5th Water Conference, 2014

Water in the Alps - and beyond

Adapting alpine and mountain river basins to climate change

Date: 25th-26th September 2014

Venue: Trento (Italy), Via Tommaso Gar 14 (University of Trento)

Languages: Italian, English[1]

Concept:

The Water Conference was born to spread the results of the activities devoted to water management in the framework of the Alpine Convention. The 5th Water Conference aims at spreading the results in a wider context, involving other mountain regions like e.g. Carpathians, Caucasus and Central Asia.

The event is going to be jointly promoted and developed by the Alpine Convention and the UNECE Water Convention, in order to favor the creation of synergies and the exchange of experiences (i.e. among the Alpine territory, the Carpathians, the Caucasus, Central Asia,…).

The 5th Water Conference is intended to provide to a wide audience of experts, administrators, practitioners and stakeholders the state of the art, the best practices and the main findings about adaptation to climate change in the mountain trans-boundary river basins.

Different panels of experts will illustrate the main results of the last years of activities in the respective conventions.

Furthermore, updated high-level information on climate change and adaptation strategies will be provided, together with the results of some relevant projects of European Territorial Cooperation on the issues.

Finally, a special focus will be devoted to the implementation of the measures of flood management, in particular the EU Flood Directive.

[1] Russian translation will be also provided in order to allow the intervention of some speakers.

DAY 1 (September 25th)

SESSION I – INTRODUCTION (10:30-11:30)

The Session I includes the greetings of the Authorities and the brief and introductory speeches of the experts leading the two Conventions (the Alpine Convention and the UNECE Convention for the on the Protection and Use of Trans-boundary Watercourses and International Lakes) as well the representing of the Countries involved in the organization and the respective international working groups (the so-called "task force" and "platforms") dealing with climate change, water resources and natural hazards.
The speeches are planned to be very brief and sharp, particularly devoted to explain the strategic objectives of the working groups to the policy makers attending the Conference.

1. greetings of the Authorities (*speakers to be confirmed*)
   - A. Andreatta, Mayor of Trento*
   - M. Gilmozzi, Councillor for Infrastructures and Environment, Autonomous Province of Trento
   - D. De Pretis, Rector of the University of Trento*
   - P. Angelini, Ministry of the Environment, Land and Sea, President of the Permanent Committee of the Alpine Convention
   - S. Vrevc, Deputy Secretary General of the Alpine Convention
   - M. Cozzone, Ministry of the Environment, Land and Sea, Chair of the Bureau of the UNECE Water Convention
   - S. Vito, Councillor for the Environment and Energy, Autonomous Region Friuli Venezia Giulia
   - other speakers to be confirmed
2. introduction to the UNECE Water Convention and to the activities of the task forces "Water and Climate" and "Water-Food-Energy-Ecosystem Nexus"
   - *J. Timmerman (Task Force Water and Climate)*
   - *A. Lipponen (Task Force "Water-Food-Energy-Ecosystems Nexus")*
3. introduction to the Alpine Convention and to the platforms "Water Management in the Alps" and "Natural Hazards"
   - *R. Rigon (President of the Platform Water Management in the Alps)*
   - *M. Patek (President of the Platform Natural Hazards)*

SESSION II – CLIMATE CHANGE IN THE MOUNTAIN REGIONS (11:30-13:00 and 14:30-16:00)

This Session is intended to give to the public attending the conference the most updated scientific information on climate change, in particular on the expected impacts on the Alpine, Carpathian, Caucasus and Central Asia region. High-level speakers will also highlight the possible adaptation strategies to cope with the unavoidable effects of climate changes.

Chairman: J. Mysiak (CMCC)

1. presentation of the 5th version of the assessment on climate change from the Intergovernmental Panel on Climate Change – main results and new findings (*J. Mysiak, CMCC*)
2. regional models and observed changes in the Alps, Caucasus, Central Asia and Lebanon Mountains:
   - Alps: M. Beniston (University of Geneve, Department of Geography)
   - Caucasus: (tbc)
   - Central Asia: (tbc)
   - Lebanon Mountains: R. Stephan (Lebanon Ministry of the Environment, Environment & Land Management Expert)
3. the impacts of climate changes on water cycle (*Alberto Bellin, University of Trento*)
4. European Territorial Cooperation Alpine Space Project C3Alps – main results, achievements, foreseeable impacts, and conclusions for the way forward (*W. Lexer, Umweltbundesamt*)
5. discussion and conclusions

SESSION III – THE IMPACTS OF CLIMATE CHANGE ON CRYOSPHERE AND SEDIMENT TRANSPORT (16:15-18:30)

Cryosphere is the portion of the Alpine environment that is most vulnerable to climate change. Melting of glaciers and the changes of the snow-line are able to vary sensibly the river flows. Permafrost degradation increases the instability of slopes and the erosion, causing different dynamics of solid transport and thus, impacting on hydro-morphology. How can these changes be governable? How can solid transport changes be included into the Flood Management Plans?

Chairman: S. Gruber, Carleton University, Canada

1. the changes in alpine glaciers and cryosphere and their impacts on sediment transport *(S. Gruber, Carleton University, Canada)*
2. sediment transport in alpine river basins (*A. Armanini, University of Trento*)
3. permafrost in the Alps: the experience of PermaNET project *(U. Morra di Cella, ARPA Valle d'Aosta)*
4. presentation of the results of the European Territorial Cooperation Project SedAlp *(J.Papez, Institute for Water of the Republic of Slovenia*)
5. how to include sediment transport in the Flood Management Plans (*tbc*)
6. the European policies for adaptation to climate change and the platform CLIMATE-ADAPT: goals, main findings and tools *(tbc)*
7. discussion and conclusions

DAY 2 (September 26th)

SESSION IV – THE EXPERIENCE OF THE WATER-FOOD-ENERGY-ECOSYSTEM NEXUS: A NEW PERSPECTIVE FOR WATER MANAGEMENT IN NATIONAL AND TRANSBOUNDARY CATCHMENTS (9:00-11:00)

Meeting the growing water demand without compromising sustainability is a rising challenge in the context of growing population and under the pressure of climate change impacts. It is therefore crucial to better understand the interactions between water, food, energy and ecosystems in river basins, in order to strengthen synergies and policy coherence between the water, agriculture, energy and land management sectors. The assessment of these interdependencies is particularly relevant in transboundary basins, where identifying intersectoral synergies and mutually beneficial solutions can help reducing potential conflicts, not only across sectors but also across borders, as well as supporting the decision-making process to enhance sustainability.

Chairman: A. Bizjak (Institute for Water of the Republic of Slovenia)

1. the "nexus" approach to assessment of trans-boundary river basins and implications to water management (*A. Lipponen, UNECE Water Convention* and *M. Howells, KTH Stockholm*)
2. the "nexus" assessment on the Sava river basin (*S.Grošelj, Deputy Secretary in the International Sava River Basin Commission*)
3. first elements of discussion in a "nexus" perspective on the Soca/Isonzo river basin (a possible case study from the cooperation between Alpine Convention and UNECE Water Convention) – round table (*chairman: M. Howells – Royal Institute of Technology KTH, Stockholm*)
   - *tbc – Region Friuli Venezia Giulia*
   - *A. Bizjak – Institute for Water of the Republic of Slovenia*
   - *F. Baruffi – Adige River Basin Authority and Alto Adriatico River Basin Authority, Italy*
4. discussion and conclusions

SESSION V – THE IMPACTS OF CLIMATE CHANGE ON FLOOD MANAGEMENT (11:20-13:30)

Climate change is sensibly affecting river flows, requiring a reconsideration of return times and new scientific issues on the concept of return time itself. Solid transport and debris flows are also affecting Alpine small basins, often not included in the legal obligations. Given the situation, how we can deal with flood management in small alpine basins? How can the Flood Directive in mountain basins take into account the requirements of the Water Framework Directive?

Chairman: M. Patek (Lebenministerium, Austria) and *R. Rocco (Region Valle d'Aosta, Italy)*

1. flood management in small alpine basins: the current approach of the Autonomous Province of Trento *(R. Coali – Autonomous Province of Trento, Italy)*
2. specific problems regarding flood risk management in Alpine catchments (*R. Hornich - Land Steiermark, Austria*)
3. good practices and lessons learned on water and climate in the Tisza river basin, with a focus on flood management (*K. Gombas - ICPDR Flood Protection Expert Group*)
4. links between the Floods Directive and Water Framework *Directive (L. Stravs – Ministry of the Environment, Slovenia)*
5. the position paper of the Water Platform on the joint application of the EU Floods Directive and the EU Water Framework Directive (*R. Rocco – Region Valle d'Aosta, Italy)*
6. discussion and conclusions

SESSION VI – FROM THE AWARENESS OF CLIMATE CHANGE TO THE ADAPTATION PLANS IN DIFFERENT MOUNTAIN BASINS – PERSPECTIVES AND CASE STUDIES (14:30-17:20)

The Alps have been identified as one of the most vulnerable area to climate change in Europe. Thus, how we can deal with the emerging problems at local/regional level e.g. flash floods, winter floods, water scarcity, etc.? This session is aimed at sharing the experiences of different mountain areas dealing with the adaptation to climate change in the water and natural hazards sectors. Alps, Carpathians, Caucasus and Central Asia's mountain systems will be represented.
This session is also the seat in which the Alpine Convention is going to present the draft guidelines on local adaptation to climate change in the Alpine region, drafted by the task force "Climate Change" in coordination with all the competent working groups of the Convention.

Chairman: A. Ballarin Denti (President of the task force Climate Change of the Alpine Convention)

1. responding to environmental challenges with a view to promoting co-operation and security in the OSCE area *(E. Buttanri, Office of the Co-ordinator of OSCE Economic and Environmental Activities)*
2. adaptation to climate change in the water sector in the Alpine region – outcomes and main findings of the Workshop "Water and risk management facing climate change: towards the local adaptation" *(C. Schilling, Lebensministerium, Austria)*
3. vulnerability assessment and measures of adaptation to climate changes of mountain river basins in the Caucasus *(R. Verdiyev, Water Resources Specialist, Azerbaijan* and *L. Verdiyeva, Environmental specialist of IHPA, Azerbaijan)*
4. international cooperation for the adaptation to climate change in the Carpathians *(S. Szalai, Szent István Egyetem Faculty of Agricultural and Environmental Sciences, Gödöllő, Hungary)*
5. the adaptation to climate change in a trans-boundary mountain basin of the Carpathians *(N. Kruta, Lviv Oblast Department of Water Resources)*

6. the adaptation to climate change in a mountain basin of the Central Asia *(I. Domashov, Deputy chairperson of Ecological Movement "BIOM", Kyrgyzstan)*
7. exchanging global experience on climate change adaptation *(J. Timmerman - Task Force Water and Climate, UNECE Water Convention)*
8. the Climate Action Plan and the Guidelines on Local Adaptation to Climate Change of the Alpine Convention (*A. Ballarin Denti - President of the task force on Climate Change of the Alpine Convention*)
9. questions and discussion

FINAL DISCUSSION AND CONCLUSIONS (17:20-17:45)

cared by A. Ballarin Denti, M. Patek, R. Rigon