BUILDING RESILIENCE WITH NATURE AND GENDER IN THE EASTERN CARIBBEAN

A TOOLKIT TO MAINSTREAM ECOSYSTEM-BASED ADAPTATION GENDER EQUALITY & SOCIAL INCLUSION



Organisation of Eastern Caribbean States ♥♥♥♥♥♥ With the support of:



Adapt'A@tion

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DISCLAIMER

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The authors assume full responsibility for the contents of this document. The opinions expressed do not necessarily reflect those of AFD or its partners.

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FOREWORD

The Islands of the Eastern Caribbean region, (mostly Small Island Developing States), are highly and disproportionately vulnerable to the impacts of climate change, despite emitting only a small proportion of global greenhouse gases emissions. Our Islands are already being affected by, among others, rising sea levels, increasing atmospheric temperatures, changing rainfall patterns and increasingly intense storms, droughts and floods that pose severe risks for key natural systems and socio-economic sectors. The region's most recent experiences with hurricanes, for example, signal a grim future in a warmer world.

The current global warming trend and the natural inertia that would delay the effect of even the most meaningful climate mitigation efforts leave our countries no choice but to place particular emphasis on adaptation as a means of survival.

Adaptation measures will vary by sector and can be highly location-specific. Further, they may be founded on hard engineering, nature-based approaches or a combination of the two. While there is room for all of the foregoing approaches, ecosystem-based adaptation seeks to utilise the resiliencies of existing natural systems and can often be more adaptive to changing local conditions.

Although climate change may appear to be "gender-blind", it often impacts men and women, as well as social groups, differently and may require different adaptation responses for, and by, them.

This Toolkit arrives at a time when the Islands of the Eastern Caribbean are placing increasing focus on the concept of resilience. The fact that it promotes the integration of ecosystem-based approaches, gender equality and social inclusion makes it highly relevant, not just for climate change, but also for resilience-building in the broader socio-economic context. It is therefore my hope and expectation that this Toolkit will be widely adopted across the Organisation of Eastern Caribbean States (OECS) and that its content will be put to good use for the benefit of our people.

H.E. Dr. Didacus Jule

Director General of the Organisation of the Eastern Caribbean States (OECS)

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ABBREVIATIONS AND ACRONYMS

AF	Adaptation Fund		
AFD	Agence Française de Développement		
AOSIS	Alliance of Small Island States		
BaU	Business as Usual (scenarios)		
BOT	British Overseas Territory		
BRGM	Bureau de Recherches Géologiques et Minières- Service Géologique National		
CAFF	Climate Adaptation Financing Facility (Saint Lucia Development Bank)		
CAIPCD	Caribbean Antilles Indigenous Peoples Caucus & the Diaspora		
CANARI	Caribbean Natural Resources Institute		
CbA	Community-based Adaptation		
CBA	Cost Benefit Analysis		
CBD	Convention on Biological Diversity		
CBO	Community based Organization		
CC4F	Climate Change for Fisheries		
CCA	Climate Change Adaptation		
CCCCC	Caribbean Community Climate Change Centre ("5Cs")		
CDB	Caribbean Development Bank		
CDEMA	Caribbean Disaster Emergency Management Agency		
CEA	Cost-effectiveness analysis		
CEM	Commission on Eco-system Management		
CNRS	Centre National de la Recherche Scientifique		
COESL	Caribbean Centre of Excellence for Sustainable Livelihoods		
CPACC	Caribbean Planning for Adaptation to Climate Change Project		
CSO	Civil Society Organization		
CYEN	Caribbean Youth Environmental Network		
DEAL	Direction régionale de l'environnement et de l'aménagement du littoral		

DM	Disaster management		
DRR	Disaster Risk Reduction		
EbA	Ecosystem-based Adaptation		
EbM	Ecosystem-based Management		
Eco-DRR	Ecosystem-based disaster risk reduction		
ESDU	Environment & Sustainable Development Unit (of OECS)		
ESS	Ecosystem Services		
EU	European Union		
FEBA	Friends of Ecosystem-based Adaptation		
FHH	Female house holds		
GCCA	Global Climate Change Alliance		
GCF	Green Climate Fund		
GEF	Global Environment Facility		
GESI	Gender Equality & Social Integration and Social Inclusion		
GEWE	Gender Equality and Women's Empowerment		
GIS	Geographic Information System		
GM	Gender Mainstreaming		
ICZM	Integrated Coastal Zone Management		
IPCC	Intergovernmental Panel on Climate Change		
ISM	Island Systems Management		
IUCN	International Conservation Union for Nature		
KfW	Kreditanstalt für Wiederaufbau		
LDC	Least Developed Countries		
MCA	Multi-Criteria Analysis		
MFI	Micro finance institutions		
M&E	Monitoring and Evaluation		
OECS	Organization of Eastern Caribbean States		
SIDS	Small Island Developing States		
SLR	Sea Level Rise		
TA	Technical assistance		



EXECUTIVE SUMMARY

Aims and scope

This Toolkit was developed as part of the Adapt'Action funded project to support climate change practitioners and decision-makers to mainstream Ecosystem based adaptation (EbA) and gender equality and social inclusion (GESI) considerations into the climate change adaptation related policies, plans, and on-the-ground activities.

More precisely, the Toolkit provides detailed guidance on how the GESI aspects should be taken into account as part of the process of mainstreaming EbA and formulating concept notes for funding. The purpose of the Toolkit is not to create new tools, as many of them have already been developed, but to gather, select and /or adapt available methods and resources that are the most relevant for design and implementation of EbA-GESI responsive adaptation actions in the Caribbean context.

The Toolkit was developed in a participatory manner. A draft version was presented to representatives from OECS during the Adapt'Action workshop held in October 2019 in St Lucia with the aim of garnering insights on best practices for EbA and Gender Equality and Social Inclusion (GESI) mainstreaming practices and testing the first version of this Toolkit. The workshop was organised with the support of "Climate Change and Disaster Risk Management Unit" of the OECS and in cooperation with the AFD-funded program Adapt'Action and provided great opportunity to collect valuable feedback from the Toolkit end users.

Key findings and Toolkit content

The Toolkit focuses on two major, though still relatively new, concepts in climate change adaptation: EbA and Gender Equality and Social Inclusion (GESI). When considered and planned at the start of any process, the integration of EbA-GESI considerations is not an additional step, but rather an integral component of the planning, development.

EbA refers to physical measures or management actions that utilises natural or ecosystemlike processes to adapt to a variety of climate hazards. EbA mainstreaming is about integrating climate risks into development planning processes and decision making through the adoption of Ecosystem-based Management principles. That is analysing each stage of policy and project formulation from a climate risk perspective, so that the policy or project under consideration is effective at reaching its objectives, does not create or increase vulnerability but promotes sustainable development including the ability to respond to climate risks. Even though, EbA is a relatively new approach, the experience from different contexts and regions shows that nature-based solutions can be proposed as an effective, sustainable and cost-effective alternative to traditional engineering solutions

A GESI approach is focused on delivering equal rights, opportunities and ecosystem services to all citizens. A gender responsive climate change programme recognises that women's roles are as important as men's in addressing environmental and development issues and that their needs and dependence on resources can significantly differ. Integration of GESI considerations into the Ecosystem based adaptation provides clear and targeted actions that deliver gendered and ecosystem relevant climate change adaptation strategies for specific locations. In this way, the adaptation response becomes embedded into climate risk mainstreaming, providing a good entry point for considering both EbA-GESI related issues at the same time.

The Gender mainstreaming and Social inclusion follow a similar process by systematically integrating gender as well as social considerations into all project steps starting from problem definition, through formulation of methodology and implementation strategy, identification of potential solutions, budgeting process, on the field implementation and ending by the monitoring and evaluation (M&E) and policy dialogue.

This Toolkit makes the business case for EbA-GESI as critical levers for climate change adaptation (CCA) policies, investments, and actions. Chapter 2 of the Toolkit provides general background information about EbA-GESI while Chapter 3 is structured in 3 steps, each of them providing provides entry points, tools and methods for incorporating gender considerations within potential EbA focused projects. Each Toolkit section includes **guiding questions** to conduct the user through each step of project or policy formulation, design and implementation.

When considered and planned at the start of any process, the integration of EbA-GESI considerations is not an additional step, but rather an integral component of the planning, development.

Step 1: illustrates how to gather information about the development context, gaining a better understanding of the institutional, policy, socio-economic and ecological context of the target area in the gender inclusive and responsive way. It helps in formulating the problem and the need. It also presents guidance on how to conduct a climate and vulnerability risk assessment to make sure the policy, plan or project are relevant and embedded in the local or regional climate context. Step 1 guides the user through:

- Context description by applying an ecosystem and a GESI lens to analyse the situation.
- → Assessing climate vulnerability and risks.

Step 2 guides the user through:

- The identification of adaptation measures and solutions.
- → The selection of the most relevant adaptations options and plans.

Step 3 provides guidance on the process of preparation of a project document including design of monitoring and evaluation approach with specific EbA-GESI related indicators. This step guides the user through:

- The design and formulation of policy or project concept notes.
- → The design of a Monitoring & Evaluation system.

Gaps identified and recommendations to users

Recognizing that the two core themes of EbA-GESI have been pragmatically blended towards the creation of a harmonized EbA-GESI Adaptation Mainstreaming Toolkit, the first training workshop presented these themes as a dynamic combination, notwithstanding the need to disaggregate certain elements of EbA-GESI for illustrative and training purposes (for specific gender issues).

A socio-ecological approach underpinning the GESI elements of this Toolkit recognizes that "Human activities alter the structure and function of ecosystems, which in turn provide people with ecosystem goods and services that contribute to human well-being. For example, coral reefs provide many tropical societies with coastal protection from storms and cultural services such as a sense of identity and place, all of which contribute to the well-being of coastal communities. However, in many locations, reefs are directly affected by climate change, overfishing, and land-based pollutants"¹.

- Therefore, to be effective EbA-GESI solutions require active engagement with people: decision makers should systematically consider winners and losers when identifying EbA options and the sustainability of potential on the ground investments.
- Similarly, the consultation of relevant beneficiaries will be essential at an early stage to agree on the most relevant indicators to measure outcomes achieved by EbA-GESI solutions.
- Finally, with more investments occurring over time, the need to prioritise transformative actions towards adaptation on the longer-term is emerging rather than simply helping people and ecosystems to cope on a short-term basis, without long-lasting solutions to address climate change impacts. The main transformation domains are public policy and governance, innovation, and social and behaviour change².

¹ Source : NOAA https://oceanservice.noaa.gov/facts/coralreef-climate.html

² Source : Unpacking Transformation: A framework and insights from adaptation mainstreaming http://www. adaptationlearning.net/resource/unpacking-transformation-framework-and-insights-adaptation-mainstreaming

GLOSSARY

Activities: Specific actions implemented to bring about each of the outputs or outcomes on the pathway to change.

Adaptation: Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Adaptive Capacity: The ability of systems, institutions, humans, and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences (IPCC 2014).

Community resilience-building:

This is a unique, "anywhere at any scale", community-driven process, rich with information, experience, and dialogue, where participants identify top hazards, current challenges, strengths, and priority actions to improve community resilience to all hazards today, and in the future.

Climate change vulnerability:

the propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Ecosystem-based Adaptation (EbA): EbA is the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change (CBD 2009). It is also defined as an initiative that reduces human vulnerabilities and enhances adaptive capacity in the context of existing or projected climate variability and changes through sustainable management, conservation and restoration of natural systems.

Eco-DRR is the sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim to achieve sustainable and resilient development.

EbA intervention: activities that include one or more of the following: • protection, restoration and management of ecosystems, biodiversity, ecosystem services, and species to help people adapt to climate change • implementation of specific agricultural practices and new crop varieties to help people adapt to climate change • establishment of engineer structures that protect or enable the protection, restoration (or natural regeneration) and management of ecosystems, biodiversity, ecosystems services and species to help people adapt to climate change (e.g. gabions to facilitate wetland restoration) • policies and plans for EbA • awareness raising on EbA • training on EbA • incentives for EbA.

Ecosystem services: Ecological processes or functions having monetary or nonmonetary value to individuals or society. These are frequently classified as (1) supporting services such as productivity or biodiversity maintenance, (2) provisioning services such as food, fibre or fish, (3) regulating services such as climate regulation or carbon sequestration and (4) cultural services such as tourism or spiritual and aesthetic appreciation.

Exposure: The presence of people, livelihoods, species or ecosystems, environmental functions, services, and resources, infrastructure, or economic, social, or cultural assets in places and settings that could be adversely affected.

Gender, as compared to sex, is socially constructed, and manifests most significantly in the different roles and

responsibilities assigned to women and men in a given culture. This lens will allow us to understand the obstacles that women and men face from climate hazards, their differential exposures, sensitivity and susceptibility in the face of increased and intensified risk and identification of tangible adaptation measures that better foster women's integration into decisionmaking structures (where they are not always included) towards climate-resilient development.

Gender analysis: to understand the social, economic and political factors underlying climate change-exacerbated gender inequality, and the potential contributions of women and men to societal changes in order to build resilience to and address climate change;

Gendered actions: methods and tools to promote gender equality and reduce gender disparities in climate action;

Gender-sensitive M&E: measuring the outcomes and impacts of project activities on women and men's resilience to climate change through gender responsive M&E

Gender-blind: Gender blind: projects/ programmes/activities do not identify or acknowledge the existing differences and inequalities between women and men.

Gender-aware: gender is part of the rationale but does not shape the design and approach of projects/ programmes/ activities.

Gender equality: This refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-cantered development.³

Gender Equality & Social Inclusion (GESI): Gender equality and social inclusion is focused on delivering equal rights, opportunities, and mainstream services to all citizens. GESI is seen not only as a fundamental aspect of human rights and social justice, but also as a precondition to improve the development process by putting social concerns at the forefront of interventions. Social exclusion (the opposite of social concerns) is defined by the Department of Economic and Social Affairs of the United Nations as the 'involuntary exclusion of individuals and groups from society's political, economic and societal processes, which prevents their full participation in the society in which they live'. It does therefore make full sense to combine both GE and SI into a socalled "GESI" approach.

Gender-sensitive: projects/programmes/ activities identify and acknowledge the existing differences and inequalities between women and men.

Gender-responsive: projects/programmes/ activities identify and acknowledge the existing differences and inequalities between women and men AND articulates actions, steps, policies and initiatives that address the different needs, aspirations, capacities and contributions of women and men.

Gender-transformative:

beyond acknowledging differences and responding to them, projects/ programmes/ activities seek to address fundamental inequalities and imbalances.

Modelling: simulation of climate behaviour and how elements (species distribution, crop production, and wave dynamics) may change based on how climate may change.

Nature-based solutions (NbS): Actions to protect, sustainably manage, and restore

³ Source: UN Women, OSAGI Gender Mainstreaming Concepts and definitions

natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits, International Conservation Union for Nature (IUCN).

Outcomes of EbA intervention: The effects or changes to ecological or social systems that result from intervention.

Outputs of EbA intervention: Products or events produced by an activity.

Participation: a process through which all members of a community or organization are involved in and have influence on decisions related to development activities that will affect them

Resilience: The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.

Risk: The potential for consequences where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. Risk is often represented as probability or likelihood of occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur.

Risk management: The plans, actions or policies to reduce the likelihood and/or consequences of risks or to respond to consequences.

Selection and priorisation process: Prioritization refers to ranking or scoring projects, based on certain criteria, to determine the order of execution. However, the terms "prioritization" and "selection" are often used interchangeably, as the two processes are intertwined.

Sensitivity analysis: a method to determine the robustness of an assessment by examining the extent to which results are affected by changes in methods, models, values of unmeasured variables, or assumptions **Sensitivity**: The degree to which a system or species is affected, either adversely or beneficially, by climate variability or change. The effect may be direct (e.g., a change in crop yield in response to a change in the mean, range, or variability of temperature) or indirect (e.g., damages caused by an increase in the frequency of coastal flooding due to sea level rise).

Sexual and Gender based Violence (SGBV): refers to any act that is perpetrated against a person's will and is based on gender norms and unequal power relationships.

Target population: the population under a projectarea/ortypeoflivelihood (fisherman, farmers, indigenous communities

Theory of change: specific and measurable conceptual model of the goals, interventions, assumptions, and outcomes of a project that forms the basis for strategic planning, on-going decision-making, monitoring and evaluation

Vulnerability: the degree to which human and environment systems are likely to experience harm due to perturbation or stress. Defined generically by IPCC as the "propensity or predisposition to be adversely affected. Such predisposition constitutes an internal characteristic of the affected element. In the field of disaster risk, this includes the characteristics of a person or group and their situation that influences their capacity to anticipate, cope with, resist, and recover from the adverse effects of physical events" (Wisner et al., 2004). Vulnerability is a result of diverse historical, social, economic, political, cultural, institutional, natural resource, and environmental conditions and processes (IPCC SREX 2011).

ABOUT THE TOOLKIT

Who is this Toolkit for?

The primary intended audience for Integrated EbA/GESI Adaptation the Mainstreaming Toolkit is OECS technical officers and policy makers, with a secondary but important focus on vulnerable communities, industry sectors and Small Medium Enterprises (SMEs) at risk, and youth groups, cognizant of the need for gender equality and women's empowerment. This dual focus on primary and secondary beneficiaries is critical to ensure that realities on the ground inform policy processes, including the application of adaptation measures that foster appropriate action and ownership at the community level. The Toolkit is also intended for technical assistance and investment decision-makers from OECS countries responsible for climate risk management mainstreaming; and for development partners willing of furthering EbA and Gender Equality adaptation mainstreaming actions, such as the AFD, the Caribbean Development Bank, the GCF, the GEF, etc. Core Project beneficiaries will include: vulnerable OECS communities and associated CBOs, GEF and GCF operational and implementing agencies, Women's Groups/Youth groups, and Regional NGOs.

What can this Toolkit help you do?

This Toolkit brings together relevant methods and resources to help its users easily access, understand and adopt EbA principles in climate change adaptation while integrating GESI into their development practices at both national and regional scales. It will not make the reader an EbA expert, nor a gender expert but it provides comprehensive guidance necessary for effective integration of the two concepts into the climate change adaptation initiatives.

How does this Toolkit complement other available guidance?

The Toolkit builds on existing and/or complementary tools, in particular to the general CBD guidance and best practices for the identification, design, and monitoring evaluation of EbA interventions, & launched in Bonn in June 2019⁴. Organized around five steps, the CBD document is a reference guide for incorporating EbA into adaptation practice (see Figure 1). This Toolkit complements those five steps by integrating GESI elements tailored to the context and needs of the OECS Region, reflecting⁵ the **Gender Plan of Actio**n defined under the Convention on Biological Diversity (2008) which introduced the "Web of institutionalization" for gender equality.

^{5 &}lt;a href="https://cop-09/information/">cbd.int/doc/meetings/cop/cop-09/information/



⁴ CBD Technical Series 93

Figure 1:

Iterative process for planning and implementing EbA (Source: CBD Technical Series 93)



Structure of this Toolkit

The Toolkit is structured in two chapters.

- Chapter 2 sets the context for the region, outlining the climate risks it faces and describes the rationale for considering Ecosystem-based Adaptation actions to address the management of climate risks, while considering Gender and Social Inclusion (GESI).
- Chapter 3 describes a 3 stepby-step process for effective mainstreaming of the EbA-GESI considerations into the climate change actions (context and risks, identifying and prioritizing solutions and formulation).

Before you begin

Before starting work with this Toolkit, the reader should develop a good understanding of the terms and concepts. This is of the utmost importance for validation and implementation strategies. To facilitate this work, the Toolkit integrates a Glossary which provides definitions of key EbA-GESI terminology. We strongly recommend consulting this glossary regularly through the process of formulating and implementing projects and plans. The Toolkit provides also a summary of OECS Region policies (Annex 1) and a detailed review of existing EbA & Gender Equality & Social Integration Guidelines (Annex 2).

The Toolkit is designed to be an operational document in the sense that it seeks to provide support to decision makers in policy, plan and project development process by proposing ready to use tools and approaches.

The Toolkit will be deployed on the OECS website and demonstrated during a series of dedicated webinars, during which the Toolkit structure and content will be presented to future users by initiating work on the concrete project concept notes.

O BACKGROUND AND CONTEXT

By the end of the century, depending on the climate evolution the region will face certain future changes in climate conditions and the hazards they engender.

Climate risks and vulnerability in the Eastern Caribbean

The Eastern Caribbean Region is mostly composed of Small Island Developing States (SIDS) highly vulnerable to the adverse impacts of climate change hazards. This is partly attributed to their geographical location within the hurricane belt but also to sectoral economy dependencies on natural resources that are being impacted by climate change (see Box 1). For example, in 2019, the OECS region experienced an intense heat wave, which had consequences on water availability (drought), human health (disease), crop failure (food wastage) and ecosystem health, and the impacts of which have not yet been fully determined at the level of each island.

The OECS is an inter-governmental organisation dedicated to economic harmonisation and integration, protection of human and legal rights, and the encouragement of good governance among independent and non-independent members in the Eastern Caribbean region.

Mainstreaming climate, economic, environmental and social resilience is among the Organisation's strategic goals. OECS membership - at time of publication of the toolkit - embraces the following: Full Protocol Members - Antiqua and Barbuda, the Commonwealth of Dominica, Grenada, St. Kitts and Nevis, Saint Lucia, St Vincent and The Grenadines; Associate Members (French and UK Overseas Territories) - Anguilla, the British Virgin Islands, Montserrat, Martinique and Guadeloupe; and Saint Martin currently an Observer Member.

Both adaptation and vulnerability reduction are key priorities for the Caribbean islands in preserving their economies, population and ensure sustainability in the context of future changing climate. Moreover, it is vital that OECS members adopt innovative strategies directly aligned with planning systems and mechanisms to reduce their vulnerability to climate extremes, and in the process, strengthen their institutional adaptive capacity toward climate-resilient infrastructure, human settlements, and

ecosystems. This includes but is not limited to territorial, sub-national and national development planning instruments such as vulnerability profiles, National Plans (NAPs), Nationally Adaptation Determined Contributions (NDCs) and National Development Strategies. The OECS region has long recognized the importance of human development that is environmentally sustainable with a number of policy documents and normative frameworks. The Sustainable Development Goals (SDGs) undergird and are integrated with the OECS Organisation's Strategic Goals.

As such, it is fundamental that adaptation mechanisms implemented and planned consider the critical role of ecosystems, women and other highly vulnerable people in their design. This Toolkit has been especially formulated to support decision makers in the Eastern Caribbean Region and offers a stepwise process for understanding and implementing Ecosystem-based Adaptation strategies, paying special attention to gender equality and social inclusion.

Figure 2:

The geographical scope of the OECS action: OECS Full Protocol Members are underlined, the Associated Members are marked with \bigstar (Source: Egis)



Mainstreaming EbA & GESI into adaptation policies and investment plan

BOX 1 Summary of key climate trends in the Eastern Caribbean zone

By the end of the century, depending on the climate evolution (IPCC RCP 2.6, best case scenario, and worst-case scenario RCP 8.5) the region will face certain future changes in climate conditions and the hazards they engender; some additional climate-related hazards are expected to potentially change in future with:

- → Higher temperatures + 1.5 to 5°C and more heat waves. The heat Season will be twice as long (6 months from May to October), with heat waves as early as March and as late as November with a general drying trend for the Caribbean Basin of 25% to 30% increase producing drought (High confidence). Increased heat stress as the local expression of global warming (high confidence) with more frequent and more intense droughts (high confidence), as well as, more frequent dry spells (medium confidence).
- Sea level rise + 20 cm -to 2 m may be more pronounced than in other regions and it will continue beyond 2100, even if GHGs are stabilised with immediate effect.
- Warmer sea surface temperatures: Warmer sea surface temperatures along with steadily rising sea levels, even if global warming is halted in the foreseeable future (high confidence).
- **4**4
- Possible increase in flash flood with extreme rainfall (low confidence), including from wetter tropical cyclones (medium confidence), but reduction in frequency of flash floods and long-term flooding (low confidence).



 More intense and more frequent major hurricanes (i.e. categories 4 and 5) (medium confidence), accompanied by a strong increase in storm surge because of sea level rise.

These dynamics could have important impacts across the region, notably on human health, water management, energy production and demand, ecosystems and food security.

Source: Climate report presenting IPCC climate change scenarios analysis for the OECS Region by The Caribbean Institute for Meteorology and Hydrology (2020) with the support of the AFD-funded programme Adapt'Action.

Applying an ecosystem lens to key climate change priorities in the Eastern Caribbean

WHAT

Ecosystem-based Adaptation (EbA) is an integrated management approach to design adaptation actions that recognizes the full array of interactions within an ecosystem, including human beings, rather than considering single issues, species, or ecosystem services in isolation (see Box 2). In addition to improving climate resilience of natural ecosystems, a nature-based solution provides socio-economic benefits by internalizing "ecosystem services" (see Figure 3).

Unlike traditional engineering solutions which can compromise ecosystem health, nature-based solutions equally apply an 'ecosystem and climate lens' to the work that any Government agency or civil society entity is already doing in development planning. The "lens" is used to analyse each stage of policy and project formulation from an ecosystem and climate risk perspective, in order to safeguard the critical services that ecosystems provide on the journey towards sustainable development.

People, their livelihoods and economic activities often depend on the structure and function of ecosystems. They can also significantly alter and undermine them. Ecosystems often provide for goods and services that contribute to human subsistence and well-being. As the climate continues its warming trajectory, and populations grow, adaptation strategies will need to be transformative: implemented in a way that not only to address the immediate risks to the coral reef ecosystems and those which depend on their services, but also seek to restore the degraded reefs in order to safeguard the services they provide on a long term (see Figure 4). This is at the heart of Ecosystembased Adaptation actions.

BOX 2

Core principles for Ecosystem-based Approaches to Adaptation (EbA)

- Promotes the resilience of both ecosystems and societies.
- Promotes multi-sectoral approaches.
- Operates at multiple geographical scales.
- Integrates flexible management structures that enable adaptive management.
- Minimizes trade-offs and maximizes benefits with development and conservation goals to avoid unintended negative social and environmental impacts.
- Is based on best available science and local knowledge and fosters knowledge generation and diffusion.

 Is participatory, transparent, accountable, and culturally appropriate and actively embraces equity and gender issues.

Source: https:// www.iucn.org/sites/ dev/files/eba_ guidelines_2012_ revise

Coral reefs: example of ecosystem and people interaction

The coral reef ecosystems on which many OECS member countries rely for fish and protein, also provide coastal protection from storms and cultural services such as a sense of identity and place, contributing to the well-being of coastal communities. Overfishing and land-based pollution sources can, however, affect the health of coral reef ecosystems. This is compounded by climate change which is increasing sea surface temperatures and ocean acidification and rising sea levels, all negatively impacting the services that these ecosystems provide (see also Figure 4).

WHY

OECS members are committed to supporting biodiversity conservation and therefore the implementation of EbA approaches, as articulated within organization's Biodiversity the and Ecosystems Management programme that focuses squarely on: "the conservation of major ecological services, rehabilitation or restoration of natural resources and maintenance of ecosystem integrity while meeting the socio-economic, political and cultural needs of current and future generations"⁶.

EbA links traditional biodiversity and ecosystem conservation approaches with sustainable socio-economic development as part of an overall strategy for helping people adapt to shocks and risks associated with climate change. At the core of EbA is the fundamental understanding that ecosystems play a critical role in providing 'services' or 'the benefits people obtain from ecosystems' that contribute to development and human wellbeing. These include (Figure 3):

- Provisioning services Include all of the products obtained from ecosystems including food, fresh water, fiber, fuel and genetic resources.
- Regulating services are the benefits obtained from the regulating role of ecosystems. In the OECS, these include coastal protection from environmental disturbances, pollination and carbon sequestration.
- Supporting services are providing for ecosystem regulation, including nutrient cycling and primary production.
- Cultural services relate to the non-material functions of ecosystems, such as providing for recreation, tourism and inspiration.

By promoting biodiversity conservation and rehabilitation, this programme provides a solid basis for the implementation of the EbA approach and is linked to and supports the implementation



6 https://www.oecs.org/en/beu-programmes

20

of the St Georges Declaration and Pillar 3 of the OECS Development Strategy (2019-2028). As both anticipated and unanticipated changes in global and regional climate occur, the frequency of damaging impacts on ecosystems on which the countries of eastern Caribbean region rely are likely to increase (e.g.: coral reef bleaching and mass phytoplankton dieback). EbA can play an important role in adaptive environmental management, safeguarding the region's people, economies, and the natural resource base on which they depend. Understanding the role of ecosystems as being critical to safeguarding against these risks, could offer key sustainability insights to OECS members when formulating new strategies, policies and measures to address these risks.

HOW

The current climate variability is already severely impacting people in the Eastern Caribbean Region. Coastal areas, fishing, cropping, hill-farming etc. are affected by droughts, flooding, hurricanes. People can respond to those impacts and anticipate future one through embracing naturebased solutions. A categorization of EbA measures by sectors (produced in the Climate-ADAPT⁷ study) is providing examples of measures across different land-use and land-cover types. Table 1 illustrates this categorisation, starting from sectors, and moving to abroad categorisation of interventions, offering a list of individual measures that can be used as a guiding approach. The report is also stating that "the application of EbAs may be combined across sectors with multiple measures being applied".

Illustrative examples of EbA actions implemented in the OECS region (Grenada and St Vincent and the Grenadines) are presented here.

Figure 4:

Examples of EbA interventions from OECS in the region

Mangrove seedlings for the restoration of the degraded critical coastal buffers to protect coastal zones and people against rising seas and storm surge in Grenada. Photo: Leisa Perch



In St. Vincent, these flood retention ponds to not only protect homes and structures from the risks of floods, but also provide critical water resources for food security, supporting home gardens and fruit tea plantations. Photo: Richmond Vale Academy

^{7 &}quot;Assessing Adaptation Knowledge in Europe: Ecosystem-Based Adaptation", Final Report, 2017, European Commission DG CLIMA <u>https://ec.europa.eu/</u> clima/sites/clima/files/adaptation/what/docs/ecosystem_ based_adaptation_en.pdf

Table 1: Example of categorization of EbA sectors and measures across different land use types

Sector		EbA measures
Agriculture	Agricultural habitats	 Agro-forestry and crop diversification Buffer strips and hedgerows Improved water retention in agricultural areas Meadows and pastures Traditional terracing
Agriculture	Agricultural Management	 Crop rotation Low till agriculture No till agriculture Green cover Reduced stocking density
Forestry	Forest planting	 Reforestation/Afforestation Forest riparian buffers Land use conversion Maintenance of forest cover in headwater areas
Forestry	Forest management	 Water sensitive forest management Coarse woody debris Continuous cover forestry Peak flow control structures
Coastal		 Beach nourishment Coastal managed realignment Dune reinforcement and strengthening Cliff stabilization
Urban	Green infrastructure	 Green roofs Rain gardens Soak ways Swales Urban greenspace Urban forest parks
	Blue infrastructure	 Channels and rills Detention Basins Filter Strips Infiltration basins Permeable surfaces Retention / Sediment capture Ponds Temporary flood water storage
Water management	River restoration	 Elimination of riverbank protection Natural bank stabilization Re-meandering River restoration and rehabilitation Riverbed material re-naturalization Stream bed re-naturalization
	Floodplain restoration	
	Groundwater restoration	1
	Lake restoration	
	Wetland restoration	

Adapted from: "Assessing Adaptation Knowledge in Europe: Ecosystem-Based Adaptation", Final Report, 2017, European Commission DG CLIMA https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/ecosystem_based_adaptation_en.pdf

EbA barriers identified

Several threats or barriers to EbA initiatives, especially those that are initiated within the coastal-marine environment (e.g.: coral nurseries) are clearly identified⁸. They are in fact a combination of institutional and governance issues , legal and technical barriers for effective implementation with:

- Legal discrepancies between licences issued by government agencies when none of them have explanatory guidelines (for example permission for coral gardening granted in St. Vincent and Grenadines as an EbA technique).
- No appropriate planning framework for EbA management and relevant regulation fitting into a larger development picture for upscaling existing activities, a serious concern to several stakeholders - essential first step in moving the process of EbA projects forward.
- No national or regional standards for EbA (e.g.: coral restoration or home garden creation) which should embrace legal, financial or ecological protocols or regional indicators.
- Unregulated coastal developments within watersheds creating concerns about landbased sources of pollution negatively impacting the marine environment where coral nurseries are already located, or to be established.
- No facilities for the sewage disposal and discharge from yachts, and their discharge is impacting adjacent coral reefs hurricanes and storms are destroying the work done because of insufficient maintenance budget.

- Selected species sometime not providing coastal protection because of their fragility: boulder corals targeted because they are the building blocks of the reef and offer more coastal protection.
- Limited availability of skilled staff necessary to implement adaptation actions and monitor progress, undertake and interpret regional climate change projections; conduct research on the vulnerability of key sectors and communities to the impacts of climate change creating a Deficit of implementation capacity.
- Logistical weakness and challenge especially amongst public, private, research and NGO/CBO (to prevent duplicating efforts and provides opportunities for synergies, collaboration and sharing of lessons learned, which can be critical to projects during planning stages) because of poor coordination between ongoing projects and various countries represents, therefore climate change mitigation and adaptation is insufficiently mainstream into key sectors.
- Limited financial resources of the administrations to undertake climate change activities and the absence of a clearing house mechanism to facilitate the exchange of information on climate change.

To conclude, the strong belief was noted in the Eastern Caribbean region that **EbA projects not addressing root causes are more likely to fail** which leads us to the need to reinforce root causes analysis during project formulation.

⁸ Ecosystem-based Adaptation (EbA) & Gender Equality and Social Inclusion (GESI) mainstreaming Illustrative case studies Report, Adapt'Action February (2020).

Applying a GESI lens is key climate change priority in the Eastern Caribbean

WHAT

The experience from extreme climate events in the Caribbean region, after a hurricane 5 for example, suggests that gender does matter in terms of loss damage and income-generating and opportunities arising post-disaster. Even if the latest report of the CDEMA⁹ points out the lack of data and understanding of the gender dimensions of disaster risk (62 of 70 reporting countries within the mid-term review of the Hyogo Framework of Action did not collect gender-disaggregated vulnerability and capacity information during the period 2009-2011¹⁰). A deeper look into the after-effects of extreme events however highlights differentiated capacities to recover and respond to the increasing variability and extremes of climate change. It is also increasingly clear

9 The Caribbean Disaster Emergency Management Agency (CDEMA) is a regional inter-governmental agency for disaster management in the Caribbean Community (CARICOM).

10 Addressing the Gender Inequality risk in a changing climate, UN Women (2016).

that this inequality of risk is also shaped by everyday disasters, as well as poverty and social inequality. This broader connection between several social conditions and consequences is displayed in Figure 5 below.

This unequal burden and differentiated impact are influenced by power dynamics, roles and responsibilities in the household, at community levels and in the labour market with gender norms as a root cause. Adaptation strategies aim to integrate activities that will generate sustainable and climate resilient development benefits together with an element of risk reduction and management.

WHY

Gender Equality and Social Inclusion (GESI) is an integrated approach to designing adaptation actions that systematically and explicitly considers the impact of gender, inclusion and social norms throughout the development process, while also respecting local culture. The premise underlying GESI is that considering factors such as age, disability, ethnicity and socio-economic conditions delivers more socially inclusive responsive and sustainable solutions. A handful of regional and international

Figure 5:

Gender inequality risks (Source: UN Women)



EbA Toolkits were reviewed (see Annex 2: Examples of Toolkits) that embrace a broad spectrum of unique techniques and innovative applications. Ensuring gender and social equality appears as a lever for more efficient and more sustainable resilience improvement action. Gender Equality means that rights, responsibilities and opportunities will not depend on gender. When women are provided with the best circumstances to enhance their socio-economic empowerment, they can contribute meaningfully to food security, poverty alleviation, and improved wellbeing for themselves, their families, and their communities for example in fishing communities (Torell, 2016).

HOW

There is for the Eastern Caribbean region in particular, limited guidance available on how EbA-GESI should be integrated along the development cycle. Technically sound and proven methodological approaches, frameworks and guidance are needed to help deliver the intended message and approach to key decision makers and beneficiaries.

GESI barriers identified

The main barriers for effective implementation of GESI inclusive adaptation action include:

- The general lack of attention to gender issues and considerations in disaster planning, either at design or implementation or analysis, making it difficult to assess within the existing system what gender considerations may be important: neither gender analysis per se, or a gender mainstreaming approach is undertaken.
- Diverse understanding of the context of gender equality, and its relevance, depending on the lens through which the issue is examined or understood (by academic, farmer, government employee or public decisionmaker etc.).

 GESI related policy and governance challenges that project designers need to overcome are not taken into account.

The divergent nature of these perspectives represents and the implications for planning including participation, who and to what extent and in what context, highlights the value and need for more robust gender analysis and assessment which would help to bring a common understanding of the issues and help to develop a consensus. These barriers can and should be tackled through the formulation of coherent and comprehensive policies and practices to fully integrate gender equality into government sectoral policies and development plans, and subsequently mainstream climate risk management project design and programme in investments plans for host governments and civil society. The need to incorporate EbA-GESI grows with the need to invest in climate adaptation, mostly because vital insights to guarantee adaptation success, reducing the risk that larger investments would compromise other components of the system (or worse, would have limited uptake and usability).

To this end, improving involvement, participation and benefit-sharing of women and other vulnerable groups is one key consideration that needs enhancement at both policy and project design stages. The involvement of all stakeholders, to better build and incorporate their unique skills and knowledge, provides opportunities for improved health, education and livelihood security. Acknowledged gaps and barriers, such as women and girls disproportionate lack of access to resources available for adaptation to climate change impacts and under-representation in decision-making processes need to be bridged¹¹. If achieved, then more consistent and committed

¹¹ https://reliefweb.int/sites/reliefweb.int/files/resources/ dominica-pdna-maria.pdf; https://www.alnap.org/helplibrary/dominica-lessons-learned-from-hurricanemaria, https://trainingcentre.unwomen.org/pluginfile. php/66830/mod_folder/content/0/Addressing%20 the%20gender%20inequality%20at%20risk%20in%20 a%20changing%20climate.pdf?forcedownload=1.

attention to mainstreaming GESI would hereby seek to incorporating gender and social inclusion principles means, in essence:

- Putting in place policies, plans and programmes to address existing gender deficits in political, economic, social and cultural life;
- Improving the allocation of financial and human resources to address gender gaps in all sectors and at all levels through gender-responsive budgeting and planning;
- Achieving the full and equal participation of men and women in the development process; and
- Ensuring the equitable, effective and sustainable outcomes of programmes/actions undertaken by Government, civil society and the private sector.

Such social features include, for example, discrimination on the basis of gender, class, ethnicity, age and additional needs. Working to increase the participation and address the specific concerns of women (and all most vulnerable groups) will undoubtedly contribute to greater uptake of investments and likely also yield new and innovative solutions to the risks posed by climate change. This can help to promote sustainable solutions, as women's critical roles in environmental management are usually poorly considered.

Gender equality and social inclusion mainstreaming must follow such a process, by systematically integrating gender into every step of the process from defining the problem to identifying potential solutions. This integration needs to be done within a range of stages that are linked to policy, programme or project setting. An intersectional approach to gender and climate, and gender and ecosystembased management, considering the factors identified by the IPCC (See box 5th Assessment Report) is developed in this Toolkit to deliver socially inclusive responsive solutions. In the context of climate change resilience and adaptation,

Excerpt from the IPCC Fifth Assessment Report

Differences in vulnerability and exposure arise from non-climatic factors but from multidimensional inequalities [...] These differences shape differential risks from climate change. People who are socially, economically, culturally, politically, institutionally, or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses. This heightened vulnerability is rarely due to a single cause. Rather, it is the product of intersecting social pressures that result in inequalities in socioeconomic status and income, as well as in exposure.

Figure 6:

IUCN's environment and gender index (Source: IUCN)



inequalities are not only limited to gender but often reflect more widely the socioeconomic situation of population groups in particular the ones suffering the most from social exclusion, defined by the Department of Economic and Social Affairs of the United Nations as the 'involuntary exclusion of individuals and groups from society's political, economic and societal processes, which prevents their full participation in the society in which they live'. As a response to this critical issue, combining gender equality to social inclusion is now seen as "not only a fundamental aspect of human rights and social justice, but also a precondition to improve the development process by putting social concerns at the forefront of interventions". Therefore, it does make full sense to combine both Gender Equality (GE) and Social Inclusion (SI) into a comprehensive "GESI" approach which is applied into this Toolkit. To ensure gender is adequately addressed over the whole process, it is important to consider the findings established during STEP 1 to match issues and possible solutions and actions that would need to be undertaken to ensure that the proposed EbA concept/ intervention is GESI-responsive and compliant with the gender commitments of the UNFCCC¹² and/or the guidelines for project proposals by respective donors or financing institutions.

Gender and climate finance governance

Before dealing with policies, programme and project formulation, it is worth noting the situation about the limited role of women in climate finance (see Figure 6). Although those data are not reflecting the Caribbean region only, they offer a good global picture of the unbalanced role of women in key areas to decide on the allocation of funding for climate change solutions: 15% to 35 % women only are participating in Climate Finance Mechanism boards while ¹³29% only are appointed as National Focal points of the Global Environmental Facility¹⁴.

Then, to ensure that gender equality and social inclusion are adequately addressed over the whole process, it is important to consider the findings established during the situation and problem analysis (cf. STEP 1 of the Toolkit) and match identified issues with possible adaptation solutions and actions (cf. STEP 2 of the Toolkit) to

¹² https://www4.unfccc.int/sites/SubmissionsStaging/ Documents/201804300906--- UN%20Women%20 Submission%20to%20UNFCCC%20on%20Gender%20 and%20Climate%20Change.pdf.

^{13 &}lt;u>http://napglobalnetwork.org/wp-content/</u> uploads/2019/12/napgn-en-2019-Toolkit-for-a-genderresponsive-process-to-formulate-and-implementnaps_.pdf

¹⁴ http://genderandenvironment.org/egi/

ensure that the proposed EbA concept/ intervention is GESI-responsive and compliant with the gender commitments of the UNFCCC¹⁵ and/or the guidelines for project proposals for the donor. This includes the production of a clear and targeted **Gender Action Plan** (GAP) which should be part of any design process even at the level of a concept note formulation (see STEP 3).

The Eastern Caribbean region (around 1,500,000 habitants in total) has populations ranging from approximately 5,000 people in Montserrat to 448,000 in Guadeloupe and the Winward islands tending to be more populous than their leeward counterparts. The region's average population density is approximately 265 people per square kilometre, with the

15 https://unfccc.int/sites/default/files/resource/sbi2019_ inf8.pdf highest densities found in Saint Martin (717 people/km²) and the lowest in Montserrat (49 people/km²). In parallel, population growth rates vary between -0.08% in Martinique, to 0.9% in Anguilla. Therefore, the pressure on natural ecosystems will vary accordingly.

The biological importance of the Caribbean region as a biodiversity hotspot is widely recognized, with the islands hosting an exceptional array of ecosystems, from coral reefs, seagrass beds, mangroves and wetlands to tropical and dry seasonal forests as well as cactus scrublands. While several island nations have established protective reserves for key ecosystems, the high population densities noted also translate into significant anthropogenic threats to ecosystems, especially when coupled with natural threats from rising temperatures and more intense storms.

HOW TO MAINSTREAM EBA-GESI IN RESILIENCE BUILDING? A STEPWISE APPROACH

Chapter 3 presents a stepwise approach to guide users through the preparation of an EbA based process considering GESI (Figure 7 below). For each step, the Toolkit provides a detailed overview of the critical questions to ask, guidance on available tools that could be used to answer these questions, suggested modifications that should be made in order to incorporate EbA-GESI into the process, and illustrative outputs. Further resource links are also included for each step.



Step 1 illustrates how to gather information about the development context, gaining a better understanding of the institutional, policy, socio-economic and ecological context of the target area. It presents guidance on how to conduct a risk assessment to identify climate risks of relevance. This step guides users to:

- Apply an ecosystem and a GESI lens to analyze the context
- Assess vulnerability and risks.

Step 2 focuses on how to identify and prioritise actions to reduce these risks. It provides guidance on the process of preparing of a project document to:

- Identify measures consistent with the various types of ecosystem services agreed upon
- Select adaptations options and plans

Step 3 offers insights on concept note formulation including, monitoring and evaluation (M&E) approach with suggested indicators for EbA-GESI activities. This step guides users on:

- The design of concept notes
- Combining EbA-GESI M&E indicators to build a reporting system.

Figure 7: EbA / GESI Toolkit structure



Mainstreaming EbA & GESI into adaptation policies and investment plan

STEP Definition of the context and assessment of climate change risks considering GESI

Step 1

aims to clearly articulate the mapping of the baseline development situation, and define the nature and extent of climate risks while understanding how these risks are manifest across different stakeholder groups.





The goal of Step 1

Step 1 aims to shed light on the pressures and risks in the target area by framing the issues from an EbA-GESI perspective, while also offering insights on priority vulnerabilities and potential adaptation actions to address them in a given context. This analysis of baseline (initial) situation will start by examining relevant climate change scenarios, their impact on physical infrastructure and ecosystems, and the resulting consequences for people and communities. It will also include a stocktake of existing policies, strategies, institutional arrangements, and already identified priority actions to deal with these impacts.

۳	7

Guiding questions

This Step should be informed by **desktop research** as well as **stakeholder consultations,** guided by the following questions:

→ On landscape analysis:

What are the prevailing environmental and climate conditions in the target area? Consider here the types of ecosystem services previously mentioned and how these are affected by climate.

 On institutional and policy environment analysis:

> What are the institutional, regulatory, socioeconomic, political conditions in the target area?

Consider the differential

- Socio economic context and
- Exposure and impact of these risks on women, or femaleheaded households.

 On stakeholder overview (including its gender dimension):

> What ecosystem services/ sectors/livelihoods/social groups (including women issues) are vulnerable and why?

→ On climate risks profile:

To what climate risks are the target area residents and ecosystems vulnerable? how will this vulnerability change under a changing climate?

 On the preliminary theory of change:

What resources and actions are available to cope with and confront current and future risks?

The climate risks and vulnerability context

Many tools and methods to conduct climate risk and vulnerability assessment exist and should be selected according to the context. Recommended resources and tools to support this analysis have been presented in the next chapters. Independently on the selected method, the analysis conducted in this step should produce the concrete outputs: climate risk profile and vulnerability assessment

The policy context

Societies and communities rely, very often, on healthily functioning of natural ecosystems for the effective delivery of ecosystem services. The sustainability of policies, programmes or projects that address the risks from climate change is therefore intricately linked to the ecosystem services which are key to speedy and inclusive societal recovery from climate shocks and resilience.

Understanding and safeguarding these services can not only build resilience and support adaptation. Promoting those approaches will directly support national commitments to delivering some of the 17 United Nations Sustainable Development Goals (SDGs) of the 2030 Agenda, in particular SDG 5 on Gender Equality and 13 Climate Action but also 14, 15 and 2, which recognize that the economy, society and the environment are interdependent (See Figure 8 below).

In addition to the UN SDGs, the current UNFCCC policy context can also be a driving force leading to the consideration of EbA options. For example, Island States (signatories to the UNFCCC) are undergoing a National Adaptation Plan (NAP)/Nationally Determined Contributions (NDC) processes that will

Figure 8:



be logically attracted by such solutions. In this case, it will be essential to determine whether links exist in NAPs and NDCs (and other Strategic Plans) to Advance Climate-Resilient Development. (See Figure 9).

Table 2 is summarizing EbA-GESI elements of the 6 Nationally Determined Contributions (NDC) of OECS Independent States¹⁶: 3 of them are mentioning explicitly or implicitly EbA, but the 3 others could well use EbA to implement the commitments formulated in their NDC. Gender equality and social inclusion (GESI) however is only explicitly mentioned in 2 NDCs (Dominica and St Vincent & the Grenadines) while Grenada's NDC is mentioning the need to build the resilience of communities. Future work on OECS Islands NDCs could therefore pave the way to enhance the GESI approach when fully integrated to EbA solutions.

16 https://www4.unfccc.int/sites/NDCStaging/Pages/All. aspx



Figure 9:

A framework for linking National Adaptation Plans and nationally Determined contributions

(Source: NAP Global Network Secretariat International Institute for Sustainable Development: http://napglobalnetwork. org/2016/11/using-ndcs-naps-advance-climate-resilient-development/)



Table 2:

Review of Nationally Determined Contributions (NDC) of OECS Independent States

OECS Independent States*	EbA	GESI	
Antigua and Barbuda	Statement implying that ecosystem services provided by protected areas could reduce the vulnerability of people to climate change impacts (INDC 2015)	No reference to gender issues	
Dominica	Priorities for building climate resilience: 'Create the supportive enabling framework whereby communities and vulnerable segments of society (women, youth, elderly, people with disabilities) can manage their own climate change risks, thereby addressing climate change impacts on vulnerable sectors and threats to food security, human health, poverty alleviation, sustainable livelihoods and economic growth.'	Legal establishment of Climate Change Trust Fund to provide support to vulnerable segments of society, including women	
Grenada	Undertaking several community ecosystem- based adaptation actions including coral restoration, mangrove rehabilitation	No reference to women or gender However, reference to the need to build the resilience of communities in the context of adaptation by 'engaging community groups and NGOs in participating in activities related to resilience'	
Saint Lucia	No EbA mentioned but several goals could potentially by achieved through EbA options: Coastal Zone Management for Climate Resilience; Food Security; Sustainable Land Management; Slope Stabilization Water Resource Conservation & Management; and Rain Water Harvesting	No reference to women or gender	
St Kitts and Nevis	No EbA mentioned but statement about "considered important to its social and economic sustainability and their interlinkages with others sectors: Water – Agriculture; and Coastal zone"; all areas where EbA could be potentially considered.	No reference to women or gender	
St Vincent and the Grenadines	No EbA option mentioned but several proposal sectoral options could be implemented according to EbA principles for example: Enhancing the adaptive capacity of rural economies and natural resources to climate change through the management and protection of land based natural resources and agricultural production systems	Reference to gender: at national level to facilitate adaptation include the Pilot Programme for Climate Resilience with the following strategy: comprehensive hazard maps for public institutions & communities; design & implement gender sensitive disaster risk management initiatives; & collaborate with communities at all levels of climate and disaster risk management.	

* Martinique, Guadeloupe, St Martin, French Overseas Territories, and The British Virgin Islands, Anguilla, and Montserrat, British Overseas Territories, have no legal obligation to produce individual NDCs but are respectively included in the EU (for French OT) and the UK NDCs which are only considering mitigation options.

Desktop research

The desktop research should provide information on the context of the target area, from a review of existing:

- Policies, plans legislation and regulations relevant to the sector/ area/group
- Strategic plans / investment plans available for the target sector/ area/group
- Ecosystem information including source and asset maps, schematics etc.
- Information on the impacts of recent event hazard events
- Information on national development trends which may impact on the sector (for example population growth, major planned developments, national policies)
- Data and information on climate trends and projections of relevance from on-going projects or related climate change adaption and gender equality initiatives.

Stakeholder consultations

The consultations of stakeholders (identified with answers received to the quiding questions) should be structured by the information gained from the desktop research, with the goal of unpacking the nature of climate related risks and opportunities. Common options to engage stakeholders include participatory workshops, focus group discussions and interviews. These should

focus on clearly articulating:

 Vulnerability to climate change and adaptive capacity, paying attention to gender dimensions of vulnerability, including the gender inequality of risk. The level of awareness of stakeholders on climate trends and risks, as a complement to scientific data.



Participatory tool to support Step 1

A problem tree analysis

Carrying out a problem tree exercise at the beginning of a participatory stakeholder consultation can be a useful in refining the findings of the desktop research and organizing them to frame the context and rationale for action. (see Figure 9). A problem tree analysis - with the right representation of gender balance in stakeholders if possible - is central to many forms of project planning and is well developed among development agencies. This analysis, combining GESI aspects identified during the stakeholder overview, will help to find solutions by mapping out the anatomy of cause and effect around an issue. It brings several advantages:

- A problem can be broken down into manageable and definable chunks. This enables a clearer prioritisation of factors and helps focus objectives;
- There is more understanding of the problem and its often interconnected and even contradictory causes. This is often the first step in finding win-win solutions;
- It identifies the constituent issues and arguments and can help establish who and what the political actors and processes are at each stage;
- It can help establish whether further information, evidence or resources are needed to make a strong case, or build a convincing solution; and
- Present issues (rather than apparent, future or past issues) are dealt with and identified;

Consider separating

groups out into

youth in order

to capture their

specific needs,

concerns and

insights.

men, women and

The process of problem tree analysis often helps build a shared sense of understanding, purpose and action. Developing the problem tree illustrates the differences between what is allocated at the roots, branches and the leaves. It helps to define what best fits where and strengthens the problem analysis. This understanding helps to write a better and tighter concept note and can help to move from the concept to a full project document (cf Step 3).

In the following stage, Table 2 and Table 3¹⁷ for example can be used to map the situation with answers to specific questions with regards to ecosystem health or relevance to support climate change adaptation. The tables are in fact adapted from a **Climate Vulnerability and Capacity Analysis** (CVCA) carried out for the GEF-funded Building resilience in the coastal zone through ecosystem-based approaches to adaptation (EbA) in the Greater Maputo Area. The fact that they informed a project that was successfully funded is a good sign about their effectiveness.

17 <u>https://www.thegef.org/sites/default/files/project_documents/</u> Agencyprojectdocument_Project_Document_Mozambique_ LDCF_2018November02_0.pdf Some project document templates, of the GEF or the EU for example, specifically require **analysis of root causes** and drivers. This analysis will also be useful as building blocks in later steps of the Toolkit when the **Theory of Change** is being developed (see Step 3).

Figure 10:

Problem tree example (FAO)



Table 3:

Mapping/Assessing the EbA situation

Existing Natural Resources/Ecosystems in the Area/Neighbourhood	State/Degree of Resources Condition (Preserved / Degraded?)	In case of degradation, what are the causes?	Target group more dependent on these resources **
Coastal or Marine			
Mangrove Forest			
Swamps or Wetlands			
Rivers or Streams			
Protected areas or Reservation			

** Women, Men, Widowed Women, Single Mothers, Children, Orphans, Elderly, Unemployed, Chronic, Other: indicate_____
Table 4:

Mapping income or livelihood activities & situation of households in the project area

Main Activities	Activity - (Subsistence / Yield?)	Product Type	Who is more involved: men (M), women (W)? or equally (E)
Agriculture			
Fishing			
Aquaculture			
Forest Products Trading			
Trade in other Products			
Tourism			



Key Outputs from Step 1

- A good understanding of the geographical context and defining EbA goals
 - Spatial and qualitative analysis of the landscape and its land use including key ecosystems.
 - Overview of the stakeholders at risk, and of relevant institutions and land-use policies.
 - Climate risk profile.
 - Analysis of the institutional and policy environment for EbA.
 - Outcome: Go or No-go decision
- A vulnerability assessment: climate risks and adaptive capacity as part of the vulnerability profile. This includes also gendered vulnerabilities and adaptive capacity constraints.

Those findings should be presented in a report that clearly articulates the answers to the guiding questions above, including, for example the results of the tools selected above and a **statement about go or no-go decision**.

Recommended tools and resources

For more details on the content and practical use of each tool, please refer to the Annex 2: *Guidelines, Tools and Methods for Mainstreaming EBA & GESI into climate change adaptation policies, plans and projects.*



STEP Identify and prioritise adaptation actions and plans considering GESI

Step 2

aims to identify adaptation measures that can reduce the climate change risks and select and prioritise the actions by determining whether the adoption of EbA related interventions may improve climate resilience of vulnerable groups.





The goal of Step 2

Ecosystem-based adaptation strategies aim to integrate interventions that will generate sustainable and climate resilient development benefits, fully taking into account GESI principles, together with an element of risk reduction and management. For example, reforestation of upstream catchments can safeguard water resources traditionally used by women and provide environmental protection to those living downstream, through reduced flood risk and lower sediment levels. In this step, the risks and context defined in the Step 1 are used to identify opportunities to implement actions with the aim to reduce climate change related risks. Therefore, Step 2 focuses on:

- The identification of possible EbA-GESI measures
- The selection of adaptations options and plans according to conclusions reached during Step 1.



Guiding questions

The following questions should guide the reflection to be carried out in this Step:

- What actions can be taken by community members – including vulnerable and low income women
 to build their climate resilience?
- What information, knowledge and capacities do different people need – in a gender equality and social inclusion perspective - to better respond to climate risks, now and in the future?
- What resources do different people need to better respond to climate risks, now and in the future?
- What role can government or other actors play in enabling different people to better respond to climate risks, now and in the future?

Identification of adaptation measures

A large variety of adaptation measures and solutions exist, depending on their intended purpose and the local context regarding climate risk that they intend to address. Generally, interventions aiming adaptation to climate change can be categorized into the four categories described in the Table 5 below: hard engineering solutions, naturebased solutions, non-structural solutions and hybrid solutions.

The classification presented in chapter 1 of the Toolkit (Table 1) provides guidance for identification and selection of adaptation options. In reality, there is often more than one option to solve a climate or development problem: the choice can be made between using hard engineering or nature-based solutions (or EbA) or techniques, or by combining both. In other terms, EbA options can be combined with, or serve as a substitute for, the use of engineered infrastructure or other technological approaches.

The use of EbA solutions is even more important bearing in mind that engineered defences (hard solutions) often adversely affect biodiversity and ecosystem regulating services¹⁸ and can potentially result in maladaptation.

Lessons learned from EbA implementation show that 'the restoration and use of ecosystem services may reduce or delay the need for these engineering solutions' (CBD, 2009). In addition, EbA solutions offer lower risk of maladaptation (being more flexible and responsive to unanticipated environmental changes) than engineering. The Table 6 provides the results of a "Strengths and Weaknesses" analysis reaardina coastal zone restoration solutions which can be used as guidance

What is maladaptation?

Maladaptation refers to any changes in human or natural systems which inadvertently increase vulnerability to climatic stimuli: adaptation which increases vulnerability instead of reducing it (IPCC).

It is also defined as 'action taken ostensibly to avoid or reduce vulnerability to climate change that impacts adversely on, or increases the vulnerability of other systems, sectors or social groups'

[Jon Barnett*, Saffron O'Neill in Global Environmental Change 20 (2010)]

18 Campbell et al., (2009) ; Munroe et al., (2011).

Table 5:

Types of climate change adaptation solutions

Nature-based solution	Projects inspired and supported by nature providing habitat for plants and animals through careful consideration of the site and strategic placement of components that address the links between saltwater and freshwater ecosystems (IUCN "Ridge to Reef" (R2R) concept).
Hard solution	This describes engineered, structural solutions such as sea walls, breakwaters, levees etc.
Non-structural solution	These projects relate directly to planning for a change and are often applied in situations where there are no immediate benefits in investing in hard or nature-based interventions.
Hybrid solution	This describes a combination of nature-based and hard interventions in order to provide immediate protection solutions while at the same time also providing wider benefits. A focus on nature-based interventions often does not negate the need for physical infrastructure, as nature-based and hard interventions can often complement one other.

for identifying the interventions which are the most relevant and appropriate for a given context and situation.

At this stage of the analysis, it is important that all possible options are identified and properly considered in order to allow for the most effective option to be selected in a gender sensitive manner (EbA-GESI solutions being checked according to the GESI parameters described under step 1 and 2).

To conclude, a well-integrated EbA measure can be more cost effective and sustainable than non-integrated physical engineering approaches (Jones et al., 2012) and in the same time contribute to achieving sustainable development goals such as poverty reduction, sustainable environmental management and even climate change mitigation objectives.

Selection and priorisation of adaptation measures

Once possible adaptation options have been identified, decision criteria (including the role and the importance of gender) agreed and the different methodological aspects considered, a process of selection and priorisation of adaptation measures can be initiated. The aim of this analysis is to assess the costs and benefits of each option in order to select the most relevant one. Most Governmental agencies and project developers have integrated this analysis as one of the key steps of their usual decision-making process.

A number of approaches and methods to conduct a cost-benefits or costeffectiveness analysis exist (see Annex 3: Guidelines, Tools and Methods for Mainstreaming EBA & GESI into climate change adaptation policies, plans and projects). Among available resources, the UNFCCC publication¹⁹ is of particular interest as it reviews all tools and process and provides a summary of approaches that can be applied to prioritise project and concepts using:

- Cost-Benefit Analysis (CBA); and/ or other assessment report of alternative options;
- Cost-Effectiveness Analysis (CEA); and / or
- → Multi-Criteria Analysis (MCA).

19 <u>https://unfccc.int/resource/docs/publications/pub_</u> <u>nwp_costs_benefits_adaptation.pdf</u>



Table 6:

Strengths and weaknesses of hard, nature-based, and hybrid interventions: quick guide for identification of adaptation measures

Adaptation Intervention	Strengths	Weaknesses
Hard interventions (such as sea walls, breakwaters)	 There is a lot of experience in undertaking these interventions. Expertise and guidance already exist. Provides protection as soon as structures are built. Detailed understanding regarding the design standards and protection that the intervention will offer. 	 New structures required, or structures must be modified to adapt to environmental change. Has a residual life which weakens over time. Can have negative impacts on coastal ecosystems and cause reduction in ecosystem services provided by the coastal zone. Generally, have limited wider benefits apart from storm/ erosion protection. Can experience more damage from ongoing small storm events compared to nature-based interventions.
Nature-based interventions (such as coral reef or mangrove restoration)	 Can provide a wide range of benefits as well as shoreline protection including: fishery habitat, water quality, carbon sequestration, tourism enhancement, and recreation. If restoring or replanting ecosystems, often get stronger and more resilient over time. Have the potential to self-recover or repair after both small and larger storm events. Has the potential to naturally adapt and keep pace with environmental change and sea level rise. Can be cheaper compared to hard interventions. Has the potential to engage the local community and stakeholders in protecting, restoring, and enhancing coastal ecosystems that support their livelihood. In the long-term, this builds the adaptive capacity and resilience of coastal communities and ecosystems. 	 There is less guidance and best practice available Hard to predict the level of protection that will be provided Can provide varying levels of protection geographically Can take longer for the ecosystem to establish. Generally required more space for implementation compared to hard interventions. Limited data to allow quantification of benefits and comparison of benefit-cost ratios. Can be more difficult to gain planning approvals for these projects.
Hybrid intervention (combination of hard and nature-based interventions)	 Capitalises on the strengths of both hard and nature-based solutions. Provides opportunities for innovation. Can be used to provide wider benefits but where there is little space or there is a requirement for immediate protection. Has the potential to engage the local community and stakeholders in protecting, restoring, and enhancing coastal ecosystems that support their livelihood. In the long-term, this build the adaptive capacity and resilience of coastal communities and ecosystems. 	 Does not provide as many wider benefits as a nature-based intervention. Requires more research for best practice examples. Can still have some negative environmental impact.

The selection and priorisation of adaptation measures should include an assessment of all types of previously identified measures - nature-based, hybrid and non-structural intervention options to achieve the wider benefits and provide long-term sustainability in addition to reducing the environmental impact. The selection and priorisation process should be rooted in the context (climate risks and vulnerability) defined in the Step 1 to identify the opportunities and make sure that adaptation actions allows to reduce those risks.

Independently on the method adopted for cost benefit analysis, following key principles should be followed in order to ensure their sustainability and GESI inclusion:

- It is essential to integrate into the process of selecting the preferred option and clearly document any gender-based differences in priorities expressed by stakeholders and how they were considered;
- While conducting CBA, disaggregate costs and benefits according to various social groups and make sure all qualitative information about the distribution of costs and benefits across social groups is duly recorded to inform decision makers;
- Preferred option(s) selected and selection process documented. Benefits should be presented in a form that will empower beneficiaries and give them the assets and tools that will support their long-term resilience and sustainability;
- During the ranking process, a differential weighting should be given to those options that address more than one SDG: seek to combine SDG 13, SDG 15 and SDG 5 as well as SDG 10 and 12.



Participatory tool to support Step 2

Stop light approach applied to EbA-GESI

This method (adapted for this Toolkit) can be used to support the inclusion of all parties in the assessment of adaptation activities. It aims to ensure that GESI aspects are being considered within the context of a climate change adaptation policy, programme or project at an early stage. There is often a tendency to think about gender only in relation to "on-theground" EbA related initiatives and not reflect how gender perspectives can be addressed in policy, planning, institutional and governance arrangements. The Stop light approach helps to close this gap. It can determine the extent to which gender is being assessed, mainstreamed and considered in a given project proposal. It considers GESI along with other social and demographic factors such as: age, disability, ethnicity and class that shape

Using the gendered guiding questions applied to a stop light approach will help you to:

- Conduct participatory assessment of adaptation solutions;
- Determine the extent to which gender is being assessed, mainstreamed and considered; and
- Inform on where project design can be improved with regards to increasing the number of genderresponsive actions in adaptation to climate change.

unsustainable livelihood practices and unsustainable resource use. This in turn could result in or worsen poverty and vulnerability to climate and other environmental change.

Conducting the Stop light approach for GESI will help to determine the existing level of gender and social inclusion within a proposed policy, programme or project. It will also determine the level of women's and girl's measurable involvement in the decision-making, design and implementation. It allows to qualitatively assess how far GESI is being mainstreamed to-date and helps to gauge the extent to which GESI requirements are addressed (if at all). This exercise helps to inform how a project or policy design could be improved with regards to gender mainstreaming and greater empowerment of women and girls in environmental decision-making. All this leads to increase the number of gender responsive actions in adaptation to climate change. The Stop light approach, guided by 7 GESI specific key questions, allows to assess the consistency of the proposed initiative with gender equality needs (namely Leadership, Control of resources, Livelihoods. **Ecosystems**, Governance. **Participation and Education**) which are all important for sustainable and inclusive adaptation practice.

The questions for such a Stop light exercise can be as follows:

- On Leadership: Is women's leadership and engagement considered and if adopted, would this lead to a more socially inclusive approach,
- On Control over resources: How is the decision-making power of the resource to be used? organized or structured? Is there equal access and control over natural resources? Is access to good quality resources available?
- On Livelihoods: Are genderdifferentiated livelihood patterns considered? Does this include the day to day challenges facing

female-headed households? Are the different roles considered that men and women play in a sector like fisheries and agriculture and/or the different challenges they face?

- On Ecosystem change: Is the gendered use of ecosystems considered i.e. in the context of food, water, fuel? Have the impacts of other forms of resources use on the ecosystem been considered (i.e. charcoal/ firewood, agriculture, car washing)?
- On Participation: Is the equal participation of men and women addressed? Does this consider barriers to participation?
- On Governance: Is the need for adequate representation considered: are men and women across society, (different sectors, different users of resources and ecosystems) represented ?
- On Gender based Education & Assets: Is training available for both men and women and in ways and contexts that are appropriate for their needs and requirements?

The responses to the above guiding questions allow to rate each parameter intuitively, reflecting a "Stop light" colour scheme according to the ranking presented below:

Green

When it is **Gender responsive** and denotes that there is significant mention or proposed improvement of women's & girl's involvement/ engagement/decisionmaking/benefits in the Project, even if there is space for further improvement.

 Largely scored green, further work can proceed while improving on areas that need work.

Orange

When it is **Gender aware** and where there is some work/effort on GESI to address important gaps.

 Largely scored orange, further consideration is needed to address gaps and ensure minimum gender-sensitivity is achieved.

Conducting a Stop light exercise for GESI will help to determine the existing level of gender and social inclusion

Red

When it is **Gender unaware** and where there is an absence of GESI considerations and discussion of GESI throughout the proposal concept.

 Largely scored red, project design should be re-considered and redesigned.

The Table 7 below presents a practical example of the use of Stop light approach for a climate change adaptation project review in Saint Vincent and the Grenadines.

This example shows good effort on leadership, no effort on control over resources and ecosystems; some effort on livelihoods, gender-based rights, participation, governance and genderbased education and assets; and overall that there is insufficient integration of gender considerations in the proposed intervention. The project is dominantly

Table 7:

Example of a stop light exercise for a project review process in Saint Vincent and the Grenadines.

Women's participation & role in decision- making, women's leadership and leadership and leadership and leadership and leadership and leadership and leadership and leadership and leadership and leadership and leadership and leadership and lead	On Leadership	On Control over Resources	On Livelihoods	On Ecosystems Change	On Gender- based Rights and Participation	On Governance	On Gender- based Education & Assets
	participation & role in decision- making, women's leadership and leadership and leadership on gender issues. Consideration is made of the role of institutions in leading on gender mainstreaming effectively and ensuring that GESI mainstreaming	making on power of the resource to be	livelihoods are dependent or influenced by climate change An example of this is a farmer whose crop is influenced by reduced rainfall or land which has become more saline as a consequence of sea level rise	of gender, it refers to gendered patterns of use, interaction and dependency on ecosystems and ecosystem functions/ services. It reflects that women and men both use natural resources, are both affected by poor resource quality & quantity in	participation anticipated within activities identified as a project beneficiary and as a user. It also reflects efforts required to ensure effective representation across gender, race, class, disability and	are governed; the role that gender plays in such systems. This is linked to gender-based rights and participation elements, but goes deeper into the access to decision- making structures: how issues of representation are addressed along with issues of	the role that education levels, education approaches & access to information can play in driving interest, participation. The extent to which intended targets have that improve

further scored and needs orange consideration to address gaps and to ensure minimum gender-sensitivity is achieved. Based on the results obtained during a gender-oriented Stop light exercise, possible project design should be adjusted to ensure greater mainstreaming of gender and greater empowerment of women and girls particularly in environmental decision-making and in increasing the number of gender-responsive actions in climate change adaptation. The results obtained can also help decision makers to include their findings from Step 1 about the context and the situation description

During the formulation process, the results of the prioritization exercise should be presented in a way that links the climate hazard, ecosystem impacts, GESI considerations and the best EbA option as well as proposed actions. Table 8 below offers an example of how EbA-GESI measures could be presented, helping to communicate effectively with partners and ensuring continuous learning as well as ownership. To be selected, concept notes should present at least 1 Strategic need and 2 Practical needs. Decision makers should focus on the ones most relevant to the proposed intervention. Table 8 is a proposed template to fill in at this stage to feed the decision-making process.

Several examples of possible options relevant to OECS members exist in the region and beyond. Critical for terrestrial ecosystems are interventions such as homegardening, organic farming permaculture, as well buffer zones, wind breaks as well as the use of specific plant species to reduce the impact of saline intrusion, to name a few. These approaches are useful for various issues and are critical to support adaptation to agriculture but also can also deliver other benefits for managing internal waterbodies and reducing flooding and improve the management of natural flood plains. "In particular, organic farming creates many benefits including improving the capacity of soils to filter nutrients and to facilitate improved drainage for ecosystem and production purposes. It can also enhance the adaptation of farming systems to climate variability and change. Two examples (presented in Boxes 3 and 4) from St. Vincent and the Grenadines²⁰ were analysed which are used to articulate how improving the health of coastal and terrestrial ecosystems can benefit the implementation of more sustainable land management practices.

Key outputs from Step 2

A **prioritised list of adaptation actions**, including a discussion on the **rationale for prioritizing these activities** in the context of the risks identified in the Step 1.

Recommended tools and resources

For more details on the content and practical use of each tool, please refer to the Annex 2: *Guidelines, Tools and Methods for Mainstreaming EBA & GESI into climate change adaptation policies, plans and projects.*

20 Ecosystem-based Adaptation (EbA) & Gender Equality and Social Inclusion (GESI) mainstreaming Illustrative case studies, Adapt'Action February 2020.

Table 8:

Table for consolidating measures to address gender Equality needs

	Strategic Ge	Strategic Gender Needs		Practical Gender Needs			
	Leadership	Control over Resources	Livelihoods	Ecosystems	Gender-based Rights and Participation	Governance	Gender- based Education and Assets
Needs							
Proposed Actions/ Measures							

EbA solution provider: Ms Orisha Joseph, Director, Sustainable Grenadines Inc. (SusGren lead) Union Island Environmental Attackers; Radio Grenadines; Government Schools; Mayreau Explorers ; Multi-Purpose Cooperative Society Limited (MEMCSL); and Central Water and Sewage Authority (CWSA)

Location: The Ashton Lagoon, St Vincent and the Grenadines

Hazard addressed: Climate resilience through nature based coastal protection whilst also providing a safe harbour for fishers and small boats. Coastal restoration works to adapt and make more climate resilient existing infrastructure into mangrove "islands" that were originally constructed to support a marina development

SDG addressed: 13 (Climate action), 14 (Life below water)

Summary:

The project includes restoring flow to the inner lagoon and mangrove woodland, fostering the development of mangrove islands and creating and maintaining critical habitat for birds, fish, and other marine organisms. In addition to water quality and habitat improvements, the project was designed to provide disaster risk reduction and opportunities for climate adaptation. The project created an opportunity to restore the Ashton Lagoon with its critical ecosystem functions and values, as well as economic and community-based benefits that are inherently linked to such a dynamic and complex system. Some key aspects of the project directly support best practice and EbA principles applied to what is called an **'EbA Hybrid solution**'.

Before: Brackish water in the Ashton Lagoon. Photo: SusGren

> Activities include the partial excavation of 5 piers to restore circulation of water both in and out of the lagoon area. The main outcome of the restoration works has therefore been to improve the circulation in the lee of the existing interlinking causeway. This is achieved through: the removal/ re-siting of approximately 4000 cubic meters of backfill material; the removal of 40 m running length of steel sheet piles; and, the installation of an additional 80 m running length of steel sheet piles.



After: Restoration of the flow to the inner lagoon and mangrove woodland, fostering the development of mangrove islands and creating and maintaining critical habitat. Photo: SusGren

The approach adopted within the Ashton Lagoon Rehabilitation Project therefore provides an example of good practice in terms of nature-based adaptation to climate change which may be considered in many similar environments around the Caribbean. This includes restoring flow to the inner lagoon and mangrove woodland, fostering the development of mangrove islands (through replanting and restoration techniques), and creating and maintaining critical habitat for birds, fish, and other marine organisms. In addition to water quality and habitat improvements, the project was designed to provide disaster risk reduction and opportunities for climate adaptation.

The development of a "Climate Change Interpretive Centre» as part of the project supports a **diversification of livelihood (gender equal opportunities) in the lagoon area**. This centre will act as a platform for education and community outreach through the development of sustainable tourism activities, sea-moss farming, apiculture, and more.

Specific monitoring programmes have started to provide the evidence of an improving environment through setting key performance indicators as follows:

- Water circulating and flowing through the lagoon (flow meters installed in key locations);
- Turbidity and nutrient levels are decreased (Secchi disk or fluorometer/Nitrate Phosphate test);
- Water temperature is cooler (temperature data-logger (Hobo-type) installed);
- Oxygen level is increased (direct oxygen or D.O. sampling array or data logger);
- → Algal growth is reduced (Fluorometer, Chlorophyll-a)





EbA solution provider: The Richmond Vale Academy applied to the Canada Fund for Local Initiatives (CFLI) for the Eastern Caribbean States, to obtain funding for a project entitled "*Growing Climate Change Adaptation Capacity through Mobilisation, Training and Empowerment of Vulnerable Young Women*". The application was approved by the CFLI and a Contribution Agreement was agreed by both parties, leading to The Richmond Vale Academy launching the "**Pass it on**" initiative.

Location: Chateaubelair, St Vincent & The Grenadines

Hazard addressed: Biodiversity loss and climate change impacts with improved rural land use within watershed

SDG addressed: 13 (Climate Action) 5 (Gender equality)

Summary:

Backyard home gardens are an empowering, crucial element to protect and promote biodiversity through adopting EbA principles to help support improved rural land use within watersheds. The approach also provides a valuable gender related step towards involving women into sustainable farming practices. By encouraging women to learn about backyard gardens as a means of reducing food costs, the project seeks to address the issue of improving household and community access to non-toxic fertilizer and associated supplementary products. This is important as imported agrochemicals are costly and unsustainable, furthering the need to produce more food without imported chemicals. Consequently, backyard gardens are seen as a viable way towards romoting gender equality whilst also delivering an improved and more stainable agriculture outcome for stakeholders.

Production of materials for small ecological farmers and home gardeners

HOME

ARDENS

Fifty home gardens have been completed in North Leeward and the next ten gardens will be developed in the village of Fancy.



Certification of participation from a Home Garden Seminar, experienced home gardeners teach new ones

Seed table and rainwater collection at a Home Garden in Fancy. Photos: Richmond Vale Academy



STEP Developing full concept notes with a robust EbA & GESI monitoring & evaluation system

Step 3

offers insights on how to design a concept note for project, plan or a policy. It seeks to help guide climate finance planning that embraces EbA and GESI issues including how to formulate robust M&E systems.





The goal of Step 3

Mainstreaming GESI into EbA interventions requires a balanced portfolio of investments and complementary measures across a range of actions with a monitoring and evaluation system properly crafted and implemented. These actions include but are not limited to:

 Institutional support: with mainstreaming climate, ecosystem-based adaptation solutions and gender considerations into policy and strategy development; building institutional capacity to manage and coordinate requisite environmental conservation and ecosystem service protection actions; and other investments in the regulatory and legislative regime to support adaptation.

Looking for regional experts to support your work?

The OECS expert data base can help!

Check at:

- Information sharing: providing finance to build the observational information necessary to understand how climate risks are changing over time, such as hydrometeorological stations, as well as the capacity to produce value add products tailed to specific audiences such as early warnings for coastal areas or agricultural producers.
- → Up-scaling initiatives: financing of specific investments solutions to address climate risks such as awareness raising campaigns applying principles of behavioural psychology, policies and legal

strategic measures or on the ground actions to protect or restore degraded ecosystems such as coral rehabilitation.

The main purpose of this Step is to develop a concept note design that will guide project outputs, inputs and associate budgets (including specific outcome indicators and targets) as part of an overarching monitoring and evaluation plan.

Climate finance plans help to define the relevant mix of actions that are required to build climate resilience. They can range from concise concept notes to fully designed EbA investment project documents. A concept note is the first step in the process of developing a project. The purpose of this final step is to facilitate measuring progress against the stated objective of the policy and/or plan of action, or on-the-ground initiative.

This Step, presents elements to include when writing a concept note that details EbA/GESI priorities for building climate resilience. The entry points to guide mainstreaming of GESI issues into EbA could include:

- Programmes, or broad areas of work, which are required to implement the policy priorities. They include sectoral programmes, such as those addressing, for example the health or transport sector.
- → It is important to mention the political commitments on "Women's Rights and Gender Equality of the Eastern Caribbean region and partner countries to create a gender responsive policy framework for adaptation planning and investments" for example reference to existing policy documents (NDC, NAP etc...)
- Projects, on the other hand, should be designed to contribute to programme areas, which in turn contribute to the national policies and priorities.



Guiding questions

This drafting step should help you organize the rationale for your initiative to be formulated in a project document or any other draft document. It should be guided by the answers to the following questions:

- What have countries identified as their policy or priorities with respect to women's and other's rights?
- What are the risks your proposal seeks to address?
- What are the intended benefits from your project activities to women, men, boys and girls?
- How do a country's SDG outline the differential role and risks that women, men, boys and girls face?

Consider:

- Is the concept relevant for the practical and strategic needs of both men and women?
- Have relevant stakeholders been included in the design?
- Do men, women, boys and girls of different target groups benefit?

When responding to those questions (which were all covered in Step 1 and 2), think about the important following elements.

Consider Island and Regional priorities

EbA/GESI adaptation interventions should be consistent with the stated priorities of the country/territory of focus. These priorities are either strategic documents such as the National Adaptation Plans, Climate Action Plans or Climate Change Vulnerability Profiles formulated at various administrative levels depending of the political system in place. As example:

- → In Saint-Lucia, the Resilient Ecosystems Adaptation Strategy and Action Plan 2019-2028 serves as a guide for the planning and implementation of programmes, projects and activities related to climate-smart and sustainable natural resource management and EbA, across all sectors.
- The Government of Grenada has produced a National Adaptation Plan which is gender-sensitive and now guides processes for the development of initiatives and interventions including a writing workshop in 2019 for GCF Concept Notes in which gender training and gender mainstreaming efforts were proactively undertaken.

Priorities defined in some cases at the Regional level can also be useful and important to take into account (see Annex



1). Given that these documents are living or organic, a continual supply of project concept notes will be required over time.

Ensure Gender Equality and Social Inclusion issues are both in the initiative

To ensure that GESI related issues are duly incorporated in the project document, consider:

- Whether the proposed implementing partners have explicit commitments and plans for achieving gender equality.
- Where the skills and capacity to apply gender-sensitive actions are limited, consider including capacity building for partners at the outset.
- Offering specific suggestions on methods to be used to ensure the full and active participation of men and women at all stages of the implementation process.
- How any specific measures to address gender issues identified during the planning steps will be resourced and their implementation tracked?
- What indicators can be used to monitor progress towards addressing the needs of women?

Consider developing a Gender Action Plan

Gender specialists are often engaged too late in the process of designing a project. One must assume that gender expertise will be required at the outset to support project design and ensure that GESI issues are considered early to provide time to meaningfully inform programme design and to ensure gender-responsive approaches to any EbA intervention being proposed. This allows interventions to not simply acknowledge gender but ensure that the project may be designed to provide opportunities that expand and secure gender equality, social justice and inclusive development.

This includes the production of a clear and targeted *Gender Action Plan²¹* which should be part of any design process even at the level of a concept note formulation (see Step 3). Programmes financed by the GCF for example will always require the development of a Gender Action Plan (GAP). The project/programme GAP is not a separate component of the project; it mirrors the logical framework of the project and is an integral part of project/ programme design. GAPs include clear targets, design features and measurable performance indicators (see Step 3) to ensure equitable participation and benefits and where necessary, specific genderresponsive actions for ensuring women's meaningful participation, risks-sharing and benefit-sharing from project activities.

21 See Green climate fund Gender Action Plan template: https://www.greenclimate.fund/document/genderassessment-and-action-plan-template

BOX 5

Communicating climate change: a toolbox for local organizations in the Caribbean

Tools and techniques for strengthening your message and reaching a wider audience (in section 5 of the CANARI toolbox).

- Reaching your members and other members of your community
- Influencing policy, legislation and decision-making
- Getting your message out to schools and young people
- Making media work for you
- Building relationships with the media
- Writing good media advisories and press releases

Source : Caribbean Natural Resources Institute (2009)

Using a GAP helps to ensure that gender mainstreaming is clearly visible in project/ programme design and implementation. Key aspects of the GAP are incorporated into project/programme assurances to encourage buy-in from all partners. It reflects:

- Analysis to define the gender context and address gender issues in the project/programme;
- Targets and design features included in the project/ programme to address gendered concerns and ensures tangible benefits to women and men, especially from vulnerable communities including intersections between gender, social level, ethnicity, age and disability;
- Mechanisms to ensure implementation of gendered design elements including appropriate tools, capacity building, M&E framework and expertise;
- The related budget associated with the proposed actions; and
- Gender-sensitive monitoring and evaluation indicators.

EbA solutions should involve climate change risks communication elements

EbA solutions should be integrated into broader adaptation strategies and built into decision making, planning, and implementation from local to national levels. In particular complementary components to communicate on specific climate change issues dealt with by the proposed project, or climate change issues in general in the region, could be included. Communication strategies and tools to raise awareness of climate change are essential to support activities aiming to reduce climate change impacts and bring about changes in policies and legislation to ensure that social, physical and environmental systems can stand up to the challenges of climate change. Several strategies and considerations to overcome

Figure 11:

Key points to consider when incorporating gender issues in a Green Climate Fund (GCF) proposal

(Source : https://cdkn.org/wp-content/uploads/2017/06/gcf-project-development-manual.pdf)



existing barriers (cf. pages 20 and 22) and facilitate better communication can be proposed with EbA-GESI solution. Links to around 40 relevant videos produced (mostly in the OECS region) are provided in the last section of this Step as well as the link to the toolbox for local organisation produced by CANARI (see Box 5). Those types of activities help to sensitize people about the end-effects of EbA-GESI initiatives. A communication example illustrating this approach can be found in Grenada²².

Building a robust Monitoring and Evaluation system

Based on observations from missions undertaken. assessment practical frameworks needed designing, for implementing and monitoring EbA measures all require some key elements and qualification criteria to be defined that adhere with national priorities. From this, a list of possible quality standards and example indicators can be nationally agreed upon and formally established, possibly as a national "standard" formalized by National Standards Bureau or possibly at the regional level by the CARICOM Regional Organisation for Standards and Quality (CROSQ).

Work by Friends of EbA (FEBA) in 2017 identified an interesting source of lessons learned from global examples which provides a good entry point for improving our understanding about the essential ingredients for EbA application in the Caribbean and how to effectively integrate such approaches into planning and decision-making processes for the future. Of interest, it includes key elements, principles, criteria, and indicators for defining EbA and for strengthening its integration into policy frameworks and implementation measures at different levels.

Useful best practice strategies are proposed the work of FEBA (2017) and the Convention on Biological Diversity (CBD) Voluntary Guidelines (2019) that may be adopted to improve EbA outcome success and impact factors which should

²² Ecosystem-based Adaptation (EbA) & Gender Equality and Social Inclusion (GESI) mainstreaming Illustrative case studies, Adapt'Action February 2020

feed directly into a lesson learned of the Toolkit for OECS Members in future project formulation (see Annex 3). Suggestions for integrating gender into an adaptation project proposal for the Green Climate Fund are illustrated in Figure 11.

The Table 9 below presents a sample monitoring plan for beach protection schemes which should be adapted to every single EbA – GESI initiative after consultations between experts and beneficiaries.

EbA & GESI monitoring outcomes and indicators

A key observation coming from the field visits is that organizations engaged in EbA projects in the Eastern Caribbean have been using varied principles and indicators for EbA. Most of them share a vision as to how EbA should be implemented based on the commonly accepted CBD definition. However, in many instances (as stated for the Ashton Lagoon Case Study example), no formally accepted qualification indicators for EbA are used, nor do any other EbA initiatives (visited or reviewed under this study) clearly cite or articulate intended outcomes, or even specific outputs within nationally prepared Determined Nationallv Contributions (NDCs). For example, few NDCs appear to acknowledge the importance of local **community involvement** in designing and Implementing adaptation activities, and the increasing interest in EbA is not accompanied by a set of robust targets and indicators to ensure and demonstrably measure effective implementation. EbA and climate focused outcomes can allow to formulate related indicators to measure progress towards meeting specific objectives. By tracking key indicators actions can be adjusted if necessary, through a cycle of evaluation and learning.

There are three main types of indicators that should be selected following gender sensitive consultation with project stakeholders. Projects are likely to choose from one or more of these categories, depending on resources available and interest in project impacts:

- Project performance indicators monitor implementation progress (e.g., km of flood-dikes built, number of people trained by a specific date during the project implementation period). They differ from results indicators due to the timeframes involved.
- Results indicators measure quantitative and qualitative dimensions that are expected at the end of the project and compared to pre-set targets (e.g., service satisfaction indicators).
- Impact or 'Outcome' indicators are assessing the socioeconomic impacts of project interventions. Typically, these would be measured several years after project completion.

Table 9:

An example of monitoring plan for beach protection schemes.

Monitoring	Visual Inspection	Beach Profiles	Fix Aspect Photos	Aerial Photos
During the first two years following construction	Twice per year	Twice per year	Twice per year	Annual
Year 3 onwards	Annual	Twice per year or to be redefined	Annual	Annual
Following storm events	As soon as possible following a storm event		Not re	quired

Five key EbA outcomes are proposed in Table 10 with possible corresponding indicators both addressing EbA-GESI needs. Before developing GESI indicators, consider:

- How do the proposed project objectives and activities address the needs and priorities of men and women? What mechanisms were used to identify needs and priorities? Were men and women able to fully participate?
- What are the expected benefits and opportunities that the project will generate? Are some more accessible for women than men and vice versa? (e.g. training, information etc.);
- What resources do men and women need to manage climate related impacts? How might current differences in the ability of men and women to access these resources affect options and design?
- What capacity building needs in relation to managing climate change impacts have been identified? Who identified them?
- How and to what extent were social scientists, including gender specialists, been involved in the design process?
- Has a gender analysis of proposed policies and interventions been undertaken? How did the results of the analysis influence the design? If a gender analysis has not been conducted, when is this planned?
- What resources were allocated to ensure that gender considerations are acted upon?

Those elements are considered in the OECS Commission Gender Policy and Manual.



Operational tips for work planning

- → A data baseline measurement for selected indicators should be carried out, either prior to or during the first year of a project. In some cases, these may come from secondary sources, or they are collected by the project itself. Climate change adaptation includes two complex concepts, vulnerability and resilience, that are typically measured by proxy or index indicators. Data collection for each type of indicator, biophysical and socioeconomic, can be done through different methods, depending on the budget dedicated to this activity (very important element to take into account from the beginning and to discuss with stakeholders).
- → Theory of Change (ToC) can be applied to all projects including EbA-GESI solution. The ToC can either be complementary to the Logical framework (using similar outcomes and indicators) or standing alone if there is a general agreement that the concept formulated can be operational. ToC outlines the building blocks -and the relationships between them-that would lead to the accomplishment of a **long-term** goal to build resilience to climate change. When done well, this approach enables stakeholders to embed an intervention within a larger strategy and broad, transformative analysis

A Theory of Change (ToC) is one of the most robust approaches to design and evaluate climate change adaptation, which is inherently complex, multifaceted, and long-term in scope

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which is the necessary method to provide long-term results. A ToC formulation process can be carried out based on elements gathered during step 1, 2 and 3 using the Guidance note quoted below²³ and several references quoted in Annex 3.

The Table 10 below offers illustrative combined outcomes and indicators relevant for EbA-GESI, with a specific focus on gender in the context of climate change adaptation that can be used when building a Logical Framework.



Key Outputs from Step 3

The main output of this Step is a project concept note (or a similar document) that presents a summary of a proposed project or program, including:

 A consolidated context and baseline mapping which describes the climate vulnerabilities and impacts, as

23 Guidance note 3: Theory of Change approach to climate change adaptation programming, Dennis Bours Colleen McGinn & Patrick Pringle, 2014

The **pathway of change** [in a theory of change] should be designed via backwards mapping. In other words, the team should start from the goal from task one, and then systematically work backwards in time from it. Stakeholders would identify specific steps along the way.

> Ultimate outcome (long-term goal) Penultimate outcomes Intermediate outcomes Early outcomes First outcomes

well as the adaptation needs that the prospective investment aims to address. This should include how the investment fits within a country's or region's priorities and how the proposed investment aims to address or improve these priorities. This section also should address the main root causes (social, gender, fiscal, regulatory, etc.) that need to be addressed.

→ A project or programme description which offers and expected set of components/ outputs as well as subcomponents and activities to address the barriers noted in item 1 above and how these will lead to expected outcomes. This section should outline the rationale and theory of change and how they aim to make the development pathway more resilient. A concept note can be supported by the following annexes: Theory of change, Gender adaptation plan, Monitoring framework.

For each step, the team asks 'what are the preconditions for the outcomes at this step?' The answers to this question become the outcomes that come before. Each key precondition thus becomes outcome statement an Ultimate outcome (long-term goal) Penultimate outcomes Intermediate outcomes First outcomes Early outcomes for a nearer point in time. One point is that certain preconditions may be beyond the scope of the agency's grasp (e.g. political stability). The implication, of course, is that if the precondition is not met then progress along the causal pathway will be indefinitely stalled.

Table 10:

EbA – GESI outcomes and possible SMART indicators

EbA-GESI solutions	Adaptation outcomes from EbA interventions	Description	Examples of indicators for measuring adaptation outcomes
EbA- GESI initiative helps people to adapt to climate change	Reduced environmental & social vulnerabilities	The EbA initiative is explicitly addressing current and future climate change and climate variability including its impacts on the socio-ecological resilience of people (men and women, intersections of gender, age, locality, class and ability) and ecosystems. The EbA intervention based on assessments of climatic vulnerability, hazards and risks to people, as well as the adaptation benefits derived from ecosystem services.	A combination of climate information data (based on the best available scientific data, models and local knowledge) & socio-economic data to measure vulnerability and capacity assessments including the gender vulnerability. The use of satellite imagery is recommended. Increased coastline protection / reduction of the impact of SLR while balancing livelihood dynamics (habitat protection) such as % of infrastructure damaged after extreme events.
	Increased socio- ecological resilience generating societal benefits in the context of climate change adaptation.	 EbA reducing the vulnerabilities of people through the use of biodiversity and ecosystem services and by producing societal benefits in a fair and equitable manner. It acknowledges that there is a gender inequality of risk from climate variability and change. EbA intervention addressing the needs of people, especially those who directly depend on -or use- natural resources and are vulnerable to climate change impacts particularly at different nodes of a value chain while combined with GESI, using strong analysis and assessment frameworks to design appropriate interventions, Not all elements of a value chain are equally vulnerable. Done well, the EbA initiative can also be designed to wean persons away from unsustainable practices which further undermine other services upon which they depend. EbA measure can also generates additional benefits essential for sustainable development. 	 Decreased number of men & women facing differentiated dependencies and uses of ecosystems for livelihoods. Increased % of people using natural resources vulnerable to climate change impacts, particularly at different nodes of a value chain e.g. fisheries Increased direct or indirect benefits to peoples' resilience, including enhanced food security access, shelter, risk reduction, provision of fresh water, medicine, and local climate regulation. % of women using biomass as energy source Reduced time in collecting and carrying water, fuel, and forest products due to environmentally sustainable and climate change adaptation activities, in times of disaster and for specific rural/remote communities. Increased evidence of financial incentives used to encourage women's entry into the market for provision of climate resilient and EbA friendly products and services (e.g. pilot schemes, partnerships with financial institutions, the private sector or women's associations).

EbA-GESI solutions	Adaptation outcomes from EbA interventions	Description	Examples of indicators for measuring adaptation outcomes
EbA- GESI initiative helps people to adapt to climate change (contd.)	Increased socio- ecological resilience generating societal benefits in the context of climate change adaptation. (continued)	In order for EbA measures to support adaptive capacities it needs to generate long-term benefits and alternatives which can be distributed fairly among a representative percentage of the target group, particularly those most vulnerable to the impacts and those likely to take the longest time to recover from those impacts. They should engage women and girls as autonomous users, influencers and beneficiaries from ecological services.	 Increased number of MFIs and/or other financial institutions with gender-sensitive credit / lending policies. % increase of poor female-headed households in the target area accessing improved/restored ecosystem services (such as reduced time in collecting and carrying water²⁵, fuel and forest products) due to environmentally sustainable and climate change adaptation activities, in times of disaster and for specific rural/remote communities. Increased number of communities and % of women in these communities benefiting from EbA investments taking place. Increased number of measures to address gender-based (sexual) violence in such as lack of street lighting or appropriate security measures that inhibit participation in and benefit-sharing from EbA. Increased evidence of financial incentives used to encourage women's entry into the market for provision of climate resilient and EbA friendly products and services (e.g. pilot schemes, partnerships with financial institutions, the private sector or women's associations). Increased number / proportion of women with improved access to financial mechanisms (impact investment, gender - smart investing, gender-lens investing, affordable loans that target women or FHH, etc.) for low-carbon / climate - resilient products and services. Increased number of poor female-headed households benefiting from (innovative) financing and business models to support EbA. Increased number of local and regional financial institutions with gender-sensitive credit/lending policies and active lending to women for climate change adaptation and EbA.

EbA-GESI solutions	Adaptation outcomes from EbA interventions	Description	Examples of indicators for measuring adaptation outcomes
EbA-GESI makes active use of bio- diversity and ecosystem services	Reduced negative impact of climate change on ecosystem health and services by restoring or maintaining activities.	 EbA solutions can restore, maintain and improve ecosystems, land- and seascapes. It should be applied at a scale that addresses the challenge of, and integrates the trade-offs resulting from climate change, meaning it supports the stability, resilience, connectivity, and multiple roles of ecosystems as part of larger land- and seascapes. EbA solutions foster appropriate land and water management practices that support climate change adaptation, prioritise the management of key ecosystem services, and sustainable use of land and coastal and marine resources. Co-management approaches involving stakeholders from communities, government and private sector should be supported and should engage both men and women: women and men's environmental decision-making influence and impact is carefully considered including necessary changes in behaviour and practice which can be linked to alternative uses and livelihoods. 	 Increased climate-smart agriculture and soil conservation, Increased use of water retention areas % of infrastructure damaged after extreme events Increased low impact fishing. Increased diversification of land and marine use and livelihood options such as multi-cropping, agroforestry, wind breaks, rainwater harvesting, buffer zones and the use of appropriate species and varieties Increased number of female entrepreneurs with adequate access to financing for low-carbon and climate-resilient investment. Increased number/percentage of women and men benefitting from employment opportunities/income due to adaptation interventions (e.g. improved agricultural productivity, etc.). Increased number/percentage of paid work (person-days) generated for women and men in the community via EbA investment. Increased number of EbA-compatible nature-based businesses run by or partially owned by women Increased number/percent of women and men trained in investment activities (e.g. energy-saving and sustainable agricultural technologies (e.g. adaptations to land management practices in marginal and fragile lands, adaptations related to changed rainfall patterns). Increased incentives to recruit women, increase their capacity, provide career development in targeted sectors and amongst service providers.

EbA-GESI solutions	Adaptation outcomes from EbA interventions	Description	Examples of indicators for measuring adaptation outcomes
EbA- GESI initiative helps people to adapt to climate change (contd.)			Increased level of institutional and staff capacity and actions to mainstream gender in the relevant sector. Minimum percentage (i.e.30) of participants from marginalized stakeholder groups (women, persons with disabilities, ethnic minorities as well as indigenous communities) participating in/benefitting from project activities
EbA-GESI is part of an overall adaptation strategy	Increased integration of EbA approaches to policies at multiple levels.	Gendered EbA approaches should operate at one or more levels and can involve supporting sectoral adaptation and multi-sectoral approaches at multiple geographic scales. It I (or becomes) an integral part of key policies and implementation frameworks targeted towards sustainable development, agriculture, land use, poverty reduction, natural resource management, climate change adaptation, and disaster risk reduction. They should be sustainable livelihoods compatible as well as climate-compatible. EbA measure should be integrated into existing policy frameworks so that interventions can be sustainable, equitable and scalable, rather than short-term, inequitable and stand-alone.	 Increased number of local, national, regional, landscapes, and sectoral levels of adaptation & sustainable livelihoods strategies. Increased number of EbA measures integrated into existing policy frameworks. Increased number / % of women and men trained in investment activities (e.g. energy-saving and sustainable agricultural technologies (e.g. adaptations to land management practices in marginal and fragile lands, adaptations related to changed rainfall patterns). Increased incentives to recruit women, increase their capacity, provide career development in targeted sector agencies and service providers. Increased level of institutional and staff capacity to mainstream gender in the relevant sector. Minimum % of participants from marginalized stakeholder groups (women and ethnic minorities as well as indigenous communities)

EbA-GESI solutions	Adaptation outcomes from EbA interventions	Description	Examples of indicators for measuring adaptation outcomes
EbA-GESI is part of an overall adaptation strategy (contd.)	Increased equitable governance & enhanced women capacities.	EbA measures enhance the governance of natural resources with respect to the use of biodiversity and ecosystem services EbA solution embraces transparency, empowerment, participatory governance, accountability, non-discrimination and active, meaningful and free participation at the local level. It should support fair and equitable sharing of user access, decision-making, rights and responsibilities. Ownership by the people responsible for ecosystem management and by people who are using and benefiting from terrestrial, coastal and marine ecosystems can ensure that benefits emerge, are accessible, are equitably distributed and are sustainable.	 Increased measures to improve community-centred, participatory and gender-responsive approaches Improved rights and responsibilities (including an adequate representation at official levels who are accountable to them) of local people (i.e. different groups, sexes, gender roles, customary bodies, etc.) to adapt to climate change. Stronger local governance facilitating representative leadership, particularly and influence to be embedded in higher level governance structures, which can facilitate and stimulate local action through the right policies and enabling environment and conditions Increased level of women and men's awareness of women rights and rules for access to financial, natural and energy resources (High; Low, Medium). Evidence that policies, strategies and plans include gender analysis of the different environmental impacts on poor/ vulnerable women and men and increased number of gender equality objectives for each sector of development. Evidence that relevant sectoral sector policies, strategies, and plans require participatory and gender-equitable approaches and the targeting of both women and men from key at-risk groups to use and manage EbA-compatible solutions and technologies.

Recommended tools and resources

For more details on the content and practical use of each tool, please refer to the Annex 2: *Guidelines, Tools and Methods for Mainstreaming EBA & GESI into climate change adaptation policies, plans and projects.*

A selection of videos

- The Human Impact of Climate Change: Personal Stories from Belize, Bolivia, and Brazil <u>https://www.youtube.com/</u> watch?v=Lv2XxXNqZa8
- Climate change: the economics of climate adaptation in Trinidad and Tobago <u>https://www.youtube.</u> <u>com/watch?v=d9g-6flSEgo</u>
- Community Coral Gardeners in Grenada <u>https://www.youtube.</u> com/watch?v=nz6YoTT0SI8
- Restoration of Mangroves and Community co management in Grenada <u>https://www.youtube.</u> com/watch?v=yvCy2Nu8NS8
- Growing Climate Change Adaptation Capacity in St. Vincent <u>https://www.youtube.com/</u> <u>watch?v=eHauZrIOp2M</u>
- How climate change affects the ecosystem <u>https://www.youtube.</u> com/watch?v=me14ikumMZE
- Coastal ecosystems: A Natural Barrier to Climate Change Impacts <u>https://www.youtube.</u> com/watch?v=DoYNMjhZCFY
- Nature based solutions to the hazards and impacts of climate change <u>https://www.youtube.</u> <u>com/watch?v=paVTJtgGFFU</u>
- Climate change is a gender issue <u>https://www.youtube.com/</u> <u>watch?v=zCYZ_2xFLfc</u>
- EbA Community of practice (29 videos) <u>https://www. youtube.com/channel/UCb_</u> x4rPctuGmFOLjHdSIN8Q

- Why gender matters in climate change financing? <u>https://www.youtube.com/</u> watch?v=RMSxTFc6ayq
- Caribbean communities on the front lines of climate change adaptation (by CDKN) <u>https://www.youtube.com/</u> <u>watch?v=ql_2ruWA0ml</u>
- 5 Things You Should Know About Climate Change in the Caribbean (by the Caribbean Community Climate Change Centre (CCCCC) <u>https://www.youtube.com/</u> <u>watch?v=NkJQM8Ihad4</u>
- → Voices of resilience <u>https://</u> <u>www.youtube.com/</u> <u>watch?v=gF6qptR2t5A</u>

Mainstreaming **GESI** into EbA interventions requires a balanced portfolio of investments and complementary measures across a range of actions with a monitoring and evaluation system properly crafted and implemented.

Annex 1: Climate change policy background in the OECS Region

- The OECS Commission and Members States recognize, in general terms, gender as a development issue. Nevertheless, many of the commission's strategies and governing documents such as the Treaty of Basseterre²⁴ and the St. Georges Declaration of Principles for Sustainable Development speak little or not at all to issues of GESI²⁵.
- The 2013 Gender Mainstreaming Policy has been inconsistently applied and implemented organization-wide and lacks a detailed framing of gender in the context of climate change and disasters as well as a clear accountability framework. Issues are also inconsistent across the OECS, CARICOM, and Member States.
- The crucial role of EbA is recognized in global commitments and frameworks, such as the SDGs, the Paris Agreement under the UNFCCC, the Sendai Framework for Disaster Risk Reduction 2015-2030, and the activities within United Nations Office for Disaster Risk Reduction (UNISDR), the Strategic Plan for Biodiversity 2011-2020 under the Convention on Biological Diversity, and the Ramsar Convention among others.

- The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) addresses both conservation and restoration of ecosystems and application of the ecosystem approach, as a part of sustainable water resources management on a transboundary level. The Water Convention initiated relevant activities in the early 2000s with a few capacity-building workshops on the role of waterrelated ecosystems, ecosystem services, and financing ecosystem conservation, followed up by the publication of recommendations on payment for ecosystem services (PES) in integrated water resources management.
- → Currently, the Water Convention is focusing on ecosystem-based adaption mainly through its Task Force on Climate and Water, and the Global Network of Basins working on climate change; and additionally, through its activities on the water-food-energy-ecosystems nexus. In particular, ecosystembased adaptation was taken into account during development of: the transboundary climate change impact and vulnerability assessments; elaboration of adaptation strategies and plans by the basins; prioritizing and implementing concrete EbA measures on the ground in the pilot

²⁴ http://www.govt.lc/treaty-of-basseterre

^{25 &}lt;u>https://www.canari.org/wp-content/uploads/2015/04/</u> Geoghegan-St-Georges-Declaration-case-study-final.pdf

basins; building capacity to address water-related disasters under changing climate; and financing climate change adaptation including EbA.

Good practices in the region include the 2017-2021 NAP for Grenada, Carriacou and Petit Martinique, which focuses on climate-resilience and decision-making, and has benefitted from the NAP Global Network's Framework for Gender-Responsive NAP Processes published in 2017. Moreover, the GCVCA produced by CARE International is a critical tool, which could be applied quite easily with relevant modifications to the Caribbean context. Annex 2: Guidelines, tools and methods for mainstreaming EbA & GESI into climate change adaptation policies, plans and projects

Recommended for the toolkit step	Tool name, Source & Description
	 CRISTAL stands for "Community-based Risk Screening Tool – Adaptation and Livelihoods." Community-based CRISTAL focuses on projects at the local community level. CRISTAL helps users to identify and prioritise climate risks that their projects might address at the community level. Adaptation and Livelihoods – It also helps users to identify livelihood resources most important to climate adaptation (i.e., adaptation to climate variability and change) and uses these as a basis for designing adaptation strategies. It is freely available for download and use. Part of enabling the capacity of local communities is to empower them with the capacity to undertake continuous risk screening in order to adapt to unforeseen events. This will also help to increase their self-reliance.
Step 1 Climate risk assessment tools and resources	Climate Vulnerability and Capacity Analysis - CVCA http://careclimatechange. org/tool-kits/cvca/
	 Participatory Monitoring, Evaluation, Reflection & Learning Manual (PMERL) https://careclimatechange.org/ tool-kits/pmerl/ The PMERL Manual helps practitioners to measure, monitor and evaluate changes in local adaptive capacity, for better decision-making in Community-based Adaptation (CbA) activities. The approach provides an on-going platform for local stakeholders to articulate their own needs and preferences, beyond the time of a project. Originally developed by care in partnership with the international institute for environment and development (IIED) in 2012, this new shorter and simpler edition has been produced in response to feedback from practitioners.

Step 1

Climate risk assessment tools and resources

Tool name, Source & Description

FEBA (Friends of Ecosystem-based Adaptation) (2017). Making Ecosystem-based Adaptation Effective: A Framework for Defining Qualification Criteria and Quality Standards (FEBA technical paper developed for UNFCCC-SBSTA https://www.iucn.org/sites/dev/files/feba_eba_ qualification_and_quality_criteria_final_en.pdf	Provides a useful and practical assessment framework for designing, implementing and monitoring EbA measures by proposing a set of 3 elements, 5 qualification criteria and 20 quality standards and example indicators. For this consultancy, there is a useful series of sections that seek to simplify the assessment framework that helps answer the questions "what makes EbA effective?", and "how strong is this EbA initiative? The reference is international in focus and not Caribbean or even SIDS specific. Bertram, M.,1 Barrow, E.,2 Blackwood, K.,3 Rizvi, A.R.,3 Reid, H.,4 and von Scheliha- Dawid, S.5 (authors). GIZ, Bonn, Germany, IIED, London, UK, and IUCN, Gland, Switzerland.
Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-Based Approaches to Climate Change Adaptation and Disaster Risk Reduction, CBD (2019) https://www.cbd.int/doc/c/3f7a/4589/5cc1b7058bf52427fd 9bae84/sbstta-22-inf-01-en.pdf https://www.iied.org/call-for-feedback-inventory-tools- support-ecosystem-based-adaptation	This 2019 Guidance document is an up-to date version of the 2017 designed to help brief policy makers, practitioners and communities in a range of sectors in terms of how to mainstream EbA Eco-DRR into future decision making. The main audience for these guidelines is policymakers and implementers including subnational governments (regions, provinces, cities and municipalities), indigenous peoples and local communities (IPLCs), NGOs, private sectors, research institutions and funders.
Caribbean Climate Impacts Database cid.cimh.edu.bb rcc.cimh.edu.bb/caricof https://caricom.org/projects/detail/the-caribbean- weather-impacts-group-cariwig-project	Changes in both the climate system and socioeconomic processes including adaptation and mitigation are drivers of hazards, exposure and vulnerability" (IPCC 2014). See GIZ's Vulnerability Sourcebook, which offers a conceptual framework and step-by-step guidelines for standardised assessments of vulnerability to climate change
The Caribbean Weather Impacts Group (CARIWIG) project http://www.adaptationcommunity.net/?wpfb_dl=203 (pp. x). https://www.adaptationcommunity.net/?wpfb_dl=203 (pp. x). https://www.adaptationcommunity.net/?wpfb_dl=203 (pp. x). climate-risk-asessment-eba.pdf	Climate risk assessment for ecosystem-based adaptation - a guidebook for planners ECS Vulnerability Benchmarking Tool (BTool) and the Community BTool United Nations Economic Commission for Latin America and the Caribbean's Damage and Loss Assessment (DaLA) methodology

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Step 2

Tool name, Source & Description

Gender Mainstreaming Tools Questions and checklists to use across the programme management cycle

http://southsudanhumanitarianproject.com/ wp-content/uploads/sites/21/formidable/Gender-Mainstreaming-Tool-Oxfam.pdf A method adapted for assessing and supporting the gender awareness of Oxfam GB offices, partners and programmes. This includes: key issues to consider at each stage of the project management cycle, the 'Traffic lights' gender criteria for appraising and supporting partners, and for setting and monitoring project objectives, criteria for assessing the quality of gender mainstreaming in business plans, programme and project proposals, steps to ensure that campaigns contribute to gender equality, mainstreaming gender in policy papers, assessing impact on gender equality including indicators which can be used across all of Oxfam's strategic aims.

Sustainable Livelihoods Enhancement and Diversification (SLED)

https://cmsdata.iucn.org/ downloads/sled_final_1. pdf The Sustainable Livelihoods Enhancement and Diversification (SLED) approach has been developed by Integrated Marine Management Ltd (IMM) through building on the lessons of past livelihoods research projects as well as worldwide experience in livelihood improvement and participatory development practice. It aims to provide a set of guidelines for development and conservation practitioners whose task it is to assist people in enhancing and diversifying their livelihoods. Under the Coral Reefs and Livelihoods Initiative (CORALI), this approach has been field tested and further developed in very different circumstances and institutional settings, in six sites across South Asia and Indonesia.

One of the preferred solutions linked to CCA in the Caribbean relates to resilient and diverse livelihoods often defining this as a key strategy for the sustainability, promotion and replicability of EbA in vulnerable communities. This SLED tool can be adapted to develop a detailed specific approach for mainstreaming gender and EbA in the Caribbean.

World Bank (2011). Gender and Climate Change - Three things you should know.

Gender tools

Barnett, J., et al. (2014). Cross-chapter box on gender and climate change. In C. Field, et al., Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment

Report of the Intergovernmental Panel on Climate Change (pp. 105-107). Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press

Recommended for the toolkit step	Tool name, Source & Description		
		CARE (2015) 'Gender dynamics in a changing climate: How gender and adaptive capacity affect resilience'. Learning Brief. Washington, DC: CARE International	
	Gender tools	Cutter, S. (2017), The forgotten casualties redux: Women, children, and disaster risk, Global Environmental Change, 42, 117-121 <a href="http://www.sciencedirect.com/science/article/pii/science/article/article/pii/science/article/pii/science/article/pii/scie</td></tr><tr><td></td><td><</td><td>Le Masson, V., Norton, A. and Wilkinson, E. (2015) Gender
and resilience. BRACED Working Paper. London: ODI. www.odi.org/publications/9809-gender-
and-resilience</td></tr><tr><td></td><td></td><td>Oxfam (2010) 'Gender, disaster risk reduction, and climate change
adaptation: A learning companion'. Disaster Risk Reduction and
Climate Change Adaptation Resources. Oxford: Oxfam.</td></tr><tr><td>Step 2</td><td></td><td>GENDER AND CLIMATE CHANGE ADAPTATION - A flexible
training package designed for delivery by the International
Centre for Climate Change and Developmenthttps://www.weadapt.org/knowledge-
base/gender-and-social-equality/
gender-and-climate-change-adaptation-
a-flexible-training-package</td></tr><tr><td></td><td>ſ</td><td>Promoting Local Innovations <u>https://www.iucn.org/content/promoting-local-innovations-pli-community-</u>
based-climate-change-adaptation-coastal-areas-facilitators-guide-pli-workshop</td></tr><tr><td></td><td>Local</td><td>FEBA (Friends of Ecosystem-based Adaptation), 2017. " making<br=""> Ecosystem-based Adaptation Effective: A Framework for Defining Qualification Criteria and Quality Standards"https://www.iucn.org/sites/dev/files/ feba_eba_qualification_and_quality_ criteria_final_en.pdf	
	development and Economic analysis	Integrating Ecosystem Values into Cost-Benefit Analysis: Recommendations for USAID and Practitioners https://www.conservation-strategy.org/ sites/default/files/field-file/Integrating Ecosystem_Values_into_Cost-Benefit_ Analysis-Recommendations_for_USAID_and_ Descriptioners and	
		Valuing the Benefits, Costs and Impacts of Ecosystem https://www.weadapt.org/sites/weadapt. based Adaptation Measures. A sourcebook of methods org/files/eba-valuations-sb_2017-dec_en_online_1-0.pdf	

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Recommended for the toolkit step

Step 3

Tool name, Source & Description

Gender and Marine Protected Areas In Managing Marine Protected Areas: A TOOLKIT for the Western Indian Ocean

https://www.wiomsa.org/mpaToolkit/Themesheets/B3_Gender_and_ MPAs.pdf In the West Indian Ocean, the role of women in coastal management tends to be overlooked, although women may play key roles as stakeholders, resource users and in management. This sheet outlines how women and men can play different but equally important roles, and provides guidance on how to stimulate participation from both.

Green Climate Fund Proposal Toolkit 2017: Toolkit to develop a project proposal for the GCF

https://cdkn.org/wpcontent/uploads/2017/06/ GCF-project-developmentmanual.pdf At COP 16 in Cancun in 2010, governments established a Green Climate Fund as an operating entity of the financial mechanism of the UNFCCC Convention under Article 11. The GCF is supporting projects, programmes, policies and other activities in developing country Parties.

This Toolkit is providing element to facilitate the formulation of a good GCF demonstrating how the initiative will contribute to achieving a paradigm shift to a country's low-emission and climate resilient development pathway by

- describing a long-term vision through its theory of change and how this can be achieved through short-, medium- and long-term changes, including by supporting systemic shifts through strategic investments in regulatory and policy actions that have the potential to change behaviour in markets and economies beyond one-off investments;
- 2. promoting country ownership through alignment with national climate change priorities and comprehensive consultation and engagement with all relevant stakeholders, including the National Designation Authority (NDA) the target group (especially vulnerable communities, women, minority groups, etc.), government staff from different ministries or departments, other relevant organisations and sector experts.
- 3. embedding long-term sustainability in the project or programme's design to ensure its impacts will be sustained after financial support from the GCF and other funding sources runs out;
- 4. demonstrating value for money and, where possible, secure up-front co-financing to encourage crowding in, that is, stimulating long-term investments beyond the GCF resources and the up-front commitments.

Recommended for the toolkit step	Tool name, Source & Description	
	Framework for conducting gender analysis (IUCN 2013) <u>https://genderandenvironment.org/resource/framework-conducting-gender-responsive-analysis for a wide range of partner institutions. Key questions are provided to uncover gender gaps and issues at local, institutional and national levels, as well as gendered differences in the distribution of benefits, risks and opportunities.</u>	
	Gender analysis from SIDA (2015a) Putting Priority into Practice: SIDA Implementation of its Plan for Gender Integration https://openaid.se/app/uploads/2019/05/ EBA_2018_07_J%c3%a4mst%c3%a4lldhetsintegrering.pdf	
Step 3	Mainstream gender in GCF (2017) https://www.greenclimate.fund/document/ mainstreaming-gender-green-climate-fund- projects This manual addresses GCF's potential to mainstream gender into climate finance, building on its mandate to support a paradigm shift to low-emission and climate-resilie development. Developed with UN Women, this Toolkit guides GCF partners on how to include women, girls, men, and boys from socially excluded and vulnerable communities in all aspects of climate finance	
	WEDO, enhancing women's role in access to climate finance https://wedo.org/womens-orgs-climate-finance/ The report provides an overview of climate finance mechanisms, including the framework and approach for integrating gender equality across each of the funds, and the challenges and opportunities to engage for women's funds and their partner organizations. While the report does include a focus on the Asia-Pacific region, the information and recommendations for engagement are global and serve women's funds and organizations operating in diverse contexts	
	CANARI CANARI is a regional NGO i) promoting green and resilient economies: (ii) Facilitating participatory natural resource management: A Toolkit for Caribbean managers; (iii) Communicating Climate change: A toolbox for local organisations in the Caribbean; and, (iv) Communicating for Conservation: A communication Toolkit for Caribbean civil society organisations working in biodiversity conservation. CANARI has developed a proposal for supporting Caribbean NGOs in EbA mechanisms and measures	

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Multi-sectoral Resources

Recommended resource	Description	Source
Final Report - Regional Workshop on Ecosystem- based Management and Application of Decision Support Systems in the Wider Caribbean Region – Crowne Plaza Panama Hotel Panama City, Panama (December 2017).	The EBM/DSS regional workshop aimed to provide a general introduction to concepts surrounding an ecosystem-based approach so as to enhance the skills of scientists, Marine Protected Area (MPA) practitioners, and planners across the Wider Caribbean Region (WCR) to: a) Strength understanding on the use of EBM methods and tools through the simulation of applying a Decision Support System (DSS), including in-depth discussions; b) Allow learning and provide feedback on the role of Regional EBM Network Nodes; c) Explore opportunities to further expand efforts in the region or promote potential partnerships in developing EBM-DSS applications; and d) Capture and disseminate best practices and lessons learnt, for the replication and upscaling of the EBM approach within and beyond national boundaries. A detailed description of the project pilot site of Montecristi, Dominican Republic, was presented by PROGES and the Ministry of Environment and Natural Resources of the Dominican Republic. A general overview is provided on available software for Marine Spatial Planning (MSP) and EBM applications, including Seasketch (online tool to support collaborative MSP), MARXAN (software-suite design to help decision makers), and other data repository platforms of relevance to the region such as CaribNode, IUCN-BIOPAMA Gateway, CaMPAM MPA Database, Marine Atlas.	http://cep.unep.org/meetings/ previous-meetings/regional- workshop-on-ecosystem-based- management-and-application- of-decision-support-systems- in-the-wider-caribbean- region/@@downloads
Coastal ecosystem-based adaptation (EbA) - UNEP	This UNEP guide is aimed at coastal environmental and adaptation managers and planners, principally in government departments and agencies but also in business and civil society organisations. As such, the guide aims to provide a broad understanding of the principles and concepts of coastal EBA, present a range of different coastal EBA options, illustrated with existing examples, and discuss the issues and challenges that need addressing in EBA implementation. The guide is intended as a resource that can be consulted according to need. Together with the accompanying Coastal EBA Decision Support Tool; it supports environmental decision-makers in choosing, implementing, monitoring, evaluating and, over time, adaptively managing coastal EbA. (No Caribbean specific case studies are included within the Guide).	http://web.unep.org/coastal- eba/ includes the decision-support tool: http://web.unep.org/ coastal-eba/coastal-EBA-DST https://www.unep-wcmc.org/ system/dataset_file_fields/ files/000/000/380/original/ Options_for_Ecosystem_ based_Adaptation_in_Coastal_ Environments_low-res. pdf?1462462607_

Recommended resource	Description	Source
International Union for the conservation of nature – IUCN	The IUCN Commission for Ecosystems Management (CEM), within its Ecosystem Management/Ecosystem Management Programme (EMP) have developed a number of successful initiatives and Thematic groups on ecosystem services and on ecosystem restoration that shall play an important role to support the work in resilience. For example, the work of the Fisheries Expert Group provides an innovative view on fisheries, promoting a more balanced harvest across the food-chain to promote more sustainable fisheries and a higher resilience of the fish-stock has a mandate to provide expert guidance on integrated approaches to the management of natural and modified ecosystems, in order to promote effective biodiversity conservation and sustainable development. Consequent to the adoption of the "One IUCN Programme" concept, CEM will work closely with the Regional and Global Thematic Programmes at project, country, regional and global levels. Synergies with other Commissions will be a strong component of the CEM strategy. CEM will also work with other partners of IUCN in order to achieve its Mission in line with the overall mission of the Union. CEM works with 13 regions across the globe and a focal point for the Caribbean. Regional Chairs (RC) provide leadership and guide the development and implementation of CEM's work within their region. They also promote establishment of regionally based specialist groups, facilitate membership growth and foster initiatives for training and capacity building in the region. For the Caribbean region, Rocio Córdoba (also Focal Point Caribbean: Spencer Thomas) is responsible for countries including Anguilla, Antigua and Barbuda, British Virgin Islands, Dominica, Grenada, Martinique, Montserrat, Netherlands Antilles, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Vincent and the Grenadines and Sint Maarten. Of Interest, to achieve many of the above-mentioned outcomes, collaboration with the following institution were established: World Commission of Protected Areas UICN Regional Office	https://www.iucn.org/ commissions/commission- ecosystem-management/our- work/nature-based-solutions/ publications-nature-based- solutions

Recommended resource	Description	Source
Ecosystem-based approaches to adaptation: strengthening the evidence and informing policy; related outputs.	IIED and partners are working in 12 countries to promote effective EbA and sustainable development. The approaches set out in this website do not fall within the OECS nations studied within this consultancy, through exemplars use show close synergies with the international best practices that need to be adopted within these countries. The IIED work demonstrates how they have worked to synthesise findings and produce practical guidance in the form of an inventory of tools, designed to help practitioners and policymakers incorporate EbA into climate adaptation planning.	https://www.iied.org/ecosystem- based-approaches-climate- change-adaptation https://www.iied.org/sites/ default/files/uploads/2019/01/ eba_tools_navigator_tutorial_ jan_2019.pdf
Implementing nature- based flood protection. Principles and Implementation guidance Version française : Dispositifs de protection contre les inondations fondées sur la nature.	The Natural Hazards – Nature-based Solutions platform is a hub for projects, investments, guidance and studies making use of nature to reduce the risks associated with natural hazards. Their objective is to host and facilitate the exchange of knowledge, experiences and lessons learned from a range of stakeholders, to provide guidance on the planning and implementation of nature-based solutions, and to champion these solutions in the arenas of policy-making and investment for disaster risk reduction. The guidance was developed and agreed upon by a group of leading international institutions who are engaged in designing, planning, financing and/or implementing nature-based solutions around the world. The website (as similar to the IIED and UNEP approaches) encourages projects to contribute their nature-based project and experiences to the "Natural Hazards – Nature-based Solutions" database, to help grow the community of practitioners, scientists and development partners who are using nature-based approaches to reduce disaster risk. For this consultancy, no Caribbean specific exemplars have been uploaded onto the website that relate to this consultancy's focus nations.	https://naturebasedsolutions. org/guidance http://www. naturebasedsolutionsinitiative. org/allies-and-advisors/
Principes et recommandations pour la mise en œuvre	 This platform makes information about climate change adaptation planning across various countries as easy as possible by providing a portal of possible options and solutions to embrace the better use of nature-based solutions. 	
	This is a programme of research, policy advice and education aimed at understanding the potential of Nature- based Solutions (NbS) to global challenges and, where appropriate, increasing their sustainable implementation through the application of science. They have collated scientific information on nature-based climate change adaptation and makes this more accessible to decision makers through this platform. They have also assessed the role of NbS in climate change policy, with a focus on the plans of all signatories of the Paris Agreement. This platform will continue to grow with more studies, policy guidance and functionalities to help decision- makers rapidly access and locate the most relevant evidence. An interesting web link to EbA Advisors and "allies" is included on the website which may be of value to this consultancy when compiling the list of EbA experts (though maybe not specific to the 12 OECS nations being considered). Within the "Evidence Search" tab, there is no OECS country specific reference exemplars are included within this listing.	

Recommended resource	Description	Source
Implementing nature- based flood protection: Principles and implementation guidance	This online Guidance document by the World Bank. 2017 Washington, DC is of value as it attempts to be one step towards standardized guidelines for all nature-based flood management-based solutions. A useful example of the Grenada UNEP EbA example is presented in this report.	http://documents. worldbank.org/curated/ en/739421509427698706/ Implementing-nature-based- flood-protection-principles-and- implementation-guidance
International EbA Community of Practice	The international EbA Community of Practice website focuses on knowledge and experience sharing and mutual learning beyond projects, institutions and regional boundaries on EbA. Its purpose is to jointly develop harmonised approaches, evidence-based lessons learned and best practices for how to plan and implement effective EbA to help people adapt to the adverse effects of climate change through a collaborative learning process. Its value to this consultancy is that members of this knowledge and exchange network are primarily from national governments, international organisations, civil society and research institutions with an interest in strengthening ecosystem-based adaptation in planning and decision-making. Interesting selection of webinar events, youtube channels, short videos etc are used to convey the principles of the "community".	https://www. adaptationcommunity.net/ ecosystem-based-adaptation/ international-eba-community- of-practice/
Making Ecosystem-based Adaptation Effective: A Framework for Defining Qualification Criteria and Quality Standards	Provides a practical assessment framework for designing, implementing and monitoring EbA measures by proposing a set of 3 elements, 5 qualification criteria and 20 quality standards and example indicators. For this consultancy, there is a useful series of sections that seek to simplify the assessment framework that helps answer the questions "what makes EbA effective?", and "how strong is this EbA initiative? The reference is international in focus and not Caribbean or even SIDS specific.	https://www.iucn.org/sites/dev/ files/feba_eba_qualification_ and_quality_criteria_final_en.pdf
Promoting Local Innovations (PLI)	 This facilitator's guide for the Promoting Local Innovations (PLI) workshop has been developed to provide conservation and development practitioners working with coastal communities with an interactive and participatory tool that they can use to promote local innovations for climate change adaptation. The main objective of such a PLI workshop is to facilitate a social learning process between different stakeholder groups (local community, governmental agencies, and academia, NGOs) to identify and promote local innovations for climate change adaptation in form of community driven action plans. Successful CCA linked with EbA and Gender must make a clear investment in documentation and promoting local innovations, allowing the upscaling of existing best-practice and creating mechanisms for peer-to-peer learning. This tool will facilitate such efforts. 	https://www.iucn.org/content/ promoting-local-innovations- pli-community-based-climate- change-adaptation-coastal- areas-facilitators-guide-pli- workshop

Recommended resource	Description	Source
UNEP-WCMC (2018) EbA Tool Navigator: The searchable database of tools and methods relevant to EbA	The EbA Tools Navigator has been developed through a collaboration between two International Climate Initiative (IKI) funded projects: Ecosystem-based adaptation (EbA): Strengthening the Evidence and Informing Policy, implemented by IIED, IUCN and UNEP-WCMC; and Mainstreaming Ecosystem-based adaptation (EbA): Strengthening EbA in Planning and Decision-Making Processes, implemented by GIZ. Both projects aim to show climate change policy-makers and adaptation practitioners when and why EbA is effective – the conditions under which it works, and the benefits, costs and limitations of natural systems approaches – and to promote the better integration of EbA principles into policy and planning. The EbA Tools Navigator serves two purposes:	<u>https://www.iucn.org/sites/ dev/files/cbd_sbstta_navigator_</u> presentation_unep-wcmc_final. pdf
	gaps in the current availability and accessibility of tools and methods to support the planning and practice of EbATo help EbA planners and practitioners to find and understand tools and methods to support their	
	own efforts in planning and implementing EbA The Navigator consists of two interdependent parts: i) a database of EbA tools and methodologies; and ii) examples of tool application, to provide information on experiences using EbA tools. It also includes an interface for searching the database and viewing search results. This tutorial provides guidance on how to search the database and on how users can provide information on their experiences of the various tools included in the database.	
Sustainable Livelihoods Enhancement and Diversification (SLED) -	The Sustainable Livelihoods Enhancement and Diversification (SLED) approach has been developed by Integrated Marine Management Ltd (IMM) through building on the lessons of past livelihoods research projects as well as worldwide experience in livelihood improvement and participatory development practice. It aims to provide a set of guidelines for development and conservation practitioners whose task it is to assist people in enhancing and diversifying their livelihoods. Under the Coral Reefs and Livelihoods Initiative (CORALI), this approach has been field tested and further developed in very different circumstances and institutional settings, in six sites across South Asia and Indonesia.	https://cmsdata.iucn.org/ downloads/sled_final_1.pdf
Communications and gender checklist: things to consider, Santillan, 2019	This short guide outlines tips for how to apply a gender and inclusion lens while developing and reviewing communications materials. This guide provides Gender-forward investors with elements to incorporate thoughtful and inclusive communication that aligns to their values and mission of empowering women.	https://v4w.org/wp-content/ uploads/2019/09/2019-VFW- Communications-and-Gender- Checklist-fv.pdf
FEBA (Friends of Ecosystem-based Adaptation), 2017	Making Ecosystem-based Adaptation Effective	https://www.iucn.org/sites/dev/ files/feba_eba_qualification_ and_quality_criteria_final_en.pdf

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Recommended resource	Description	Source
A Framework for Defining Qualification Criteria and Quality Standards - GIZ	Monitoring and evaluation – how to measure success of Ecosystem-based Adaptation: Learning brief – Experiences from practitioners on how to set up monitoring and evaluation (M&E) systems and indicators for monitoring and evaluating adaptation results and linking M&E specific to Ecosystem- based Adaptation (EbA) to other monitoring and reporting systems.	https://www. adaptationcommunity.net/ wp-content/uploads/2018/01/ giz2017-en-learning-brief- measuring-success-eba-low-res. pdf
Entry points for mainstreaming Ecosystem-based Adaptation (EbA): Learning brief - 2017- GIZ	Experiences from practitioners on how to successfully integrate EbA in national and subnational processes and harness synergies.	<u>https://www.</u> <u>adaptationcommunity.net/</u> <u>wp-content/uploads/2018/01/</u> giz2017-en-learning-brief-entry- points-eba-low-res.pdf
UN Women Handbook on costing gender equality (2015)	Handbook on Costing Gender Equality is a comprehensive, step-by-step guide to costing gender equality priorities. It responds to the growing global demand for concrete methodologies to estimate the financing gaps and requirements for achieving gender equality commitments and builds on UN Women's decade long work on gender responsive planning and budgeting. The Handbook is organized into three sections: Section I explores the rationale for costing gender equality and introduces the main approaches and methods; Section II outlines the step-by-step process for undertaking a costing exercise; and Section III presents five case studies featuring costing work on gender equality.	https://www.unwomen. org/en/digital-library/ publications/2015/7/handbook- on-costing-gender-equality
OXFAM Guide to gender- responsive budgeting (2018)	These resources are designed to show how different actors can influence the budget cycle to promote gender-responsive budgeting at its different stages. It is intended to help groups developing strategies to think through the actions to take at each stage of the government budget process.	https://policy-practice. oxfam.org.uk/publications/a- guide-to-gender-responsive- budgeting-620429
Inclusion of gender equality in ME of climate services – CGIAR Climate change, agriculture and food security programme. (Gumucio, 2018)	The working paper aims to identify recommendations for gender-aware monitoring and evaluation (M&E) of rural climate services, highlighting system design and indicator development. Drawing from the literature from rural development sectors, the paper first identifies key lessons learned on gender-aware M&E. For example, to measure changes related to gender equality, it can be key to incorporate frameworks for measuring empowerment, use mixed methods and participatory tools, and follow gender-aware interview practice.	https://ccafs.cgiar.org/ publications/inclusion-gender- equality-monitoring-and- evaluation-climate-services#. XmV7Maj0m70

The Organization of Eastern Caribbean States (OECS) is an International Inter-governmental Organization dedicated to regional integration in the Eastern Caribbean.

This is the cooperation of Countries who signed the Treaty of Basseterre to work together for a common interest like peace, stability and wealth. The OECS Commission has 5 Strategic Objectives on key aspects of Regional Integrations, Resilience, Social Equity, Foreign Policy, Improving and Strengthening the Commission in delivering its mandate.

The Agence Française de Développement (AFD) Group is a public entity which finances, supports and expedites transitions toward a more just and sustainable world. As a French overseas aid platform for sustainable development and investment, we and our partners create shared solutions, with and for the people of the global South. Active in more than 4,000 projects in the French overseas departments and some 115 countries, our teams strive to promote health, education and gender equality, and are working to protect our common resources – peace, education, health, biodiversity and a stable climate. It's our way of honoring the commitment France and the French people have made to fulfill the Sustainable Development Goals. Towards a world in common.

The OECS Commission is headquartered in St. Lucia with its various Units / Embassies located throughout the world.

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