

### The water challenges of tomorrow

Over the last 30 years, the planet has gained almost 3 billions additional inhabitants. With immense needs to provide them with Water for Energy, Water for Health and Water for Food. It is a volume of over 200 billion additional cubic meters every year.

Conflicts over shared water resources between neighboring countries or regions may continue to escalate, leading to geopolitical tensions and challenges in managing water equitably. Rapid urbanization and population growth in megacities can strain local water supplies, potentially leading to water shortages and conflicts.

Addressing these water challenges requires a combination of technological advancements, policy reforms, international cooperation, and public awareness.

Proactive measures should be taken by governments, businesses, communities, and individuals.







This includes investing in water infrastructure, adopting sustainable water management practices, promoting water-saving technologies, improving water quality monitoring and treatment, implementation of sustainable agriculture practices, and taking proactive measures to mitigate the impacts of climate change and fostering international cooperation on transboundary water issues. Public awareness and education about water conservation and sustainable water use are also crucial in creating a more water-secure future

All this calls for not only for this period we are in but also next generation's world.

More than ever, we need to claim that political will should be expressed and action must be taken to tackle challenges.

Sincerely,

Dursun Yıldız



### Why dams and hydraulic structures shouldn't be a war target



**Hydropolitics Association** 

Dams and hydraulic structures should not be targeted during the war due to several important reasons such as the protection of the civilian population, disproportionate harm, humanitarian law and conventions, responsibility to protect public health and the environment



Dams and hydraulic structures often serve as vital sources of water, electricity, and irrigation for civilian populations. Targeting these infrastructures can lead to a significant humanitarian crisis, depriving civilians of essential services necessary for their survival and well-being. Water is a fundamental human need and a basic human right. Deliberate attacks on dams and hydraulic structures can deprive populations of access to clean water, leading to a potential public health crisis. This further exacerbates the suffering of civilians and undermines their right to life and health.

### **Violation of international conventions**

There are international agreements and conventions in place to protect civilian objects, including water infrastructure, during armed conflicts. Dams and hydraulic structures are considered civilian objects, and their intentional destruction would violate these legal frameworks. The Geneva Conventions and their Additional Protocols specifically prohibit the targeting of civilian objects, including dams and other water-related facilities, unless they are being used for military purposes.

Intentionally destroying water infrastructure undermines the basic human right to access clean water, which is crucial for maintaining public health and preventing the spread of waterborne diseases. Targeting such infrastructure can lead to a humanitarian crisis, affecting the most vulnerable populations, including children, the elderly, and the sick.

It's important to note that the classification of a specific action as a war crime ultimately depends on the circumstances surrounding the conflict and the intent of the individuals involved. International courts and tribunals, such as the International Criminal Court (ICC), are responsible for determining and prosecuting individuals accused of war crimes.

Infrastructure, including dams and hydraulic



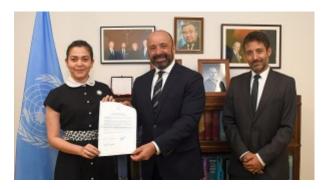
structures, is also crucial for postconflict recovery and rebuilding efforts. Targeting these structures hampers the ability to restore es-

sential services, prolongs the recovery process, and undermines the prospects for peace and stability in the affected region.

Overall, it is important to respect the distinction between military targets and civilian objects and to uphold international humanitarian law to protect civilian populations and preserve critical infrastructure necessary for their well-being.

### Panama is the first Latin American country to join UN Water Convention

06 July 2023



By becoming the first country from Latin America to accede to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), Panama today made a decisive step to support the sustainable use of transboundary water resources through cooperation across borders.

With slightly over 4 million inhabitants, Panama is at the intersection between Central and South America and located between the Pacific Ocean and Caribbean Sea. Panama is well-endowed with water resources, with approximately 33,000 m³ freshwater per capita available, nearly six times the global average, and mostly relies on surface water resources. Panama shares river basins with Costa Rica and Colombia, and the total area of transboundary river basins represents approximatively 25% of the national territory.

The main water uses are industry, agriculture, transport and navigation, drinking water supply, hydropower production, fishing, tourism and environmental services, making cooperation key for the development of the border regions.

The main transboundary river basin for Panama is the Sixaola, located in the border region with Costa Rica, which is home to important biodiversity and agricultural activities, and is of cultural importance with the presence of indigenous peoples and Afro-Caribbean populations. Panama and Costa Rica are working together to coordinate the development of the Sixaola River basin through a Binational Commission, and it is expected that the implementation of the Water Convention will help operationalize monitoring and data-sharing systems on water quality, quantity, and use, that in turn will help to identify trends and potential problems and support evidence-based decision-making.

It is also foreseen that the Convention will support cooperation between Panama and Colombia, by increasing capacity for effective water governance and trust, based on clear rights and obligations.

153 countries worldwide share rivers, lakes and groundwater resources. Open to accession by all UN Member States since 1 March 2016, the Convention now counts 51 parties. At present, there are several countries in Latin America and the Caribbean in the process of accession, including the Dominican Republic, El Salvador, Costa Rica, Paraguay and Uruguay. The UN Water Convention is serviced by the United Nations Economic Commission for Europe (UNECE).



Source: https://unece.org/environment/press/panama-first-latin-american-country-join-un-water-convention#:~:text=By%20becoming%20the%20first%20country,resources%20through%20cooperation%20across%20borders.

# Aarhus Convention Parties and civil society push forward actions to uphold environmental rights for all

### 11 July 2023

The public and civil society have a crucial role to play in tackling key environmental challenges. To make the most of this potential, continued efforts are needed to uphold their rights to shape environmental decision-making.

To this end, the Working Group of the Parties to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) came together for its twenty-seventh meeting (Geneva, 26-28 June 2023) to address a range of pressing issues.



Reflecting on the major milestones achieved during 25 years since the Convention's adoption, Parties to the Convention together with the representatives of international organizations, nongovernmental organizations (NGOs), academia and other key stakeholders, such as child and yo-



uth defenders, welcomed accession to the Convention of Guinea-Bissau in April 2023 opening new horizons for environmental democracy in Africa and worldwide.

Source: https://unece.org/media.news/381086

## Why is a systems-thinking approach needed to address the global water problems?

Dursun Yıldız

Director

**HPA Hydropolitics Academy Center** 

### **Abstract:**

The global water crisis continues to intensify, with an increasing prevalence of floods, droughts, and limited access to safe water. To effectively address these complex challenges, a systems thinking approach is crucial. This article highlights the significance of systems thinking in sustainable water management and emphasizes the need for a multidisciplinary and transdisciplinary approach.

Systems thinking offers a holistic perspective, considering the interactions and interdependencies within the water system. It helps identify the underlying causes of water problems and facilitates the design of effective and sustainable solutions. By understanding the complexities and interconnections of water-related issues, decision-makers can develop comprehensive strategies that balance social, economic, and environmental dimensions.



Furthermo-

re, systems thinking recognizes that water problems are intertwined with social, economic, and environmental factors. It emphasizes the need for collaboration and inclusiveness, involving diverse stakeholders such as communities, industries, governments, and environmental organizations. By incorporating multiple perspectives, systems thinking enables inclusive decision-making processes and promotes integrated strategies that prioritize long-term sustainability.

# SCIFNCE FORUM







**Environmental Crisis** 

Migration

29 Nov.-1 Dec 2023 ANTALYA-Türkiye



Dear Sir or Madam.

Antalya International Science Forum (ANISF) on "Climate Change, Environmental Crisis and Migration" which is organised in partnership with Antalya Metropolitan Municipality, Friedrich **Ebert Foundation** Turkey Representation Centre for **Turkish** (Istanbul), **Studies** (Germany-Essen) and Hydropolitics Association, as we consider your work and contributions to science valuable.

ANISF aims to provide an opportunity for researchers, experts and practitioners to discuss current issues and solutions related to the Forum topic in an international and interdisciplinary environment. The Forum will address the problems caused by climate change in general, as well as the resulting migration movements and environmental disasters and degradation, as well as good practices and solutions developed in various regions of the world.

The Science Forum aims to discuss interdisciplinary approaches and solutions such as "climate resilient agriculture", "circular economy", "right to food", "climate justice", and "environmental law" in the context of global, regional and national impacts of climate change, migration and environmental crisis.

ANISF will bring together experts from different regions of the world and various institutions and organisations, providing a platform for them to share their knowledge and expertise on the impacts of climate change on migration and vulnerable communities, as well as strategies for mitigation and adaptation.

Sending abstracts is sufficient for participation. Later, you will receive information regarding the abstract submission deadline, forum accommodations detail, and participation fees. If the scientific committee accepts your abstract, your work will be included in the detailed program

The chosen studies will have the opportunity to be published in peer-reviewed international and national scientific journals. The forum's outcomes will also be compiled into an international report.

We invite you to contribute to the Science Forum between 29 November and 1 December 2023 and support this global effort to protect our planet and its inhabitants for future generations. Detailed information about the programme will be sent to you later. If you agree to participate at the Forum planned in Antalya, please get back to us via answering this e-mail or mail to info@anisf.com.

Kind regards.

Prof. Dr. Erol Esen

- -Head of ANISF
- -Head of Akdeniz University Social Policy and Migration Studies Application and Research Centre (ASPAG)

### In order to contact the Forum Secretariat for all request and questions

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### RESEARCH CALL for Collaborative Analysis of Flooding Events with Processing of Earth Observation Datasets

Dear Colleagues,

Our workshop supported by ISPRS aims to gather MSc and PhD students on general flood risk and assessment knowledge. Our goal is to provide both a guide and research reference for flooding events.

This workshop will provide a research platform to the reserachers from varying disciplines to analyse Bozkurt flood and aiming to provide an examplary flood risk and assessment work by evaluating varying determinants including meteorological, related to city planning, etc.

#### The workshop will include two sections

- **1.** Short tutorials instructed by the experts and each focusing on the analysis of a specific related case:
- Earth observation (EO) tools, data processing, Geoinformatics science details are given to the Climatologist
- Climate, atmospheric science theory, and applications are given to EO experts
- Establishment of a collaboration among the participants through the organized workshop.
- 2. Presentations of the case study. Oral and poster sessions.

The event will be hybrid, and on-site (limited to 50 participants).

July 2023

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### Participation is free.

Deadline for abstract submission \*: 10/08/2023

Workshop date: 02/10/2023 09.00-18.00 (GMT+3)

Location: Ankara- Turkiye / Turkish Cadastre and Surveying Engineers Chamber Headquarters Training Center

• Submission link will be provided to the interested participants.

The study area of Bozkurt, Kastamonu-Turkiye is highly recommended, but any other location is welcome, too.

After the workshop, the presentations and abstracts will be publicly available online and published on the workshop website for probable interest.

Other outputs of this workshop: The studies of the workshop can be published as full texts in a special issue of a ULAKBIM (a Turkish Scientific Index)-based scientific journal. The results and preliminary studies of the workshop will be transformed into a national report and shared with relevant public institutions/organisations and stakeholders. An expert network will be formed with the workshop participants and will be included in the networking platform to be established.

Looking forward to receiving your valuable contributions and seeing you in **Ankara.-Türkiye** 

Dr. Nusret Demir / Akdeniz University

Dr. Fulya Kandemir / Hydropolitics Association & Academy

Dr. Doğuşhan Kılıç / University of Manchester

Deadline of the survey (form): 10/08/2023

Kind regards.

Fulya (Aydin) Kandemir PhD.

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We need to built a future, Where people live in harmony with nature



Think Forward, Lead Forward