



Concept Symposium 2018

Governing Megaprojects – Why, What and How

Cost-Benefit Analysis in the Netherlands – Application and Use of Results

All major National transport infrastructure projects in the Netherlands are ex ante evaluated using a Cost-Benefit Analysis. A guideline for how to do this is available since the year 2000. Inspired by that guideline in 2013 a new guideline for all kinds of projects (not only transport) was published. Updates of the guideline and default values for key variables such as the value of time, have been published regularly. Consultants generally follow the guideline but often in a way that meets the interest of the client of the CBA. Impact on decision making is quite limited, but the guidelines fuel a lot of debate, in some cases also in the media.

Debates on the use of CBA for transport infrastructure projects in the Netherlands include:

- the consumer versus the citizens perspective
- distribution effects
- the lack of ethical aspects
- the quality of the research
- the lack of difficult to monetize effects



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The Concept Symposia on Project Governance

The Norwegian Ministry of Finance and the Concept Research Program hosts every second year a symposium on project Governance. Project governance, in brief, is concerned about investments and their outcome and long-term effects. In view of the problem at hand, the aim is to ensure that the best conceptual solution is chosen, that resources are used efficiently and anticipated effects realized. Resource persons from ministries, governmental agencies, academia, international organizations, and industry are invited. In order to facilitate professional exchange and direct communication between participants, the number of individuals is restricted. The aim is to initiate further international cooperation and research on important issues related to project governance.

<https://www.ntnu.edu/concept/concept-symposium>

Cost-Benefit Analysis in the Netherlands – Application and use of Results

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Content

- **Background of CBA in the Netherlands**
- **CBA guideline(s)**
- **Application of guidelines**
- **Debates**
- **Association with decision making**

Background



1990s: two rail projects decision making procedures: very bad experience

- **Betuwerroute (Rail line – freight)**
- **HSL South – Passengers)**



Result: Never again!

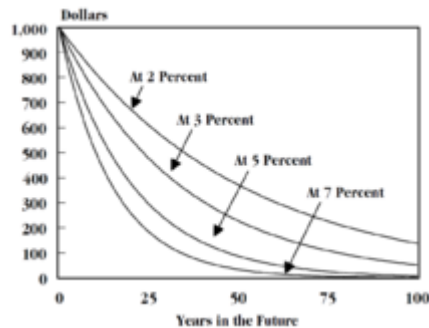
Committee: CBA plus manual (2000)

Large National transport infrastructure projects

Updates 2003 based on experiences and discussions

Default values for (amongst others):

- Discount rate
- Risk premium
- Value of Travel time savings per mode and motive
- CO₂, other emissions



**Systematically applied: >> 100 national projects
(roads, rail, harbour, airport, kilometre charge)**

Increasingly for smaller (regional, local) projects

**National Projects: second opinion CPB Netherland
Bureau for Economic Policy Analyses**

Often: supervision committees - experts



Continuous debates:

- CBA at all?
- Models used
- Bias towards travel times
- Quality of cost estimates



- **the consumer versus the citizens perspective** (Mouter et al., 2017a, b)
- **distribution effects**
- **the lack of ethical aspects** (Van Wee, 2011, 2012)
- **the quality of the research** (van Wee and Molin, 2013)
- **the lack of difficult to monetize effects**

Much support for SCBA amongst key participants

Economists and transport engineers more positive than spatial scientists
(Mouter et al., 2013)

Despite criticism: state of the art

2013: manual to be used by most Ministries, inspired by 2000 manual and applications



Non-transport applications:

- **Wind energy**
- **Cultural – historical value**
- **Culture**
- **Area development**
- **Sports**
- **ICT**
- **Health**
- **Social policies**



See <http://www.mkba-informatie.nl/mkba-voor-gevorderden/best-practices/> (in Dutch)

Impact on decision making

(Annema et al., 2015, 2017)

(CBA published 2000 – 2012)

Annema, J.A., Mouter, N., Razaei, J. (2015), Cost-benefit analysis (CBA), or multi-criteria decision-making (MCDM) or both: Politicians' perspective in transport policy appraisal. Transportation Research Procedia 10,7 88-797

Annema, J.A., Frenken, K., Koopmans, C., Kroesen, M. (2017), Relating cost-benefit analysis results with transport project decisions in the Netherlands. Letters in Spatial and Resource Sciences 10 (1) 109-127

Politicians (21 interviews)

- **They Use CBA but in a non-decisive manner**
- **They find the aggregate outcome (the composite result) of CBAs pretentious.**
- **They seem especially interested in appraisal tools which show clearly to them the political important trade-offs of a transport policy.**

	CBA reports	Project variants	Category as assigned to in the MNL model and LCA
<i>Project variant</i>			
Roads	26	152	Road
Rail persons	15	70	Rail
Road pricing (including toll roads)	11	50	Excluded in the models
Inland waterways	14	35	Other
Public transport (no heavy rail)	7	43	Other
Rail freight	6	25	Rail
Seaports	8	22	Other
Construction works (e.g., bridges)	9	31	Other
Airports	3	14	Other
Other (e.g., increasing speed limits)	7	12	Other
Total	106	454	
<i>Spatial scale</i>			
International	20	73	International
National	45	194	National
Regional	41	187	Regional
Total	106	454	
CPB involvement	37	200	CPB involved

Impact on decision making

(

No association between Net Present Values (NPVs) and the variants chosen in political decisions (after controlling for other relevant variables)

	Decision 'no go' (%)	Decision 'go' (%)	Total
NPV negative	83	17	216
NPV positive	70	30	98
Total	79	21	314

More alternatives: GO less likely

No significant difference between international, national and regional projects

Results in line with international literature

Questions / discussion?