

## ➢ Ports are at the core of the Maritime Decarbonization Process:

- The Ports are key players in the maritime industry, the blue economy and the energy transition;
- 86% of the ports will be exposed to Climate Change disasters by 2050. Emissions in ports will grow to fourfold by 2050 if we don't act effectively;
- The Emissions from Ports are divided in two broad categories: Emission from Shipping (in specific when ship at berth) account approximately 70% of the total GHG. And Emissions from onshore operations account 30% of GHG;
- Decarbonizing the world's fleet requires up to \$28 billion annually, while land-based infrastructure for zero-emission fuels will require up to \$90 billion annually.

## > Developing countries rely on their ports more than the developed countries:

- A smart sustainable port is a new generation of digital Ports which maximize the use of technology (either innovative either smart technology) in order to improve its performance in the 3 pillars of sustainability;
- Developing Countries rely on their ports 1.5 to 2.0 times more than the global average;
- 59% of global exports and 64% of global imports passing through a developing countries ports;
- Maritime transport and port infrastructure remain at the heart of economic and social development in developing countries;
- Many developing nations possess abundant renewable energy sources, such as solar, wind, and geothermal energy. These resources can be harnessed to produce low-carbon fuels like green hydrogen and ammonia.

## ➤ Developing Countries Ports towards 2023 IMO GHG Reduction Strategy by 2050:

- Port management approach in the developing Countries should be based on the Integrated Approach of Capacity Building of UNDP (Legislative, Administrative and Individual Technical);
- Solid approach for the process of technological development and innovation, and the transformation into smart sustainable ports in developing countries needs to set a National Action Plan outlines a country's strategies to reduce GHG emissions from ships;
- These plans can include various measures, such as enhancing institutional and legislative frameworks, promoting energy efficiency, researching and adopting low-carbon and zerocarbon fuels, accelerating port emission reduction strategies, and developing infrastructure for green shipping.

Dr. Eng. Hanan KAFFOURA Email: <a href="mailto:h.kaffoura@ontm.it">h.kaffoura@ontm.it</a>

Ambassador for M.E.N.A. Region at the Italian National Observatory for the protection of the Sea in Italy - ONTM



Board Member at Dubai Council for Marine and Maritime Industries in Dubai, UAE - DCMMI

