Selection of sustainable infrastructure projects in the water sector through the Cost-Benefit Analysis (CBA)

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ABSTRACT

Cost-Benefit Analysis (CBA) is an analytical and systematic approach/methodology applying of economic theories (Welfare Economics), used to assesses whether a project is desirable from the point of view of the society as a whole.

Desirability is achieved when total economic and social benefits of a project exceed its total costs. A fundamental concepts throughout the CBA concern the opportunity cost and willingness to pay, for example when selecting a project option and setting the discount rates. Analysis of infra projects require a long-term outlook, depending on the sector of intervention and type of project.

The purpose of CBA is to facilitate a more efficient allocation of resources, demonstrating the convenience for society of a particular intervention rather than possible alternatives.

Choosing the best quality projects which offer best value for money and which impact significantly on jobs and growth is a key ingredient of the overall strategy. In this framework, CBA is explicitly required, among other elements, as a basis for decision making on the co-financing of major projects within the EU cohesion policy, according to the EU regulations and European Commission goals.

The CBA methodology is shown on the project concerns the supply of Zaragoza and others surrounding towns located along the Ebro River Basin, covering a total population of 821,000 inhabitants (of which about 660,000 located in Zaragoza) with the main goal to improve water quality.