



Why Cost Benefit Analysis is perceived as a problematic tool for assessment of transport plans: A process perspective

Els Beukers*, Luca Bertolini, Marco Te Brömmelstroet

University of Amsterdam, Amsterdam Institute for Social Science Research (AISSR), The Netherlands

ARTICLE INFO

Article history:

Received 22 March 2011

Received in revised form 30 August 2011

Accepted 7 September 2011

Keywords:

CBA process issues

Participant perceptions

Assessing integrated land use and transportation plans

ABSTRACT

Academic discussions on Cost Benefit Analysis (CBA) as an appraisal instrument for integrated land use and transportation plans tend to focus on its technical aspects. However, many issues of CBA also arise from process related matters, especially when assessing integrated plans. Using an inductive research design, we explored how these process related issues play out in Dutch planning practices. In two applied research techniques, focus group sessions and open in depth interviews, we focused on process related issues as perceived by CBA participants ranging from plan makers to CBA testers. This article presents the different perceptions of issues in CBA processes. Through these collected perspectives, we found that these issues are multi-layered and present a number of fundamental dilemmas. After relating our empirical data to theory, we conclude that the biggest challenge lies in decreasing the level of mistrust and communication deficits revealed between plan owners and CBA calculators and their respective frames of thinking when assessing complex integrated land use and transportation plans.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

1.1. CBA as a problematic instrument

Cost Benefit Analysis (CBA) is a widely used ex-ante evaluation tool to support the decision making on infrastructure plans and others. Its aim is to provide an integral overview of the (estimated) costs and benefits of alternative plans, and to translate them as much as possible into monetary terms for comparison (Brent, 1996). Based on these qualities, the CBA has become a widely used instrument for the appraisal and evaluation of large infrastructure projects in many countries (Haezendonck, 2007; Mackie, 2010; May et al., 2008; Odgaard et al., 2005; Rotaris et al., 2010; Vickerman, 2000). In the Netherlands, the role of CBA in the decision-making process has become increasingly important. It was already obligatory for large infrastructure plans (co-)funded by the Dutch national government (in: Annema et al., 2007; De Jong and Geerlings, 2003; Eijgenraam et al., 2000). Since 2007, it also has been obligatory for the assessment of integrated spatial infrastructure plans, because of the merging of the governmental budgets for these sectors (Ministry of transport and water management and Ministry of housing spatial planning and the environment, 2009). This means that all local and regional spatial infrastructure plans requiring national funding need to go through a CBA assessment. Through this, the national government prioritizes proposed plans and decides which ones are funded. Although a positive CBA balance is not a formal requirement for approved funding, these planning regulations do give the CBA a central role in Dutch planning and decision-making processes.

* Corresponding author. Address: Nieuwe Prinsengracht 130, 1018 VZ Amsterdam, The Netherlands. Tel.: +31 641862086.

E-mail address: e.beukers@uva.nl (E. Beukers).

Although widely used, CBA is also contested as being inadequate for appraising transport-related plans (Annema et al., 2007; De Jong and Geerlings, 2003; ECMT, 2004; Mackie and Preston, 1998; Naess, 2006; Priemus et al., 2008; Wee, 2006). Academic literature identifies a number of aspects of CBA that underlie this critique. These include disputable calculation methods for translating soft variables like quality of nature into money, or leaving these effects out of the analysis altogether (Mackie and Preston, 1998); missing information about winners and losers (the distribution effects) and ignoring equity issues (Ackerman and Heinzerling, 2002); missing information about expected synergy and agglomeration effects (Wee, 2006); poorly constructed reference cases (Annema et al., 2007; De Jong and Geerlings, 2003; Naess, 2006; Wee, 2006); poor incorporation of uncertainties (Salling and Banister, 2009; Ševčíková et al., 2011); and too much focus on how infrastructure can help solve traffic bottlenecks (i.e. decreased travel time) and too little on how it can support a vision for spatial economic developments (ECMT, 2004; Van Wee et al., 2006). The last problem is perhaps not surprising if we consider the intrinsic difficulty of measuring such effects. According to Mackie (2010), it is very difficult to appraise the effect of investment in infrastructure on the regional economy. Moreover, Mackie states that “the interaction between transport and the wider economy, and its treatment in appraisal, is one of the most lively current topics” (Mackie, 2010, p.19).

Although these are important issues, it is questionable whether solving these technical, content-related issues alone will be enough to reverse the antagonistic attitude that many planning actors have towards the use of the instrument itself. CBAs, especially when applied to integrated land use and transportation plans, may cause several tensions and frustrations in planning practices. Different participants who operate in CBA processes do not agree on how the analysis should be understood and used, and it appears unclear what role CBA should be allowed to play in infrastructure decision-making processes. As such, we can state that along with the aforementioned technical aspects, there might be process-related issues that cause the controversy surrounding the CBA in transport planning. There is, however, only limited attention given to process-related issues in academic debate.

1.2. Process-related problems of the CBA

A report of the European Conference of Ministers of Transport (ECMT, 2004) addresses several process-related problems of CBA, observing that planning actors blame it for not being transparent, being used too late in the planning process, and being used as a final assessment (or ‘sword of Damocles’) without the possibility of improving the underlying plan or vision. The report stresses that although robust economic appraisal is necessary for infrastructure project development, assessments should not be seen as a blunt yes or no. “They should be used instead to draw out issues and propose ways forward. They should also provide a mechanism for drawing stakeholders into a consensus as to the fundamental problems a project is to address, the alternatives available and the solutions preferred” (ECMT, 2004, p. 8). Haezendonck (2007) also addresses the importance of involving stakeholders in CBA processes, which does not seem to be a natural element in current CBA practices. However, the incorporation of stakeholders in the CBA process could be difficult, because the CBA is based on welfare theory and compensation criteria, whereas each stakeholder has its own set of costs and benefits (Macharis in: Haezendonck, 2007).

Savelberg et al. (2008) notice that in Dutch planning practice, planners feel frustrated if a CBA does not give an understandable and recognizable output. This may happen if the plan aims for difficult-to-assess effects like increasing the liveability or the economic competitiveness of a region. Mackie (2010) confirms this struggle by pointing at a discrepancy between the views of planners and transport appraisers. Planners want to know how integrated spatial and infrastructural projects influence effects such as induced land-use changes and economic activity, questions which are difficult to answer with a CBA. According to Savelberg et al. (2008), this discrepancy is especially frustrating if the CBA is used as judgment in the decision-making process. The latter seems, however, an issue in itself, as Sager and Ravlum (2005), Martinsen et al. (2010) and Eliasson and Lundberg (2010) show that it remains unpredictable to what extent and in what way CBAs influence decision making – if at all. Other political processes seem to be more relevant.

Although the abovementioned publications shed some light on process-related issues, it remains unclear what exactly happens during the process of applying CBA in transport planning practices and what possibly causes the process-related issues. What are the fundamental issues at play that hinder the CBA process? With our research, we aim to gain more insight into these fundamental issues and – in a later phase – how they can be overcome. The central research question of this paper is therefore: *What perceptions do CBA participants have of current CBA assessment processes on integrated spatial and transportation plans in the Netherlands?* To answer this question, two research techniques are combined: focus group sessions and open in-depth interviews. Because there is very limited fundamental knowledge on the process-related issues of CBA, an inductive and grounded approach was applied. This means that the research was conducted without formulating theory-based hypotheses in advance. Our theoretical conceptions are directly derived from our data and related to theory as a final step (Bryman, 2008, pp. 9–13).

In the following section, we describe the research methodology that was used to collect empirical data. In Sections 3 and 4, the research findings of the focus group sessions and in-depth interviews are presented. After comparing the results of both research techniques, the article continues in Section 5 with a reflection on and interpretation of why these issues might develop by examining several underlying dilemmas. Before ending the article with a conclusion and discussion on future directions for research in Section 7, the findings and dilemmas are linked to the wider literature on competing rationalities in planning in Section 6.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات