

## *Interactive dialogue 2*

### *Water for sustainable development: Valuing Water, Water-energy-food Nexus and Sustainable Economic and Urban Development*

#### *Addressing the participants*

New Water Paradigm shift provides global system solutions. Keeping rainwater in the land will renew small water cycles flow and moisture, water resources, increase carbon sequestration, decrease temperatures, create new jobs, and mitigate climate risks, such as floods, droughts and sea level rise.

The extent of water-related risk is growing at an unprecedented rate. Traditionally, management of water resources in all countries has focused on surface water or ground water, but state of water structures depend on water holding capacity of the soil. Without water in the soil, there will be no renewal of groundwater, no evaporation of water from the soil and cooling of the land by plants or forming of clouds. For decades, public water policies have not addressed the aforementioned connections clearly.

Key indicators of soil health and climate stability include: water retention capacity of soil and landscape structures; agrochemical parameters of the soil; the proportion of vegetation cover of the soil; soil erosion and soil sealing rate; the content of organic material in the soil; heat impact. These indicators need to be evaluated on an annual basis, as well as their trends.

In Slovakia, we have been dealing with these topics for more than two decades, and we have implemented solutions in various forms at all levels of public administration. We would like to share our knowledge and practice with other countries as restoration of the small water cycle in the country is a key connecting element of both public policies, climate recovery and transboundary cooperation.

As State Secretary of the Ministry of Agricultural and Rural Development of Slovakia in cooperation with international team of advisors, we prepared recommendations in the form of White paper called *Water for Climate Healing – A New Water Paradigm*". White Paper has implications for global cooperation, adopting and implementing effective solutions at local, regional and national levels requires international knowledge and is based on the nexus of water, energy and carbon cycles, integrating hydrology, food, ecosystems, and climate connection. We also formulate the concept called "Soil – Carbon and Water Bank of the Landscapes", for evaluation and financing ecosystem services of soil and landscape.

The New water paradigm shift is directly relevant to the UN SDG's and is based on the nexus of water, energy and carbon cycles, integrating hydrology, food, ecosystems and climate, as they lead to secure clean water, food, biodiversity resilience, and climate stability.

*Thank you for your attention.*

## *Interactive dialogue 5*

## *Water Action Decade*

### *Addressing the participants*

Water is critical determinant for achieving internationally agreed goals and targets, including those contained in the 2030 Agenda for SDGs.

Fundamental contribution to the acceleration of the restoration of water resources in all countries around the world is to eco-systemically retain rainwater in the damaged landscape and to restore the functionality of small water cycles on the continents.

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The key solution is not only to stop the drying of continents and the rise of ocean levels, but also to return water to the country for the fulfilment of ecosystem services using rainwater retention principles to restore the small water cycle in landscapes, with a goal of decreasing floods, drought and natural disasters. Paradoxically, in the current water management, we have been focusing on a large water cycle, in which the water turns over once every 3 months on average, in the small water cycle every 8 days.

In holistic concept, when we speak about Water, we mean Earth's water cycles being modified by humans, by Energy we discuss distribution of solar energy, renewable energy resources all depend on sun and water cycle. Energy cycles are not integrated enough into regional, national, and global decision-making on climate change mitigation and land use management. Integrated cross-scale management of water includes also soil biodiversity. The water cycle's stability depends on land use, the soil's health and moisture content, rain, and vegetation.

Thanks to Water Action Decade and UN Water Conference we can discuss together fundamental importance of water in the Earth's climate system and the profound impact of land use and land changes on transforming the temperature conditions, hydrology, and biodiversity and share our knowledge.

*Thank you for your attention.*