





CARIPORTS

Caribbean Ports and Environment

Questionnaire

June, 2023



Let's get to know.

1.1 Your Port(s) generalities

→ Describing your port also means for us understanding its location, its specificities, and its own characteristics.

Can you please tick the appropriate answer(s)?

1.	How many port(s) do you manage? 1 2 3-5 > 5
2.	How many employees does the port have? <50 50-99 100-199 > 200
3.	What does the port turnover include? Port fees (Vessel taxes, passengers' taxes, Taxes on goods) Tooling recipes (Rental of gantries, Rental of refrigeration outlets) Government recipes (Industrial Park and commercial area, International Trade Zone, Rental of sheds and storage areas, State-owned operation) Other recipes (environmental levy, facility use tax, sale of products to users, Occupancy tax, ancillary activities) Other: specify
4.	Poes the port publish an annual activity report? Yes No Other: specify
5.	What is the total Port(s) area(s)? Estimated surface area of port areas: Specify surface unit:
6.	Do the port district or boundaries include: Coastal areas Terrestrial areas Aquatic areas (fresh, marine, lake) Dams, Bridges, Railroads, Railways Protected areas (National Park, special reserve, Protected marine or land area) Other: specify



7.	Are one or more of this area.s directly connected to the Port? Yes No Other: specify			
1.2 \	1.2 Your Port(s) facilities and access			
	→ Ports all have different structures. What's yours?			
Can	you please tick the appropriate answer(s)?			
8.	How would you characterize your port areas? Port basin Port Channel Industrial zones Storage zones Warehouses zones Quay's length/surface (specify unit): Tracks length/surface (specify unit): Surface area of median strips (specify unit): Other: specify			
9.	What are your main equipment and services facilities? Handling machines Lifting equipment/cranes Pipes Specialized docks Dry warehouses Cold store Other: specify			
10.	What are your port connections? Port connection by sea Port connection by roads Port connection by railways Other: specify			



1.3 Your Port(s) activities

→ Ports activities are very diversified, as the economic heart of many territories.

Can you please tick the appropriate answer(s)?

11. Which activities does your port manage among:

Feederization

Transhipment

Freight/goods transport

Passenger transport (ferries & cruise ships)

Boating

Inter-island transport

Fishing and aquaculture activities

Maintenance of port facilities and infrastructure

Shipbuilding repair and maintenance

Towage and pilotage services

Mooring

Lamanage/Ship handling

Dredging

Marinas and yacht clubs

Fueling stations

Waste management or treatment

Management of natural areas

Other: specify _____

12. Port(s) Draught (in metres)

<10

10 -15

16 -20

> 20

13. What is the maximum size of vessels (cargo handling, passengers, others) that can dock?

<999 TEU (twenty-foot equivalent unit)

1000-3999 TEU

4000-5999 TEU

6000-8000 TEU

> 8000 TEU

14. What types of cargo does your port handle?

Containers

Dry bulk

Liquid bulk (non-oil)

Oils, gas, and petroleum products

Non-containerised goods

Dangerous cargo (non-oil)

Perishable goods

Motor trade cars

Other: specify _____



1.4 Your Port(s) and the Environment

→ Ports are at the heart of a natural environment and ecosystems that influences their activities.

Can you please tick the appropriate answer(s)?

15.	What are the main natural resources in/closed to the port's districts? Forests Mangroves Herbaria	
	Coral reefs	
	Meadows	
	Fishery resource areas,	
	Remarkable species	
	Productive land Water resources	
	Other: specify	
16.	What are the main factors that determine the Port's environmental actions? Regulations	
	Economic considerations Governmental context	
	Environmental, Natural resources context	
	Other factors: specify	
17.	Is the port submitted to a specific environmental legislation? Yes No	
	Other: specify	
18.	Does the port have a dedicated team for environmental issues? Yes	
	No	
	Other: specify	
10		
19.	Does the port have a specific budget for environmental actions?	
	Yes No	
	Other: specify	
20.	Does the port have an Environmental Management System (EMS) or a policy dedicated to environm subjects? Yes	nent
	No	
	Other: specify	



21. Among these environmental themes, which are the most important for your port?

(You can choose multiple themes)

Sustainable development & Blue Economy (sustainable tourism for e.g.)

Energy consumption and greenhouse gases (e.g., CO2 emissions)

Atmospheric emissions

Natural risks

Waste management

Noise management

Solid bulk cargo residues

Soil pollution

Invasive alien species

Ecosystem degradation

Water pollution

Other: specify _____

1.5 Your Port(s) and its partners

Can you please tick the appropriate answer(s)?

22. How important is the port to the local economy?

Direct labor Indirect labor Partnership

Other: specify ___

23. With which communities does the port have relations?

The public

Government institutions

Tourist organizations

Scientific structures: academies, universities

Associative community (NGO's)

Education stakeholders

Fisheries

Managers of natural areas

Other Industries

Other Ports

Other: specify _____

24. What industries does the port work with?

Global industry

Chemicals and pharmaceuticals

Fisheries

Agrifoods industries

Metal processing and refining

Steel mill

Oil refineries

Power stations

Other: specify _____



25.	Does the port participate to specific actions for the development of the local communities? Yes No Other: specify
26.	Does the port work with specific groups for environmental themes? Yes No Other: specify
	2. Your opinion makes sense for us.
	2.1 Your Port facing Environmental issues.
→ A	ll ports are confronted to local or worldwide environmental issues, some being specific, others common to all.
Can	you please tick the appropriate answer(s)?
	Among these common items, what are the environmental problems facing the port? Air quality: Emissions of atmospheric pollutants: CO, NOx, SOx, PM10 particles, Greenhouse gas (GHG) emission Handling: solid bulk cargo residues Carbon footprint Power consumption, Fuel consumption Aquatic invasive species Soil pollution: leaks and spills of pollutants Water pollution: leaks and spills of pollutants Other pollution: oily discharges Suspended matter Uses: airborne noise, dust, odors and light, on residents Waste management: ship recycling for example Impacts on ecosystems Impacts of activities on wildlife (marine, terrestrial) Underwater noise Other: specify Which of the above environmental issues is the Port Authority responsible for?
28.	Which of the above environmental issues is the Port Authority responsible for? Port Air Quality Port Energy Consumption Port Wastes Management Port Noise control Port Water Quality Other: specify



29. Which of these solutions do you consider to be the most important for a port?

(You can choose multiple themes)

Reduction of energy consumption

Reduction of Greenhouse gas (GHG) emissions

Carbon offset services

Alternative energies (type of fuel)

Clean technologies

Yes No

Other: specify _____

Ship speed reduction

Nature-based solution (Ecosystem restoration for e.g.)

Employee awareness/training program

Biodiversity conservation measures

Environmentally friendly shipping equipment and facilities

Reduction of substances as defined by MARPOL

Other: specify _____

2.2 Your Port facing Climate change issue.

→ Whether it is your experience, the natural conditions specific to your country or the risks weighing on a wider region, your opinion on the potential effects of global warming on your port ecosystem is key information for us.

Look at the image on the last page. Can you tick the appropriate answer(s)?

30.	Can you choose 5 themes that seem to be more important than others for your port?
	Temperature rise
	Sea level rise
	Ocean acidification
	Extreme weather events
	Changing water cycles
	Rupture of Ecological Continuity
	Tsunamis
	Disappearance of the mangrove
	Disturbances of the seabed (seagrasses)
	Coral bleaching
	Vulnerability of ecosystem resources
	Migrations or rarity of species
	Invasive species
	Other: specify
31.	How environmentally sensitive do you think your port area is to natural hazards?
	High
	Normal, medium
	Low
	Do not know
	Other: specify

32. Do you think there are any risks to the development of your port linked to global warming?



	Do you think the effects of climate change could affect your port infrastructure?
	∕es
	No Debago an anife
	Other: specify
34.	Have you ever heard of existing solutions for adapting to or anticipating the effects of these risks
	Never
	Once
	Several times
	Do not know
	Other: specify
2.3 A	dditional information (optional)
Woul	dyou like to provide any additional information on these subjects?
Woul	d you like to provide any additional information on these subjects?

Thank you for your answers.

CARIPORTS

CLIMATE CHANGE



Salt water intrusion Extreme temperatures Ecosystems erosion Biodiversity erosion River flows reduction Sea level rise **River flooding** Strong winds Coastal erosion Sedimentation Electrical storms **Drought** Storm surge **Heavy rains**

- DAMAGES
- DETERIORATION
- DESTRUCTION
- ACCIDENTS
- HAMPER PORT ACCESS
- OPERATIONS **DISRUPTIONS**
- HIGHER COSTS

- ALTERATION
- LESS NATURAL COASTAL PROTECTION
- INVASIVE SPECIES
- BIODIVERSITY AND ECOSYSTEMS **EROSION**

- SOCIO ECONOMICS IMPACTS
- LIVEHOODS IMPACTS
- CONSUMPTION ALTERATION
- POPULATION DISPLACEMENT
- INTERNAL & EXTERNAL **PORT FUNCTIONS CHANGES**



The mind map is a support tool designed to facilitate the collection of data for the questions "Your Port facing Climate change issue" (part 2.2).

The aim is to collect information on the port's "possible, proven or perceived" exposure toone or more effects of global warming, to determine its VULNERABILITY and IDENTIFY PAST, CURRENT AND FUTURE CLIMATE TRENDS.

Legend

Micro-environment: It comprises all the port's internal and external components, as well as the stakeholders who interact directly with it. Unlike the macro-environment, the port can influence its micro-environment. Examples of micro-environment elements: infrastructure and superstructure, activities and operations, access, and connections.

Natural capital: This is the set of natural components that provide benefits (services and goods) to people, communities, and the port itself. For example, natural ecosystems, natural resources, and species provide essential ecosystem services.

Macro-environment: this refers to the general environment within which the port operates. It includes general components that the port cannot influence directly. For example: trade supply and demand, population movements or economic disruption.

Other: These are components specific to the port, linked to its operation. For example, its costs, functions, reputation, and reliability.

Example of how to interpret the mind map

CLIMATE CHANGE EVENTS	THEMES	COMPONENTS	EFFECTS
Strong winds	Port Micro environment	Activities, Operations	NAVIGABILITY REDUCTION
Flooding		Access and connections	BARRIERS TO PORT ACCESS DISRUPTION TO OPERATIONS HIGHER COSTS
Extreme temperatures	Port Macro environment	Social Economics	
Erosion of			DISPLACEMENT OR LOSS OF POPULATION
ecosystems	Port Natural Capital	Natural Resources	IMPACTS ON LIVELIHOODS ALTERATION/EROSION OF SPECIES INCREASE IN INVASIVE SPECIES