

Inclusion of Social Benefits in Transport Planning- Overview of Thematic Papers and Unresolved Issues

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Introduction

The purpose of this brief paper is to present an overview of the main lines of argument and conclusions, as well as briefly pointing out some of the more obvious unresolved issues. While it attempts to present a consensus, this is not intended to disguise the fact that on many points there are divergent, and indeed diametrically opposed, views.

The overview is structured around three main themes, which it is intended will form the basis for the initial discussions at the workshop. These are the *context* in which discussion of social benefits is most relevant; whether it is sensible and possible to separately *identify* social as distinct from other forms of benefit; and *appraisal* issues.

Context

The notion of social benefits appears most relevant and easy to distinguish where physical access is difficult – remote areas served by low-volume roads, tracks and paths. It is under these situations that the more basic of needs – secure food supplies, health and education services - are arguably most threatened, since they are often associated with low population densities that makes any kind of service provision difficult [Hine, Pankaj Porter]. Social benefits also affect some segments of the population – women, children, the old and infirm – more than others, and their *social exclusion* is likely to be more severe where access is restricted [Porter]. Conditions of restricted access are also those where the likelihood of significant social benefits may tip the balance between a decision to invest in improved transport or not [De Walle, Gwilliam, Pankaj]. Thus, the provision of improved access is a kind of litmus test of whether, or not, it is sensible to try to identify potential social benefits and bring them into the appraisal process in some way.¹

This is not to deny that the notion of social benefits is irrelevant in a highway or urban investment context. But it simplifies discussion, and possibly future research, to examine the most likely situation first. If a consensus cannot be reached here then it is unlikely to emerge in more complex situations.

A militating factor is that in the current investment climate new access is not often a major investment priority. In most developing countries the legacy of deteriorated road networks means that rehabilitation is the normal expectation. This rarely leads to the major changes in transport efficiency that are the main triggers for socio-economic change so benefit expectations are correspondingly reduced [Leinbach].

Identification of social benefits

There were wide ranging interpretations of the term social benefits and a number of authors expressed misgivings as to whether it is sensible, or indeed possible, to separately identify them [Gwilliam, Porter, Vasconcelos]. The most explicit attempt to do so, in Bhutan, represents an extreme situation in which people can reside several days

¹ A dissenting view is that since the purpose of road transport development is to improve people's lives and livelihoods this inevitably implies a concern to generate social benefits, so they should *always* be considered significant [Seddon].

walk from road communication. Moreover the attempt, in the Bhutanese example, to forecast education and health sector changes - that are presumed to result from road provision - over a forty year period, appears little short of heroic [Pankaj, Porter]. The attribution of these changes to road provision is also considered to be unsound since there is little supporting evidence [De Walle]. In general both social costs and benefits seem likely to change with time [Porter, Seddon].

Several authors rightly point to the existence of *social costs* as well as benefits [Hook, Porter, Seddon, Tiwari]. From the perspective of a productive discussion this poses a dilemma. On the one hand the *social costs of transport* is a term with an established meaning in the more developed countries, and an extensive, diverse and contentious literature in its own right [Hook]. But it does not seem very useful to introduce into the present debate, given the context which has been suggested, discussion of social aspects such as visual intrusion, severance or whether motor vehicles pay their full costs, etc, that preoccupy the more developed countries. On the other hand even in conditions of restricted access investments in improved transport creates its winners and losers [Leinbach, Porter, Seddon]. The latter observation persuades that social costs, or the possibility of negative benefits, have to be included in the discussion even if this is understood to be limited to those likely to emerge in conditions where access provision may be subject to significant change.

The inclusion of social costs is undoubtedly a complicating factor since it leads logically to the issue of appropriate mitigation measures when they are likely to be severe i.e. social goals are not being met. For example, the use of subsidies either in infrastructure provision - acceptance of below normal economic rates of return on investment [Pankaj, De Walle] - or for the provision of transport services [Porter, Seddon, Vasoncelos]. Such use is, however, contested on the grounds that subsidies are rarely available for all forms of transport [Hook].

Appraisal

Objections to the separate identification of social benefits with the view to bringing them within the investment appraisal process revolve around four issues – the mixing of economic and social benefits, measurement, forecasting and valuation.

From both a practical and theoretical perspective there are concerns about the *mixing* of economic and social issues in the appraisal process [Hook]. Better, it is argued, to improve targeting of investments on the poor simply by increasing the importance accorded to social impact analysis and more efficient identification of intended beneficiaries in the overall decision-making process [Hook, De Walle].²

A particular problem confounding *measurement* is that social and economic benefits are often linked. Moreover, it is argued that they are strongly influenced by political issues, the diversity of interest groups and institutional contexts, the diversity of perceptions and value judgments, and the potential for change over time, which militates against the production of simple, easy measures with generic application [Porter].

² Transport investment has to date been something of a laggard in this respect. Sophisticated geographical targeting is a feature of poverty and investment analysis in areas as widespread as animal health, credit, food security, household expenditures, public facilities and river blindness. [See: Bigman, D. and H. Fofack. (2000): *Geographical targeting for poverty alleviation – methodology and applications*. World Bank Regional and Sectoral Studies. Washington, DC.

Of the previous problems, *forecasting* appears the most insuperable, especially as it relates to the generated traffic that might be expected to result from dramatic changes in accessibility [Gwilliam, Hine, Hook, Vasconcelos]. Despite more than forty years research no sound basis for forecasting generated traffic, and their corresponding benefits, has emerged. It is especially difficult to predict the wider economic benefits that might result i.e. any monetary value to be put on changes in beneficial social activities [Gwilliam].

From a *valuation* perspective doubts were expressed by a number of authors with the very notion of social benefits and whether these differ in any fundamental sense from those categorised as economic [Gwilliam, Vasconcelos]. It was further argued that elements missing from conventional cost-benefit analyses in the transport sector were not purely *social* since they also encompass income generation, increased accessibility and other material improvements [Hine]. Perceptions of what constitutes a social cost or benefit may also have a cultural dimension with 'western' notions at variance to those prevailing in some developing countries [Porter]. This further complicates their assessment and valuation.

Way forward?

As is shown in the review paper on experience in developing countries with the inclusion of social benefits in transport planning [Howe], preoccupation with this notion is not new, but has a half-century or more history. Their most common use was as a screening device prior to more detailed appraisal. The recent re-emergence of the issue appears to reflect experience in trying to justify the provision of improved and expensive access to remote and impoverished communities. However, it has been argued that the debate has moved on and concern with the quantification of individual social benefits seems to some to have been subsumed in the wider debate about poverty and investment targeting [Hook].

Top down

Analysis of the distribution of investment impacts at sector, program and project levels would complement the targeting idea [Gwilliam, Seddon]. The macro level perspective is important because barriers to wider vehicle ownership, for example, may not be local but national i.e. related to taxation and duty levels. However, it is argued that the more localised the level of analysis the more likely that the geographic approach to project targeting will have a valid impact on the poor [Hook]. In this respect, place context, power and empowerment, the role of the state, institutions, gender relations, and above all people and family-oriented change condition the effects of rural access improvements [Leinback].

It is suggested that the distributional analysis should not just be geographical, but *modal* since it is known that the poor are overly dependant on certain (non-motorised) forms of transport [Hook, Seddon, Vasconcelos]. This suggestion links easily to those for more attention to investments in, and the benefits resulting from, vehicles and vehicle services, and not just those from infrastructure [Porter, Hine].

Bottom up

Much of the discussion on appraisal methodology implies a strong role for external evaluators, which runs counter to the trends towards decentralised government and participation of the affected in decision-making that influences their well-being.

Acceptance of these trends effectively negates the attempts to quantify social benefits, by placing prioritisation in the hands of those most affected who would be unlikely to command the skills to undertake such an analysis. Social benefits effectively become *implicit* in the process of decision-making. It is argued that in addition to strengthening democracy such a process also enhances local planning capacity and the propensity for subsequent maintenance of the facilities provided [Leyland].

Perhaps the issue here is one of *scale*. In the real world the large rural road programmes funded by international financial institutions require stronger economic justification than the smaller scale investments that typify local governments. However, even for large-scale investments, it has been argued that since rural road budgets are usually fixed there is no need for formal cost-benefit analysis – cost-effectiveness criteria can be substituted [De Walle]. The implication is that it is unnecessary to fully account for benefits either, especially if they are highly contentious.

Unresolved issues

In the interests of brevity this overview has left a number of issues unresolved. Among the more obvious are:

Investment in roads or transport? Whilst the limitations of investment in roads as an instrument of economic and social change have been recognized for more than a decade, efforts by donors and governments to intervene more actively in the supply of transport services or measures to enhance personal mobility remain rare. Yet it is clear that the most direct benefit of investment in road infrastructure is the income resulting from employment on the physical works. All other benefits are indirect and depend on the movement of people and goods becoming more efficient i.e. faster, cheaper, more frequent, or more reliable. These changes require either that transport services are improved, relative to those before the infrastructure investment, or that the personal mobility of individuals is enhanced, usually by more efficient vehicles operated for their own-account. Road investment per se might have little influence on either of these efficiency changes, which may nevertheless give rise to considerable social benefits.

Highways These seem likely to give rise to characteristically larger and different social costs, and less readily attributable social benefits, than rural roads. Building on the earlier experience of the Inter-American Bank, the Asian Development Bank seems more concerned to account for the distribution and poverty impact of its highway investments than attempting to analyse their individual social consequences.

Implementation process: Some authors were specifically concerned with the *process* by which infrastructure improvements are effected and how this influences the associated social costs and benefits [Jennings, Seddon]. These concerns deserve greater consideration because the employment that can be created by implementing road improvements and maintenance with labour provide the most certain and controllable of all benefits. Unfortunately the rhetoric on the use of labour-based methods is far stronger than the practice.

Learning from other sectors: Whilst this issue was not addressed by many authors, it seems clear that there are lessons to learn [Seddon]. One suggestion for doing so is to ensure that appraisal is a multi-disciplinary process.

Hook, W. (2003): 'Appraising the social costs and benefits of road projects'.

Howe, J. (2003): 'Inclusion of social benefits in transport planning – review of developing country experience'.

Leinbach, T. (2003): 'Social aspects of rural accessibility and changing development context'.

Leyland, J. (2003): 'Prioritizing a process - community participation in prioritizing rural road improvements in East Africa'.

Jennings, M., A. Cotton and S. Ladbury. : 'Inclusion of social benefits in infrastructure – ensuring social benefits for road workers through implementing labour standards'.

Pankaj, T. (2003): 'Framework for quantifying social and economic benefits from rural road development - some thoughts and practical insights'.

Porter, G. (2003): 'Spatio-temporal perspectives on the social benefits and costs of roads and road transport – a discussion paper with special reference to women and children'.

Seddon, D. (2003): 'Social aspects of transport'.

Tiwari, G. (2003): 'Social dimension of transport planning'.

Vasconcelos, E. (2003): 'Inclusion of social benefits in road transport planning'.