

Seppo Hellsten

Introduction of " Roundtable 1 "Water Quality":

The objective of good ecological status and the challenge of microplastics

Focus on good ecological status

European water framework directive is soon having a birthday and reach the mature age of 19 years. As an adult 18 years old fellow you have all the rights and responsibilities to gain and you should stand on your own foot. Is it the case with Water framework directive of Europe?

The Water Framework Directive (2000/60/EC) is the most comprehensive instrument of EU water policy and its main objective is to protect and enhance EU water resources to achieve good status. It has an ultimate goal to establish a typology for all rivers, lakes and coastal waters and create a five scale classification system to make them also comparable all over the Europe. Focus is to reach a good ecological status for all waterbodies by using classification of based biological quality elements namely phytoplankton, macrophytes & phytobenthos, benthic invertebrates and fish with supporting hydro-morphological quality elements and physico-chemical/chemical quality elements. Chemical status of water bodies is managed by applying list of the harmful substances. The most surprisingly outcome was that the intercalibration exercise within specific intercalibration regions was successful and we were able to have a full view of European water status covering almost 150 000 waterbodies. Waterbodies morphologically modified for specific use such as navigation and hydropower were dealt separately by specific designation procedure for heavily modified water bodies.

Twenty years ago many of us were somehow included in planning the directive and we had an ideal view that a good ecological status can be reached at latest 2027. By seeing the preliminary results of third classification period, it is quite obvious that it is not going to happen. Are we too lazy to do the all actions and measured needed for good ecological quality or is the goal unrealistic? We must at least realize that eutrophication process of large lakes such as this Lake Vesijärvi has taken more than hundred year and we cannot expect that recovery will happen in 27 years in lakes of long residence time. Rivers are recovering more rapidly of eutrophication, but changes on drainage basin hydrology and morphological modifications of river beds are more difficult to restore. Climate change has already affected on the precipitation and increasing extremes have raised the needs to increase storage capacity of waters. Additionally increasing amount of renewable energy produced by wind and solar power has raised the importance of hydropower as flexible regulatory energy source with also very harmful effects for river biota including migratory fishes.

However, we should not give up and just let it be. In Finland we have succeeded to reduce phosphorous loading from point sources by 80 % during last four decade. We have changed number of rivers and lakes usable for recreational use and returned migratory fishes back to streams. We must tackle on climate change and diffusive loading by using nature based solutions and wise agri-environmental measures. During EUROPE-INBO 2019 we focus more on these issues and in current round table discussing also on ecological and chemical status.

My co-chair Mr. Stéphane Haussoulier will now introduce you to other topic of session.