



Departamento Nacional de Planeación



Connectivity Investment Conference on
GREEN AND EFFICIENT PORTS

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Colombian seaport system



Colombia established nine main port areas to develop port activities. In addition, related to the inland waterways, Magdalena River is a main fluvial port area.

National Port Policy – Modernization and sustainability of port activities

CONPES DOCUMENT 4118 - 2023



To promote the adaptation of the Colombian port system to the global conditions, under principles of environmental sustainability, to foster efficiency in its operation and development.

Strategic axis 2. Incorporation of best environmental practices in the national port system to consolidate the vision of socio-environmental sustainability.



- Promotion of the development of new port infrastructure oriented towards new renewable energy production technologies for own consumption and export.



- Technological advancement of ports for the decarbonization on activity and promotion for the construction of port infrastructure for the production of green hydrogen.

Ports as enablers of the green hydrogen economy



Source: <https://www.puertocartagena.com/es/inicio/sala-de-prensa/galeria-de-imagenes>



Maritime transport and the green hydrogen economy are interdependent.



Ships are projected to be major consumers of green hydrogen-based fuels, such as green ammonia or green methanol.



Greenhouse gas emissions from ships account for approximately 2.9% of global emissions, or 1.1 billion tons of carbon dioxide equivalent per year.



Alongside maritime transport, other economic sectors will also need green hydrogen-based fuels to decarbonize.

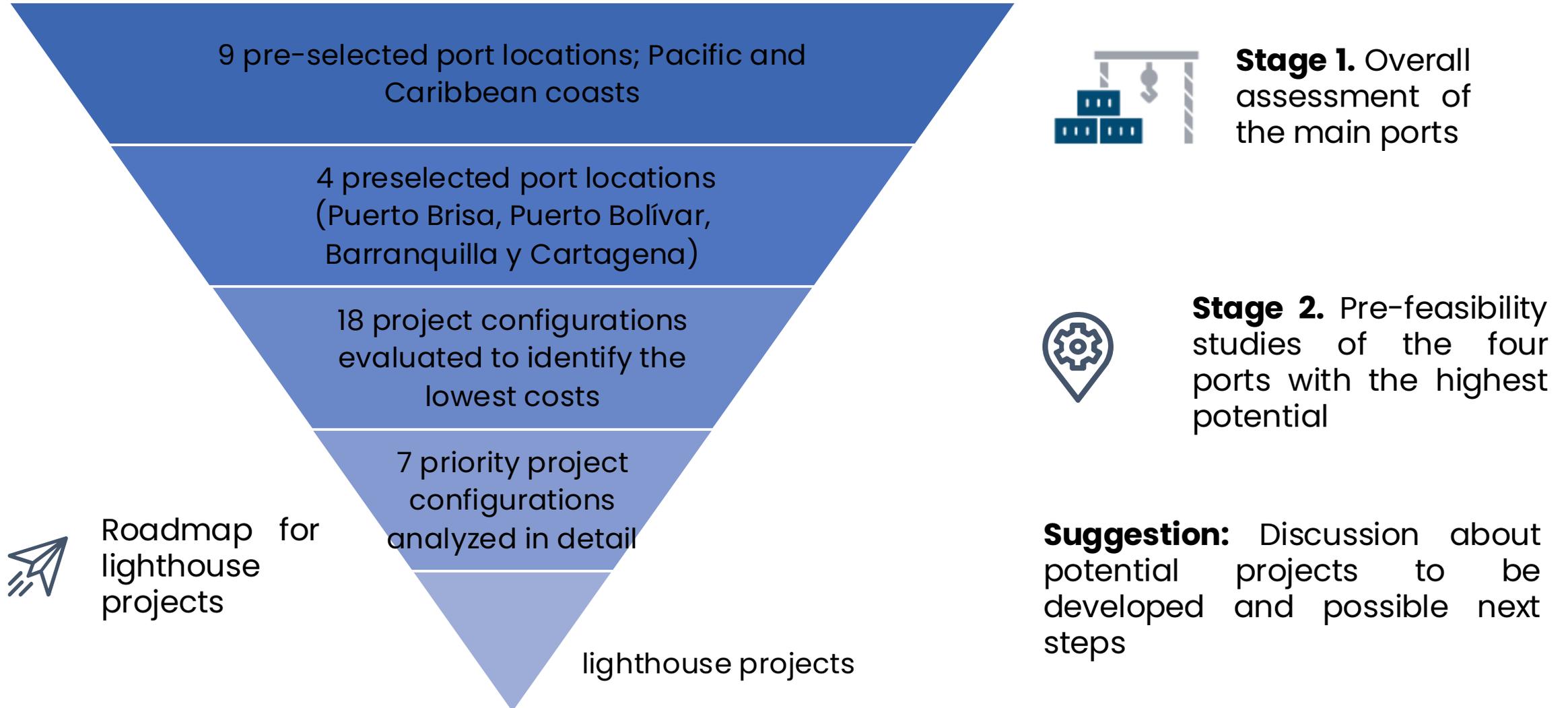


Future low-cost green hydrogen production centers are expected to be located in Latin America (developing countries with abundant renewable energy resources, particularly solar and wind).



On the demand side, ports are expected to play a triple role, serving maritime transport, local industry, and export demand.

Pre-feasibility assessment; two-stage approach to the analysis conducted



Challenges and weaknesses



Which port locations in Colombia have the greatest potential for integration into future green hydrogen-based fuel value chains?



What would be the technical and financial viability of potential lighthouse projects in port locations?



What actions should the public and/or private sectors take to develop these potential lighthouse projects?



Colombia lacks an adequate regulatory framework for the production, storage, supply, and safe export of green hydrogen-based fuels.



Given the estimated CAPEX, it will be necessary to access specialized financing schemes, and an appropriate risk-sharing mechanisms.



Colombian ports lack adequate infrastructure to receive vessels engaged in bunkering, transport, or transfer of hydrogen-based fuels.

Source: <https://www.puertodebarranquilla.com/index.php/galeria-audiovisual-2/>



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