

# FAST FACTS



## On climate and ocean

- 1. The ocean is central to reducing global greenhouse gas emissions and stabilizing the Earth's climate.** The ocean generates 50 per cent of the planet's oxygen (UNEP), absorbs 25 per cent of all carbon dioxide emissions (IPCC) and captures 90 per cent of the excess heat generated by these emissions (UNEP).
- 2. Ocean habitats such as mangroves are some of the most carbon-rich ecosystems on the planet,** storing on average 1,000 tonnes of carbon per hectare in their biomass and underlying soils. (UNEP)
3. Covering less than 0.1 percent of the world's ocean, **coral reefs support over 25 per cent of marine biodiversity** and serve up to a billion people with coastal protection, fisheries, sources of medicine, recreational benefits, and tourism revenues. (UNEP)
- 4. More than 150 million jobs depend on sound management and sustainable production, export, import and consumption of ocean-based goods and services** - in fishing, aquaculture, shipping, coastal tourism, offshore wind energy and marine biotechnology. (UNCTAD)
5. Although ocean energy systems are still at an early stage of development, **offshore wind is a rapidly maturing renewable energy technology that is poised to play an important role in future energy systems.**
6. Offshore wind capacity is expected to increase fifteen-fold by 2040 (IEA) Wind power alone has the potential to **cover more than one third of global power needs**, becoming the world's foremost energy source. (IRENA)
- 7. Approximately 80 per cent of world trade is transported by maritime shipping** – which accounts for nearly 3 per cent of global greenhouse gas emissions. (UNCTAD)
- 8. Due to climate change, the ocean is warmer, more acidic and less productive today.** The ocean has absorbed between 20 to 30 per cent of human-induced carbon dioxide emissions since the 1980s, exacerbating acidification. (IPCC)
- 9. Marine heatwaves** – periods of unusually high ocean temperatures that threaten marine biodiversity and ecosystems and make extreme weather more likely – **have doubled in frequency since 1982 and are increasing in intensity.** Their frequency will increase with rising greenhouse gas emissions. (IPCC)
- 10. Sea level has continued to rise over the past decades due to increasing ice loss in the world's polar regions.** Global mean sea-level reached a new record high in 2021, rising an average of 4.5 millimeter per year over the period 2013 to 2021 (WMO), compared to 2.1 millimeter per year during 1993-2002.