduction policies, climate-resilient building codes, and public-private partnerships (PPPs) to enhance construction practices are also essential in this regard.

+ Addressing social vulnerability in urban, rural and marginalized communities, by investing in health and education, as well as to maintain local livelihoods and economic activities. Fiji, for example, places an emphasis on the social aspect of water, by prioritizing climate-resilient human settlements and strengthening the resilience of the agriculture sector, which is essential for people's livelihoods.⁵ Haiti is making progress by focussing on drinking water and sanitation, and by recognizing the link between water, sanitation, poverty and adaptation to climate change.

+ Implementing and enhancing Integrated water resource management (IWRM) systems, which require an integrative view of the water sector, including water use, supply and demand, and understanding the connections with water uses for energy, agriculture, sanitation and other uses. IWRM also advocates for the establishment of monitoring and evaluation systems to keep track of water resources. For instance, Palau and the Maldives place a strong emphasis on IWRM systems, with the Maldives already implementing stormwater management in infrastructure or building projects.⁶ Saint Lucia, in addition, applies a watershed management approach.

+ Enhancing resource and energy efficiency of industries, especially in the water sector, for example in wastewater treatment facilities or desalination plants, but also in agribusiness or in the tourism industry.

+ Enhance adaptation to climate impacts related to water and extreme weather events, mainly by investing in alternative water sources (rainwater harvesting, desalination), maximizing efficiency in water use (in housing and urban areas through efficient sewage and wastewater technology, efficient cooling systems, but also in agriculture and other industries), preparing for droughts (water storage capacity and drought-resistant crops), establishing early warning systems, among other measures.

⁵ Based on countries input to the consultations sessions, their NDC and NCs.

⁶ Government of Maldives (2020). *Update of the Nationally Determined Contribution of Maldives*. page 15.

03 PRIVATE SECTOR ENGAGEMENT FOR CLIMATE RESILIENT WATER SECURITY IN SIDS

This chapter first presents the benefits of engaging the private sector for climate resilient water security in SIDS and then provides a mapping of stakeholders that are relevant in the context of private sector engagement.

3.1 Benefits of engaging the private sector for climate resilient water security

Although the private sector in SIDS faces unique vulnerabilities, needs and gaps in engaging with these initiatives (for more information on this, refer to chapter 3), it brings **indispensable resources, innovation, technological solutions and expertise** that can significantly contribute to enhance SIDS' adaptive capacity and water security.⁷

The private sector is crucial to **promoting climate innovation and accelerating adaptation solutions for climate resilient water security in SIDS**, which range from interventions in water supply, wastewater treatment, agribusiness, tourism, energy, buildings and infrastructure. Specific applications include the transition from reactive to proactive management of water resources; the enhancement of early warning services and preventive risk measures; ecosystem-based adaptation and nature-based approaches to guarantee coastal protection, water security and well-being; the development of resilient infrastructure and low-carbon building materials; and the implementation of water-efficient technologies.⁸ When a political and economic framework and clear sustainability guidelines are provided, private investments can significantly help to enhance community resilience by promoting water-efficient agriculture, integrated water resource management, and resilient water supply and sanitation services.⁹

Engaging in climate-resilient water security initiatives also **offers substantial benefits for the private sector itself**. This includes climate-proofing their investments and assets, ensuring long-term business sustainability. Adopting sustainable practices and business models like climate-smart agriculture opens new market opportunities.¹⁰ Businesses can proactively lead and plan climate-related risk management, including mitigation, response and recovery, in topics such as water scarcity, floods and droughts. This proactive risk management protects business operations and investments, prevents loss from extreme events and enhances resilience. Involving the insurance and reinsurance

⁷ GCF, 2022a.

⁸ GCF, 2022a.

⁹ GCF, 2022a.

¹⁰ GCF, 2022a.

sector can bring in essential players to enhance climate change resilience of water security and other sectors beyond water. While proactive and early action is profitable for businesses themselves, success stories can also motivate other stakeholders to follow and implement solutions for enhanced climate resilience of water security to reap the long-term benefits.¹¹

¹¹ UNDP. *Rising up for SIDS*. Online publication. <https://express.adobe.com/page/KdCp73pb85itN/>

Collaboration with governments, international partners and NGOs can lead to tangible benefits, such as technology transfer, access to finance, innovation in water-related technologies and environmentally friendly products, foster customer loyalty, and attract socially responsible investors. When engaging with local and regional associations and community-based initiatives, the private sector can also play a pivotal role in knowledge sharing about managing water resources and implementing climate resilience measures. This collaboration enhances understanding of water management challenges and solutions, benefitting both the community and the private sector. This aligns with efforts to support a circular economy in SIDS along with green growth and creating new job opportunities in sustainable industries.

3.2 Mapping key stakeholders

3.2.1 Private Sector

Due to the small size and remote location of SIDS, their domestic markets often tend to be small and fragmented. The private sector comprises businesses, corporations, Medium, Small and Micro Enterprises (MSME), State-Owned Enterprises (SOEs), start-ups, entrepreneurs, etc. An important proportion of the private sector in SIDS is composed of the informal sector. Due to this composition, engaging the private sector poses many challenges and requires incentives and mechanisms to participate actively. In contrast, the formal sector, which represents a smaller proportion of the overall private sector, is generally easier to engage for providing investment, technological solutions, and expertise in efficient water management practices and adaptation measures. Relevant sectors and examples of private stakeholders (potentially) related to climate resilient water security in SIDS are listed (see Table 2) below.

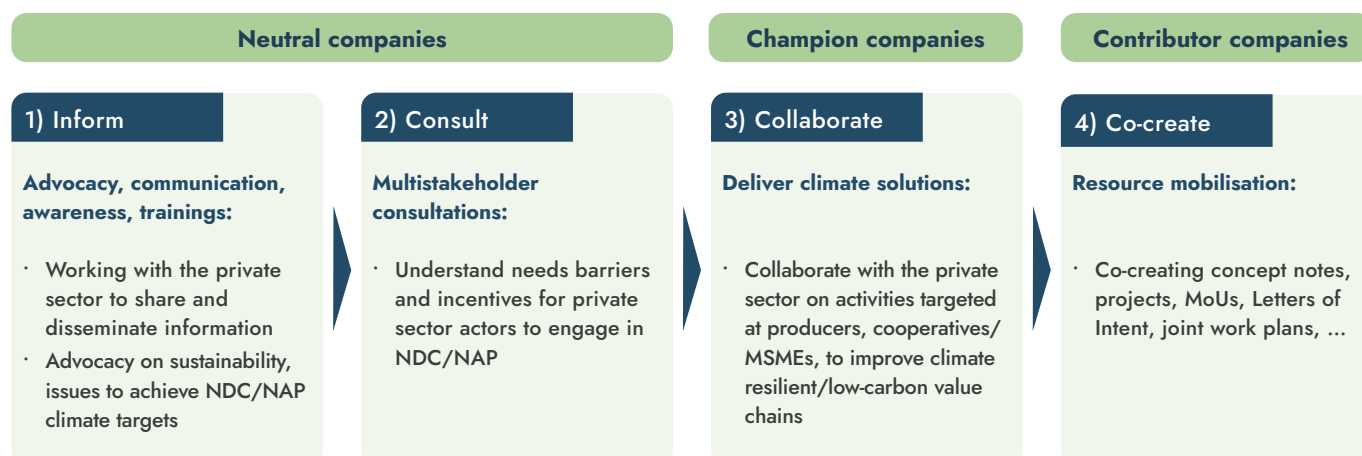
Table 2 Key private sector stakeholders for climate resilient water security per sector.

Sector	Private sector stakeholders
Water and Sanitation	• Water Utility Companies (although in many countries, water is managed by the public sector, sometimes the private sector is involved as well) • State Owned Enterprises (SoEs) • Enterprises or start-ups working on water purification and desalination technologies • Companies managing wastewater and water treatment facilities • Companies developing, importing and/or providing water-efficient and water-saving technologies (at industrial scale, household appliances, etc.) • Companies active in exploration of water sources and technologies, e.g. rainwater harvesting and storage

Construction sector, Buildings, Urban Planning and Disaster Risk Reduction (DRR)	• Enterprises developing, importing and/or providing water-efficient, energy-efficient and/or low-carbon or low-emission materials for buildings and urban development, including climate-resilient construction materials and waterproofing technologies • Enterprises developing and advising on resilient and smart urban designs, e.g. to mitigate impacts of extreme weather events (e.g. floods, storm surges or heat waves) • Companies working on civil construction
Tourism	The tourism sector is perhaps the key private sector in SIDS due to the amount and size of the stakeholders, but also due to increased demand and impact of the industry on local water. • Hotels and resorts, which can implement water-saving measures and other sustainable practices, but whose activities may also be heavily affected by climate impacts • Ecotourism operators • Associations in the tourism sector
Financial Institutions and insurance sector	To boost the potential of the financial sector, efforts are needed in improving the national frameworks to enable sustainable investments, developing innovative financing mechanisms, and providing incentives for sustainable investments. • National banks, international banks and financial institutions, who could develop products tailored to water and resilience, such as green loans for water projects, or offer reduced taxes to companies that are insured against climate impacts or that invest in green projects • Insurance companies (national or international), who can develop and offer products to protect assets against climate risks, floods, etc. • Re-insurance companies • Private investors
Energy	• Companies generating energy and producing electricity with hydropower
Agribusiness	• Agribusinesses, as they are dependent on rainwater, groundwater or other water sources, and are impacted by droughts or other climate impacts • Companies developing or using, or that could potentially develop and deploy, drought-resistant crops and crop varieties adapted to local conditions and resistant to projected climate impacts • Companies in the agricultural value chain, i.e. related to irrigation technologies, water storage and efficient use • Farmer associations and cooperatives
Fisheries	• Fishing companies and enterprises processing sea products • Fishermen associations

In delineating partnership and collaboration for private sector involvement for water security, categorizing private sector actors according to their functions and roles within the system or value chain process, and their climate relevance and contribution potential is essential. These actors span various services from water resource management to end-user services, including water utility companies, water technology providers, wastewater treatment firms, agribusinesses with sustainable water practices, tourism sector stakeholders, and financial institutions. Figure 1 illustrates the broad spectrum of private sector engagement types.

Figure 1 Types of private sector engagement, of partnership and collaboration models¹²



The climate relevance of private sector actors to specific water security initiatives is determined by their susceptibility to climate risks, their role in contributing to climate change and the water sector, and their role as recipients or providers of climate/water-related products and services. Companies with high potential for contribution are those capable of facilitating climate action through investment or existing commitments towards water security, achieving net-zero emissions, or other climate-related goals are champions and contributors.¹³ **Champions** represent high climate relevance and high contribution potential. These are companies that are actively investing in climate-resilient water infrastructure and sustainable practices. For example, the Water Authority of Fiji, which is implementing extensive measures to improve water management and reduce climate vulnerability. **Contributors** may score high in contribution potential but are not directly affected by climate change. These are entities like technology providers and financial institutions that support the water sector. For example, a company providing advanced desalination technology that increases water supply efficiency and resilience.

Neutral companies are moderately engaged in water security but not significantly impacted by climate risks. These companies might be involved in general utility services or other sectors with peripheral engagement in water security – for example, a local construction company that occasionally works on water infrastructure projects but does not focus exclusively on climate-resilient solutions. **Not engaged companies** are currently not participating in water security initiatives but have potential for future involvement. These could include various MSME in other sectors that have not yet recognized their role or benefit in contributing to water security – for example, a tourism business that has not implemented water conservation measures but could be incentivized to do so.

3.2.2 Broader stakeholder ecosystem

Public sector: The public sector comprises relevant government organizations at national and sub-national levels, as well as sectoral ministries. The public sector is key in formulating policies, providing regulatory frameworks, and mobilizing resources in aspects related to water management and disaster risk reduction. In general, public stakeholders in SIDS require more capacities in climate-resilient planning, and institutions need more funding for sustainable infrastructure projects. A key aspect to enhance and enable collaboration between the public and private sector is the establishment of public-private partnerships, as well as of incentives tailored to the private sector.

¹² FAO and UNDP, 2023. Private sector mapping, outreach, and engagement in climate-responsive agrifood systems, SCALA private sector engagement guidance series; March 2023, Adapted from International association for public participation (IPA). 2018. Core Values, Ethics, Spectrum – The 3 Pillars of Public Participation. Cited [September 2022]. <https://www.iap2.org/page/pillars>

¹³ Adopted for water security sector, based on FAO and UNDP, 2023. Private sector mapping, outreach, and engagement in climate-responsive agrifood systems, SCALA private sector engagement guidance series; March 2023.

Examples of relevant stakeholders at national level comprise:

- Ministries of Water Resources and Sanitation, or National Water Authorities
- Ministries or National Authorities of Tourism (relevant because they engage the tourism sector in sustainable practices)
- Ministries of Environment or Natural Resources
- Ministries of Agriculture and Fisheries
- Ministries of Defence or National disaster management agencies
- Ministries of Energy
- Ministries of Finance and Planning

¹¹ <https://www.caribbeanclimate.bz>

¹² <https://www.cdema.org/index.php/about>

¹³ <https://www.sprep.org>

International organizations: International organizations help to provide policy advice, technical expertise and financial support. For instance, international organizations can help to develop innovative financing mechanisms and incentives for de-risking investments. Also, they are helpful to build networks, share knowledge and facilitate regional and international exchange. Some relevant organizations for SIDS comprise:

- Multilateral Development Banks (e.g., Asian Development Bank (ADB) for the Pacific, African Development Bank (AfDB) for Africa, Inter-American Development Bank (IDB) for Latin American and the Caribbean)
- Regional/Intergovernmental organizations (e.g., Caribbean Community Climate Change Centre (CCCCC), Caribbean Disaster Emergency Management Agency (CDEMA), Secretariat of the Pacific Regional Environment Programme (SPREP), the Pacific Community (SPC)).
- United Nations (UN) organizations such as UNDP, UN Water, UNFCCC
- GCF which plays a crucial role in de-risking investments and developing innovative financing mechanisms, thereby providing significant financial support and incentives to encourage private sector engagement in climate-resilient initiatives.
- World Bank, which similarly supports de-risking investments and developing innovative financing mechanisms, offering essential financial support and incentives for private sector involvement in climate resilience and sustainable development projects.

Research and Academic Institutions: Research and academic institutions play a crucial role in advancing climate-resilient water security. Their contributions include generating vital knowledge through research and innovation, implementing pilot projects, and informing evidence-based policies and practices. Key actors in this field include universities and research centres, which can be either public or private and are instrumental in developing new technologies and methodologies for sustainable water management. These institutions provide the necessary technical expertise and conduct essential research that supports the implementation of innovative solutions in the water sector. Some key actors and examples comprise:

- Universities
- Public institutes conducting research

04 BARRIERS AND SOLUTIONS FOR PRIVATE SECTOR ENGAGEMENT

While the private sector can offer solutions for climate resilience of water security that complement public sector action and fill the gaps that the public sector cannot address, barriers for engaging the private sector for implementing such solutions exist in many SIDS. As the private sector is very heterogeneous across SIDS, their dynamics, financial needs and willingness to participate also differ. However, as SIDS are typically characterized by their small size and remote location, they tend to have only small domestic markets that offer limited business opportunities. This chapter presents the barriers that prevent or constrain private sector implementation of solutions for water security and offers solutions and approaches for removing barriers and enabling private sector engagement.

4.1 Policy and regulatory environment

Existing barriers and gaps. Complexities in SIDS' legal and policy frameworks often hinder private investments. Common barriers include a lack coherent policies and strategies to integrate climate change adaptation and mitigation measures effectively in water management or to mainstream them in other sectors. Efforts to engage the private sector are further compounded by limited human resources in public institutions to handle administrative and bureaucratic processes. Public-private partnership (PPP) models and efforts between government and private entities remain fragmented, which leads to inefficiencies and fails to capitalize on synergistic opportunities.

¹⁷ GCF, 2022a.

Besides barriers relating to the policy environment, fiscal constraints such as high costs and uncertain returns on investments pose barriers for private sector engagement in SIDS. These are worsened by the financial burden of advanced water security measures and risks associated with new, untested technologies.¹⁷

Examples of solutions. To enable private sector engagement, a **stable and conducive policy environment is needed**. This includes frameworks that define the roles and responsibilities of the public and private sector as well as their partnership models. It also encompasses **climate-responsive legislation and policy incentives** (e.g. tax breaks or credits, removal of incentives distorting price signals) for climate-aligned investments that

provide the private sector with the certainty required for pursuing long-term investments, generate financial returns, and drive innovation. Governments can facilitate private sector engagement by creating an enabling environment for investment through:

- Enacting clear, climate-aligned regulations, which are consistent between different agencies and levels of government as well as across sectors, e.g. water and wastewater, and water and energy.
- Providing incentives and developing market-based instruments to recover the full cost of providing water and related services and encourage research and development in innovative projects, e.g. water efficiency, resource recovery, ecosystem protection.
- Enforcing codes and standards that account for climate change impacts, shaping regulations to encourage utilities and various regulated water sector actors to meet performance standards, rather than force them to adopt fixed technology mandates.
- Developing regulatory frameworks and policies for integration of Ecosystem-based Management (EbM) in the water sector as integral to IWRM.

Case study examples for addressing policy and regulatory barriers

The government of Saint Lucia has developed the **Climate Change Private Sector Engagement Strategy**¹⁸ which guides the NDC Implementation Plan and its Financing Strategy, and the Cabinet-endorsed NDC Partnership Plan, which emphasizes the engagement of stakeholders and the development of climate-relevant instruments¹⁹. The strategy commits to facilitating greater awareness of the business case for increasing efficiency and improving resilience within the entire private sector spectrum in Saint Lucia. It intends to stimulate a more informed and devoted private sector to contribute actively to meeting national adaptation priorities through:

- Educating and sharing information with the private sector on climate change and adaptation
- Ensuring business continuity and managing climate risks
- Encouraging private sector involvement in climate adaptation strategies, including through the nap
- Informing investment decisions in resilience-building
- Facilitating insurance, finance, technological innovation, and development of new economic opportunities through climate-friendly products and services
- Identifying opportunities for adaptation partnerships with the public sector through public–private partnerships (PPPs)

The **Pacific Private Sector Development Initiative (PSDI)** exemplifies this approach by assisting Pacific SIDS governments in modernizing and simplifying business processes, thereby improving transparency and ease of operation for the private sector. The overall goal of PSDI is to reduce unnecessary costs of doing business in the Pacific and enable private sectors to formalize and grow, which creates jobs, increases tax revenues, and contributes to lifting people out of poverty. To achieve this, PSDI helps Pacific countries address the problems outlined above through its five focus areas. The specific goals of the focus areas are to²⁰:

- Informing the development of public policy
- Modernize business laws
- Develop better financial markets and services that increase access to finance
- Reform state-owned enterprises and pursue public-private partnerships
- Establish effective competition and consumer protection frameworks
- Advance the economic empowerment of women

The **Seychelles Blue Economy Strategic Framework and Roadmap** is an integrated approach to ocean-based sustainable development which brings together economy, environment and society.²¹ The Roadmap recognizes the potential of its marine resources, the role of the government as a regulator and encouraging private sector engagement and importance of partnerships with private sector and civil society. To implement the Roadmap, The Seychelles developed a comprehensive marine spatial plan, allocating zones for tourism, fisheries, aquaculture, and conservation. The Seychelles Investment Board facilitates private sector engagement by providing information, streamlining approvals, and connecting investors with

opportunities. Furthermore, clear guidelines attract private investment in sustainable tourism, fisheries, and aquaculture. Clear and well-defined guidelines provide regulatory certainty, reducing risks for investors, while ensuring that all stakeholders are held accountable to the same standards, promoting fair competition and attracting reputable investors committed to sustainable development. In addition, they also highlight emerging market opportunities within sustainable sectors, encouraging investors to explore new ventures that align with sustainability goals. In combination with other important elements such as innovative financing mechanisms (The Seychelles issued world's first sovereign blue bond), an adaptive governance approach and capacity building for the Blue Economy sectors, the initiative shows that increasing local production and exploring emerging sectors like aquaculture can gradually reduce vulnerabilities.

¹⁸ Government of Saint Lucia. (2020). *Saint Lucia's Private Sector Engagement Strategy under the national adaptation planning process*. Department of Sustainable Development, Ministry of Education, Innovation, Gender Relations and Sustainable Development. Available at: napgn-en-2020-Saint-Lucias-Private-Sector-Engagement-Strategy.pdf (napglobalnetwork.org)

¹⁹ Government of Saint Lucia (2021). *SAINT LUCIA'S UPDATED NATIONALLY DETERMINED CONTRIBUTION*. 19 p.

²⁰ The Pacific Private Sector Development Initiative, <https://www.pacificpsdi.org/>

²¹ Government of Seychelles (2018). *Seychelles' Blue Economy: Strategic Policy Framework and Roadmap: Charting the Future (2018-2030)*. Brochure, <https://seymsp.com/wp-content/uploads/2018/05/CommonwealthSecretariat-12pp-RoadMap-Brochure.pdf>

4.2 Water management and economic valuation

Existing barriers and gaps. **Water**, as a public good, is **undervalued and not properly financially accounted** for by both governments and private sector investors. Water resources, irrigation, water supply, and wastewater infrastructures are generally capital-intensive, with high sunk costs and long pay-back periods. Water services are often under-priced, which leads to inefficient resource management by utility or water service providers (which can be public or private entities, depending on the national context), rising operation and maintenance costs, combined with declining revenues. This results in inability to cover maintenance costs and investment in new technologies or infrastructure for the utilities and water sector providers. Furthermore, many of the co-benefits provided by water management cannot be easily monetised, which reduces potential revenue flows and availability of credit worthiness.²²

Examples of solutions. To enhance climate resilience of water security, **full-cost accounting for water** emerges as a crucial aspect of sustainable water resource management, especially in SIDS. By integrating full-cost accounting principles, utilities and water service providers can navigate climate-related challenges more effectively while ensuring sustainable and resilient water services for communities and industries (see the INFORMATION BOX 1. Full-Cost Accounting of Water below).

Information Box 1. Full-Cost Accounting of Water

Measures introducing climate change risks and opportunities into pricing decisions offer significant potential to enhance resilience in water utilities in SIDS. Full-cost accounting of water involves assessing the 'true' lifecycle costs of water management and services, factoring in the impacts of extreme weather events and climate change. By incorporating these costs into pricing practices, utilities can incentivize increased efficiency, reduced consumption, innovation and improved resilience in the face of climate-related challenges.

Full-cost accounting for water utilities involves a comprehensive evaluation of the economic implications of climate change on resource management. It considers the costs associated with mitigating and adapting to climate-related risks, including infrastructure maintenance, operational expenses, and investments in resilience measures.

Measures

- **Cost accounting and pricing:** implementing pricing practices that reflect the true costs of water management, thereby discouraging maladaptation practices driven by subsidized utility prices.
- **Adaptation:** introducing ‘full-cost’ accounting of climate change risks into utility pricing decisions through measures like differentiated pricing and smart metering.
- **Capex and opex overhaul:** investments in metering infrastructure and pricing systems to accommodate full-cost accounting practices.
- **Transaction costs:** expenses related to renegotiating agreements, such as contracts for water supply, to align with new pricing structures.
- **Research and enforcement costs:** investments in research and training to enforce new pricing policies effectively.

Benefits

- **Increased revenue opportunities:** adoption of demand-side management practices can lead to additional revenue streams for utilities.
- **Access to alternative revenues:** implementation of full-cost accounting can open avenues for utilities to secure alternative funding sources to cover adaptation costs.
- **Improved planning decisions:** enhanced understanding of long-term costs and risks enables utilities to make better planning and pricing decisions, ultimately enhancing profitability.
- **Enhanced water efficiency:** full-cost accounting practices incentivize consumers to adopt more efficient water usage patterns, leading to overall resource conservation.

Potential Risks and Mitigation:

- While full-cost accounting can lead to increased water prices, making water less accessible to poorer communities is a significant risk. This can be mitigated through measures such as compensation payments, subsidies for low-income households, or providing free access to essential drinking water for the poorest communities. For example, some utilities implement tiered pricing systems where basic water usage is provided at a lower cost or for free, while higher usage levels are priced progressively higher to encourage conservation among those who can afford it.

Many utilities are proactively embracing full-cost accounting practices as part of their adaptation strategies, recognizing the importance of aligning pricing structures with the true costs of resource management in a changing climate.

4.3 Financial instruments and access to finance

Existing barriers and gaps. The **perceived high risk of new technologies** in climate-related projects and a lack of customized financial instruments limit access to funding and credit facilities. Water projects are often too small or too context-specific, raising transaction costs and making innovative financing models difficult to scale up. Investment decisions and the success of water security initiatives are also influenced by social factors, which can inhibit project viability or the sustainability of outcomes.²³ The size of SIDS economies and their restricted financial systems further restrict access to capital that is critical for utilities, water service providers and other private sector business to implement water security measures.

Examples of solutions. To enable private sector engagement, a **favourable environment for investment that includes access to suitable financial instruments is needed**. Governments can facilitate private sector engagement by creating an enabling environment for investment through:

- In terms of financial instruments beyond grants and concessional loans, issuing green or climate bonds can be considered to raise funds for projects like climate-resilient infrastructure, disaster risk reduction and early warning systems or ecosystem-based adaptation.

- Establishing risk-sharing mechanisms such as climate insurance or guarantees reduce investment risks, protect against climate-related losses, and encourage private capital flow.
- Enhancing financial infrastructure, for example, developing stock exchanges, bond markets, and venture capital ecosystems, can enable raising funds for climate-resilient ventures.

Given the limitations SIDS face due to their small market sizes, limited financial expertise and regulatory constraints, it can be difficult to establish and sustain these sophisticated financial markets independently. However, regional collaboration and integration present viable solutions. For example, a regional stock exchange or bond market can be established to serve multiple SIDS, pooling resources and creating a larger, more attractive market for investors.

Case study examples for financial barriers

The **Caribbean Catastrophe Risk Insurance Facility (CCRIF)**²⁴ and the **Pacific Catastrophe Risk Insurance Company (PCRIC)**²⁵ are financial tools that provide risk pooling at the regional level. However, as climate-induced sudden-onset events become more frequent and severe, the insurance landscape faces challenges. Premium costs are expected to rise, while payouts may decrease. To address this, exploring mechanisms that address the potentially uninsurable impacts of climate change in the most vulnerable countries becomes crucial within the context of addressing loss and damage. These mechanisms could include developing alternative risk transfer solutions such as catastrophe bonds and parametric insurance, establishing climate adaptation funds, expanding regional insurance pools to include sovereign insurance products, implementing loss and damage mechanisms under international frameworks, and encouraging public-private partnerships to develop innovative insurance products and share the financial burden of climate risks.

Reliable market data can mitigate perceived risks, aiding in the balance between risk and return for investors. Market intelligence platforms, risk assessment tools, climate stress tests can provide reliable market data, help to quantify climate risks and assess portfolio vulnerability. This reduces perceived risks associated with climate investments and enables investors to make informed decisions. Initiatives like the **Caribbean Climate-Smart Accelerator**²⁶ compile and disseminate reliable data on climate-related opportunities. These platforms provide information on renewable energy potential, vulnerability assessments, and investment landscapes.

Climate-Resilient Infrastructure Investment Trusts are investment vehicles that pool funds from institutional investors (pension funds, sovereign wealth funds) to finance climate-resilient infrastructure. Examples include investments in flood-resistant buildings, and water management systems. They offer stable, long-term returns while contributing to climate adaptation and can attract private sector funds that align with climate goals. While this concept is still emerging, one example of a related initiative is the **Global Climate Partnership Fund (GCPF)**²⁷, which focuses on financing energy efficiency and renewable energy projects in developing countries.

For example, in Grenada, the private sector is engaged in the GCF-funded project **“Climate-Resilient Water Sector in Grenada (G-CREWS)”**. This project establishes a Challenge Fund for climate-resilient commercial water users in the agricultural and tourism sectors, which provides post-investment grant subsidies for implementation of water efficiency measures and rainwater harvesting. It also provides opportunities for knowledge sharing and peer learning through a regional community of practice.²⁸

²⁴ Caribbean Catastrophe Risk Insurance Facility, <https://www.ccrif.org/>

²⁵ PACIFIC CATASTROPHE RISK INSURANCE COMPANY (PCRIC), <https://pcric.org/>

²⁶ The Caribbean Climate-Smart Accelerator (CCSA), <https://www.caribbeanaccelerator.org/>

²⁷ Global Climate Partnership Fund: <https://gcpf.lu/>

²⁸ Climate-Resilient Water Sector in Grenada (G-CREWS) | Green Climate Fund

4.4 Capacity Development

Existing barriers and gaps. In many SIDS, **businesses lack the capacity and understanding of the risk and return profile of climate resilience projects and/or how to integrate climate resilience into their operational models**, affecting their investment decisions. A significant skills gap exists in many areas such as environmental engineering and sustainable resource management. Comprehensive local context assessments, frameworks for opportunity identification and risk management, and best practice guidelines for effective cross-sector collaboration that are specific to the context of SIDS are missing. Additionally, the phenomenon of “human capital flight”, where qualified professionals leave SIDS for better opportunities elsewhere, further exacerbates the skills gap and hinders local capacity development.

Examples of solutions. To enable private sector engagement, **capacity strengthening of local stakeholders** is needed and should adopt a long-term focus instead of short-term delivery efficiency, which reinforces the dependence on outside technical and financial support.²⁹ Capacity strengthening can be achieved through, among others:

- Strengthening local businesses’ financial literacy, project development and management skills through, for example, training and mentorship programs on project financing and investment readiness. Additionally, partnerships between vocational institutes and industry can develop job-oriented training programs to meet the demands of the green economy.
- Providing accessible tools and guidelines for risk assessment and fostering dialogue between financial institutions and climate experts.
- Engaging with private sector associations, regional forums and international partners to facilitate knowledge exchange, peer learning, and access to best practices.
- Building the capacity of water service providers to better manage water resources in times of changing demands associated with climate change.³⁰
- Encouraging the retention and return of skilled professionals through incentives and creating opportunities for career advancement within SIDS to address the issue of human capital flight.

²⁹ GCF, 2022a.

³⁰ GCF, 2022a.

Case study examples for capacity barriers

Skills Development in Fiji’s Blue Economy^{31,32}, is one example for addressing capacity barriers in the private sector. Fiji’s blue economy relies heavily on fisheries, tourism, and marine resources. Fiji’s Technical and Vocational Education and Training (TVET) institutions collaborate with industry stakeholders to develop courses focused on sustainable fishing practices, marine conservation, and eco-tourism management. These programs certify graduates in marine stewardship, diving, and coral reef restoration, creating a skilled workforce that directly supports sustainable fisheries and marine tourism. By aligning training with industry needs, graduates meet market demands, enhancing employability and economic growth. Additionally, the integration of clean energy solutions and disaster preparedness initiatives improves community resilience and livelihoods.

Another example is **Grenada’s approach to balancing economic growth with environmental conservation**³³. In Grenada, NGOs facilitate market linkages by connecting farmers and fishermen with buyers, including restaurants, hotels, and eco-conscious consumers. These efforts are complemented by training programs that educate farmers on sustainable practices such as shade-grown cocoa, nutmeg, and timber production, and on understanding market preferences for sustainably sourced products. The impact is notable: Eco-friendly agricultural and fish products fetch premium prices, which increases income for farmers. This approach also promotes economic diversification by reducing reliance on vulnerable sectors, thereby enhancing the resilience and adaptive capacity of farming and fishing communities.

³¹ UNDP, Accelerating action for the blue economy in Fiji. Article, accessed online February 2024. <https://sdgs.un.org/partnerships/accelerating-action-blue-economy-fiji>

³² UNESCO, TVET Country Profiles: Fiji. Article, accessed online February 2024.

<https://unevoc.unesco.org/home/Dynamic+TVET+Country+Profiles/country=Fiji>

³³ Adaptation Fund Board (2023). Project and Programme Review Committee Thirty-first Meeting. Bonn, Germany, 21-22 March 2023 (AFB/PPRC.31/31). Proposal for Grenada. https://www.adaptation-fund.org/wp-content/uploads/2023/03/AFB_PPRC_31.31-Proposal-for-GRENADA.pdf

05 RECOMMENDATIONS FOR THE CSRI INITIATIVE TO FACILITATE PRIVATE SECTOR ENGAGEMENT

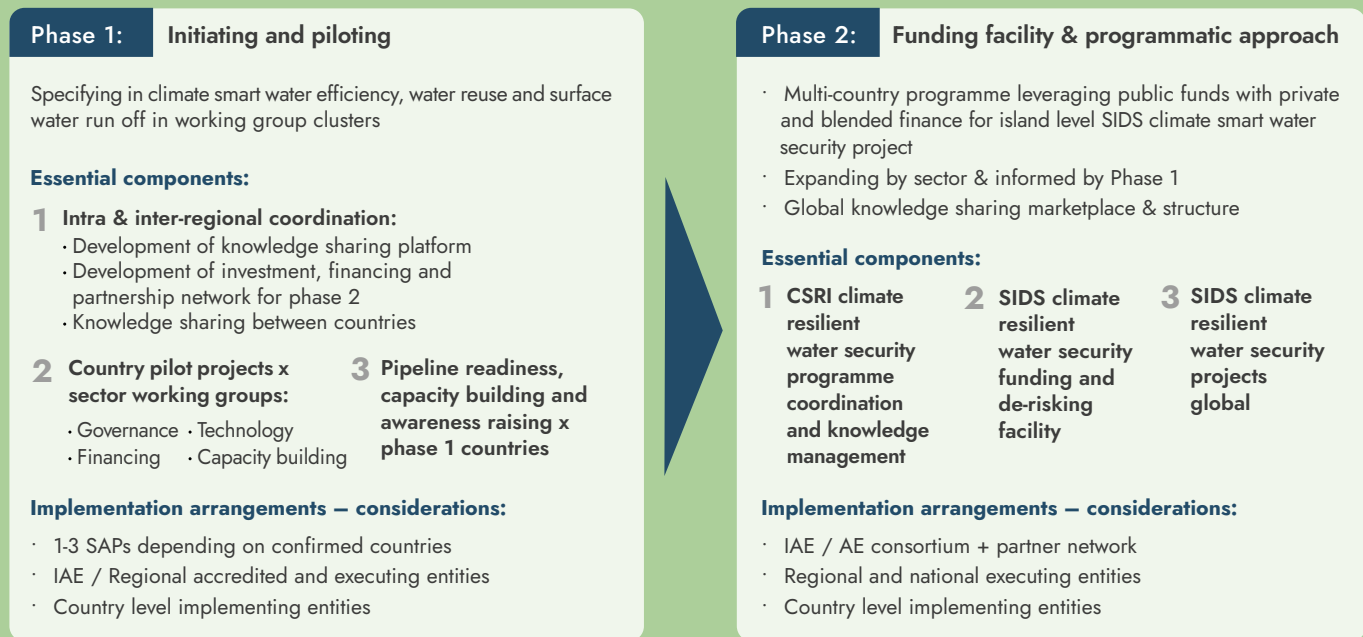
The CSRI Climate Resilient Water Security Programme (the Programme) idea has been developed under GCF readiness support jointly with interested CSRI Initiative partner countries and organizations. It seeks to deliver a paradigm shift for SIDS to build water security that directly addresses island-specific contextual scenarios and ultimately, deliver solutions for improved water security, climate preparedness and wastewater management. A crucial aspect in achieving the programme's mission is through engaging in global and inter-regional knowledge exchange throughout each component of the programme.

The countries and their respective pilots themselves are not defined at this stage but the broader proposed focus is water conservation, water efficiency and water re-use; within this including climate information systems, sanitation, wastewater and the preservation of freshwater resources.

The programme is envisaged to be made up of two phases (see Figure 2 below):

- **Phase 1** aims to pilot improved water conservation and management in SIDS in coordination with the private sector, focusing on wastewater, runoff, reuse, demand management, governance, and climate information systems. It will establish sector-specific working groups within a global SIDS network to inform future financing and solutions.
- **Phase 2** will expand these efforts to more SIDS, emphasizing knowledge sharing and institutional exchange. A designated financing facility and umbrella program will support this expansion, crucial for financing diverse climate-resilient water security projects.

Figure 2 Overview of the Climate Resilient Water Security Programme design



The private sector shall be integrated in each of the programme components but **the exact scope for private sector engagement is yet to be defined for each participating country**. Currently, the draft Programme is at the pre-concept note stage for the phase 1 and should be further developed and finalised by project partners including Accredited Entities (AEs) and Executing Entities for each participating country. Many of the ideas presented, components and outputs will need to be refined and agreed further following the confirmation of countries and project partners.

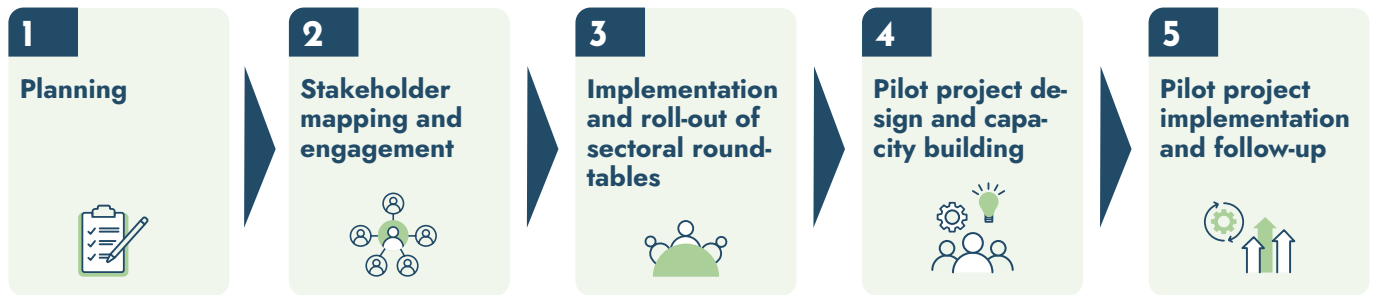
The design of the Programme recognises that climate-resilient water security projects in SIDS will require a range of instruments. A funding facility will need to be designed for Phase 2 that allows a menu of financial instruments, including grants for capacity and technical assistance, public-private partnerships with supported credit enhancements, de-risked loans, tax incentives to contain adverse environmental impacts and even explore the potential for Water Green Bonds.

The following recommendations aim to offer guidance on the **steps and actions required to bring the private sector on board in each pilot country under Component 2 of Phase 1**, under which country pilot projects will be implemented.

The proposed steps and actions can be tailored to the specific needs of each country. They would be executed by the AE once it has been identified and committed to lead the proposal development. Alternatively, some of the initial steps can be included in a readiness request if such a follow-up request by the country(ies) is planned.

Lessons learnt from the pilot projects will provide input to implementation of the Programme's Component 1 "Intra and inter-regional coordination, knowledge management and investment marketplace development" and "Component 3: Pipeline readiness, capacity building and awareness raising in each country", which will conduct assessments and create enabling conditions for future water security projects in Phase 2, alongside the development of

Figure 3 Steps to engage the private sector and develop country pilot projects on climate resilient water security



Step 1: Planning

Planning lays the foundation for any future intervention. The aim is to first revise, define or redefine the sectors — e.g. water, agriculture, buildings, tourism, fisheries, sanitation, disaster risk reduction, etc. — that are really relevant for each country as defined by the countries themselves. The CSRI Initiative could aid the country's AE in the definition of the targeted sectors.

Next, considering the scope of the chosen sectors, the AE shall plan a stakeholder mapping and desktop research, together with an engagement plan, which should take place under step 2 (from months 3 to 6). Here, it's important to consider and address the required resources to draft and implement all activities related to stakeholder mapping and engagement, as well as those related to programme management and monitoring.

As part of the planning, reporting needs and requirements in the framework of the CSRI programme should be defined. Also, indicators and goals for private sector engagement should be drafted. These will be further improved after the stakeholder mapping, but could explore the number of sectors, size of enterprises to engage, whether they provide or require funds, participation level, etc. For the overall programme, other targets relevant for the country, such as SDGs, key policies, or gender and sustainability targets, could be explored to see if the programme can incorporate related indicators and contribute to leveraging information to feed into these goals.

Step 2: Stakeholder mapping & engagement

A review of national strategic and policy documents, and an in-depth country-level stakeholder mapping targeted to the selected sectors should take place between months 3 to 6.

The review of key strategic and policy documents and existing assessments should comprise analysing existing policies, regulations, existing adaptation measures, and those key climate-related risks that require urgent attention in the country, as well as sectoral and economic assessments. This should also include analysis of policy and regulatory environments with respect to enabling or disincentivising private sector investment in each specified sector. These documents will provide an overview of the institutions with mandates in the relevant sectors (i.e. sectoral authorities), the key areas to potentially develop pilot projects, and also the existing financial incentives or funding barriers. The review will also be helpful to complement the stakeholder mapping with the identification of needs and interests of the private sector and where to potentially develop partnerships.

The other key activity is to conduct the stakeholder mapping and further define the stakeholder engagement plan. The mapping can be conducted based on the national documentation and via surveys and bilateral calls with the key stakeholders. The mapping shall identify key private stakeholders at country level, including businesses (their type and size), investors, NGOs, and local community groups with a vested interest in climate resilience and water management. Also, it may be interesting to note larger companies or those active at regional or international level, such as umbrella organizations (incl. NGOs) and quite specifically (re)insurance companies and development banks. Insurance companies and development banks can be key allies, who could provide funds or technical expertise in terms of risk management, finances and private sector interests.

The resulting stakeholder map shall outline the roles, interests, and influence of the private sector entities in addressing climate and water-related challenges in their country, as well as their willingness to form partnerships and engagement readiness. A secondary, but useful, product out of the mapping will be a database of key contacts and representatives who will be invited and participate in the later activities of the programme (i.e. also mailing list of network). Depending on the country and the sector, it shall be evaluated to include local and indigenous representatives, as they are essential actors regarding resilience and climate impacts, and their knowledge may be most crucial when designing projects related to local resilience, health, livelihoods and coastal security, to name a few.

Based on these results, it's possible to further define the country-specific engagement strategy tailored to the needs and priorities of the different stakeholder groups, emphasizing collaboration, expected benefits, and long-term sustainability.

On the management side, the AE shall revise and adjust the indicators and other targets defined under step 1, based on the results of desktop review and stakeholder mapping.

Step 3: Implementation & roll out of sectoral round tables

The round tables per sector aim to progressively bring in the private sector on board, inform them and develop their capacities, and thus lead to the buy-in of private sector entities to take part in the project activities and take the lead in developing pilot projects. The initial phase of the sectoral round tables shall take place from months 6 to 9, but its continuation is encouraged under the coordination and moderation of the country's AE. Incorporating the organization of the round tables as a task of the AE in stakeholder coordination would help to institutionalize the measure and make it sustainable beyond the scope of the CSRI programme.

The round tables can be organized online, on a bi-monthly basis, and participation from the stakeholders identified and prioritized under step 2 is desired. Key stakeholders may include the relevant ministries, water and DRR authorities; SOE, enterprises and businesses; possibly MSMEs; (re)insurance companies; international organizations, NGOs and civil society representatives. The agendas of each session can follow a similar format in order to address key developments, new laws, new partnerships or changes in the stakeholder landscape, funding opportunities or similar, in the areas of governance, funding, technology and capacity building. The sessions After month 9, i.e. once the round tables are established and take place regularly, the stakeholders should exchange and follow up on their project ideas, share feedback, keep track of the design and implementation process.

The AE shall elaborate short reports after each session to keep stakeholders and the CSRI informed and engaged. In addition, the AE shall follow up on engagement indicators, i.e. about private sector composition and participation, or the development of partnerships and networks.

Step 4: Pilot project design & capacity building

This step requires the round tables, or any other format of frequent dialogue with the private sector, to be implemented and running. After month 9, the activities shall focus on drafting pilot projects, elaborating a first project pipeline and implementing capacity building activities geared towards strengthening the private sector.

First, each sector shall define one project area or idea. It is essential to also establish the responsible or leading stakeholder, who will coordinate and push forward the pilot project design (could be a ministry or a business in the sector). The leading stakeholder, and relevant public and private actors, will elaborate a first pilot draft. The AE will submit the first pilot draft of each sector to the CSRI for review of evaluation. After receiving the evaluation, the AE and stakeholders can prioritize and select a number of feasible pilot projects to elaborate a second design.

Based on the first sectoral projects, an initial project pipeline can be developed, together with the definition of indicators and goals to keep track of the project pipeline and to measure the development of each pilot project.

The implementation and monitoring of capacity building activities can also be continued. The trainings shall aim to make the private sector aware of risks to their enterprises and understand the business case for investing in climate-resilient infrastructure, sustainable water management practices, and innovative solutions, and to provide the private sector with the resources and abilities to seek funding and establish partnerships in order to implement their projects.

Step 5. Pilot project implementation & follow up

This step continues with the elaboration of pilot projects after their first design, evaluation and prioritization. To complete the robust design of sectoral pilot projects, the following tasks are encouraged:

Proceed with detailed design and elaborate a project funding plan for each pilot, comprising:

- Development of a financing needs report for each pilot, to understand the priorities and specific challenges faced by local private actors.
- Development of a market study report for each pilot, including investment opportunities, demonstration of economic interest, highlight the long-term economic benefits.
- Identification of financing options, among them mechanisms to leverage private investment.

Elaborate a risk assessment, feasibility studies and a monitoring and evaluation mechanism for each selected pilot:

- Identify risks related to climate change and extreme weather events that could impact the project and how they affect the interests of the private sector. Highlight the immediate and long-term implications of both types of risks, stressing the urgency of addressing extreme weather events while also communicating the critical, strategic importance of adapting to long-term climate change impacts.
- Extract key lessons, common challenges, as well as successful business cases, that derive from these risk assessments, and share them via the sectoral round tables to strengthen collaboration and other project ideas.

- Complement the risk assessment with identifying other aspects that could comprise the project's feasibility, i.e. technical, technological, social or political. Identify entry points and develop a list of potential options through an iterative process and in consultations with the relevant public, private and civil society stakeholders.
- Evaluate cost-benefit, social acceptance, co-benefits and trade-offs.
- Finalize the project design by developing a monitoring and evaluation mechanism for the project.

The AE shall then submit the consolidated pilot project designs to the CSRI Initiative for review and feedback.

Once projects are approved and receive funding, implementation and follow-up can begin. Progress and lessons learnt can be shared and followed up on the sectoral round tables. These round tables shall also serve for continued monitoring of the capacity building plan, the stakeholder engagement and the project pipeline.

Information Box 2. Continued actions for stakeholder engagement

Some small and continued actions to keep the private sector engaged throughout the programme may include:

- Keep the stakeholder database up to date, regarding stakeholders, contacts and key interests.
- Make sure that indicators and goals are informative and smart (specific, measurable, achievable, relevant, and time-bound).
- Actively approach private sector representatives who could benefit from programme's activities, especially networking events and trainings, to inform them about the support provided and their benefits.
- Foster the sharing of results of the round tables, and well as the update reports from monitoring the stakeholder engagement plan, the project pipeline and capacity building plan.
- Connect with international networks and platforms related to resilience, water security, disaster risk reduction and climate-smart agriculture, to name a few. Inform the private sector on funding opportunities and technological innovations.
- For the round tables, the CSRI initiative can provide technical guidance and a replicable format (at country level) to conduct the activities in a participative manner. The format could comprise a checklist on best practices to moderate participative events, build capacity and raise awareness among and with the private sector. Moreover, the CSRI initiative can extract key lessons from each country and share them on the regional level.
- Coordinate with the banking systems to support and develop water or adaptation finance and related credits. The governments, the banking systems, as well as the local authorities must support the private sector, in order to encourage its participation in the programme, for instance by spreading the word and granting preferential access to loans from international organisations and development partners for commercial banks with a high proportion of adaptation-related credit.
- The CSRI initiative shall support with communication and outreach, aiming to effectively share the programme's progress and results with the relevant stakeholder groups. It should be a continuous process and take place 1) within each pilot county (task assumed by the country AE), 2) inter-regionally as part of the inter-regional knowledge platform within the programme, and 3) globally in international events or fora related to climate change and water security.

Table 3 Steps to integrate private sector in the CSRI Climate Resilient Water Security Programme, focussing on country pilot projects.

	1. Planning	2. Stakeholder mapping & engagement	3. Implementation & roll out of sectoral round tables	4. Pilot project design & capacity building	5. Pilot project implementation& follow up
Component 1: intra- and inter-regional coordination			Identify regional and supranational organizations, including NGOs, that can be invited to round tables (to enhance learning and sharing).	Make sure that key organizations and networks receive updates on lessons learnt, capacity building events and pilot projects.	
Component 2: Country pilot projects per sector working groups	(Re)define sectors to those relevant for the country. - Plan the specific stakeholder mapping / research and define an engagement plan.	- Review national strategic and policy documents that could guide or help to establish goals or pilots in the key sectors. - Conduct stakeholder mapping at national level per sector and type of private actor. - Further define the stakeholder engagement plan. - Establish a database of key contacts/representatives who will be invited and participate in round tables and events, or stay informed. - Identify (funding) barriers, needs and interests of the private sector, as well as opportunities for partnerships.	- Set up round tables per sector organized and moderated by the AE, by inviting the key stakeholders identified. Each session should touch upon governance, financing, technology, capacity building and, later on, following up on the project pipeline. - In the round tables, private sector stakeholders shall discuss on needs, especially regarding technology, funding and capacity. Capacity building sessions or networking (e.g. with donors and funders) can be planned during the round tables. - After month 9, the stakeholders should exchange on their project ideas, share feedback, keep track of the design process and later implementation. - Continue the round tables per sector with a bi-monthly frequency. The round tables shall continue until project end. If possible, its coordination can be institutionalized in the AE's tasks to make them a permanent activity.	- Drawing on the round table's discussions, define one area or project idea per sector to implement a pilot project, together with a key or leading stakeholder for that project idea. - Design a first draft of the pilot project jointly with the leading stakeholder, and relevant public and private actors. - Submit the draft for CSRI review and evaluation. - Based on the evaluation, prioritize a number of feasible pilot projects to elaborate a second design.	- Proceed with detailed design and elaborate a project funding plan for each pilot. - Elaborate a risk assessment, feasibility studies and a monitoring and evaluation mechanism for each selected pilot. - Submit pilot design, funding plan, results of feasibility study and monitoring mechanism for CSRI review and evaluation. - Begin with pilot project implementation after receiving feedback. - Follow up on the pilot project implementation and elaborate materials for diffusion and to spread lessons learnt and opportunities.

	1. Planning	2. Stakeholder mapping & engagement	3. Implementation & roll out of sectoral round tables	4. Pilot project design & capacity building	5. Pilot project implementation& follow up
Component 3: Pipeline readiness, capacity building and awareness raising			· In the framework of the round tables, elaborate a training and capacity building plan jointly with actors.	· Implement and follow up on the capacity building plan. · Elaborate a project pipeline per sector, jointly with the actors. · Draft indicators and goals to keep track of the project pipeline and to measure the development of each pilot project. · Follow up and monitor the project pipeline in a participative manner, keeping CSRI informed.	· Implement and follow up on the capacity building plan. · Follow up and monitor the project pipeline in a participative manner, keeping CSRI informed.
Overall management, monitoring and reporting	· Define scope, aim and resources for these activities. · Define reporting needs and requirements for the CSRI programme, and establish templates. · Draft indicators and goals for private sector engagement (e.g. number of sectors, size and number of enterprises, number of partnerships...). · Draft other targets relevant for the country and the programme, e.g. gender targets, or links to key policies and SDGs.	· Based on the results of desktop review and stakeholder mapping, revise and adjust indicators and other targets.	· Elaborate short reports from each round table session and share with stakeholders. · Follow up on indicators and targets for private sector engagement (as participating in round tables). · Elaborate and share short update reports to CSRI.	· Elaborate short reports from each round table session, and from capacity building events. · Follow up on indicators and targets for private sector engagement (as participating in round tables and in training events). · Elaborate and share short update reports to CSRI and regional partners (e.g. other AEs).	

REFERENCES

-
- A** Adaptation Fund Board (2023). Project and Programme Review Committee Thirty-first Meeting. Bonn, Germany, 21-22 March 2023 (AFB/PPRC.31/31). Proposal for Grenada. https://www.adaptation-fund.org/wp-content/uploads/2023/03/AFB.PPRC_.31.31-Proposal-for-GRENADA.pdf
-
- B** Borde, A. (2022): Strengthen the Capacity of the National Designated Authority of the Solomon Islands to Engage with the Green Climate Fund. Prepared by FCG New Zealand for SPREP, September 2022. 121 pages
-
- F** FAO and UNDP, 2023. Private sector mapping, outreach, and engagement in climate-responsive agrifood systems, SCALA private sector engagement guidance series; March 2023, Adapted from International association for public participation (IPA). 2018. Core Values, Ethics, Spectrum – The 3 Pillars of Public Participation. Cited [September 2022]. <https://www.iap2.org/page/pillars>
-
- G** GCF (2018): Independent Evaluation of the GCF's Readiness and Preparatory Support Programme (RPSP2018). Evaluation report. <https://knowledge.greenclimate.fund/readiness/research/investments-in-sids/>
- GCF (2021): Independent Evaluation of the GCF's Approach to the Private sector. Evaluation report. <https://knowledge.greenclimate.fund/readiness/research/approach-to-the-private-sector/>
- GCF EIU (2020). Independent Evaluation of the Relevance and Effectiveness of GCF Investments in Small Island Development States (SIDS). Country case study reports. 180 p. <https://ieu.greenclimate.fund/sites/default/files/evaluation/201106-sids-country-case-studies-top.pdf>
- GCF. (2022a). Water Security Sectoral Guide. Sectoral Guide Series. Yeonsu: Green Climate Fund. 51 p.
- GCF. (2022b). Climate Information and Early Warning Systems. Sectoral Guide Series. Yeonsu: Green Climate Fund. 51 p.
- GCF. (2023). Water Security. Simplified Approval Process (SAP) Technical Guideline Series. 10 p.
- Government of Cabo Verde (2021): 2020 Update to the first Nationally Determined Contribution (NDC). 59 p.
- Government of Fiji (2020). Fiji's Updated Nationally Determined Contribution. 20 p.
- Government of Grenada (2017). Second National Communication of Grenada, Carriacou & Petite Martinique. 253 p.
- Government of Grenada (2020). Second Nationally Determined Contribution. 15 p.
- Government of Maldives (2020). Update of the Nationally Determined Contribution of Maldives. 22 p.
- Government of Saint Lucia (2017). Third National Communication on Climate Change. 386 p.
- Government of Saint Lucia (2020): Saint Lucia's Private Sector Engagement Strategy under the national adaptation planning process. Department of Sustainable Development, Ministry of Education, Innovation, Gender Relations and Sustainable Development. Available at: napgn-en-2020-Saint-Lucias-Private-Sector-Engagement-Strategy.pdf (napglobalnetwork.org)
- Government of Saint Lucia (2021). SAINT LUCIA'S UPDATED NATIONALLY DETERMINED CONTRIBUTION. 19 p.
- Government of Seychelles (2018). Seychelles' Blue Economy: Strategic Policy Framework and Roadmap: Charting the Future (2018-2030). Brochure, <https://seymsp.com/wp-content/uploads/2018/05/CommonwealthSecretariat-12pp-RoadMap-Brochure.pdf>

Government of Vanuatu (2022). Vanuatu's Revised and Enhanced 1st Nationally Determined Contribution 2021–2030. 70 p.

- M** Ministry of Agriculture, Lands, Forestry, Fisheries and the Environment of Grenada (2017). TECHNOLOGY NEEDS ASSESSMENT, ADAPTATION REPORT. 52 p.
- Ministry of Environment, Climate Change and Technology of the Republic of Maldives: The Climate Smart Resilient Islands (CSRI) Initiative. Online write-shop series for CSRI project ideas. 9 and 12 October 2023. 4 pages (2023).
- O** OECD. Private Sector Participation in Water Infrastructure. OECD CHECKLIST FOR PUBLIC ACTION (2009). 131 p. <https://www.oecd.org/env/resources/42350657.pdf>
- P** Partnering for Readiness (PfR): Terms of reference to provide “Readiness and preparatory support to operationalize the Climate Smart Resilient Island (CSRI) Initiative” (2022).
- R** Republic of Mauritius (2017). Third National Communication for the Republic of Mauritius. Ministry of Environment, Sustainable Development, and Disaster and Beach Management. 262 p.
- Republic of Mauritius (2021). UPDATE OF THE NATIONALLY DETERMINED CONTRIBUTION OF THE REPUBLIC OF MAURITIUS. 32 p.
- Republic of Palau (2013): Second National Communication to the United Nations Framework Convention on Climate Change. 98 p.
- S** Senaratne, Malshini (2020). The Blue Economy: Charting a New Development Path in the Seychelles, Observer Research Foundation, Occasional Paper #265., 49 p. https://www.orfonline.org/wp-content/uploads/2020/08/ORF_OccasionalPaper_265_BlueEconomy-Seychells.pdf
- U** United Nations, Inter-agency Task Force on Financing for Development, Financing for Sustainable Development Report 2024: Financing for Development at a Crossroads. (New York: United Nations, 2024), available from: [https://developmentfinance.un.org/fsdr2024.UNDP. Rising up for SIDS. Online publication. https://express.adobe.com/page/KdCp73pb85itN/](https://developmentfinance.un.org/fsdr2024.UNDP.Rising%20up%20for%20SIDS.Online%20publication.https://express.adobe.com/page/KdCp73pb85itN/)
- UNFCCC. Repository of National Communications submissions from Non-Annex I Parties. Accessed on November 2023. <https://unfccc.int/non-annex-I-NCs>
- UNFCCC: Fourth synthesis of technology needs identified by Parties not included in Annex I to the Convention . Fifty-second session Bonn of the Subsidiary Body for Implementation , 4–12 October 2020 (FCCC/SBI/2020/INF.1).
- UNFCCC. Repository of NDCs. Accessed on November 2023. <https://unfccc.int/NDCREG>
- UNFCCC. Repository of TNA Reports. Accessed on November 2023. <https://unfccc.int/ttclear/tna/reports.html>
- USAID (2017). Private Sector Engagement in the Water Security Improvement Process. 17 p. <https://winrock.org/wp-content/uploads/2018/05/Private-Sector-Engagement-in-the-Water-Security-Improvement-Process-2.pdf>
- Z** Zebisch, M. et al. (2023). Climate Risk Sourcebook. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Bonn. 204 p.