

Quality Assurance and Poverty Reduction Section – Pradeep Itty – 23.05.2018

Cost-Benefit and Cost-Effectiveness Analyses

CBA and **CEA**

- **CBA** compares the costs and the benefits of projects over time to assess their profitability.
- **CEA** is done when it is not possible to monetise benefits.

 Besides environment and education, the main and most common fields of application of CEA are governance and health CEA is a method that compares the costs of different options producing the same outcomes.

Purpose

<u>CBA</u>

To determine whether a planned investment or decision can meet the viability criteria that are considered sufficient.

CBA and **CEA**

To provide a basis for comparing projects when different options are considered.

Distinction between financial and economic analyses

- The CBA from the entrepreneur's viewpoint is a **financial analysis**, and the CBA from a societal perspective is an **economic analysis**.
- A financial analysis is only concerned with real costs and real benefits at market prices thus taking a private perspective. Q: Is the project financially profitable to one of the parties of concern?
- An **economic analysis** is concerned with the costs and benefits to society as a whole, regardless of who pays and who gains, thus taking a broader perspective. Therefore, it is also called 'social analysis'. An economic analysis incorporates direct and indirect effects. It also includes negative and positive externalities.
- Financial and economic analyses can be conducted for the same intervention. For example a financial analysis for different actors involved and economic analysis to measure the project impact on the society.

Distinction between financial and economic analyses (2)

- The CBA model is normally set up for a timeframe of 6 10 years, a period that does not necessarily correspond to project phases. The situation with project is compare to the situation without project.
- Normally, a CBA/CEA is applied before a project is implemented (ex-ante) and/or after the project is completed (ex-post).
- Additional costs and benefits are considered, exclusively attributable to the project :
 - with / without project or as second best before / after project.

Discounting

- One dollar today is worth more than one dollar tomorrow. The later a benefit or a cost occurs, the lower will be its value today (or present value).
- The information on the discount rate may be provided by the central bank of a country, the World Bank.
- The Internal Rate of Return estimated by a CBA provides a value based on which one can discuss if it is higher than an assumed discount rate.

Keep in mind

The challenge of CBA and partly also CEA usually arise from the difficulty to monetise all the costs and all the benefits (for CBA) and from the extent of inclusion or exclusion of intangible benefits.

	Challenge to apply cost benefit analysis		
	Low		High
Project dealing with	Income generation, livelihood, economic develop- ment	Health, education, natural resources manage- ment, biodiversity, etc.	Governance, policy dialogue, institutional develop- ment, gender, equity

- Sensitivity analyses are therefore important to test the model with different assumptions.
- As part of result-based management, financial and economic considerations are important means to assess the efficiency of development interventions by improving the links between resources and results.
- Already basic or partial analysis of only one project component may provide important and useful criteria adding to the plausibility of a proposed intervention.

Financial or economic analysis

- Is usually complemented by other types of analyses and it is never the only criterion used to make a decision
- Obliges project stakeholders to formulate impact hypotheses and baselines, to think about the benefits of a project and to quantify these benefits in monetary terms.
- Identifies the main parameters that influence the effectiveness of a project and allow simulations by changing project assumptions (sensitivity analysis)
- Contributes to a debate on fundamental values in development cooperation, adding 'hard facts' (economic and financial) to more qualitative factors.
- It is also an excellent communication tool, e.g. as a means to persuade potential partners to upscale or support a project.

Final considerations

- Not all development employees must be able to perform a financial and economic analysis by themselves. Nevertheless, the basic concepts and methodologies must be understood by all to enable them to:
- Assess whether or not a financial and economic analysis makes sense;
- Ask the right questions to get the required answers;
- Mandate a financial and economic analysis;