



The Rhine Basin- objectives and future tasks

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The Rhine River Basin is very densely populated (58 Mio. inhabitants) and one of the world's industrial centers. Due to this fact the Rhine River was called the "sewer of central Europe" in the 70's and 80's of the past century. Triggered by a severe accident at Sandoz chemical plant (CH) in 1986 the riparian states agreed to a Rhine action programme. The objectives were to set up a warning and alert plan and the reduction of pollutants in general and to improve oxygen concentration in the Rhine river esp. by consequent implementation of the UWWTD (91/271 EEC). The overall investments for UWWTD-implementation in the international Rhine basin can be estimated > 50 bn € up to now.

As a result of these efforts the living conditions for organisms in the Rhine river could be improved significantly, which is the basis for further ecosystem improvement and finally to meet the ecological objectives of the Water Framework Directive (2000/60/EC). As an example for improvement of the whole river ecology the Salmon programme is to be mentioned, which includes demanding tasks to ensure high water quality as well as river continuity and river morphology.

There are still several topics to address in the future for example
the further reduction of N and P loads esp. by diffuse pollution via the affluents
the further reduction of pesticide load in the affluents
and the reduction of P in vulnerable zones like the Neckar river
the priority substances due to 2008/105/EC esp. PAH's and Hg, which are above the threshold values to a wide extent
the HCB contamination of sediments in the Rhine barrages
temperature development due to heat load by power plants esp. in hot summers like 2003 and the prediction of developments due to climatic change

The requirements of the marine directive (2008/56/EC) to nutrient and pollutant load of the marine environment of the North Sea and the question of micro-pollutants are upcoming topics.