

# CONFERENCE HANDBOOK

**United Nations Framework Convention on Climate Change** 

SCIENCES PO RENNES INTERNATIONAL
MODEL UNITED NATIONS
RENNES, FRANCE - MARCH 12 TO 15 2024

#### **CONFERENCE HANDBOOK**

Sciences Po Rennes International Model United Nations 10th edition

March 12-15, 2024

Institute of Political Studies of Rennes

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# FOREWORDS FROM THE SECRETARY GENERAL

Dear friends and fellow enthusiasts of diplomacy,

It is with immense enthusiasm that I, on behalf of the entire SPRIMUN team, extend a warm welcome to you to the much-awaited 10th edition of the Sciences Po Rennes Model United Nations – an event that promises to be nothing short of extraordinary.

As Secretary General, I can assure you that we have spared no effort in ensuring the success of this event, making meticulous preparations to guarantee an unforgettable experience for all participants. Our unwavering commitment is to make this event not only enriching but also unforgettable for each one of you. Throughout the MUN, our dedicated team will be readily available to address your needs and support you along your journey.

The Model United Nations is much more than just a diplomatic simulation. It's an exceptional opportunity for you, delegates, to hone your negotiation, diplomacy, and complex problem-solving skills. It's also a unique opportunity to meet people with similar interests, exchange views and build lasting relationships with people from different backgrounds. It is our sincere hope that you will leave the Sciences Po Rennes Model United Nations with newfound inspiration and lasting friendships.

Your willingness to take part in our MUN is a privilege that we deeply appreciate. We look forward to seeing you in Rennes and sharing this very special experience with you all. Should you have any inquiries or concerns leading up to the event, please do not hesitate to reach out to us at your convenience. Meanwhile, prepare yourself with boundless enthusiasm, knowing that our intimate MUN setting fosters a culture of camaraderie and support, where everyone is assured of finding their place naturally.

We eagerly await your presence in March.

Warm regards,

THE SPRIMUN TEAM

### **BOARD OF ORGANIZATION**



### THE CHAIRS



Dear delegates,

On behalf of the United Nations Framework Convention on Climate Change, I extend a warm welcome to all of you, the distinguished delegates representing nations across the globe.

My name is Annet Vega, I'm from Mexico and I'm currently doing an international double egree, a bachelor in science of Sustainable Development Engineering at Tecnologico de Monterrey in Mexico, and a master in science of Sustainable Management and Eco-Innovation at Rennes School of Business in France. It is a pleasure as a truly passionate about MUNs and environment to chair the committee of UNFCCC. I have experienced 5 MUN's as delegate and 3 MUN's as part of the committee, and as you can see, I'm still looking forward to participating and enjoy learning from others. I hope you can find a hobby in this as I did, is such a great experience. A tip from a muner, remember, while representing your countries with pride, this is not a competition, but rather a collaborative effort where every voice and perspective matters.

Let the debates begin! to securing a sustainable future for our planet and its precious resources. See you delegates.

My name is Wissal EL HAMAOUI, and I am a Political Science and International Relations student. My passion lies deeply in international affairs and diplomacy, and I am thrilled to meet you all at the 10th edition of SPRIMUN.

Allow me to introduce myself further. I graduated with honors from Mohammed VI Polytechnic University last year, having majored in Political Science and minored in International Relations. During my undergraduate years, I had the invaluable opportunity to embark on an exchange semester at Sciences Po Toulouse. There, I connected with students from diverse backgrounds, broadening my understanding of French culture. This experience catalyzed my decision to remain in France to delve deeper into European and international studies. My journey in Model United Nations (MUN) began long before this event, enriched by both academic studies and extracurricular activities. I have actively participated in various simulations,

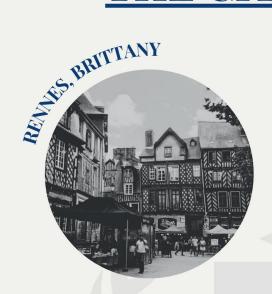


including the Model African Union, Model Security Council, and Model United Nations, among others. These experiences have honed my skills and deepened my understanding of global issues.

As the Chair of the United Nations Framework Convention on Climate Change (UNFCCC), the topic we address holds immense importance. Climate change is a global challenge with profound implications for our planet's health, economies, and communities worldwide. Our discussions and decisions within the UNFCCC framework directly influence the trajectory of climate action and the well-being of current and future generations. It is essential that we approach our role with dedication and urgency, recognizing the critical need for collaboration and decisive measures to address this pressing issue.

I wish you will spend a great time with us! Best regards,

### THE CITY OF RENNES



Rennes is the administrative capital of the French department of Ille-et-Vilaine, named after the two rivers that converge within the city. Its name is derived from a Celtic tribe, the Riedones, who first settled in that part of Brittany before being conquered by Julius Caesar in 57 BC. Prior to the integration of the Duchy into the French Kingdom towards the end of the 15th century, Brittany had long been a stronghold of opposition to the monarchy, using its own parliament as a standard for independence and political legitimacy.

In 1720, a major fire swept through the northern part of the city, destroying the largely wooden homes that had until that point been widespread. This prompted a major redesign effort, reconstructing houses in stone and placing

them in a uniform grid plan. During the Second World War, Rennes was seriously damaged due to heavy bombing from the Luftwaffe, but from the US and Royal Air Forces in 1940, 1943 and 1944, which claimed the lives of thousands of people. The city was liberated on 4th August 1944 by the forces of General Patton whose efforts were rewarded by the renaming of various streets and public buildings in his honour.

In the second part of the 20th century, the city experienced a new era of urban expansion along with the development of a solid industrial sector, especially in the automotive industry.

Now with a population of 58,000 students out of 240,000 inhabitants, as well as the creation of universities and specialised research institutes, Rennes has placed itself at the forefront of academic and technological excellence.

AS A THRIVING EUROPEAN CITY, RENNES IS A MODEL OF FRANCE'S COMPLEX ARCHITECTURAL STYLES AND CULTURAL CUSTOMS

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### **KEY ADDRESSES**



**SAINTE-ANNE** The epicenter of partying and nightlife in Rennes! Dive into the vibrant energy of Saint-Anne, where bars await to quench your thirst and keep the good times rolling!

LE MAIL An oasis of conviviality along the Vilaine River! Immerse yourself in a warm atmosphere filled with bars and restaurants, promising an unforgettable experience in Rennes.





L'ATELIER DE L'ARTISTE A quaint café nestled in the heart of the Same-Anne district. Let yourself be charmed by its cozy atmosphere and exquisite coffee.

**LALOUPERIE** Just a stone's throw from Sciences Po Rennes, it's the perfect spot for gatherings with friends.

L'ANNEXE Dive into the exhilarating atmosphere of the "Rue de la soif" with L'Annexe, a lively bar where the party never stops in the Saint-Anne district.

**LE MAESTRO** Feel the rhythm of the Mojitos in this lively bar, where each drink is a symphony of flavors to savor.

**LE DELIRIUM CAFE** Prepare for a sensory adventure with over 2000 beer flavors to discover in this lively bar, located in the heart of Rennes.

MAMA SHELTER Elevate your evening to new heights with Mama Shelter and its exclusive rooftop. A chic setting for memorable moments with friends.



**L'EPICERIE, BISTROT A TARTINES** Indulge in the temptation of savory and sweet tartines in this cozy bistro, perfect for a gourmet break at reasonable prices. 7-15€

CRÉPERIE LA SAINT GEORGES Immerse yourself in the authenticity of Breton cuisine at this temple of flavors, where every bite is a culinary journey. 8-20€

LA FABRIQUE Explore the flavors of Brittany and classic French cuisine in this exceptional venue, where each dish is a culinary masterpiece. 14-25€

# UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

The United Nations Framework Convention on Climate Change (UNFCCC) serves as a crucial international treaty aimed at addressing the challenges posed by climate change on a global scale. Adopted during the Earth Summit held in Rio de Janeiro in 1992, the UNFCCC represents a landmark agreement that underscores the urgent need for collective action to mitigate greenhouse gas emissions and adapt to the impacts of climate change.

### KEY OBJECTIVES:

- Mitigation: The primary objective of the UNFCCC is to stabilize greenhouse gas
  concentrations in the atmosphere at a level that prevents dangerous human
  interference with the climate system. This involves implementing measures to
  reduce emissions of greenhouse gases, such as carbon dioxide, methane, and
  nitrous oxide, from various sources including energy production, transportation,
  agriculture, and industrial processes.
- Adaptation: Recognizing the inevitability of climate change impacts, particularly in vulnerable regions, the UNFCCC emphasizes the importance of adaptation measures to enhance resilience and minimize the adverse effects of climate change on ecosystems, communities, and economies. Adaptation efforts encompass a wide range of strategies including sustainable land management, water resource management, infrastructure development, and disaster preparedness.
- Technology Transfer and Capacity Building: The UNFCCC promotes international
  cooperation and collaboration in the development and transfer of environmentally
  sound technologies to support mitigation and adaptation efforts, particularly in
  developing countries. Furthermore, capacity-building initiatives are crucial for
  enhancing the ability of countries to effectively address climate change challenges
  through improved institutional frameworks, knowledge sharing, and skill
  development.

- Finance: Adequate and predictable financial resources are essential for supporting climate change mitigation and adaptation activities, particularly in developing countries that face significant financial and technical constraints. The UNFCCC establishes mechanisms for mobilizing financial resources from both public and private sources, including the Green Climate Fund, to support climate-related projects and programs in developing countries.
- Transparency and Accountability: Transparency and accountability mechanisms are fundamental for ensuring the effective implementation of climate commitments and enhancing trust among parties. The UNFCCC establishes reporting and review processes to monitor progress towards emission reduction targets, assess the impacts of climate change, and facilitate the exchange of information and best practices among countries.

## PRINCIPLES:

- Common but Differentiated Responsibilities (CBDR): Recognizing the varying historical contributions to greenhouse gas emissions and differential capacities to address climate change, the principle of CBDR underscores the shared but differentiated responsibilities of countries in addressing climate change, with developed countries taking the lead in mitigation efforts and providing financial and technological support to developing countries.
- Precautionary Principle: In the face of scientific uncertainty regarding the potential impacts of climate change, the UNFCCC advocates for the precautionary principle, which emphasizes the need for proactive measures to prevent or minimize the risks of irreversible damage to the environment and human well-being.
- Equity and Sustainable Development: The pursuit of climate action should be aligned with principles of equity and sustainable development, taking into account the needs and priorities of vulnerable populations, indigenous peoples, and future generations. Efforts to address climate change should not undermine social equity, economic development, or poverty eradication goals.

# TOPIC 1: REGULATION OF SEABED RESOURCES



The regulation of seabed resources stands as a critical issue in contemporary international discourse, reflecting the growing recognition of the immense value and vulnerability of the world's oceans and their resources. As human activities expand into deeper waters and technological advancements unlock the potential for seabed mining and exploration, the need for robust regulatory frameworks becomes increasingly urgent.

Seabed resources encompass a diverse array of minerals, energy reserves, biological diversity, and ecosystem services that play pivotal roles in global ecological balance, economic development, and human well-being. From metallic nodules and polymetallic sulfides to hydrocarbons and marine biodiversity, the seabed harbors vast reserves of resources that hold considerable promise for addressing pressing societal needs, including energy security, mineral supply chains, and sustainable economic growth.

However, the exploitation of seabed resources also poses significant environmental, social, and geopolitical challenges. The fragile nature of deep-sea ecosystems, characterized by extreme pressures, low temperatures, and limited light, renders them particularly susceptible to irreversible damage from industrial activities such as mining and drilling. Moreover, the potential for habitat destruction, species extinction, and disruption of critical ecological processes underscores the need for precautionary measures and sustainable management practices.

Against this backdrop, the regulation of seabed resources encompasses a wide range of legal, policy, and governance frameworks at the national, regional, and international levels. At the heart of these regulatory efforts lie principles of environmental stewardship, equity, and intergenerational equity, which seek to balance the imperative of resource exploitation with the imperative of environmental protection and social justice.

#### KEY ISSUES UNDERPINNING THE REGULATION OF SEABED RESOURCES INCLUDE

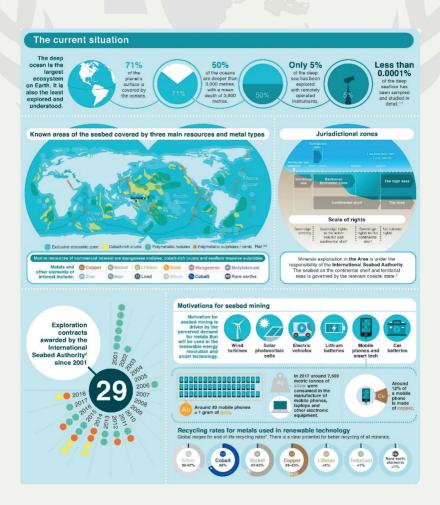
Sustainable Resource Management: Promoting the sustainable use and conservation of seabed resources through science-based decision-making, ecosystem-based approaches, and adaptive management strategies.

Environmental Protection: Mitigating the adverse impacts of seabed mining and exploration on marine biodiversity, habitats, and ecosystems through the establishment of marine protected areas, environmental impact assessments, and monitoring programs.

Benefit Sharing and Equity: Ensuring equitable distribution of benefits derived from seabed resources among stakeholders, including coastal communities, indigenous peoples, and future generations, while addressing potential conflicts of interest and power asymmetries.

Technology and Innovation: Harnessing technological innovations and best practices to enhance the efficiency, safety, and environmental performance of seabed mining and exploration operations, while minimizing risks and maximizing socio-economic benefits.

International Cooperation and Governance: Fostering multilateral cooperation, dialogue, and collaboration among states, international organizations, industry stakeholders, and civil society actors to address common challenges, harmonize regulatory approaches, and promote the peaceful and sustainable use of seabed resources.



#### KEY POINTS

- The seabed, which lies beyond the national jurisdiction of states, is considered to be the common heritage of mankind and is governed by the United Nations Convention on the Law of the Sea (UNCLOS) and the International Seabed Authority (ISA).
- The seabed contains valuable mineral resources, such as polymetallic nodules, ferromanganese crusts and hydrothermal sulphides, which are coveted by governments and companies for their economic and strategic potential.
- Seabed mining presents significant environmental and social risks, such as the destruction of marine ecosystems, loss of biodiversity, pollution, noise, conflicts of use and impacts on human rights and indigenous peoples.
- The IAMF is tasked with developing a mining code to regulate seabed exploration and exploitation activities, taking into account the principles of sustainable development, environmental protection, equitable sharing of benefits and the participation of developing countries

#### IMPORTANT TREATIES

Several international treaties are relevant to the regulation of seabed resources. Here is an overview of some of them:

- I The Convention on Biological Diversity (CBD): This convention aims to preserve biological diversity and promote the sustainable use of natural resources. It also covers marine and terrestrial ecosystems.
- 2 The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): This convention regulates international trade in endangered species, including those found in marine ecosystems.
- 3 The Convention on the Conservation of Migratory Species of Wild Animals (CMS): This convention aims to protect migratory species, including those that move through the oceans and seas.
- 4. The Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR): This convention specifically concerns the North-East Atlantic region and aims to protect the marine and coastal environment.
- 5 The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona): This convention applies to the Mediterranean region and aims to preserve marine and coastal ecosystems.

These treaties contribute to the sustainable management of marine resources and environmental protection in maritime areas around the world.

#### CHALLENGES

I.Scientific Understanding: A critical challenge lies in gaining a comprehensive scientific understanding of the potential impacts of deep-sea mining. The complex ecosystems and unique biodiversity of the ocean floor necessitate rigorous research to assess the consequences of resource extraction.

- 2.Coordination Among Stakeholders: Effective regulation requires coordinated efforts among various stakeholders, including governments, international bodies, industry players, and environmental organizations. Harmonizing policies and actions across jurisdictions can be daunting.
- 3.Surveillance and Enforcement Mechanisms: Establishing robust monitoring, surveillance, and enforcement mechanisms is crucial. These mechanisms should track compliance with regulations, prevent illegal activities, and address violations promptly.
- 4.Transparency and Inclusivity: Ensuring transparent and inclusive participation of stakeholders is essential. This involves engaging not only governments and industry representatives but also civil society, local communities, and indigenous groups. Their perspectives and knowledge contribute to better decision-making.
- 5.Cultural, Ethical, and Aesthetic Considerations: The ocean floor holds cultural and aesthetic significance for many communities. Balancing economic interests with the preservation of these values is challenging. Ethical considerations, such as respecting the rights of indigenous peoples, must also be factored in.

#### **GUIDING QUESTIONS**

- I. How can we balance the imperative of economic development with the need to protect marine ecosystems while regulating seabed resource exploitation?
- 2. What mechanisms can be implemented to ensure equitable access to and distribution of benefits derived from seabed resources, particularly for marginalized communities and indigenous groups?
- 3. What are the most pressing environmental risks associated with deep-sea mining and energy extraction, and how can we effectively mitigate these risks to safeguard marine biodiversity?
- 4. How can advancements in technology and innovation contribute to more sustainable practices and responsible management of seabed resources?
- 5. In what ways can international cooperation and collaboration be enhanced to address regulatory gaps and promote effective governance of seabed resources across national boundaries?



# TOPIC 2: MANAGEMENT OF FISHERY RESOURCES



The fisheries and aquaculture sectors have been increasingly recognized for their essential contribution to global food security and nutrition in the twenty-first century. Further expansion of this contribution requires the acceleration of transformative changes in policy, management, innovation and investment to achieve sustainable and equitable global fisheries and aquaculture.

#### WHY IT MATTERS?

- Food Security: Fish is a critical source of protein for billions of people, especially in developing nations. Unsustainable fishing and climate impacts threaten this vital source.
- Livelihoods: Millions of people depend on fisheries for income and cultural heritage. Climate disruptions endanger these communities and traditional practices.
- Biodiversity: Healthy fish populations underpin entire marine ecosystems. Climate change and overfishing disrupt these delicate balances, impacting countless species.

#### CHALLENGES

- I. Overfishing: This is the biggest threat, exceeding sustainable levels in over 33% of assessed fish stocks globally (FAO, 2022).
- 2. Illegal, Unreported, and Unregulated (IUU) fishing: This undermines conservation efforts and distorts markets.
- 3. Habitat degradation: Pollution, coastal development, and destructive fishing practices damage critical nursery and spawning grounds.
- 4. Climate change: Rising sea temperatures, ocean acidification, and sea level rise disrupt fish distribution, breeding cycles, and food webs.

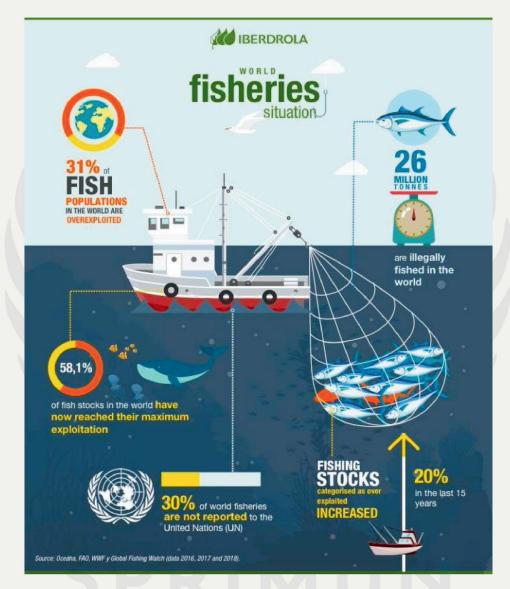
#### **CURRENT MEASURES**

Governments have implemented various measures to manage fisheries, both to conserve fish stocks and to help communities that depend on fishery resources to adapt to changes caused by overfishing and other factors.

#### Measures include:

- Buybacks
- Introduction of transferable quotas
- Investments in alternative sources of employment and income

Successful adaptation to climate change is likely to involve an extension of such policies, and in Europe the annual cost of adaptation has been estimated to range between USD 0.03 billion and USD 0.15.





#### IMPACTS OF CLIMATE CHANGE ON THE MARINE ENVIRONMENT

The climate change stressors on the marine environment of greatest significance to fisheries are increasing sea surface temperature, ocean acidification, sea level rise and increased frequency of extreme weather events (e.g. storms, hurricanes, precipitation anomalies). Our ocean is getting warmer.

The top layer of our ocean has warmed about 1.5 degrees Fahrenheit since the beginning of the 20th century. In addition to this warming trend, extreme ocean warming events, called marine heatwaves, have become more frequent and more intense.

When animals experience stressful conditions, they have four choices: adapt, move, die or stick around and stay stressed out. Researchers have found that winter skates, for example, can adapt their body size to better suit warmer waters. Summer flounder, a popular seafood species, moved its range about 70 miles further north than it was in the 1970s. And the 2013 collapse of the stock of Atlantic northern shrimp in the Gulf of Maine was tied to a marine heatwave in 2012.

#### IMPACTS OF CLIMATE CHANGE ON FISHERY RESOURCES.

The ocean has absorbed more than 90% of the heat from human-caused global warming—it's not surprising that this greatly impacts ocean animals and the communities that depend on them. The question is how they will be affected. This is especially pressing for something as economically, ecologically and culturally important as our ocean's fisheries.

Several changes in abundance and distribution have been reported for some of the main fishery resources over the last decades. The European sardine and round sardinella, the main species in terms of volume of catches in FAO major fishing area 34, have experienced a readjustment in their distribution and abundance since the 1990s. Global warming will lead to changes in the biogeographical distribution of species resulting in a large-scale redistribution of overall catch potential towards the high latitudes to the detriment of the tropics.

#### FISHING ACTIVITIES

Ecosystems and natural resources have been intensively exploited in the last decades for development purposes, food security, and as an alternative to loss of arable lands. The expansion of fishing activities during the last decades has driven negative impacts on many fish-food production systems. These factors, amplified in many countries by weak fisheries management, regulation and control systems, have led to overexploitation of many fish stocks, better known as overfishing, not only causes negative impacts on biodiversity and ecosystem functioning, but also reduces fisheries production, which subsequently leads to negative social and economic consequences. Over 33% of assessed fish stocks are overfished.

Although the FAO Fishery Committee for the Eastern Central Atlantic (CECAF) regularly made recommendations on fisheries management measures (total catch, fishing capacities, etc.), implementation remains voluntary and weak in many member states. Some recent worldwide surveys show that the FAO major fishing area 34 is one of the most impacted by illegal foreign fishing fleets.

#### OTHER SOURCES OF THREATS

Other anthropogenic pressures on marine, inshore and wetland ecosystems come from adjacent land uses. The growing coastal populations have led to unplanned urbanization with consequences for many natural habitats. Mangroves have suffered losses from conversion into agricultural uses and wood harvesting (including for postharvest artisanal activities of smoking of fish). About 30 percent to nearly 70 percent of the original mangrove vegetation is estimated to have been lost in many countries of the area. Pollution from sewage, chemicals (including fertilizers and pesticides) and waste, dam construction, sand mining, and hydrocarbon exploitation in several exclusive economic zones, are some of the many threats to many ecosystems.

#### EFFECTS OF CLIMATE CHANGE ON FISHERY RESOURCES

The key climate change stressors will have numerous interrelated impacts on commercially important fishery species, through:

- I. Direct effects on their physiology and life processes (e.g. neurotransmission, respiration, growth and development rate, reproduction, longevity)
- 2. Indirect effects arising from significant impacts to essential habitats affecting nursery areas, living space, refuge and predator-prey relationships; and from physical and biological oceanographic changes affecting survival, dispersal and settlement of early life history stages, and migration and distribution ranges of adults, inter alia. Together these are expected to significantly affect the distribution, abundance, seasonality and fisheries production of the key fishery resources in the Western Central



#### A WAY OF LIFE

Atlantic (WCA).

Fish and fisheries have massive economic and cultural significance in communities around the world. Stock collapses and declines in stock productivity mean there are fewer fish to go around, which is especially problematic given that billions of people around the world rely on seafood as a key source of protein.

For many communities around the world, fishing is more than just a way to provide food: it's a way of life. This is particularly the case for some Indigenous communities and cultures who are already at an increased risk of experiencing negative effects of climate change. Changing conditions in Northwest Alaska, for example, are making it harder for subsistence fishers to access their fishing spots, to catch fish and even follow traditional fish-drying practices.

It's also bad news for the 10 to 12% of people around the world who depend on fisheries and aquaculture to support their livelihoods, including fishers and those who process, transport, sell and cook seafood. Finally, it's disappointing news for the many people who go fishing for recreational reasons. Shifting ranges make it hard for fishers to access their catch, too.

Thanks to climate change, marine animals are expected to shift their range about 18–32 miles per decade, making it difficult for fishers to access the species they've traditionally caught/targeted. This problem is especially acute for subsistence and small-scale fishers that may not be able to travel as far or make other changes to the way they fish.

#### LIVELIHOODS

The fisheries sector helps support the socio-economic viability of coastal communities across the entire region by providing direct employment, livelihood and benefits to thousands of people across 42 countries. Expected reductions in the productivity of the region's fishery resources, increased interannual variation in availability, and changes to their distribution because of climate change means that fishers are expected to face declining catches, lower fishery-related income and increased levels of conflict. This would especially affect the large number of small-scale coastal fishers targeting benthic, reef-associated species in the region, as they would be forced to fish longer and may need to travel further and/or fish deeper, change their target to offshore pelagic species or find alternative employment outside the fishery sector to maintain their income.

The implications include reduced fisher safety (e.g. travelling further offshore, diving longer and deeper), the need to invest in training and new gear (e.g. mechanized reels, fish aggregating devices), new and/or larger boats and engine, increased levels of income uncertainty. This could in turn lead to more demands on government social security and unemployment benefits.

#### SUSTAINABLE CONSUMPTION

Global apparent consumption of aquatic foods increased at an average annual rate of 3.0 percent from 1961 to 2019, a rate almost twice that of annual world population growth (1.6 percent) for the same period. Per capita consumption of aquatic animal foods grew by about 1.4 percent per year, from 9.0 kg (live weight equivalent) in 1961 to 20.5 kg in 2019. Aquatic foods remain some of the most traded food commodities in the world, with 225 states and territories reporting some trading activity of fisheries and aquaculture products in 2020.



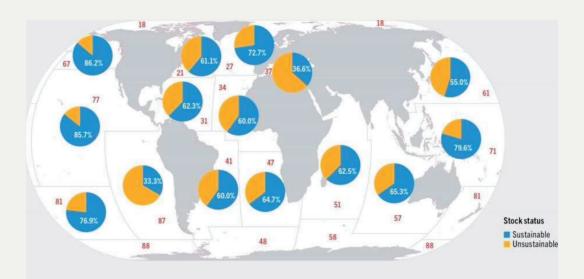


Figure 1: PERCENTAGES OF BIOLOGICALLY SUSTAINABLE AND UNSUSTAINABLE FISHERY STOCKS BY FAO MAJOR FISHING AREA, 2019, FAO



Climate-induced changes to the distribution and abundance, that could therefore impact fisher access under current management arrangements and may require changes to multi-lateral or international agreements and quotas. For example, changes in distribution of tunas and tunalike species because of rising sea surface temperatures and changes to ocean circulation patterns, could lead to a need for renegotiating International Commission for the Conservation of Atlantic Tunas quotas among member states.

#### COMPETITION

Reduced availability of fishery resources will increase fisher competition resulting in increased levels of conflict and the likelihood of increased illegal, unreported and unregulated fishing, requiring management interventions and improved surveillance and cooperation between nations. There is also likely to be an increasing level of tension between different stakeholder groups using marine space and resources for different purposes.

#### FISHERIES MANAGEMENT

The recent trend in abundance and distribution of the main stocks and the uncertainties related to climate change have increased awareness of policymakers of the urgency to act and improve the management strategies for coastal marine resources. Even if efforts are still needed, many advances have been made in several countries in developing fishery management plans (e.g. in

Guinea, Senegal, Mauritania, Morocco), upgrading fishing effort control (through licensing, establishment of a coastal zonation for different types of harvesting), implementing a rightsbased approach to coastal fisheries and co-management. Mechanisms for supra-national coordination of several marine protected areas (MPAs) in Senegal, Cabo Verde and the Gambia have also been initiated to promote a protected marine eco-region.

#### OTHER ALTERNATIVE: INLAND FISHERIES

Inland capture fisheries make important contributions to livelihoods and economies around the world, generating recorded catches of over II million tons in 2015, equivalent to just over 12 percent of total production from marine and freshwater capture fisheries. They provide high quality, affordable food to some of the particularly poor and vulnerable people globally and are a source of employment and livelihoods to tens of millions of people, as well as being a foundation of cultural systems in many places.

As an additional stressor, climate has a strong controlling influence on the physical, chemical and biological processes in freshwater ecosystems, which leads to changes in distribution, abundance and production of inland fishery resources. Climate change is also changing the global hydrological cycle, through changes in precipitation and evaporation. Overall, climate change is driving changes in the composition of species assemblages, the abundance, biomass and distribution of species, fish yields and the efficiency of fishing methods and gears.



The international community has adopted a legal framework for sustainable fisheries, recognizing the sector's important role for food security and nutrition, economic development, protection of the environment and the well-being of people. The basic international instrument is the United Nations Convention on the Law of the Sea (UNCLOS), adopted in 1982, which provides the legal framework for all maritime activities, including conservation and utilization of living marine resources.

In the early 1990s, the international community developed new approaches to fisheries and aquaculture management, embracing conservation and environmental as well as social and economic considerations. Under the auspices of FAO, several global instruments for fisheries management have been established.

 The Code of Conduct for Responsible Fisheries (the Code), adopted in 1995, provides detailed provisions for the responsible and sustainable management and use of living aquatic resources, with due respect for the ecosystem and biodiversity.
 Voluntary in nature, the Code is probably the most cited, high-profile and widely diffused and used global fisheries instrument after UNCLOS.  In 2021, FAO Members called for FAO to develop Voluntary Guidelines for Transshipment to ensure that all movements of fishery catches are sufficiently regulated, monitored and controlled to prevent IUU harvests being laundered into the supply chain; the Guidelines will build on the primary responsibility of the flag State to implement regulations.



#### KEY COUNTRIES FOR THIS TOPIC

Remember that international cooperation and agreements are crucial for managing shared fish stocks and addressing IUU fishing.

COUNTRY	RELATIONSHIP	INFLUENCE	IMPACT
Australia	Strong commitment to sustainable fisheries with robust quota systems, MPAs, and ecosystem-based management.	leader in regional fisheries management organizations (RFMOs) and promotes sustainable practices globally.	Benefits from healthy fish stocks and contributes to global food security. Faces challenges with IUU fishing and climate change impacts.
Japan	Controversial history of overfishing and IUU fishing. Recent shifts towards sustainability measures.	Major player in global seafood markets, influencing fisheries management practices globally.	Facing declining fish stocks and criticism for unsustainable practices. Needs to demonstrate greater commitment to sustainability.
China	Largest seafood producer, responsible for significant overfishing globally. Implementing reforms to address sustainability concerns.	Significant impact on global fish stocks and markets. Has the potential to be a leader in sustainable fishing if reforms are successful	Faces growing domestic demand for seafood and international pressure to improve practices.
France	Active in EU fisheries management and promotes sustainable practices in its exclusive economic zone (EEZ).	Advocates for stricter regulations within the EU and supports research and development.	Benefits from EU-managed fish stocks but faces challenges with discards and illegal fishing.
Chile	Leading example in Latin America with progressive fisheries management strategies and focus on sustainability.	Promotes responsible fishing practices in the region and shares best practices with other countries.	Vulnerable to climate change impacts on fisheries.
Spain	Historically engaged in overfishing, facing challenges with discards and illegal fishing. Recent efforts towards sustainability.	Important player in EU fisheries management, advocating for reforms to address overfishing.	Benefits from EU-managed fish stocks but faces economic consequences of stricter regulations.
Norway	Leader in sustainable fisheries management with quotas, gear restrictions, and strong monitoring	Advocate for responsible fishing practices globally and promotes ecosystem-based management.	Benefits from healthy fish stocks and high-value seafood exports.
UK	Implementing reformed fisheries policy post-Brexit, focusing on sustainability and rebuilding depleted stocks.	Previously influential within the EU, now seeking new partnerships and promoting sustainable practices globally.	Facing challenges with rebuilding fish stocks and ensuring sustainable access to resources post-Brexit.
Nauru/Vanuatu	Highly dependent on smallscale, artisanal fisheries for food security and livelihoods	Advocate for fair access to resources and protection of coastal communities in international negotiations.	Vulnerable to overfishing by larger nations and climate change impacts on fisheries.

# GUIDING QUESTIONS

- I. Which are the actions that fishery managers can take now to support fish stocks to make them more resilient to climate change?
- 2. How can fishers and fishing communities adapt to this issue in a proactive way?
- 3. What role should develop nations play in assisting developing countries with transitioning to sustainable fishing practices on their fisheries?
- 4. What innovative financing mechanisms can be established to support sustainable fishery management in vulnerable coastal communities?
- 5. How can we ensure that the voices of indigenous communities and small-scale fishers are heard and represented in UNFCCC discussions on fishery management?

# LINKS AND USEFUL INFORMATION

- The state of world fisheries and aquaculture 2022. FAO https://www.fao.org/3/cc046len/online/sofia/2022/improving-fisheries-management.html https://www.fao.org/3/cc046len/online/sofia/2022/status-of-fishery-resources.html
- Achieving and Maintaining Sustainable Fisheries, UN https://www.un.org/en/chronicle/article/achieving-and-maintainingsustainable-fisheries
- Impacts of climate change on fisheries and aquaculture, FAO https://www.fao.org/3/i9705en/19705EN.pdf
- En français: la gouvernance internationale de la pêche. Greenpeace https://www.greenpeace.fr/gouvernance-internationale-de-peche/
- A new climate change vulnerability assessment for fisheries and aquaculture, Conservationhttps://www.conservation.org/docs/default-source/publicationpdfs/a-new-climate- changevulnerability-assessment-for-fisheries-andaquaculture.pdf?Status=Master&sfvrsn=d209baa7\_2
- How Does Climate Change Affect Fisheries? Ocean Conservancy https://oceanconservancy.org/blog/2023/10/27/how-climate-change-affectfisheries/
- EU climate action in ocean governance and fisheries policyhttps://www.europarl.europa.eu/thinktank/en/document/EPRS\_BRI(2021)6 90572
- The survival of marine fauna depends on sustainable fishing, IBERDROLA https://www.iberdrola.com/social-commitment/sustainable-fishing
- The importance of fisheries management, Environmental Defense Fund https://www.youtube.com/watch?v=XWZkp NgEQU

### **PARTNERS**



