

## Workshop Report - Summary

### Climate Adaptation – Modelling Water Scenarios and Sectoral Impacts (ClimWatAdapt)

2nd Stakeholder Workshop

Wednesday, March 30th – Thursday, March 31<sup>st</sup> 2011, Ministry of Rural Development,  
Budapest, Hungary

The project is lead by CESR – Center for Environmental Systems Research

In co-operation with



## **Introduction**

The European project “Climate Adaptation – Modelling Water Scenarios and Sectoral Impacts” aims at shedding light on both vulnerability and adaptive capacity, in different sectors and across Europe’s river basins. It does so by putting in place an integrated assessment framework. This integrated assessment framework (IAF) will consist of a) scenarios on climate change and socio-economic developments, b) vulnerability indicators, c) an inventory of measures, d) instruments and methods to assess the performance of adaptation options, and e) a decision support. It will cover the EU-27 Member States.

In the focus of the 2<sup>nd</sup> stakeholder workshop from 30-31 of March 2011 in Budapest was the inventory of measures. The main purpose of the workshop was to elicit stakeholder knowledge regarding the adaptation measures and issues associated with their implementation, as part of the assessment of possible adaptation measures.

The inventory of adaptation measures is a database of measures found in national and regional climate strategies and programs, and identified reviewing literature and research projects. The focus of the adaptation measures is to support adaptation to changes in quantity and quality of water and adapt to resulting changes for water dependent sectors. The inventory of measures holds currently a total of 104 adaptation measures. The integrated impact assessment framework developed by CLIMWATADAPT will in principle allow assessing the potential impacts of measures in the inventory. However, in the context of CLIMWATADAPT not all measures can be assessed for their impacts. The stakeholder meeting focused on a subset of measures that was identified to possibly feed in EU policy strategies.

## **Objectives and design of the 2nd Stakeholder workshop**

The specific objectives of the 2<sup>nd</sup> stakeholder meeting were:

- to compile stakeholder knowledge and evaluations on aspects of individual adaptation measures, e.g. issues associated with the measure’s implementation, positive and negative side-effects, possibility of synergies with other objectives, financing, etc.
- to ensure policy relevance of the project results and build a stronger link with EU policy implementation.

The interactive assessment exercise at the stakeholder meeting was designed in the following way:

1. The assessment criteria were presented and discussed. In a first exercise stakeholders distributed a total of 100 points over the criteria according to their relative importance for the assessment of the performance of measures. The results of the weighting exercise are summarized in Annex 1 of the accompanying assessment report.
2. Participants were spread over eight discussion groups (each 10-16 people). They were distributed in a way to allow for meaningful discussion of measures according to their background and expertise.
3. Participants assessed measures using the following criteria:
  - *Overall priority and urgency*

- *side effects (win-win, no regret, spill-over, negative);*
  - *performance under uncertainty (flexibility, robustness);*
  - *efficiency (cost in relation to benefits);*
  - *effectiveness (of the measure to reduce vulnerability),*
  - *conditions for decision making, feasibility, combinability, institutional requirements).*
4. In four groups the participants found factsheets of measures at their tables that are principally suited to address the climate change impact “Water Scarcity & Droughts”. The other four groups dealt with measures addressing the impact “Flooding”. In a moderated session, participants discussed the usefulness and effectiveness of the measures (10-15 min per measure).
  5. After a short discussion of the measure participants assessed each measure using a semi-quantitative methodology. They assigned values from 1-5 to the assessment criteria. 1 always represents a lower and 5 a higher performance (results are reported in Part A and Part B of the accompanying assessment report).
  6. Finally, participants received a list of the remaining measures that were not included in the detailed assessment. Based on a short discussion participants were asked to indicate a) priority and urgency, and b) relevancy for the EU-level.

### **Results of the assessment**

All the eight groups examined a core set of 8 or 9 measures, plus several more, depending on the available time. Two sets of measures were identified in relation to flood and two related to water scarcity and drought. Every set of measure was thus examined by at least two groups. In the following section the main results are briefly described.

These are the Flood measures examined by both Group 1 (North) and 5 (West)

1. Adapt waste water treatment and sediment management to more frequent extreme situations
2. Buffer strips between water bodies and agricultural fields and within fields
3. Financial aid (loans, tax reduction, debt reduction, funds)
4. Gather and share information on climate change trends
5. Improving industry risk management
6. Include climate change into the Strategic Environmental Assessment
7. Protect buffer vegetation in shore zones.
8. Rainwater and stormwater management in urban areas

The evaluation exercise the North Group expressed lower expectations for 3<sup>rd</sup> and the highest one for 4<sup>th</sup>. Also measure 8 received high scores. In the West Group lower evaluation scores were collected again for measure 3 and the highest for the 4<sup>th</sup>, while the 6<sup>th</sup> and the 2<sup>nd</sup> also performed well.

The exercise clearly indicated converging evaluations indicating that a specific interest should be placed on the need to invest on gathering and disseminating scientific information on climate change trends, while the inclusion of the measure providing financial aid raised instead limited expectations.

Group 3 and 7 (South and East EU respectively) examined another set of flood related measures:

1. Awareness campaigns to sensitise the population in areas affected by modifications of the natural water cycle (storms, flooding, droughts, etc.)
2. Enhancing storage capacity of reservoirs
3. Establish minimal requirements for granting of funds
4. Improve water retention in rural areas
5. Incentives for landowners to provide flood storage
6. Management of water levels in lakes, rivers and wetlands
7. Raise level of awareness of householders and businesses in flood risk areas to the risks and possible adaptation.
8. River restoration

The scores of this group were relatively stable with a specific remark about measure 7 which was considered to be redundant given the existence of measure 1 (the aggregation of the two measures is thus suggested).

Group 2 (North) and 6 (East) examined a set of measures related to Drought:

1. Develop programmes to promote the efficient use of water, so that the urban, private and public sectors reduce their water consumption.
2. Rainwater and stormwater management in urban areas
3. Adapt management rules in silviculture to improve tree water balance
4. Incentive schemes to promote water efficient products
5. Reducing freshwater demand for industrial cooling
6. Re-evaluate future water needs
7. Share best practice to reduce water reduction of companies
8. Water saving in building codes
9. Management of water levels in lakes, rivers and wetlands

Group 2 provided higher evaluation scores for measure 1, 4 and 7 (the latter with the highest score), while measure 3 had remarkably lower scores as compared to all the others. Group 6 confirmed the low expectations the silvicultural measure (3), but gave an even lower set of values for measure 8 and confirmed the good consideration for measures 1 and 7, with a good performance of measure 5 too.

Also Group 4 (South) and 8 (East) focused on a set of measures related to water scarcity and drought, as follows:

1. Best management practices, efficient use of irrigation systems
2. Demand management
3. Desalination
4. Drought management plans (DMPs)
5. Funding for water retention in drought-endangered agriculture and forest landscapes

6. Improving irrigation efficiency
7. Managed Aquifer Recharge (MAR)
8. Water Recycling
9. Enhancing storage capacity of reservoirs

Group 4 provided relatively low scores for measures 3 and 9, while giving a very high score to the Drought Management Plans (measure 4), followed by measures 8 and 1. Similarly, Group 8 valued high efficient irrigation systems (measure 1), the DMPs, and also the improvement of irrigation efficiency (6). Measure 1 and 6 should be considered for aggregation. Desalination (measure 3 got the lowest values also in Group 8.

In conclusion, the exercise showed substantial agreements in the evaluation of the measures by groups identified according to four geographical areas, thus supporting the idea that what emerged at the second Stakeholders' Workshop, even without any robust representativeness or statistical significance can still be considered as a substantial contribution for the refinement and the consolidation of the ClimWatAdapt inventory of adaptation measures.

***Please note: The numerical assessment results given in this report are very sensitive and context dependend. The results serve to improve the inventory of adaptation measures. They should not be taken for further statistical analysis. Participants indicated that from a perspective of a potential user a further (semi-)quantitative assessment of the measures is not desired. An assessment of selected adaptation measures would have to be performed against the regional background.***

The project team of ClimWatAdapt will therefore use the results from the assessment exercise to

- a) Carefully validate the results of the pre-assessment of the measures based on expert judgment and literature review;
- b) Restructure the inventory of measure according to the stakeholder's suggestions provided in the detailed assessment of measures
- c) Add additional measures to the inventory of measures according to the indicative evaluation of remaining measures of the inventory
- d) Steer the following steps in the project finalising the components of the Integrated Assessment Framework to render it most beneficial and usable for the envisaged target group