EMEA WEBINARS FALL CYCLE

BIODIVERSITY AND CLIMATE CHANGE:

Lessons for the Mediterranean Sea

Thursday 17 September 2020 15:00- 17:30 CET

The panel was moderated by ***Professor Rym Ayadi***, President of the Euro-Mediterranean Economists Association (EMEA). The panelists were: ***Sylvia Earle***, Oceanographer, and explorer known for her research on marine algae and her books and documentaries, USA; ***Ralph Chami,*** Assistant Director at the Institute for Capacity Development (ICD), at the International Monetary Fund, Member of the Advisory Board, EMEA***; Yara Saab,*** Coordinator of Operations of SCP/RAC of UNEP Mediterranean Action Plan; ***Patricia Morales,*** CEO Foundation Meri, Chile. ***Alessandra Sensi,*** Head of Sector Environment and Blue Economy, Water and Environment Division, Union for the Mediterranean, provided some comments and considerations on the issue, presenting the UfM projects on climate change and blue economy.

Rapporteur : Sara Ronco – EMEA Researcher

Introduction

This Webinar was the second of the EMEA Webinars Fall Cycle. The aim of the webinar was to dive into a dialogue between economics and natural ecosystems, to bring forward a new perspective on the so-called "Blue economy". This webinar also launched the EMEA policy research initiative on bio-economics in the Mediterranean and Africa. Its main aim is to develop the research in this area, with a focus on these regions and to promote the mainstreaming of nature-based solutions to tackle the consequences of climate change on in terms of economics, finance and policies. The research will focus on the conservation, the

protection and the contribution of nature ecosystems whilst making the value of economics and finance more sustainable. This research will be in line with the EMEA TRIS development model approach.

Panelist Presentations

Ms. Silvia Earle: She started by underlining that the existence of humankind would not be possible without the other living species on earth and that humans should care more about all the different species and the whole of nature. The other living creatures could not have the knowledge that enables us to understand that we must take care of the rest of earth's keepers. She stated that the ocean is not just water but is alive. Putting the focus on climate change, she stressed the importance of understanding and teaching the carbon cycle at the early stage of schooling. Carbon is one of the most common elements in the universe; we are all carbon-based units. CO2 and water are fundamental for all living creatures on earth, and we have the knowledge and the capacity to be conscious and aware about who we are, from where we come from and, most importantly, where we might go. We have used life as a product (from lands to animals). She, therefore, stressed that, differently from the past, now we can calculate our impact and our prosperity. Around the year 1800, our population reached 1 billion, 220 years later we are eight-times that number, and projections are around ten times that number by 2050, at the cost of the entire planet. She said, the fact that we know and that we have the tools to assess the consequences of our actions on our support system, allow us to take steps to look at alternative ways to power our civilisation. We became the driving force in managing the planet's functioning and we have sufficient knowledge to act for the preservation and the respect of the diversity of the species and the land. She stressed that we

all should think differently about how we treat the living planet. On this issue, she placed a particular emphasis on the oceans, where the majority part of carbon is stored by tiny creatures (phytoplankton). She observed that, in general, the process of recognising and protecting wildlife and nature has started, but that ocean life is still treated as a trading commodity with insufficient initiatives to take care of it. We are even measuring tuna and other marine species by the ton, not considering them as individual fish that are essential for our existence. She said that we now have more whales in the oceans than when she was a child, because we have understood the importance of keeping whales alive in the oceans. Yet, in her opinion, the other living creatures in the oceans are dangerously excluded from the equation. She concluded by inviting everyone to consider their impact more (collectively and individually) on the current path being taken and to think about how we can all preserve what keeps us alive, avoiding a predetermined catastrophe that, thanks to our knowledge, we can calculate and measure. We can move from a declining trend to a recovery path towards sustainability.

Mr. Ralph Chami: He started saying we should move from the concept of the ocean as a victim to the idea of the ocean as a champion of tomorrow. He said it is just a case of rediscovering what we used to know, but have forgotten. To build the case of the ocean economy, it is vital to ground us in science. The oceans are the lungs of the earth. Phytoplankton produces 50% of all O2, and the ocean captures 30% of all CO2 (the equivalent of 1.7 trillion trees per year and four amazon forests per year). Whales sequester carbon on their body and help capture carbon by fertilising phytoplankton, playing a critical role in the life cycle of the ocean. From a market perspective, whales contribute US$150 billion a year to the fishing industry (only talking about wild fishing) and the whale watching industry is worth over US$2 billion. He said that the pivotal moment for a paradigm shift for the ocean economy could be identified in the COP25, where the essential role of the ocean in mitigating climate change was recognized. We need to translate science benefit into financial benefit, that is better understood by decision-makers: bringing together minds and resources to create a vibrant ocean economy; engaging policymakers and financial markets; placing a market value on these ecosystem services; we need to translate what scientists already know into financial language that will engage the market and stakeholders. The economic value to whales has been attributed to certain factors: whales capture carbon (and there is a carbon market); whales increase tourism (and we have ticket prices for tourism); whales increase fish numbers in the sea (we have market data for the fish industry). He presented a calculation, which represents a minimum, for the value of whale services being worth US$2 million. Where whales are still considered food, their market value is far less valuable than the one estimated for letting them live in our oceans. For finance to bite and to create an economy around this, we need policies that provide the framework to attract the finance sector. Firstly, he said, it would be essential to recognise legal rights for whales (to consider whales as public goods). The next step would be the monitoring and the enforcement for respecting their life and building a market of incentive rather than penalties, creating positive feelings amongst people. Having taken all

the previous steps, he said it would then be possible to talk about the ocean as a renewable resource, allowing for public-private partnership, encouraging community ownership and, consequently, creating employment opportunities. He stressed that this would be a win-win model and that the sustainability of our economic system depends on the sustainability of our ecosystem. He concluded that, only when we have an economic partnership with nature, can we talk about sustainable, inclusive and nature-friendly growth.

Ms. Yara Saab: She started by saying that the definition of blue bioeconomy includes the non-traditionally exploited groups of marine organisms and their commercial applications (traditionally speaking, the blue bioeconomy does not include fisheries or agriculture, perhaps from a legal perspective). The blue bioeconomy has received much more attention since the adoption of SDGs. States have been entering into international agreements on climate change on the one hand and marine biodiversity on the other, for around three decades now. The main framework for climate change is the 1992 UN FCCC, followed by the subsequent Kyoto Protocol and the 2015 Paris Agreement. These instruments aim at stabilising greenhouse gas concentrations in the atmosphere, at the level that would prevent dangerous human interference with the climate system, in a timeframe that would allow the climate to adapt naturally. She recalled that the Paris Agreement's essential aim is to strengthen the global response to the threat of climate change, by keeping the rise in global temperature this century well below 2 degrees Celsius degree. Climate change and marine protection legal regimes have always been designed as separate bubbles; in fact, in the Paris Agreement, there is reference to the ocean for the first time in an international agreement, but only in its preamble. At the same forum in Paris, the initiative "Because the ocean" was launched and, since then, important diplomatic work has been deployed, so that at the last COP25 closer links were finally established between climate change and marine health. She moved to the legal coverage of marine biodiversity. The applicable legal text is the Convention on Biodiversity (CBD), in which the objectives are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits. Nevertheless, this only applies to national jurisdictions of partner countries. Later on, the GA of the UN launched the "Beyond National Jurisdictions" (BBNJ), an international conference on international legally binding instruments for the conservation and the use of marine biodiversity, in areas beyond national jurisdictions (under the United Nations Convention on the law of the sea, which constitutes the oceans). Since then, the process has been ongoing and the international community is expected, within the next few years, to adopt a text addressing various issues. Moving to the Mediterranean context, she said that the reference point at the regional level is the 1995 Barcelona Convention for the protection of the marine environment. From the Convention, the contracting parties should take all appropriate measures to protect and preserve biological diversity in the Mediterranean. By expressively providing for the possibility of establishing specially protected areas of Mediterranean interest in areas beyond national jurisdictions, the Barcelona Convention and its protocol is a pioneering document at the regional level. Nevertheless, she said that only 9% of the surface of the Mediterranean Sea is bound by a legal framework. She concluded by stating that, at

the European level, blue economy encompasses all sectoral and cross-sectoral economic activities related to the ocean/sea/coast, but without any reference to sustainability. At the UfM, in 2015, ministers recognised the importance of the blue economy, adding sustainable development as being one of its main characteristics. In December 2019, in Naples, the ministers of the contracting parties to the Barcelona Convention considered that the resources of the Mediterranean should trigger economic prosperity, contributing to the stability of the region with green jobs and innovation opportunities for the maritime economy sector (being traditionally or emerging, therefore to include bioeconomy). They committed to blue economy and paving the way for the adoption of more policies at the regional level to that end. She mentioned that the Regional Activity Centre for Sustainable Consumption and Production was launching the "Switch-Med" project, to establish the blue economy component and support Mediterranean countries in making the switch to sustainable consumption and production patterns in the blue economy. She concluded by proposing a bioeconomy model that should be realistic (having in mind all the different sectors involved), multidisciplinary, exhaustive, equitable and inclusive.

Ms. Patricia Morales: She stressed that oceans are essential for the ecosystem: they represent 15% of the animal proteins that support our food security; they regulate our climate, producing half of the oxygen in the Earth's atmosphere; oceans absorb 26% of anthropogenic carbon dioxide emissions into the atmosphere; they are also an essential engine for the global economic growth. It is estimated that around 61% of the world's total GDP comes from the ocean and coastal areas located less than 100 km from the coast, but this value doesn't take into account the marine ecosystem. The green economy is defined as one that results in improved human well-being and social equity whilst significantly reducing environmental risks and ecological scarcities (ONU 2018). The problem is that, usually, the environmental sacrifice zones are made to compete with employment and subsequent contribution to GDP; this discussion is misguided, since what is needed is the economic valuation of marine ecosystem services. She said that, without an economic database that produces a valuation of ocean ecosystem services, there is no way of valuing ecosystem damage and its impact on GDP. The Meri Foundation promotes sustainable development through scientific research and environmental education. They started a project in Chile, the Blu Boat Initiative, that seeks to protect whales and monitor the oceans to address the climate crisis. The pilot project started in Northern Patagonia, Chile, with the highest concentration of blue whales and other cetacean species in Chile. The project is based on the monitoring of whales in the ocean, with the aim also of building a database, since the system will also allow the monitoring of oceanographic factors that affect climate change. The project also tries to provide an economic evaluation of the marine ecosystem service. She said that the economic assessment is critical in allowing policymakers and the private sector to be more engaged in fighting climate change; putting a price on these services means providing a fee for the eventual damage to these services. The climate change fight must be multidimensional, she

said. All the dimensions coming together (environmental, social, cultural and financial) can build a new institutionalism.

Ms. Alessandra Sensi: She started by saying that the Mediterranean region has been engaging with the green and blue economy for a relatively long time and that, indeed, this is a pioneering area s in this respect. The blue economy community has been developed over recent years and includes policymakers, academics and the private sector. She said that the Mediterranean region had built a positive agenda with multilevel, multinational and multidisciplinary stakeholders. The UfM refers to the blue economy by considering sustainability as being embedded in it and is currently preparing two important ministerial meetings: one on the environment and climate change and the other on the blue economy. She said that the first UfM Ministerial Environment and Climate Change (ENV and CA) (Athens, May 2014) was very important in terms of what the Mediterranean region decided to do. It was a conceptual shift from pure de-pollution to a pollution prevention strategy linked to climate change; therefore, the region can be considered as the pioneer of the Green Deal. The approach finds sustainable consumption and production as the lead to the green and low carbon economy. The UfM tried to bring the region together, to build a "Med as One" bridging North and South programmes and connecting finance, to capitalize and upscale the entire area. She mentioned some points that will lead the UfM Ministerial Meeting on ENV and CA: the promotion of an indicator of economic growth beyond GDP; enabling environmental, sustainable investments; the elimination of subsidies, the promotion of eco-incentives and market-based approaches; strong and coordinated economic plans, capable of triggering new economic models, where climate and environmental risks and opportunities are mainstreamed into public policymaking, financial systems etc. as a base for going from a linear to a circular economy in the Mediterranean. The UfM is working on some environmental and climate change axes. The main ecological axes are: support the transition to a green, circular and socially inclusive economy, based on sustainable consumption and production practices and nature-based solutions; prevent and reduce pollution on land, sea and air; protect, preserve, manage and restore natural resources in the Mediterranean region within an integrated ecosystem approach, including terrestrial, marine and coastal. The main axes for climate change are science-policy interface, cooperation on NDC sectors and national measures; climate finance (the UfM has produced a sort of IPCC report on the Mediterranean). She moved to talk about the blue economy plan, including many initiatives. One particular initiative she mentioned is the "BLUEMED", sponsored by the European Commission, furnishing operational tools for developing a sustainable blue economy in the Mediterranean area. She concluded by mentioning the priority themes that came out from a UfM online consultation for a joint action: governance, fisheries and aquaculture; maritime transport and ports; tourism; marine renewable energy; climate change; blue litter; maritime security and surveillance.

Main issues discussed:

- Marine life is fundamental for humankind, and the oceans, with their wildlife, can be the best natural instrument to reverse the climate change trend and mitigate its impact; therefore, ocean wildlife should be more protected and respected;
- A robust legal framework is needed to preserve wildlife and biodiversity in our oceans and seas, engaging countries, regions and the international community;
- Data collection and the attribution of economic value to the marine system can contribute to engaging governments, private sector and civil society towards an inclusive and sustainable growth path; nevertheless, economic valuation and legal frameworks should go in the same direction to avoid related risks;
    - The Mediterranean region played a pivotal role in the transition towards a circular blue, green economy;

