

## 2c Economic and social evaluation tools

### Short summary of characteristics

There are numerous tools developed in an attempt to combine economic and social aspects in the evaluation of a plan, project or action.

Two of the most widely used tools that try to evaluate economic and social gains vs. expenses made are:

- 1) **Cost benefit analysis (CBA)**; this estimates and totals up the equivalent monetary value of the benefits (positive factors) and costs (negative factors) from the perspective of society. The difference between the costs and benefits indicates whether a particular project, plan or action is to be considered advisable. CBA can be used for comparison of alternatives based on their valued advantages and disadvantages.
- 2) **Life-Cycle Cost Analysis (LCCA)**; this method assesses the total cost of a project, from inception to demolition, of a plan or action. LCCA is especially useful when project alternatives that fulfill the same performance requirements, but differ with respect to initial and operating costs, have to be compared to select the one that maximises net savings. The one with lowest life-cycle cost is considered the most suitable.

### Stage that the tool is used

Economic and social evaluation tools are usually performed early in the design and design assessment stages to identify possibilities to refine the project or plan. Thus it can ensure increased effectiveness or predict and take into consideration possible risks. CBA and LCCA are applied in the stage when a choice among alternatives or scenarios is needed. However they could be applied also during the project implementation and in the monitoring stage in order to trace the cost-benefit ratio in the real situation.

### Output from the tool

Depending on the object concerned in the evaluation the output could be:

- Planning documents;
- Cost-benefit reports;
- Forecasts;
- Ranking of alternatives according to their value obtained after the evaluation.

The output generally is clear and real and provides good support for decision making at the stage when economic and social tools are applied. When the number of the costs and benefits taken in to account is more comprehensive, the output becomes difficult to understand by non-experts.

### Experiences of use

The CBA and LCCA are simple and easy to use. The results usually have a strong influence on decision making. However, greater transparency in the evaluation process is needed as these tools are often used by experts and require specific knowledge and understanding.

Despite the general positive contribution of CBA and LCCA on the evaluation process, when using them it is important to be aware that:

- all costs and benefits together with the externalities of the economic process should be precisely defined, included and properly quantified;
- social and environmental impacts which are difficult to describe in monetary terms but should have influence on the decision making process, should be subjected to qualitative assessment;
- CBA and LCCA concern the impacts on society as a whole but usually do not take in consideration who pays the costs or who enjoys the benefits;
- the views and preferences of responsible decision makers, who usually have a broader range of issues in mind during the evaluation process, could be underestimated when relying mainly on CBA and LCCA;
- as expert tools, CBA and LCCA may undermine opportunities for a range of stakeholders to contribute to the analysis.

The comparatively new trend of ecological economics tries to overcome the shortcomings of the tools applied by transforming economic evaluation into an interdisciplinary process. A tool to evaluate non-market services, usually related to ecosystem and society, is a proposed survey that focuses on public readiness to pay for particular service e.g. 'ready to pay' evaluation. Non-market evaluations are still debatable and have to be further developed but they provide the opportunity of involving social and ecological considerations into the economic evaluations. Approaches and tools addressing the issues of environmental justice are to be developed as well.