EU-INDIA CLEAN ENERGY & CLIMATE PARTNERSHIP

Water Management for Climate Resilience, Biodiversity, and Food Security

Thursday, 23rd February | 4:00 pm – 5:30 pm (IST) | Magnolia, India Habitat Centre

Concept Note

Objectives of the Thematic Track

- To discuss the challenges and opportunities which influence the synergy of intricate nexus between ecosystem, biodiversity, agriculture, and water availability
- To align and prepare, the positions and the announced actions to accelerate efforts on water management for climate resilience, biodiversity and food security

Human induced climate change is now a reality. Over the world, there is an effort to maintain global warming below 2 degree centigrade over the century relative to pre-industrial level. The impact of climate change on water is predicted to be many: extended summer season causing less rainy days, late onset of monsoon season, intense precipitation, recurring occurrence of drought and flash floods, glacier melts and heavy snowfall during winters. Each of these phenomenon influences the water resources on Earth and associated biodiversity in its ecosystems and agriculture that depend on them.

Interdependence of ecosystem, biodiversity, agriculture, and water availability is naturally delicate and climate change induced variability in water flows is directly influencing the communities thriving in those ecosystems as well as its associated biodiversity. According to Indian Meteorological Department, normal rainfall pattern in the country has changed with an increase in total rainfall in western and eastern India while it has decreased in states in central and northern India.

Moreover, increase in rate of waste generation and discharge of untreated wastewater from industries and urban centres, along with increasing use of chemicals in crop production leading to increase in non-point sources of pollution, are counteracting the efforts taken by the government agencies

towards installation of waste treatment plants along the rivers. Moreover, global warming influenced increase in water temperature and decrease in dissolved oxygen is exerting additional stress on river's self-cleaning mechanism.

However, effective management of water resources has the potential to build resilience against climate change impacts and protect natural biodiversity while ensuring healthy food systems. Global Biodiversity Framework (GBF) adopted during COP15 meeting agreed that human-induced extinction of threatened species need to be halted and the rate of extinction of all species should be reduced by tenfold by 2050. GBF further highlights that effective restoration, conservation and management of water ecosystems is necessary for the achievement of its goals.

Way Forward

River Basin Management (IRBM) offers an approach, which can help to build resilience of the society to climate change. It facilitates cross-sectoral coordination of water, land and natural resources to achieve long term sustainability along with enhanced livelihood opportunities, healthier ecosystem and disaster risk reduction. As the boundaries of river basin don't relate to administrative boundaries, IRBM approach brings together a mechanism to work across boundaries and across systems (natural and human). IRBM concept highlights the importance of ecosystem functioning with an integration of policies, technical innovations, economic efficiency and social benefits.

The upcoming UN 2023 Water Conference[1] -the first UN conference on water since 1977, comes at a critical moment: the world is not on track to achieve SDG 6 and related goals and targets by 2030. High level representatives from UN Member States and stakeholders are expected to meet to mobilize and accelerate water action in the second half of the Water Action Decade 2018-2028 and second half of the 2030 Agenda for Sustainable Development, including by announcing contributions to the "Water Action Agenda" in the form of voluntary commitments. This Water Action Agenda will be the main outcome of the Conference.

The UN Water Conference will be a real opportunity for the EU and India to put water higher up on the global agenda for the next decade and beyond. In particular, the conference will address the water-food-energy-ecosystems-nexus via the following two Interactive Dialogues:

(2) Water for Sustainable Development: Valuing Water, Water-Energy-Food Nexus and Sustainable Economic and Urban Development (SDG 6.3, 6.4, 6.5 and SDGs 2, 8, 9, 11, 12);

[1] The *United Nations Conference on the Midterm Comprehensive Review of the Implementation of the Objectives of the International Decade for Action, "Water for Sustainable Development", 2018–2028*[1] (UN 2023 Water Conference) is scheduled to be held from 22 to 24 March 2023 at UN Headquarters, New York. This UN 2023 Water Conference will be co-hosted by the Republic of Tajikistan and the Kingdom of the Netherlands.

(3) Water for Climate, Resilience and Environment: Source to Sea, Biodiversity, Climate, Resilience and DRR (SDGs 6.5, 6.6, 7, 11.5, 13, 14, 15

In the lead up to the UN Water conference, this EU-India session can contribute to align and prepare the positions and the announced actions to accelerate efforts on water management for climate resilience, biodiversity and food security, with views to achieve a water-resilient future.

QUESTIONS *(Interview style panel discussion)*

1. Ecosystem, biodiversity, agriculture and water are considered to be interlinked with each other. Moreover, due to this intricate connection, they are more vulnerable to climate change.

   Therefore, What are the key instances or examples which indicate the strength of these interlinkages and the influence of climate change on these sectors? What are the characteristics, of this symbiotic relationship among them?

2. As the interlinkages are natural, probably we need to find solutions which are based on the nature. What 'Nature based solutions' are available which can help in reducing the stress on this interlinkage and may ensure an integrated resource (water-bio-diversity-food) security?

   Therefore, how can synergies among the diverse interests and actors be created and strengthened ultimately leading to climate resilience? Are there any successful examples which demonstrate the harmonization of this relationship by application of nature based solutions?

3. While the solutions are available, why we have not been able to implement them? Is there a lack of understanding, lack of knowledge and data or there is a lack of awareness about these interlinkages?. What coordinated policy responses are needed that could address the challenges influencing the interlinkages among ecosystem, biodiversity, agriculture and water, so that resilience could be built among communities?