

Abstract

For almost 15 years, economic assessment has played an increasingly important role in water management. Environmental economic assessment, which is more social-economic than financial in nature, consists of analysing all the activities of economic agents (Individuals, the State, companies, non-profit organisations, etc.) and their effects on society and the environment in order to determine the quantitative and qualitative consequences, both positive and negative.

The use of economic assessments for water management was significantly boosted by the launch of the WFD in December 2000 and by the progressive development of SBMPs.

Five aspects are presented here to provide information on the use of economic assessments for water management in order to clarify and better understand the issues involved.

1 Characterisation of water uses

Before launching economic studies to assess the consequences of a project or measure, it is first necessary to list the existing water uses in the given area. Characterisation of water uses is the term commonly employed for this description of water uses lying at the crossroads between economics and the natural environment. An economic characterisation of water uses consists of estimating the importance of water in the economy and the social-economic development of the studied river basin. The analysis must identify the significant water uses and study the basin dynamics in order to contribute to the formulation of a base scenario. It must also attempt to foresee any changes in the main economic and human activities that could impact on pressures and water quality. Study must be devoted to the probable changes in the main social-economic parameters such as the local policies implemented, growth rates of the main economic sectors, investments in the water sector, local population dynamics, etc. The listing of water uses in the area serves to integrate the local social-economic environment and the local water-management issues in the analysis. All the above elements are important factors in the discussions concerning action programmes and measures.

2 Assessment of costs

The first step in assessing the costs of a project or programme is to precisely list all the costs that must be taken into account and quantified. Frequently, it is also necessary to determine the unit costs and the extent of the planned measures in order to calculate the total implementation cost of the project or programme. This type of cost assessment is often used in more elaborate economic analyses such as cost-effectiveness, cost-benefit and cost-recovery analyses.

3 Assessment of environmental impacts

Once the costs of project implementation have been calculated, it is often necessary to estimate the environmental impacts of the project. This consists of identifying the environmental benefits and damages incurred by the project or measure. The point of the assessment of these impacts is to inform on the economic, social and environmental effects caused by the project or measure. An economic assessment indicating the value of an environmental good is based primarily on methods linking a value expressed in monetary terms (euros, dollars, etc.) with changes in the environmental status. The process of monetising does not mean that the environmental good, in this case the aquatic environment, becomes a marketable item that can be freely purchased or exploited. It provides a quantified assessment that can then be compared to economic values more commonly used in analysis such as costs and budgets. A number of different approaches to the economic assessment of environmental goods have been devised. Each sheds light on a particular aspect and is selected depending on the value to be calculated. For example, to determine market or option values, cost-based methods are employed. To calculate non market-related use values, revealed-preference methods are used. Finally, non-use values can be measured by stated-preference methods.

4 Cost recovery

The concept of cost recovery is explicitly mentioned in the WFD. Cost-recovery analysis must be carried out in the process of drafting the characterisation report for each river-basin district. A more simplified form of the analysis may also be carried out for an SBMP. The results can serve as true decision-aid tools in that they facilitate debate and inform on the economic issues in the area covered by the SBMP. Cost-recovery calculations consist of identifying and estimating all the economic flows resulting from the services pertaining to water use. The objective being that water users cover the costs incurred by their use of water as much as possible, primarily through the price paid for water. The analysis must therefore indicate the degree to which each category of water-service users in fact pays for the water it consumes and discharges.

5 Disproportionate costs

The European water framework directive requires that the Member States reach environmental objectives for the status of all water bodies in the major river basins by 2015. The concept of disproportionate cost is used to justify exemptions in terms of deadlines or of the final status. It is therefore an important component in the formulation and planning of programmes of measures. However, the WFD did not indicate precisely just what the concept of disproportionate costs means and covers. Each Member State has attempted to better understand and more precisely define the concept by tracing its general outline and meaning, and by proposing the necessary economic-analysis methods. The approaches developed in France and the U.K. are presented and contrasted here.