



Technical assistance for the elaboration of a preliminary environmental and social risks management framework

Terms of Reference

June 2024

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1 GENERAL INFORMATION

Title of the assignment	Technical assistance for the elaboration of a preliminary environmental and social risks management framework
Expert sector	Technical study
Activity	Literature review / local legislation review / environmental and social diligences for the priority component
Beneficiaries	Expertise France (Programme Management Team)
Countries	Grenada, Dominica, Saint Lucia, Saint Vincent and the Grenadines.
Foreseen period for the realization of assignment	Up to 30 days (depending on the financial offer) between August 12 th and October 12 th
Location	Hybrid (virtual and face-to-face meetings / possibility for on-site missions)
Languages	English, French

2 CONTEXT AND JUSTIFICATION

a) Presentation of Expertise France

Expertise France (EF) is a public agency and the French interministerial actor for international technical cooperation, within the Agence Française de Développement (AFD) group. As the second largest agency in Europe, it designs and implements projects that sustainably strengthen public policies in developing and emerging countries in areas such as governance, security, environment, health, and education. It operates in key development areas and contributes with its partners to the implementation of the Sustainable Development Goals (SDGs). Expertise France plays a role as an assembler and facilitates synergies to increase the impact of its projects.

EF supports, advises and trains national and local authorities in the definition and implementation of quality public policies adapted to the needs of the population. Focusing on the transfer of dialogue between peers, our interventions aim to strengthen the capacities of partner countries. We contribute to the emergence of innovative solutions adapted to the local context by bringing together the best know-how.

b) Context of the project

Since 2011, Caribbean islands and few countries in Central America, notably Mexico and Belize, have grappled with massive accumulations of sargassum seaweed on their coastlines, causing significant disruptions on the environment, on local economies and raising serious concerns on public health. When stranded on the coastline, sargassum seaweed erodes coastal ecosystems, including mangroves,

coral reefs, and seagrass beds, through several mechanisms: hindering the photosynthesis process and causing increased mortality of pelagic biodiversity through suffocation or poisoning due to the release of heavy metals as they decompose. The methods of collecting sargassum seaweed on beaches, using heavy machinery, also contribute to coastal erosion.

The decomposition of sargassum seaweed on beaches emits hydrogen sulphide, degrading the quality of life of coastal populations and posing a potential threat to human health – still under study. Moreover, the seaweed influxes cause several disturbances on key sectors of Caribbean economies: tourism due to reduced beach access, potential health risks, and loss of attractiveness. Many Caribbean countries have experienced a sharp decline in tourism, with significant consequences for their overall economy, as tourism constitutes an essential pillar, representing approximately 18% of GDP in several countries in the region. The fishing industry is also affected by sargassum seaweed banks, as they provoke the corrosion of boats and ship engines and a decrease in fish population.

At the national and regional level, several initiatives have been launched to assist small islands states in formulating management strategies, developing methods for collecting, storing, and utilizing sargassum seaweed biomass. Numerous opportunities for transforming sargassum into a marketable product exist, notably in agriculture, as an organic fertilizer, a livestock feed, or as biofuel. Nevertheless, the utilization of sargassum poses several risks on human, animal and ecosystem's health as most of the sargassum are loaded with heavy metals such as arsenic and cadmium. The high cost of decontamination cannot be fully bore by private actors and public actors struggle to manage sargassum treatment on all its life cycle due to limited capacities in the face of the phenomenon's magnitude. Similarly, the lack of data on its impacts and the irregular nature of the influxes requires public planning and a chain of mobilized actors to ensure sargassum treatment from collection, transportation, characterization, treatment and storage.

In this context, AFD is crafting a new programme which aimed at providing a regional response to the phenomenon of sargassum seaweed and commissioned Expertise France to conduct the feasibility study.

c) Description of the project

This project aims to foster regional cooperation dynamics in the Caribbean and support small developing island states in structuring a framework for the management and valorisation of sargassum. It will be structured into three main components and one cross-cutting component:

1. **Support for regional coordination between the Eastern Caribbean states, the Dominican Republic, Mexico, and Belize.** This component aims to engage communities of practice and capitalize on the experiences and knowledge developed at all levels of the sargassum management chain: forecasting and monitoring sargassum drifts, collection methods, pre-treatment and characterization of sargassum components, transport, storage, and their valorisation into marketable products.
2. **Assistance to small island developing States in consolidating and implementing sargassum management plans in Saint Lucia, Grenada, Dominica, and Saint Vincent and the Grenadines.** In partnership with the Organization of Eastern Caribbean States (OECS), this component aims to strengthen the capacities of public and private actors in sargassum management operations. This aspect will define and deploy a roadmap for organizing collection operations through training and equipping the staff involved, developing early warning mechanisms for coastal communities and coordination with transporters, developing suitable pre-treatment systems,

and storing biomass in secure sites. Finally, a call for projects will be launched for private actors involved in valorisation operations to support them in developing economically, environmentally, and socially viable business models.

3. **Production and capitalization of knowledge on environmental, social, and health impacts, collection methods, and valorisation chains.** The project will deploy a network of collective expertise aimed at gathering a group of scientists and experts from various Caribbean research centres to mobilize all knowledge and establish a scientific consensus on the complex issues raised by sargassum. Furthermore, the project will contribute to the call for proposals on research and innovation launched by the Agency for National Research. This contribution will aim to strengthen the regional dynamics of scientific cooperation and the implementation of concrete and adapted valorisation solutions adapted to the Caribbean context.
4. **Cross-cutting gender integration in sargassum management operations** will aim to identify the gender-specific impacts of sargassum influxes and develop specific support measures for women whose economic and social activities have been affected by these influxes.

The project is scheduled to start in early 2025.

3 DESCRIPTION OF THE CONSULTANCY

a) Context of the consultancy

Each stage of managing sargassum requires the mobilization, coordination, and equipping of a chain of public and private actors, applying the best management practices suited to the territory and the intensity of invasions, while integrating measures to prevent and reduce environmental, social, and health risks. The stages of planning and integrated management of sargassum are as follows:

- Forecasting the drift of sargassum banks and setting up early warning tools;
- Collecting sargassum nearshore or on the coasts;
- Accessing stranding areas and transporting to dedicated and secure storage sites;
- Pretreatment, washing, and storage.

All those activities planned in Component 2, raise a range of environmental, social and sanitary risks through all the management and valorisation chain. Local legislations vary from an island to another and may be inadequate in terms of International standards for addressing environmental, social and sanitary risks. When they wash ashore, the seaweeds threaten coastal ecosystems and marine biodiversity, while contributing to coastal erosion. If not collected quickly, they decompose and release toxic hydrogen sulphide and ammonia gases, having lasting impacts on coastal communities' well-being. Collection operations also pose significant environmental and social risks, as well as health risks for the collectors. Regarding the storage operations of the collected biomass, sites must be selected to minimize environmental impacts (low nearby populations, proximity to collection sites, distance from watercourses, etc.). Studies conducted by ANSES between 2015 and 2018 revealed concentrations of undesirable substances in sargassum (salt, arsenic, cadmium and chlordecone) (ANSES, 2017).

The storage operations pose a risk of contamination for the soils and groundwater. A specific attention on the evolution of the concentration of arsenic and chloride in the aquifers upstream and downstream of storage sites is to be planned on any storage sites. At last, regarding valorisation, a thorough analysis of valorisation potentials must be conducted in consideration of environmental and social issues/risks,

aiming at project selection. For example, the Tropical Technical Institute, INRAE, and ADEME have studied the effects of sargassum spreading on major tropical crops. Results reveal low agronomic benefits and potential problems of crop and soil salinization. Despite the presence of trace elements, sargassum does not have fertilizing effects. Moreover, they may carry hazardous substances such as arsenic or chlordecone. Regarding its potential as an energy source, Sargassum appears to have low energy potential and high production of harmful ashes. Studies on their combustion and methanization energy potential have shown disappointing and limited results.

b) Objectives of the consultancy

The general objective of the consultancy is to develop a preliminary framework for the management of environmental and social risks in the scope of the activities planned in the component 2 of the programme - assistance to small island States in consolidating and implementing sargassum management plans in Saint Lucia, Grenada, Dominica, and Saint Vincent and the Grenadines. The specific objectives of the consultancy are:

- Identify and assess potential environmental associated with each phase the sargassum management project, including impacts on marine and coastal ecosystems, water quality, biodiversity, and air quality.
- Identify and assess potential social risks, such as impacts on local communities, livelihoods, health and safety, and cultural heritage.
- Propose effective mitigation measures to minimize identified environmental and social risks and ensure that mitigation strategies are feasible, cost-effective, and sustainable.
- Facilitate meaningful engagement with stakeholders, including local communities, government agencies, non-governmental organizations, and other relevant parties.
- Review and ensure the project's compliance with relevant local, national, and international environmental and social regulations and standards. Identify any gaps in compliance and provide recommendations to address them.
- Align the project with principles of sustainable development, ensuring that environmental, social, and economic considerations are balanced.
- Develop an emergency response plan to address potential unforeseen environmental and social impacts.
- Prepare the recruitment of the expertise in environmental and social risk management during the implementation phase of the project.

c) Nature of the services requested

In close collaboration with the project management team based in Paris, the consultant is expected to deliver:

1. A description of the methods and tools used for data collection and analysis:

- Collection of qualitative and quantitative data, policies and institutional framework on the consideration of environmental and social risks in the Caribbean through study and literature review.
- Collect information more specifically in the targeted islands of intervention: Dominica, Grenada, Saint-Lucia and Saint-Vincent-and-Grenadines.

- Propose a risk assessment framework, which will detail the risks identified for each range of actions and management stage: collection, transportation, storage, pre-treatment, characterization, washing and valorisation.
2. **A baseline of environmental and social conditions**, with a description of the current environmental conditions and the socio-economic context of the affected areas and an identification of sensitive receptors (Protected areas, RAMSAR sites, local communities, etc.).
 3. **An overview of relevant environmental and social regulations and the identification of compliance status and gaps.**
 4. **An analysis of potential environmental and social risks** associated with the project. For each stage of sargassum management, detail the identified environmental and social risks, determine its likelihood and impact.
 5. **Proposed strategies to mitigate each identified risks**, with specific actions, responsible parties, timelines and cost estimates for implementing mitigation measures.
 6. **Propose indicators for monitoring the effectiveness of mitigation measures.**
 7. **Prepare and draft the job description** for the expertise in environmental and social risk management to be recruited at the project's inception.

4 METHODOLOGY

The methodology should include, at a minimum:

- **A literature review** on relevant environmental and social regulations, standards, and best practices in the Caribbean region with a special focus on the targeted islands. A review of existing studies, reports, and data on sargassum and its impacts in the Caribbean.
- **Scoping:** Define the scope of the study, including the geographic area, time frame, and key issues to be addressed.
- **Baseline Environmental Assessment:** collect data on current environmental conditions (e.g., water quality, marine biodiversity, coastal ecosystems).
- **Baseline Social Assessment:** gather information on the social, economic, and cultural context of the affected areas (e.g., community demographics, livelihoods, health indicators).
- **Risk Identification and Assessment phase:** create a matrix risk and evaluate the likelihood and severity of each identified risk using qualitative and quantitative methods.
- **Development of Mitigation Measures:** assess the feasibility and effectiveness of proposed mitigation measures.
- **Develop evaluation and monitoring tools.**

If the Consultant deems it relevant, and if s/he is based in the region, s/he can arrange a mission in one of the countries of intervention. The costs should be within the maximum budget.

5 DELIVERABLES

The expected deliverables are presented in the table below:

Deliverable 1 – Inception report

It should include:

- The work plan;
- the methodological approach;
- Literature review;

- The draft of the risk framework matrix.

Deliverable 2 – A preliminary baseline of environmental and social conditions report

This report will include:

- Country profiles of 4 the targeted islands with data on current environmental and socio-economic conditions, on social, environmental and labour regulations and standards.
- The risk framework matrix completed, detailing all the different environmental and social risks identified at each stages of sargassum management.

Deliverable 3 – Risk analysis and mitigation Report

This report will include:

- Detailed identification of potential social and environmental risks;
- Analysis of the likelihood and severity of each environmental risk.
- Identification of potential cumulative impacts of the project in combination with other ongoing or planned activities in the region.
- Prioritization of identified risks based on their likelihood and impact and justification
- Preliminary recommendations for mitigating identified risks and scoping of the feasibility for implementing these measures.
- Monitoring and evaluation indicators.
- The job description of the Expert in Environmental and Social risk management.

Each deliverable will be debriefed with the Expertise France project team, who may request adjustments from the Consultant. The Consultant will have one week to take these adjustments into account in a revised version. These exchange can be done remotely.

6 DURATION AND INDICATIVE SCHEDULE

Indicative schedule of Consultancy and of the deliverables:

Notification of the contract	T0
Deliverable 1 – Inception report	T0 + 7
Deliverable 2 – The preliminary baseline of environmental and social conditions report	T0 + 20
Deliverable 3 – Risk analysis an mitigation report	T0 + 50

7 BUDGET

The total budget for the consultancy **must not exceed 20 000 EUR.**

8 SKILLS AND EXPERIENCE

Experience:

- At least 7 years of experience in one of the following fields: sustainable development; environmental and social science;

- Proven experience in the elaboration of Environmental and social management framework in international cooperation projects;
- Proven expertise in public consultation and participatory approach;
- Previous experience in the Caribbean region and knowledge of institutions is a strong asset;
- Experience in the development and implementation of international cooperation projects: appraisal, project cycle, steering and monitoring/evaluation;
- Fluency in English is mandatory. French is a strong asset.

Personal skills:

- Proficient writing skills: elaboration of diagnosis and methodologies, drafting of documents for structuring and initiating projects, summary notes;
- Rigor and ability to write in a clear, precise and concise manner;
- Global, synthetic and concrete vision;
- Strong autonomy and interpersonal skills.

9 APPLICATION MODALITIES

Submission deadline: August 13th 2024, 18:00 pm (Paris time).

Expertise France reserves the right to choose a candidate before this date.

Proposal composition:

- A ***technical offer***, including :
 - A resume highlighting the skills and experience in line with the required ones (5 pages max);
 - 3 references;
 - A 1 or 2 pages memo of understanding of the context and issues of the mission;
 - A detailed workflow.
- A ***financial offer***, including number of man-days per activity and daily fees.

Incomplete applications will not be considered.