

## Ecosystem-based Adaptation in the basins of lakes, rivers and aquifers: when green & grey makes... blue!

**Host :** Global Alliances for Water and Climate (GAfWaC) \*, International Union for Conservation of Nature (IUCN), United Nations Economic Commission for Europe (UNECE), Ministry of Environment of South Korea

### **Presenters**

Eric Tardieu (Secretary, Global Alliances for Water and Climate (GAfWaC), France)

Emmanuelle Cohen-Shacham (Chair, Nature-based Solutions Thematic Group, Commission on Ecosystem Management, International Union for Conservation of Nature (IUCN), USA)

Sonja Koeppel (Environmental Officer, United Nations Economic Commission for Europe (UNECE), Switzerland)

Tracy Molefi (Member of the Okavango River Basin Water Commission (OKACOM) and National Coordinator for River Basin Organizations in Botswana, Botswana)

Hatda An Pich (Chief Executive Officer (CEO), Mekong River Commission (MRC), Lao PDR)

Carolina Wong-Landero (Sub Coordinator, Binational Commission of the Sixaola River Basin, Panama)

James Dalton (Water Policy and Governance Coordinator, International Union for Conservation of Nature (IUCN), Switzerland)

Serik Bekmaganbetov (International Fund for Saving the Aral Sea in the Republic of Kazakhstan, Kazakhstan)

### **Description**

#### **Body**

?The lead organization for this session is the Global Alliances for Water and Climate (GAfWaC), 1st in the order of the list of host organizations below. The lead representative will be Mr. Eric Tardieu. Please keep Mr. Edouard Boinet (e.boinet@inbo-news.org) in copy of your emails for this session.

#### **1) Short Description**

Climate change primarily affects water with unpredictable rainfall patterns, aquatic ecosystems degradation, altered river flows, sea level rise-induced salinization of coastal groundwater, more frequent and intense floods and droughts. Water-related disasters represent about 90% of all natural disasters.

Ecosystem-based Adaptation addresses this issue with Nature-based Solutions (NbS). It uses biodiversity and ecosystem services to adapt to the adverse effects of climate change. As water flows and doesn't stop at borders, this approach should be implemented at the scale of the basins of lakes, rivers and aquifers, including in transboundary settings.

Through case studies from around the world, the audience will be invited to question conventional climate change solutions and the associated risks of maladaptation, to explore the range of "no-regret" Nature-based Solutions that Ecosystem-based Adaptation mobilizes and the interest to carry out this approach across borders at the scale of the basins of lakes, rivers and aquifers.

## **2) Objectives**

The session will address ecosystem-based adaptation (EbA) in water resource management by sharing experiences from basins around the world. It will review ecosystem-based approaches and measures to adapt to climate change in basins, identify good practices and lessons learned and formulate recommendations to scale-up actions. It aims to raise awareness, provide guidance and catalyze action for ecosystem-based adaptation at basin level.

## **3) Justifications**

Water-related ecosystems such as wetlands are severely impacted by climate change. Yet, healthy and sustainable ecosystems increase our resilience to the adverse impacts of climate change because of the services they provide. Supporting ecosystems and adopting an approach of Ecosystem-based adaptation (EbA) is especially valuable at the level of the basins of lakes, rivers and aquifers: it recognizes that water flows and does not stop at borders, and neither do its associated ecosystems. The added value of applying EbA in basins is to avoid mal-adaptation and enabling maintaining of the ecosystem services within the basin as a whole.

## **4) Projected outcomes**

- a clear setting of effective options on how to design, finance, implement and maintain EbA at basin level,
- the dissemination of methodological guidelines from key institutions in the field of EbA at basin level (e.g. the Handbook for “management and restoration of aquatic ecosystems in river and lake basins” published by INBO in partnership with GWP and OIEau ; the publication of UNECE and UNISDR “Words into Action Guidelines Implementation Guide for Addressing Water-Related Disasters and Transboundary Cooperation” ; the handbook of the World Bank “Financing Climate Change Adaptation in Transboundary Basins: Preparing Bankable Projects” ; IUCN's definition and standards for Nature-Based Solutions).

## **5) Alignment with Congress**

Ultimately, the session is designed to share best practices applying the innovative concept of Ecosystem-based adaptation to improve resilience to climate change. This is aligned with the overarching theme of the World Water Congress “Foundations for Global Water Security and Resilience: Knowledge, Technology and Policy”.

And of course, it is echoing the issues raised by the topic “Securing healthy waters, catchments and ecosystems” (5<sup>th</sup> topic of the theme D. “Securing healthy waters, catchments and ecosystems).

## **6) Provisional program**

Master of ceremony: Mr. Eric Tardieu, Secretary, Global Alliances for Water and Climate (GAFWaC)

Introduction: Ms. Emmanuelle Cohen-Shacham, Chair, Nature-based Solutions Thematic Group, Commission on Ecosystem Management, International Union for Conservation of Nature (IUCN)

**Panel:**

**Moderator:** Ms. Sonja Koeppel, Environmental Officer, United Nations Economic Commission for Europe (UNECE)

- Ms. Tracy Molefi, Member of the Okavango River Basin Water Commission (OKACOM) and National Coordinator for River Basin Organizations in Botswana
- Dr. An Pich Hatda, Chief Executive Officer (CEO), Mekong River Commission (MRC)
- Ms. Carolina Wong-Landero, Sub Coordinator, Binational Commission of the Sixaola River Basin
- Dr. James Dalton, Water Policy and Governance Coordinator, International Union for Conservation of Nature (IUCN)
- Mr. Serik Bekmaganbetov, International Fund for Saving the Aral Sea in the Republic of Kazakhstan

**Conclusion:**

Mr. Eric Tardieu, Secretary, Global Alliances for Water and Climate (GAFWaC)