

5th ASEM Seminar on Urban Water Management

Attachment 1

Concept Paper

I. Background

All of us, from 2019 we are in a unique situation like never before. The world faces a global health crisis one that is spreading human suffering, crippling the global economy, and upending people's lives. COVID-19 is threatening the whole of humanity. Moreover, the virus has no borders, so it is impossible to combat COVID-19 alone.

During the previous years the role of water has become even more important. On the global emergency caused by the virus, the UN-Water website explains that the spread of the virus is closely linked to water and sanitation. So protection against COVID-19 is not possible without having access to clean water, not to mention hygiene service, meaning hand hygiene facilities such as soap and water at toilets. However, billions of people lack access to healthy drinking water and safe sanitation and handwashing due to lack of adequate funding (UNWATER, 2020).

What did we learn from the virus?

Now we are in a situation that has brought tests to us, we must reconsider how to adopt to the challenges, how to build a community with a shared future of water innovation, where the value of water is about to be redefined and it requires persisting efforts of all countries.

Related to this, in the scope of the 6th ASEM Water Seminar there *is the theme of how we can turn challenges into opportunities, having water and sustainability in the focus*. The event aims sustainable water utility services and water management, examining the value of water in the circular economy, the role of cross-sectoral cooperation (science, profession, industry) in creating a water-conscious society, how the system of financing water solutions can become sustainable, and how investors and financial institutions can become stakeholders in the operation of a new system that considers the interests of the future. The goal of the seminar is to show how water connects all of us, highlighting the water awareness that is essential for the actions of societal actors, and the potential to shift the scientific, industrial, business and individual responsibility at micro and macro levels

5th ASEM Seminar on Urban Water Management

towards sustainability.

“In the field of sustainable water management, we no longer have to take decisions in principle, our task is to talk about the steps to be taken to achieve the common goal, the way and timeframe for implementation, the conditions for financing” – H.E. János Áder, president of Hungary.

To turn scientific ideas into real solutions the seminar aims to raise awareness of negative environmental, social and economic trends and to show that these negative changes, which are threatening the future of humanity, can still be reversed. It focuses on practical responses that can address the sustainability challenges we face.

A key goal of the Seminar will be to develop recommendations and action plans designed to support collaborative efforts among the stakeholders who play a role in the path from sustainability concepts to implementation of sustainable practices.

II. Plenary Sessions of the Seminar

Plenary Session 1: Sustainable Development of Water Management

Exploring the role of water in the international value chain and the value of water resources in the ever-growing competition for water

UN experts predict that by the end of the century, drinking water could be more expensive than gold. Clean drinking water is the only food that cannot be replaced by anything else, it is essential for human life. A general appreciation of the importance and value of water is expected to grow. The careful use of water as a resource, to build and sustain systems for water supply and sanitation, is the basement to reduce the crisis that magnifies water inequalities.

An estimate by a consulting firm Booz Allen Hamilton suggested already in 2007 that a total of USD \$41 trillion is required to refurbish the urban infrastructure old (mainly in “developed” country cities) and build the new (mainly in the “developing” country cities) between 2005 and 2030. Over 50 per cent (USD \$ 22.6 trillion) would be required for water systems. These projects are about reconstruction, water treatment plants, network

5th ASEM Seminar on Urban Water Management

construction, etc., and generally there is no specific project element dedicated neither to capacity building (CB) to plan, implement, manage and operate these infrastructures, nor to R&D task to find the optimal solution in each project. It means that there are lot of things to do. It matters what's behind the tap. Sustainable water services are a value.

Furthermore, a 2016 report by the UNEP's International Resource Panel (IRP) estimated that almost half of the world's population will suffer severe water stress by 2030 unless water use is „decoupled” from economic growth. Demand for water set to outstrip supply by 40 per cent in 2030, forcing governments to spend \$200 billion per year on upstream water supply as demand outstrips cheaper forms of supply - up from historic averages of \$40 to \$45 billion. And since only half of one per cent of the world's freshwater is available for the needs of both humanity and ecosystems, we will need to do more and better with less if we are to ensure healthy ecosystems, healthy populations and economic development.

The most cost-effective way of achieving water decoupling, according to the report, is for governments to create holistic water management plans that take into account the entire water cycle: from source to distribution, economic use, treatment, recycling, reuse and return to the environment. Specifically, to achieve water decoupling, the IRP recommended among others building sustainable infrastructure to improve the efficiency of water use and eliminate water contamination and pollution. It also suggested strengthening research into the value water.

With participation of policymakers, researchers regarding regulatory initiatives, this topic aims to share related policies, regulations, laws and standards (EU taxonomy) in different fields such as water resources, financial investment, and infrastructure development that are fundamental to achieve water decoupling.

Furthermore, this topic is to examine the economic link between water value and the sustainability of water services, to identify the role of water value in the circular economy as well. It also aims to name and to list innovative water management and water industry solutions for the sustainability of water utility services.

5th ASEM Seminar on Urban Water Management

Keywords: value of water, optimal solutions, life cycle approach, affordable and sustainable developments, decoupling, water-smart society, good governance, finance, investments, policies for water resource management, pricing policies, benchmarking, water services

Plenary Session 2: Technology Innovation in the Water Sector

Presenting sustainable - affordable solutions for water related infrastructure development and management

The increasing focus on water issues today is stimulating the emergence of innovative tools and procedures and strengthening the development of an integrated approach. In infrastructure investment processes, it is of increased importance to compare possible solutions. This is particularly true in the planning and construction phases, when the multidimensional impacts of investments are considered, as well as ensuring economic and financial sustainability and affordability in the future.

Worldwide, there is a growing understanding of the need to deliver smarter, cheaper, more resilient and environmentally sensitive water and wastewater systems.

Key drivers include population growth, urbanisation and competing demand from municipal, agriculture and industrial uses. There is a mounting consensus that we should not be looking backwards for solutions but be more innovative in delivering the outcomes required from our infrastructure systems. Therefore we need new ways of thinking, new processes as well as innovative technology to meet these requirements.

Innovation is not only a term that can be applied to technology, but we should also consider the framework in which we operate, including: our receptiveness to new ideas, our appetite for risk, the processes we use and the creativity of the human capital in our sector. The best technology can fail to be implemented if there's unwillingness to change.

In this topic invited participants provide providing references to good practices in the development, construction and implementation of smart city, smart water and other smart technology-based solutions. Solutions, that are feasible, affordable and sustainable

5th ASEM Seminar on Urban Water Management

considering all the financial, environmental and social aspects of the recent and post-pandemic challenges.

Keywords: professional innovations, sustainable and affordable solutions, to secure a water-wise future, highlight the latest technology developments in the water industry

Plenary Session 3: Cooperation and capacity building

Sharing of good practices and achievements in international cooperation-based solution-development and capacity building

As the Seminar is to focus on practical responses that can address the sustainability challenges we are facing with, among this topic participants examine the proven, working solutions on water.

Mission of this topic is to connect and build partnerships between stakeholders in water management, to disseminate professional knowledge and information, and to support the work of professionals in the sector by creating a high level of collaborative, solution-focused, proactive cooperation and common thinking.

The best solution can be born with a strong cooperation and collaboration. Participants of this topic will present and discuss key cases related to water problems in regions of Asia and Europe where solutions were achieved by international cooperation, or sharing of which can contribute to capacity building in other regions to tackle extreme weather, city waterlogging and other issues.

The pandemic has brought about a paradigm shift! New views, new concepts, new terms are being introduced, pushing the boundaries of our discipline, our science. We are relearning our profession, interpreting new terms. Water connects. It is essential to share experiences and knowledge in water-related solutions to deepen the cooperation between Asia and Europe in the climate change, sustainable development and digital economy.

Keywords: knowledge sharing, water education, awareness raising, professional trainings, best practices, success stories, solve the problem locally (think global – act local)

5th ASEM Seminar on Urban Water Management

III. Organization

Guided by

the Ministry of Foreign Affairs of China, the Ministry of Science and Technology of China

Hosted by

the People's Government of Hunan Province of China

Organized by

the Department of Science and Technology of Hunan Province of China, Asia-Europe Foundation (ASEF)

Co-organized by

ASEM Water Resources Research and Development Center (ASEMWater), ASEM Cooperation Centre for Science Technology and Innovation (ASEM-CCSTI), Hungarian Water Association (HWA), Hungarian Water Partnership (HWP)

In joint Partnership with

European Water Association (EWA), Water4All, UK Centre for Ecology & Hydrology (CEH), Eco-Innovation Cluster for Sustainable Environment (CLEMS) of Romania, Shiga Prefecture of Japan

Supported by

Other international funds, NGOs, and well-known water-related professional a and companies in the Asia-Europe region

IV. Participants

1. 53 members of the ASEM governmental departments, international water-related organizations, international financial agencies, fund organizations, scientific research institutes, business elites and representatives of the media.

2. 17 members of the Academic and Development Committee of ASEMWater of ASEM members including the United Kingdom, France, Australia, Hungary, Romania, Thailand, and etc.

3. Exhibitors such as water-related scientific research organizations, enterprises and companies, and etc.

4. Professional visitors in the field of water-related industries.

5. Professional media.

5th ASEM Seminar on Urban Water Management

V. Promotion

An official website of the "5th ASEM Seminar on Urban Water Management" will be designed and launched in both Chinese and English, including the registration system for participants, "cloud" meetings, interactive exchanges and online manuals. In addition to the feedback of the registration form through e-mail, participants can also log in to the official website of the Seminar to get registered, and watch the content and playback of the plenary sessions in real time.

VI. Expected Outcomes

It is estimated that well-known experts, scholars, entrepreneurs, investors, and etc. of ASEM members will be invited to participate in the online Seminar. There is no limit to the number of online participants (within technical capacity). About 50 institutions and enterprises in water-related areas and industries will be invited as exhibitors to participate in the online Expo with a total number of more than 5,000 visitors. At the end of the seminar, a brief summary will be released, which will explain the conclusions, draw a blueprint, and propose measures; as well as formulate an action plan, and based on the summary, determine the necessary steps to achieve the goal within two years. The progress will be evaluated and considered by the next (6th) ASEM Seminar on Urban Water Management.