

PRESS RELEASE

11.5.2007

Water management conflicts surveyed in a large EU project

Conflicts between various directives and other legal acts have been analyzed in a major development project within the EU Baltic Sea programme, with participants from Finland, German, Denmark, Poland and Lithuania. As a result, the directives, practices and goals that affect the state of river basins and water bodies have been collected into one and the same planning system. The central issues in water management were studied by means of case analyses in various parts of Europe. The costs of the Watersketch project amounted to 1,5 million euro. The project was coordinated by the Finnish Environment Institute and its results will be presented at a concluding symposium at Arktikum in Rovaniemi on 14-15 May.

Directives have diverging effects on waters

On the general level, the directives have the same purpose – to restrict the harmful environmental changes and to guarantee that the polluted sites will be restored. The Water Framework Directive wants to promote the free movement of organisms within the rivers systems and it gives strict restrictions to additional hydropower construction. On the other hand, structurally modified river systems are especially mentioned in the directive. The goals concerning such river systems take into account the changes that have been needed for the purposes of hydropower production and flood protection, among them constructions like dams and flood embankments. On the other hand, the directive on renewable energy resources wants to promote the use of hydropower.

The fully developed main channel of River Oulujoki has already reached the target status

The goals for better status of waters have been set for the entire EU region. According to these goals, measures must be carried out in order to achieve a good status of waters at the latest by 2015.

The River Oulujoki case study showed that the fully developed hydropower river channel has mostly achieved the target status. However, the reference status called the maximum ecological potential could only be reached if fishways were built at the power plants so that migratory fishes could pass them. The so called short-term regulation is not affected by the new goals as a reduction of regulation possibilities would hamper the hydropower production. The results of the Watersketch project can also be applied in Finland when a possible additional construction of hydropower plants is discussed and the environmental goals for modified rivers are defined.

Case studies on water protection problems

Diffuse load and Poland's untreated waste waters major causes of eutrophication

In Poland, untreated waste waters are a major cause of eutrophication. The load from these wastewaters affects significantly the state of the Baltic Sea as a whole. In Denmark, Lithuania and Finland, the main cause of eutrophication is the diffuse load from agriculture and forestry. Water protection measures, such as constructed wetlands, are difficult to carry out because of the complex land-owner patterns and insufficient cooperation between various actors.

Fish populations suffer in Limfjorden in Denmark

In Denmark, the load from agriculture and livestock production has considerably deteriorated the state of shallow brackish water areas like Limfjorden. In Limfjorden, the living habitats of benthic fauna and flora organisms have decreased by a half, and the frequently occurring periods of oxygen depletion have a negative impact on fish populations. An essential improvement of the status of Limfjorden is possible only if the agricultural load is reduced by a half or its impact is reduced by some other measures.

River Minija in Lithuania threatened by tourism

River Minija in Lithuania is of unique value as a salmon river, but the rapidly developing tourism has in many places led to uncontrolled construction at the riverside. Many reproduction sites of salmon and trout have already been destroyed.

Lots of environmental toxins in the harbour of Hamburg

In Hamburg, within the drainage basin of river Elbe, the worst problems are caused by the high content of toxic substances in the sediments, but also the structural changes of the river system have affected the ecological status. In Hamburg, the harbour must be regularly dredged, and the disposal of the highly toxic dredging sludge is a problem in the densely populated region. Dumping in the sea is forbidden by international sea protection conventions.

Tools for river basin management

To efficiently apply the Water Framework Directive, it is not enough to know the problems. Efficient tools for river basin planning and restoration are also needed. The Watersketch project developed a toolbox of internet-based programmes for river basin management. They range from a tool for assessment of the loading sources within a catchment to a programme for surveying opinions.

Cooperation between institutes

A number of water management and regional planning experts from 15 institutes have participated in the project. The Oulu office of the Finnish Environment Institute has coordinated the project. Other Finnish participants have been the regional environment centres of North Ostrobothnia and Kainuu, the Satakunta Environmental Research Institute of the University of Turku, the Regional Council of Satakunta, the Joint Authority of Kainuu Region, the Regional Council of Oulu Region and the Northern Environmental Research Network NorNet. In Finland, the project has been funded by the EU Baltic Sea programme and the Ministry of the Environment.

More information:

www.watersketch.net

The Watersketch toolbox : toolbox.watersketch.net

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