

CBA Forum meeting on Environment sectors

Focus: economic analysis

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A review of:

- Main investment typologies,
- Main economic benefits, and
- Possible evaluation methods in the three sectors

- The Guide provides Member States with a general analytical framework for consistent and harmonized project appraisal across countries. It supports the EU regulatory framework with a practical methodology for project appraisal.
- It sets the general principles, rules and methods for CBA. When applied, the methodology has to be further detailed to reflect the project typology and the specificities of the context.
- JASPERS acted as technical advisor to DG REGIO for the preparation of the Guide, by highlighting best practice and common mistakes, as well as with the design and development of the seven case studies.

	Examples
Drinking water supply	<ul style="list-style-type: none"> – Construction of new infrastructures, e.g. aqueducts, intended to meet increasing needs – Completion of water supply networks that have been partially realised – Modernisation and/or replacement of the existing water pipes and of other elements of aqueduct (e.g. tanks, basins, spillways, pumping stations.) – Pressure zoning management intended to improve the efficiency of the water asset management
Wastewater	<ul style="list-style-type: none"> – Replacement/extension of the sewage network (either combined or separate) – Construction /rehabilitation of wastewater treatment systems – Construction/rehabilitation of wastewater treatment plants with more stringent treatment for the reuse of water – Infrastructure for rainwater drainage

Source: EC CBA Guide 2014

Impacts	Valuation method
Increased availability of drinking water supply and/or sewer services	WTP as market prices of the best alternative technique: avoided capital and maintenance costs of self-provision of water and/or of self-collection and discharge of wastewater.
Improved reliability of water sources and water supply service	Avoided cost of the inhabitants for a reliable self-provision (e.g. domestic tanks and electric devices)
Improved quality of drinking water	Avoided cost to purchase good quality water on the market (e.g. through tank lorries) or setting up and operating domestic filtering systems.
Improved quality of surface water bodies and preservation of ecosystem services	Water bodies with a use value (bathing, fishing): market value of the concession or travel cost method Water bodies with a non-use value: contingent valuation or benefit transfer
Resource cost savings (water preserved for other uses)	Operational cost savings (should be already captured in financial analysis)
Health impacts	Decreased morbidity rate for water-related diseases: cost of illness method measures the value of lost production because of reduced working time
Reduced congestion due to improved rainwater drainage	Time savings
Variation in GHG emissions	Economic costs of GHG emissions

Source: EC CBA Guide 2014

	Examples
Collection/transport	<ul style="list-style-type: none"> - Facilities for the collection, temporary storage and/or transfer of waste (e.g. municipal collection centres and waste transfer stations)
Recycling	<ul style="list-style-type: none"> - Facilities for preparation of (usually separately) collected materials for recycling
Treatment	<ul style="list-style-type: none"> - Facilities for separately collected biowaste (e.g. composting and anaerobic digestion plants) - Facilities for mixed residual wastes from residential and non-residential sources (e.g. waste incinerators with energy recovery, mechanical-biological treatment plants, etc.)
Disposal	<ul style="list-style-type: none"> - Engineered landfills.

Source: EC CBA Guide 2014

Impacts	Valuation method
Resource savings: avoided waste to landfill	Reduction in the amount of waste going to final disposal: Tonnes of waste * Cost of landfill disposal
Resource savings: recovery of recyclable materials and production of compost	Resource recovered replaces the use of raw materials to produce plastic, glass and metals, and compost. The economic value of the recovered recyclable materials and compost can be estimated at market price.
Resource savings: energy recovery	The energy recovered (electricity and heat) replaces the use of energy from an alternative source/fuel. The economic value of the substituted energy recovered.
Visual disamenities, noise and odours	Hedonic price: change in properties values
Variation in GHG emissions	Economic cost of GHG emissions
Health and environmental hazards (variation in contamination of air, water and soils)	Economic cost of pollutants

Source: EC CBA Guide 2014

Possible investments: protection and natural risk

	Examples
Remediation of polluted sites	- Water bodies, hazardous waste or radioactive dump sites, ex industrial lands, etc.
Preservation of natural assets	- Protection, restoration or nourishment of coastal zones, beaches, forests, natural parks, protected areas, etc.
Reduction of vulnerability and exposure to natural hazards	- Hydraulic rehabilitation of rivers to reduce possible impacts of flooding

Source: EC CBA Guide 2014

Economic analysis: protection and natural risk

	Improved health conditions	Productive use of land	Increased recreational value	Ecosystem and biodiversity preservation	Reduction of damages	Increase in property values
Remediation of polluted sites	√	√	√			√
Preservation of natural assets			√	√		√
Natural risk prevention	√	√		√*	√	√

Source: EC CBA Guide 2014

...to conclude

- Overall, the CBA Guide is meant as a contribution to a common language and a shared European-wide evaluation culture in the field of project appraisal.



Thank you!

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For info or further questions on this seminar and the activities of the JASPERS Networking Platform, please contact:

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