

Center for Integrated Water Resources Planning and Management

It's role in the Euro-Mediterranean region

Assist. Prof. Elpida G. Kolokytha,
Chairman of the board of the water center
Aristotle University of Thessaloniki
Greece



Water- Increasingly scarce resource

- Due to:
- Demographic growth
- Climate change
- Economic and social changes

Its management continues to pose a major challenge for

The 21st century

Integrated Water Resources Management

- ***Integrated***: coordinated, internally consistent, comprehensive, collaborative,
- ***Management***: implementation of policies, laws, regulations, applied science and engineering ‘best management practices’ in a coordinated, consistent manner.



Water



- ▶ Sustainability
- ▶ Scarcity
- ▶ Conflict
- ▶ Vulnerability

Focusing on water

Solutions to future water challenges lie not within a single discipline or subject, but through the connection of concepts between multiple academic fields and through successful collaboration between academics and water managers.

How can a university contribute to water management crisis?

AUTH- Water center



- Establishment of a center for integrated water resources planning and management in AUTH
- Objective: Develop, promote and infuse sound practices for IWRM around the Mediterranean region, the Balkan and elsewhere

Aristotle University of Thessaloniki

A great number of faculty members teach and conduct research in areas related to freshwater issues.



Water Research in Aristotle University: A Multidisciplinary Approach

Schools and
Departments
involved in Water
Research programs

- AGRICULTURE
- ARCHITECTURE
- BIOLOGY
- CHEMICAL ENGINEERING
- CHEMISTRY
- CIVIL ENGINEERING
- ELECTRICAL ENGINEERING
- FORESTRY & NATURAL ENVIRONMENT
- GEOLOGY
- MECHANICAL ENGINEERING
- MEDICINE
- PHYSICS
- SURVEY ENGINEERING

Water Research in Aristotle University: An Integrated Approach

Water Research Thematic areas

More than 350
research projects in
the last 25 years

- Water Resources Management
- Groundwater Hydrology
- Surface Hydrology
- Climate Change - Drought - Floods
- Water Policy
- Transboundary River Management/Hydrodiplomacy
- Irrigation
- Water networks and water Losses
- Modeling: Simulation & Optimization
- Data Process: GIS, Telemetry and AMS
- Water quality
- Sea Water Intrusion
- Water Education

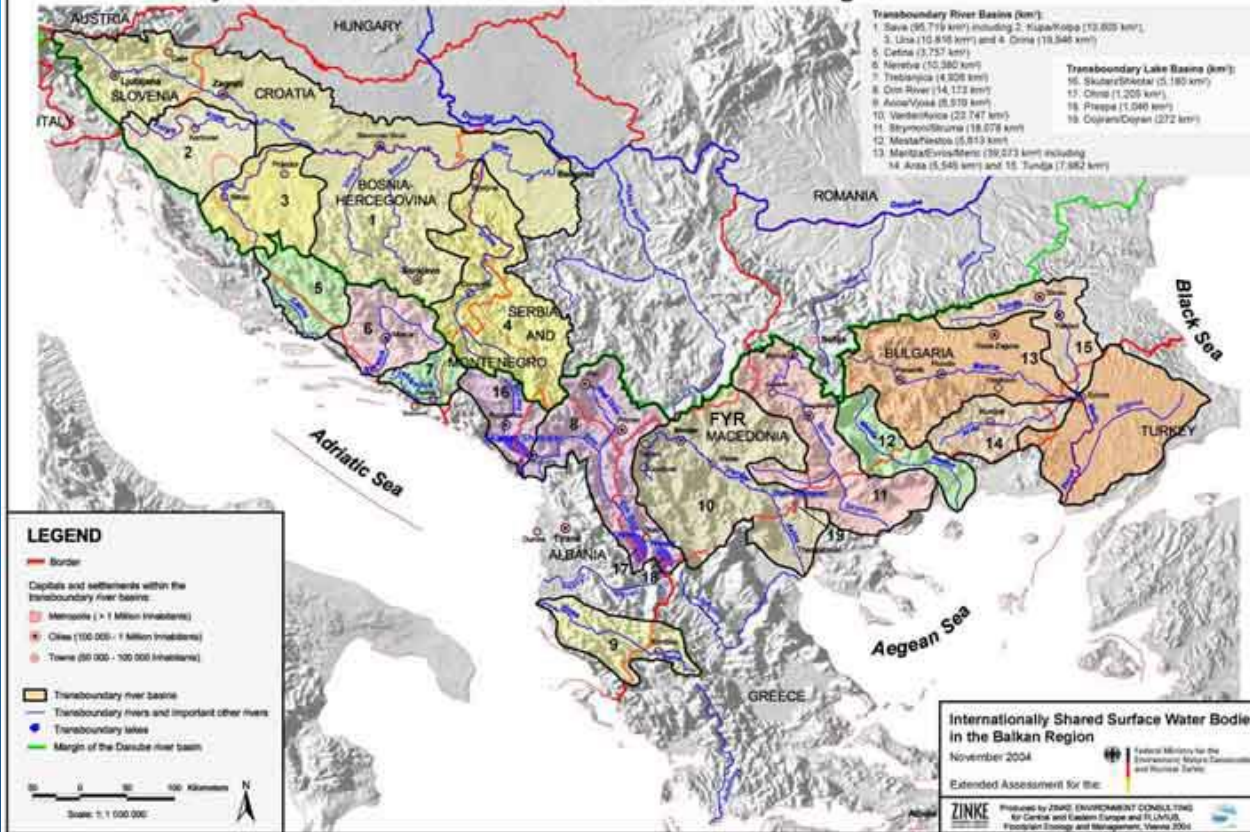
Greece-strategic geopolitical position







Internationally Shared Surface Water Bodies in the Balkan Region



Related faculties and schools engaged in AUTH water center

From the faculty of sciences

- School of chemistry
- School of biology
- School of geology

From the faculty of engineering

- School of civil engineering
- School of urban-regional planning and development engineering
- School of Rural and Surveying Engineering

The faculty of agriculture

The faculty of forestry and natural environment

The faculty of law

AUTH- Water center

AUTH water center will:

- Contribute to the development of IWRM principles focusing on freshwater related issues
- Foster technological development, technology transfer, models and methods that enhance IWRM
- Disseminate toolkits for efficient and effective IWRM.

AUTH-Water center



- Mission: Advancement of the science and practice of IWRM to address water related challenges by regional /international/global action through:
 - New knowledge
 - Interdisciplinary scientific research
 - Networking
 - Capacity building

AUTH water center



- Address global challenges via integrated interdisciplinary partnership in regional, national and international level.
- Assemble diverse research teams and lead interdisciplinary and trans-disciplinary water research projects.



The AUTH Water Center will :

Engage students in graduate and undergraduate research projects and competitions

Develop traditional educational materials for short and semester-long courses

Update existing curriculum into courses that prepare students interested in the Water Center's mission

Identify and establish national and international partners for research and project collaboration.

Organize and host national and international water conferences, workshops and interdisciplinary seminars.

Share information and provide related links and websites.

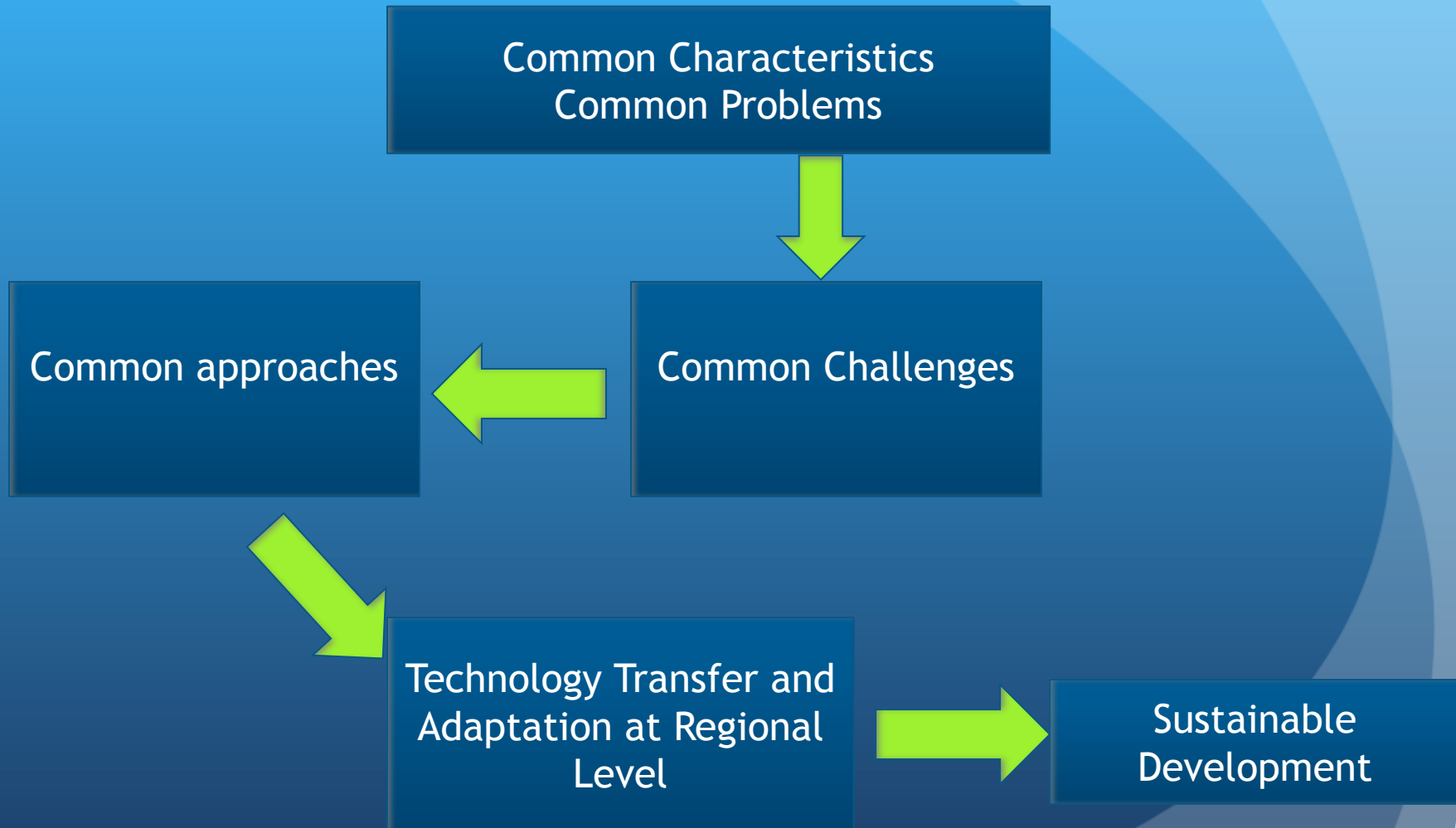
AUTH Water Center-Networking

The Center for Integrated Water Resources Management will take advantage of international university or/and research networks in which AUTH is a member, namely:

- EMUNI (Euro-Mediterranean University)
- CSU (Colorado state University)
- INWEB (Network of Universities in the Balkans)



Water management in Euro-Mediterranean zone: A roadmap to sustainable development





The Mediterranean is a Lake.

It does not separate nations, it connects people.

AUTH WATER CENTER aims to serve as the **MAIN LINK** for water management issues in the Euro-mediterranean zone.

AUTH Water Center Initiatives

- Collaboration agreement to develop academic, research and transfer of knowledge activities in the field of water resources sustainability in semi-arid climates.

9 Universities involved

- Campus Mare Nostrum (Spain)
- Aristotle University of Thessaloniki (Greece)
- EMUNI, (Slovenia)
- Moulay Ismail University Meknes, (Morocco)
- Spanish National Research Council, (Spain)
- The Euro-Mediterranean Water Institute, (Spain)
- The Mediterranean Water Institute, (France)
- University of Haifa, (Israel)
- Hacettepe University, (Turkey)

UNESCO_EUROPE Initiative

- Be a partner of a project proposal “Water and civilization”

as a member of CSU-UNESCO water network

AUTH-Water Center



- All of this background, emphasizes our commitment to expanding the field of water resources.
- We will be in the forefront of expanding scientific capacity but also in a pragmatic respond to immediate needs of society.

www.keody.auth.gr

keody@auth.gr