

## Our Ocean Panama 2023 – Facts & Stats

### 1. Marine Protected Areas

- Well-designed, effectively managed Marine Protected Areas (MPAs) are proven, science-based tools for biodiversity conservation and management. They are also increasingly recognized for their contribution to climate action, sustainable livelihoods, and food security.
- In December 2022, world governments agreed to ensure that by 2030 at least 30% of coastal and marine areas are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other area-based conservation measures – the “30 by 30” target – as part of the landmark “Kunming-Montreal Global Biodiversity Framework.”
- About 8.1% of the global ocean is currently designated as protected, the vast majority within MPAs. This includes 18.7% of national waters and 1.4% of the High Seas. But not all these MPAs are effectively implemented, and most do not fully protect marine ecosystems from harmful human activities.
- Only around 2.4% of the ocean is fully or highly protected. This covers about 6.2% of areas within national jurisdictions and just 0.8% of the High Seas.
- Urgent action is needed to meet the 30 by 30 target, but the last 20 years prove that rapid progress is possible. In 2000, only 0.7% of the ocean was covered by MPAs; since then there has been an over 10-fold increase.
- The 2022 IPCC AR6 Report found that MPAs have great potential to address climate change mitigation and adaptation in marine ecosystems but are currently too fragmented to provide integrated responses to the increasing and cascading risks from climate change in the ocean. It states that strategic, coordinated conservation planning can yield MPA networks that are more ready for climate change.
- Our Ocean Panama is focussing on the global responsibility to create marine biological corridors to create the connectivity needed to boost both biodiversity conservation and climate resilience.
- There is huge disparity in effective MPA implementation around the world. Today only 7 nations have at least 10% of their EEZs in implemented and fully / highly protected areas.
- There is also a big difference in MPA coverage between regions. Latin America and the Caribbean has one of the highest rates, with about 24.4% of its waters designated as MPAs.
- Panama has adopted a National Ocean Policy that aims to turn the country into a model for the Latin American region, where marine and coastal resources are protected, conserved, valued and used in a sustainable way.
- In June 2021, through an Executive Decree, Panama expanded the limits of the Cordillera de Coiba MPA, thereby achieving the objectives of the 30 by 30 target 9 years before the 2030 deadline.
- The Cordillera de Coiba MPA connects with the Eastern Tropical Pacific Marine Corridor (CMAR), a leading example of regional cooperation to ensure the sustainable management of biodiversity and marine resources in the EEZs of Ecuador, Costa Rica, Colombia and Panama.
- Creating regional networks of Large-Scale Marine Protected Areas (LSMPAs) is one of the best ways to conserve global ocean biodiversity, facilitate climate resilience, increase species survival, and support livelihoods.

- A big problem is that today there is no agreed global mechanism for establishing MPAs on the High Seas, which covers 61% of the global ocean. A new international agreement under the UN Convention on the Law of the Sea for the conservation and sustainable use of high seas marine biodiversity is currently being negotiated at the UN and is expected to include a framework for establishing High Seas MPAs. This is essential for achieving the 30 by 30 target.
- Commitments made over the course of the 7 previous Our Ocean Conferences include the protection of over 5 million square miles of the ocean.

## 2. Marine Pollution

- More than 80% of all pollution in the ocean originates on land – including plastics, heavy metals, toxic substances, persistent organic compounds (such as pesticides and industrial chemicals), hydrocarbons and radioactive waste from industrial, agricultural, municipal and mining activities.
- The impacts from localized coastal pollution can be far-reaching as it travels on ocean currents and accumulates in marine organisms through the food chain, undermining the resilience of marine ecosystem and posing risk to human health through contaminated fish and shellfish. The most effective way to combat marine pollution is to stop it at the source before it enters the ocean.
- About 85% of all marine litter is plastic. Each year, at least 8 million tonnes of plastic leaks into the ocean. Without coordinated global action, the annual flow of plastic into the ocean will nearly triple by 2040 and the stock of plastic will quadruple; by 2050 there could be more plastic in the ocean than fish.
- Plastic pollution is impacting at least 700 species of marine life, while microplastics have been found in many species, including fish, shrimp, and mussels destined for human consumption. Millions of marine creatures, including 100,000 marine mammals and turtles and 1 million seabirds, are killed by marine plastic pollution every year.
- Plastic debris has created at least 5 giant garbage patches on the ocean. The largest — the Great Pacific Garbage Patch — covers an area twice the size of Texas.
- Abandoned, lost or otherwise discarded fishing gear (ALDFG), also called “ghost gear”, constitutes about 10% of marine plastic and endangers marine species – including many on the IUCN Red List – through entanglement or ingestion.
- Plastic pollution is a global, cross border problem demanding global action. In December 2022, governments launched formal negotiations for a legally binding Global Plastics Treaty, following the adoption of a UN Environment Assembly resolution in March 2022. The goal is to agree a Treaty to reduce plastic production, use and pollution and accelerate the transition to a circular economy by the end of 2024.
- Panama is committed to reducing its plastic pollution, one of the key goals of the National Action Plan to Prevent Pollution of Rivers and Seas, which is focused on waste and waste management.
- In January 2018, Panama enacted a law "to promote the use of reusable bags in commercial establishments." More recently, Law 187, which entered into force on 1 July 2021, establishes the progressive elimination and replacement of 11 single-use plastic items. From July 2022, the general use and marketing of plastic egg packaging, disposable plastic stirrers, and disposable plastic plates is prohibited. The third and final stage of this law comes into force on 31 December 2023, with the elimination of the use and commercialization of plastic straws.
- In January 2021, Panama agreed to establish the Basel Convention Regional Centre for Central America and Mexico, to be hosted by an institution under Panama University. Among its functions is to

coordinate and develop projects in Central America on plastic pollution, marine litter, the transboundary movement of waste across the region and damage to the environment.

- At Our Ocean 2023, Panama will highlight the impact that marine pollution has on each of us and its role in cross contaminating our shared global commons. Whilst sources of rivers and mouths of estuaries are national responsibilities, the impacts of unmanaged marine pollution affect other countries and migratory species. Only comprehensive, joint action will solve this cross-border problem.

### 3. Climate Change

- The ocean and climate are intrinsically linked. Ocean protection is key to confronting climate change and cutting greenhouse gas (GHG) emissions is vital for protecting ocean health.
- Our GHG emissions are impacting the ocean in unprecedented ways, making it warmer and more acidic, and leading to sea level rise, more frequent marine heatwaves, melting polar sea ice and ice sheets, deoxygenation, species migration, changes in ocean circulation and stratification, and extreme weather.
- The ocean regulates the global climate and is the largest carbon sink on Earth. It has absorbed an estimated 93% of excess heat generated by GHGs since the 1970s, and over 30% of global CO<sub>2</sub> emissions.
- Average global sea surface temperature has risen by about 1.3°C over the past 100 years. Temperatures are rising faster at the Poles – by about 2°C in the Arctic and between 1.0 and 1.5°C in the Antarctic.
- 2022 was the hottest year for the ocean on record. The 4 highest Ocean Heat Content years ever recorded were between 2019 and 2022.
- Studies show the top 2,000 meters of the ocean are now absorbing 10 zettajoules (ZJ) more heat than in 2021. That's equivalent to every person on Earth running 40 hairdryers all day, every day.
- The Poles are melting. Summer Arctic sea ice is shrinking by 12.6% per decade. Antarctica is losing ice mass (melting) at an average rate of about 150 billion tonnes per year, and Greenland is losing about 280 billion tonnes per year. Antarctic sea ice extent during December 2022 was 3.36 million square miles, about 660,000 square miles below the 1991-2020 average, the second lowest ever recorded. The melting of polar ice is responsible for a third of all sea level rise.
- Global sea levels are rising at a rate unprecedented over the past 2,500-plus years. Global average sea level has risen by 103 mm since 1993.
- The number of annual marine heatwave days around the globe increased by more than 50% between 1925 and 2016. Marine heatwaves are projected to become more long-lasting, frequent, and intense, threatening to disrupt marine food webs and ocean biodiversity.
- CO<sub>2</sub> in the atmosphere is absorbed by the ocean leading to ocean acidification. Ocean acidity has increased by 26% since the industrial era, a change unprecedented in 65 million years that could impact up to 50% of marine life, including shellfish and coral reefs.
- As ocean temperatures rise, oxygen solubility decreases leading to ocean acidification. Since the 1950s, open-ocean “oxygen-minimum” zones have expanded to the size of the EU and the volume of ocean water completely devoid of oxygen has more than quadrupled.
- The December 2022 updated IUCN Red List includes 1,550 marine animals and plants at risk of extinction and finds that climate change is impacting at least 41% of all threatened marine species.

- Small islands and other low-lying coastal areas and deltas are on the front line of climate change, threatened by rising sea levels, coastal flooding, erosion and habitat loss, extreme weather events and storm surges, and shifting fish stocks. These impacts seriously compromise the livelihoods of coastal communities that depend on ecotourism and marine resources. The population of low-lying coastal zones is projected to reach more than one billion by 2050.
- At warming levels beyond 1.5°C climate risks escalate rapidly. Limiting global heating to 1.5°C will make a significant difference to ocean-climate risks and give communities more time to adapt.
- Coral reefs are one of the habitats most at risk. IPCC reports estimate that a temperature rise of 2°C would eliminate 99% of coral reefs, whereas 1.5°C would lead to losses between 70 and 90%.
- “Blue carbon” coastal ecosystems like mangroves and seagrasses sequester and store vast amounts of carbon. Studies estimate that as much as 1.02 billion tonnes of CO<sub>2</sub> are being released annually from degraded coastal ecosystems, equivalent to 19% of emissions from tropical deforestation globally.
- Our ocean is a major ally in confronting the climate crisis. A 2019 report commissioned by the Ocean Panel found that ocean-based action areas, including decarbonizing the shipping sector, scaling up offshore renewable energy, and protecting and restoring blue carbon ecosystems, could provide up to a fifth of the GHG reductions needed to limit warming to 1.5°C.
- The combined impact of these ocean-based solutions could reduce GHG emissions by 11 billion tonnes in 2050 – equal to the annual emissions from 2.5 billion cars or all the world’s coal-fired power plants.
- Panama is committed to ocean and climate action. It is one of only 3 countries in the world whose emissions are "carbon negative" (along with Bhutan and Suriname), making Panama a pioneer in the fight against both climate change and ocean degradation.
- Panama is a member of many ocean-related climate initiatives, including the Declaration on Zero Emission Shipping by 2050 and the Glasgow Declaration on Climate Action in Tourism (both launched at COP26 in 2021), and the Because the Ocean Declaration.

#### 4. Sustainable Blue Economies

- The global blue economy of marine-related industries directly contributes about \$1.5 trillion to the global economy every year and studies estimate the value of ocean resources and assets at \$24 trillion, more than the GDP of the US. The livelihoods of hundreds of millions of people depend on the ocean.
- Ocean industries and economies are vital for countries and communities, but most are not sustainable, equitable or resilient.
- Around 90% of all internationally traded goods travel by ship. But the shipping industry emits around 940 million tonnes of CO<sub>2</sub> annually, at least 2.5% of the world's total. If the shipping sector were a country, it would be the 8th largest emitter in the world. Actions to decarbonize shipping are inadequate and too slow.
- Fish and fishery products are among the most traded food commodities in the world: in 2020, 60 million tonnes (38%) of fish and aquaculture products were traded internationally, worth \$151 billion. That’s about twelve times the weight of the Great Pyramid of Giza! But the percentage of stocks fished at biologically unsustainable levels has risen from 10% in 1974 to 35.4% in 2019.

- Coastal habitats provide protection from storms and floods for hundreds of millions of people and are a source of jobs, revenue and food. Coral reefs alone contribute \$11.5 billion a year to global tourism, benefitting over 100 countries and providing food and livelihoods to local people. But coral reefs are at existential risk due to ocean warming and acidification.
- Building a sustainable blue economy should be integrated into global plans for addressing climate change and the post-COVID recovery. According to a recent Ocean Panel report, investing \$2.8 trillion in just 4 ocean-based solutions—offshore wind, sustainable ocean-based food production, decarbonization of international shipping, and conservation and restoration of mangroves—would yield a net benefit of \$15.5 trillion by 2050, empower local fishers and communities, and create 12 million net jobs.
- Tourism represents 40% of the blue economy, the largest share in export value, according to UNCTAD. The World Tourism Organization foresees that the future of travel and tourism will contribute significantly to the creation of new jobs worldwide. But the infrastructure needed to sustain this growth in economic activity is putting further pressure on natural resources, biodiversity and local communities.
- The economy of the Caribbean Region depends heavily on tourism since it represents an average of 18% of the region's total GDP and accounts for 15% of jobs. International tourism receipts make up more than 80% of total exports for some small island states, like Saint Lucia. This creates a major economic incentive to protect the beaches, waters and species that attract tourists from around the world.
- The Covid-19 pandemic caused massive disruption and loss to the tourism industry and the sector continues to be highly vulnerable sector to climate change. Now there is an opportunity to build a sustainable, resilient, equitable tourism recovery.
- Panama is among the growing number of countries committed to the promotion of sustainable forms of tourism through the joint effort of the public sector, the private sector and civil society, and encouraging regional coordination. Sustainable tourism could play an essential role in action against climate change and contribute significantly to the global creation of new jobs worldwide.
- At the end of COP26 in 2021, Panama joined more than 450 signatory organizations of the "Glasgow Declaration on Climate Action in Tourism" all united under the same purpose: the search for concrete actions in the industry, that can mitigate the devastating consequences of climate change while regenerating our ecosystems, biodiversity and communities.
- Over 100 organizations have also become signatories of the Global Tourism Plastics Initiative, pledging to eliminate problematic or unnecessary plastic packaging and items by 2025.
- At Our Ocean 2023, Panama will encourage further commitments that can help deliver a future of sustainable tourism that mutually benefits us all.

## 5. Sustainable Fisheries

- Sustainable fisheries are vital for feeding the global population, for the livelihoods and culture of coastal and island people, for protecting and restoring ocean biodiversity, and for fighting climate change.
- **FAO** estimates that global fisheries and aquaculture production reached a record 214 million tonnes in 2020. Of this, marine capture fishing produced 78.8 million tonnes.

- Global stock assessments confirm that marine fishery resources have declined. More than 90% of global fisheries stocks are now being either fully or over exploited. More than 35% of stocks are overfished.
- Sustainably rebuilding overfished stocks could increase fisheries production by 16.5 million tonnes and raise the contribution of marine fisheries to the food security, nutrition, economic growth and well-being of coastal communities.
- In 2020, an estimated 58.5 million people were engaged in fisheries and aquaculture, 65% of them in capture fisheries. Including subsistence and secondary sector workers, and their dependents, it is estimated that about 600 million livelihoods depend at least partially on fisheries and aquaculture.
- The small-scale fisheries catch is estimated to be 37 million tonnes, more than half the global catch. Taking into account employment and subsistence activities, about 94% of all those engaged capture fisheries operate in small-scale fisheries, including about 45 million women.
- Aquatic foods provide about 17% of animal proteins and 7% of all proteins. For 3.3 billion people, aquatic foods provide at least 20% of the average per capita intake of animal protein.
- Illegal, Unreported and Unregulated (IUU) fishing is a huge problem that threatens ocean biodiversity, livelihoods and food security. IUU fishing represents up to 26 million tonnes of fish caught annually.
- In 2018, a study estimated that governments spent \$35bn globally on fishing subsidies, about 80% of which went to the industrial sector and about \$22bn of which helped drive overfishing.
- After more than 20 years of negotiations, WTO member states reached an agreement in June 2022 to prohibit subsidies for vessels and operators engaged in IUU fishing and to impose bans on subsidies that support fishing in overfished stocks and unregulated high seas.
- The 2019 IPBES report on global biodiversity concludes that fishing has had the greatest impact on marine biodiversity in the past 50 years out of all human activities.
- Total fish loss and waste is between 30 and 35% of the global catch. Reducing fish loss and waste would reduce pressure on stocks and contribute to sustainability and food security.
- A sustainable fishing future requires responsible, well-managed, certified fisheries. Fishery certifications help guarantee good practices in the industry, aligned with the interests of aware consumers committed to conserving biodiversity for the future of all. The use of advanced technologies for tracking fish and fishing vessels at sea, at port, and across the supply chain can help achieve these goals.

## **6. Maritime Security**

- Maritime security is essential for creating a safe and accessible maritime environment, encompassing trade and shipping routes, fisheries, ports, and other marine infrastructure such as pipelines, oil and natural gas platforms, and trans-oceanic telecommunications cables.
- Piracy and armed robbery, drug and arms smuggling, human trafficking and unsafe migration, IUU fishing, illegal transportation and dumping of hazardous waste, and the emerging threat of cybercrime, all threaten the safety of life and property at sea, the operation of ocean-based industries, marine wildlife, and freedom of navigation.
- Around 55,000 merchant ships carry the world's trade across sea. Maritime security is vital for the functioning of the global economy.
- 300 acts of maritime piracy and robbery were recorded worldwide in 2022, a decrease of 5% compared to 2021. The Caribbean, Gulf of Guinea and Singapore Strait are among the most affected areas.

- IUU fishing can be a highly profitable multi-billion-dollar organized crime that robs poorer countries of vital natural resources and massively undermines efforts to sustainably manage fisheries.
- IUU fishing is estimated to account for 20% of the world's total catch. Illegal fishing is also often an indicator of other types of crime at sea, including labour and human rights violations, human trafficking and slavery, money laundering, and tax fraud.
- The Port State Measures Agreement (PSMA) is the first binding international agreement to specifically target IUU fishing. Its objective is to prevent vessels engaged in IUU fishing from using ports and landing their catches, blocking them from national and international markets.
- One focus of Our Ocean 2023 in Panama will be the importance of a sustainable, transparent, well-managed shipping industry to ensuring maritime security. This includes addressing the GHG emissions, oil and noise pollution caused by the shipping industry. Improving maritime safety implies developing international regulations to be followed by all shipping nations.
- Innovative solutions with sufficient financing and resources, and that highlight the need for regional and global collaboration, are needed to combat maritime security threats as many countries have limited resources for effective ocean surveillance.