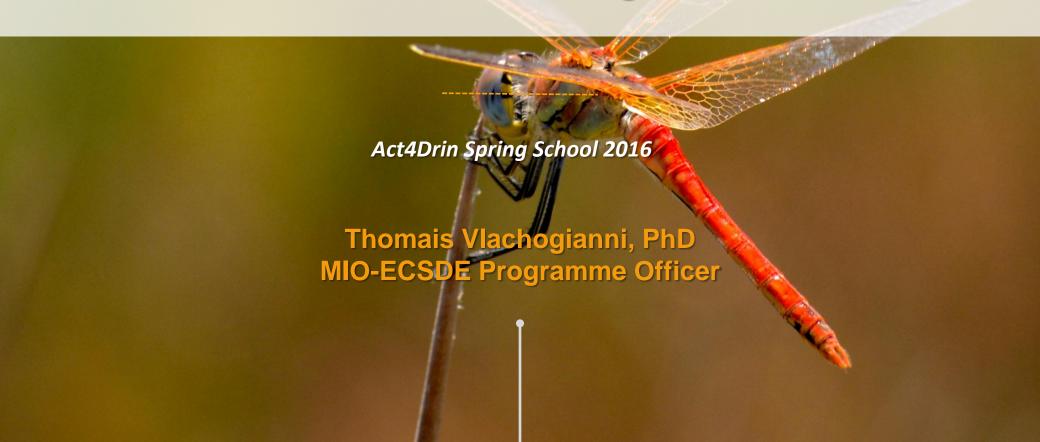


Transboundary water resources management & NGOs:

from field observations and knowledge to collective actions





DPSIR

Driving Force

Human activities and processes that cause pressures: production (industry, shipping, fisheries, etc), consumption, tourism & recreational activities

Pressure

Direct stresses from human activities on the natural environment: release of waste and waster water. Etc.

Responses

Actions to solve the environmental problem: prevention & reduction measures, mitigation measures, etc.

Impact

Effects due to environmental changes: environmental, health & safety, economic

State

Changes in the state of the freshwater environment Abundance of macro- and micro-litter

NGOs key role in promoting environmental protection and sustainable development

Active participation of NGOs at local, national and transboundary level in all phases of projects and processes, contributes not only to increased transparency, wide visibility and outreach of the project or process, but also to enhanced overall quality and increased **ownership** of the project itself and its outcomes.



AN INCONVENIENT TRUTH!

As scientists call for more research on global environmental changes in an effort to gain a better understanding of the human induced implications for all of life on Earth, it remains an inconvenient truth that if the world had acted upon the knowledge that the scientific community already produced, the state of many ecosystems would be different today.



NGO actions on the science-society interface

- ✓ One of the deterrents of action is the dizzying volume of knowledge that lacks association and interaction with society itself.
- In our time, it is not the production of more detailed knowledge that is of urgency, but the proper context within which to use knowledge and turn it into sustainable actions.
- ✓ NGOs contribute to a better understanding of the sciencesociety nexus, which is what provides the enabling environment and creative power to address the complex challenges that society faces towards sustaining the vitality and integrity of socio-ecological systems.

UNFOLDING THE KEY CHALLENGES AND IMPLICATIONS OF SCIENCE-SOCIETY RELATIONS

The main barriers that hinder efficient transfer of knowledge into socially meaningful actions are institutional, functional and social, with: divergent objectives, needs, scope and priorities; different institutional settings and standards; differing cultural values; lack of understanding and trust.

- √ The mutation of research-based knowledge as it travels along the 'chain' from science to policy and society;
- ✓ The difficulties in making the impacts of (global) environmental change visible to people and linking them to what their perception of reality is;
- ✓ The inherent scientific uncertainties and knowledge gaps, which produce 'social' uncertainties (even though they can be overcome) as they travel down the 'knowledge—action chain';
- √ The diversity in histories, values and traditions, as well as in science systems and research cultures;
- ✓ The 'wicked' nature of certain phenomena of our times, referring to the fact that they
 are hard to define, not perceived and recognized in the same way and have no
 optimal solution;

UNFOLDING THE KEY CHALLENGES AND IMPLICATIONS OF SCIENCE-SOCIETY RELATIONS (CONTINUED)

- ✓ The poor understanding of the societal mandate and limitations of science by scientists themselves. In addition, the performance of science in terms of relevance and excellence generates tensions and frictions on the science-society nexus, as current moves have being noted towards separating 'research excellence' from 'societal relevance';
- ✓ The practice of 'dialogue' and 'public engagement' on issues taking place in the science-policy-society interface is often only skin-deep when it comes to transparency, accountability and proper governance.
- ✓ The difficulties in identifying all actors on the science-society interplay and approaching each one in a tailor-made manner. The growing number of stakeholders, the dynamic changes in their type and the fluctuations in their power and interests make this a very challenging task.

NGOs main lines of action on the science-society interface

- Delivering clear messages based on sound scientific evidence and findings
- Understanding the prevailing perceptions and attitudes of different stakeholders on ML
- Showcasing best practices towards effective actions
- Empowering society
- Awareness raising and educational tools for informed decisions and responsible behaviour

NGO actions on the science-policy interface

Strengthening decision making and policy implementation by providing analysis, expertise and commitment from the inception and policy dialogue phase to the implementation phase at different operational or administrative levels (regionally, nationally and locally) for more creative and dynamic solution identification and problem solving approaches;





Filling in the knowledge gaps that stand in the way of effective decision making through participatory science, including data collection, collective intelligence, grassroot activities, participatory experiments.

Empowering NGOs to protect and conserve freshwater ecosystems in the Drin River Basin



MIO-ECSDE developed and implemented a number of activities within the Drin process to enable the constructive participation of NGOs

Facilitating NGO and CBO participation in the project activities

Enhancing the role of NGOs and CBOs in the MedPartnership activities

Building synergies with other projects

Showcasing rehabilitation actions against soil erosion in the Drini River

- ✓ **Field surveys** to assess the status of ecosystems and identify negatively impacted sites to demonstrate restoration actions;
- ✓ Showcasing restoration/rehabilitation measures aiming to reduce
 the risk of soil erosion and landslides while also addressing issues of
 watershed management, soil fertility and biodiversity conservation.
 The selected four demo projects were implemented at: Gjoricë (Dibra
 region), Vig-Mnelë (Shkodra region), Tërthore (Kukësi region), Blinisht
 (Lezha region). The piloted measures included: reforestation; seeding
 grasses and herbs; installation of small scale anti-erosion structures
 such as check-dams and fences.
- ✓ Mobilizing and empowering local communities via capacity building and awareness raising activities (4 workshops were organized bringing together all stakeholders from twelve local communities) on sustainable management of natural resources, including water resources; integrated management of the Drin River Basin; soil erosion and land use; restoration and rehabilitation approaches for natural ecosystems; etc.



Wetland Management in the transboundary lake Lesser Prespa

Restoration of wet meadows and the conservation of Lesser Prespa

- ✓ Vegetation management in the littoral zone was rendered necessary in order to create open areas with low herbaceous vegetation (wet meadows) that would flood in spring creating important fish spawning areas and waterbird feeding habitats.
- ✓ Water management in Lake Lesser Prespa required improvements and re-planning as it was carried out on an *ad hoc* basis aiming at irrigation and flood prevention purposes.Sustainable water management had to also address conservation issues such as the flooding of wet meadows in spring and the protection of waterbird colonies.
- ✓ **Institutional development** was also necessary in order to ensure the participation of local stakeholders in decision making. The establishment of appropriate structures was sought for the successful incorporation of all conservation and sustainability issues in the Lesser Prespa management regime.



Mura River restoration to protect and conserve biodiversity

- ✓ Restoration interventions to establish better ecological conditions in terms of preserving the intensive hydrodynamic processes in the river corridor, mainly via the removal of heightened banks to stimulate side erosion and river widening, introduction of rock-fill riffle (rocky shoal just below the surface of the waterway) to raise water levels during low and average flows, reopening the side-channels and introduction of a system of wooden sluices to raise groundwater tables.
- ✓ **Monitoring activities** to evaluate the impact of restoration actions on targeted bird, butterfly & dragonfly and fish species.
- ✓ Awareness raising and education actions, including the construction and establishment of two information centers.







Photos: Milan Vogrin





