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**ENHANCING RURAL ROAD  
POLICY: THE CASE FOR THE  
INCORPORATION OF THE  
CAPABILITIES APPROACH INTO  
RURAL ROAD APPRAISAL IN  
AFRICA**

Stephen Porter

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INTO RURAL ROAD APPRAISAL  
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# Enhancing Rural Road Policy: The Case for the Incorporation of the Capabilities Approach into Rural Road Appraisal in Africa

## Abstract

*Infrastructure provisions, especially rural roads, have been highlighted in a number of recent studies and reports as an enabling factor for Africa to achieve 'development'. This paper reviews the current limits of rural road knowledge and appraisal procedures raising critical issues about what is actually known about the impact of rural roads and the extent to which current appraisal methods are able to fully contribute to this debate. An expanded methodology incorporating the capability approach is advocated to help overcome these issues. It is argued here that incorporation of the capability approach may help overcome certain frustrations in our ability to understand the manner in which rural roads impact upon the lives of people. The suggestion is made that the capability approach offers a different angle of analysis that could further contribute to critical questions surrounding the provision of roads, enhancing appraisal and helping to avoid the creation of further infrastructural 'white elephants' that have plagued Africa. Provision of rural roads is after all quite expensive and without a valid appraisal mechanism, money spent on some rural roads may more constructively be utilised elsewhere either on other roads, or on other sectors.*

## 1. Introduction

Rural roads continue to be held up as catalysts of development (DFID, 2002; Gannon & Liu, 1997; UNDP, 2003, 2004; World Bank, 2001, 2004; Fan *et al*, 2000, 2004a, 2004b; van de Walle, 2002). Recently there has been a move to include the discussion of social benefits in this literature, though a dearth of complete empirical evidence in this area is notable (Van de Walle, 2002, Gannon & Liu, 1997, Gannon & Liu, 2000; Howe, 2003). Extended appraisal of rural road provision would therefore seem appropriate. Appraisal is a process that can be undertaken prior to a choice on where a road should be built to help decide on its location, ex-ante. Or appraisal can be undertaken after a road has been built to improve knowledge of the impact, ex-post. If a technique was implemented ex-ante and followed up ex-post, in intervention and control areas,

this would be considered the ‘gold standard’ of evaluation helping to generate knowledge of attribution of impacts in a ‘scientific’ fashion.

The aim of this paper is to argue that the incorporation of an operationalisation of the capabilities approach in appraisal procedures can contribute to a fuller understanding of rural road provision. In spite of recent attempts to improve techniques for appraising the ‘social impact’ of rural road provision, there is still a large amount of room to enhance methodologies through a focus on understanding the intended and unintended impacts that may augment or diminish the freedoms that people have reason to value. This analysis is based upon a view that envisions development as the expansion of “real freedoms that people enjoy” (Sen, 1999: 3). In the capabilities approach, development is viewed in a much broader informational basis than simply economic growth and its concomitant effects. Explicit use of the capabilities approach is central in this paper. Specifically, the breadth of information taken to be relevant by an appraisal procedure is examined.

Drawing on a diverse literature, this paper incorporates a range of subject matter, from rural road evaluation procedures to academic assessment of the economic problems of Africa. Although this range could be considered problematic, by entering into a number of debates at once, the diversity of literature is also helpful to aid understanding of rural road provision in some of the contextual richness and strategic environment in which the policy process takes place. Arguments on overall policy prioritisation and the mechanisms for best utilising rural roads are beyond the scope of this paper. For example, rural roads vs. water provision or marketing boards vs. farmers transporting their own goods to market, though important debates, are not considered here. Attempting to broaden the discussion even slightly enables us to better deal with the broader issues of comprehending how roads impact upon the lives of people.

The approach of this paper is Section 2 reviews current thinking on the benefits of rural roads, noting the limitations in these arguments. Responses to these limitations will then be examined with analysis of them being undertaken from the perspective of the capabilities approach in Section 3. Finally, a methodology will be presented that may enhance understanding of the impact of roads upon people’s valued beings and doings in Section 4. Analysis in this paper accepts that recent changes in rural road appraisal are significant in aiding the development of empirical knowledge, the suggestion is that actually finding out what people value ex-ante and the changes wrought by an intervention ex-post via a methodology couched in the capabilities approach can open up new dimensions in which to conceptualise the impacts of a rural road intervention.

## 2. Current Arguments and Knowledge

Recent supranational reports have positioned infrastructure provisions, amongst other elements such as governance, debt cancellation and increased aid, as an important elements in the formulation of a cure plan, perhaps a panacea, for the economic stagnation of the African continent (Commission for Africa, 2005; Sachs *et al*, 2004). This paper is concerned primarily with claims made by various bodies and academics in respect to the ‘social benefits’ of rural road provision. This section briefly surveys the boundaries of their arguments.

Numerous reports from supranational bodies have asserted the need for expanded rural road provision. The Commission for Africa’s report, the document which served as the basis for the UK’s recent attempt to include Africa on the agenda of the G8 and European Union, proposed a “‘big push’ on many fronts at once” to enhance African economic growth (Commission for Africa, 2005:13). Rural roads in this report are seen as a key component for encouraging economic growth and therefore poverty reduction. Improving rural road provision is perceived to reduce the cost of getting goods to market from rural areas by improving access. The report states “African growth requires improving Africa’s agricultural sector. That will not happen without investment in rural roads...transport costs...have their severest effect on rural areas” (*ibid*: 110). Sachs *et al* (2004) argue that tropical Africa is stuck in a poverty trap, also requiring a ‘big push’ in investments especially infrastructure: “Low domestic saving is not offset by large inflows of private foreign capital, for example foreign direct investment, because of Africa’s poor infrastructure” (*ibid*: 122). Rural roads again are held up as a necessary mechanism to improve economic growth, “[b]efore high-intensity modern trade can get started, Africa needs an extensive road system both from the coast to the interior and within the interior” (*ibid*: 132).

The World Bank, meanwhile, has emphasised a link between economic growth and the reduction of various social ills, directly and indirectly, through rural road provision. The World Bank literature defines rural road provision as an ‘intermediate’ form of development, its demand being “*derived* from activities of other sectors (health, education, farming, manufacturing, etc.). So, too, other sectors are affected by, and respond to, transport” (in original *italics* Gannon & Liu, 2000: 6). Impacts relating to rural road provision are distinguished and subdivided as direct and indirect effects: “direct effects are registered in the impact zone by reduced travel time to work, schools, hospitals, markets etc. and savings in fuel and other direct transport costs...the indirect effects consist of increases in income and other dimensions of well-being (health, education, social interaction and political participation)” (Grootaert, 2002:2).

The World Bank has funded both qualitative and quantitative studies that have pointed to the positive impacts of rural road provision directly and indirectly. In qualitative research conducted through participatory poverty assessments (PPA), paucity of roads was found to correlate with limitations in agricultural production. In Cameroon, 86% of respondents believed that poor transport infrastructure impaired their ability to increase agricultural production (Narayan *et al*, 2000). One prominent example of quantitative and qualitative research is a recent impact assessment on rural road provision in Peru (World Bank, 2001). In this study, focus was given to ‘human development’ as well as income-orientated measures. The findings prove illuminating, in particular, within the targeted area “there appears to be a tendency to improved living conditions (such as availability of potable water, lighting, or communal facilities) or availability of goods (such as televisions, tractors or bicycles)” (World Bank, 2001, 118). In another more economically orientated study across 129 villages in Bangladesh, villages with better access to roads were found to have “significantly better...agricultural production, household incomes, wage incomes of landless labour, health, and the participation of women in the economy” (Gannon & Liu, 1997: 9). In Africa specifically a study in Tanzania noted some interesting findings in social aspects as a result of road provision. There was found to be an increased attendance at hospitals and preventive health care facilities and also an increase in the participation of women in local government affairs “due to the increased feasibility of one-day roundtrip travel to meeting” (Grootaert, 2002: 44).

This World Bank research is augmented by academic studies. Foremost among these and oft quoted by the UN and World Bank is the work of Fan *et al* (2000, 2004a, 2004b). In these studies, Fan *et al* assess the impact of various factors on rural food productivity and poverty reduction. Simultaneous equations were used to reach hypothesis on the importance of individual factors within their model. In two similar studies in rural China and India, a remarkably stable trio of factors emerged, namely, education, rural road provision, and R&D into food productivity. In India, rural road provision had the biggest single impact on poverty reduction while in China it had the third largest. The results in India led Fan *et al* to conclude, “for every one million rupees spent on roads 124 people are raised above the poverty line” (Fan *et al*, 2000: 1048). Van de Walle cites a study by Jalan and Ravallion that found “that road density was one of the significant determinants of household-level prospects of escaping poverty in rural China.” (Van de Walle, 2002:576). Even as early as 1982, USAID were reporting the positive impacts of rural road provision, it was noted, for example, that rural roads enabled inhabitants to more easily reach health clinics (USAID, 1982 cited in DFID, 2004). Combined the supranational reports, the World Bank research, and academic studies appear to offer a persuasive argument to increase expenditure on rural road provision.

Yet, neither the arguments nor the evidence are by any means conclusive in demonstrating the necessity of a ‘big push’ in rural road provision in Africa. As Van de Walle states “[u]nfortunately, there is as yet little convincing empirical evidence that rural roads affect social outcomes beyond what they would have been without the road” (Van de Walle, 2002: 575). This statement resonates in a number of other documents. In the World Bank’s *Poverty Reduction Strategy Paper* (PRSP) sourcebook, it is stated that: “knowledge of the transport conditions of the poor, and especially how these interact with other factors...is modest” (Gannon & Liu, 2000), while the 2004 World Development Report affirms that “baseline data...[is] needed for...rural roads with far-reaching impacts on poverty, health, and education outcomes” (World Bank, 2004:212). As Howe states:

“our ability to predict, either positive or negative, social outcomes - resulting from specific investments - remains primitive. Investment in transport – especially if this is simply in the road element, as is commonly the case, without a corresponding effort to improve actual services – remains as a ‘necessary but not sufficient’ condition for changes to occur.” (Howe, 2003: 3).

Practically, in a recent appraisal relating to rural road provision in Mali, social benefits receive no concrete coverage. The report states “no data linking transport and poverty in Mali... [is] available” (World Bank AFTTR, 2004:27). Instead, much of the focus of the document is on high-level policy development such as regulation combined with speculative statements in respect to changes in the prices of goods as a result of road provision as opposed to ground level assessment of changes (World Bank AFTTR, 2004). To that extent the causality of rural roads in relation to specific social and economic benefits has yet to be fully examined.

The equitable distribution of the economic benefits of rural roads has also questioned. It has been argued that the economic benefits of rural road inventions accrue mainly to the rich and that this process is accentuated by the present rural road cost benefit analysis (CBA) methodologies whose focus is on efficiency not effectiveness or equity (Van de Walle, 2002: 577; Gannon & Liu, 1997: 23-27; Gannon & Liu, 2000: 24). This raises concerns about the viability of the suggestions of the Commission for Africa (2005) and Sachs *et al* (2004), as these arguments are premised on the ability of rural road interventions to impact upon the income of the poorest. The implication is that even with money spent on rural roads, poverty levels as measured by income could remain largely unaffected.

In relation to the supranational and academic studies noted above, the Peru study (World Bank, 2001) is seen by van de Walle as methodologically flawed as it did not include a base-line study. Van de Walle notes that many “ongoing studies simply add to the substantial literature of indeterminate findings” (van de Walle, 2002a: 3).

The studies by Fan *et al*, although interesting, can be argued to have limited relevance in Africa. Setting aside cultural, governance, and institutional issues further differences have been explored in attempts to explain the disjuncture between Asian and African growth trajectories, such as: population distribution, the impact of mineral wealth, and the landlocked status of many countries (Collier & O’Connell, 2005; Cooper, 2002; Englebert, 2000). Rimmer (2003: 469) has also raised critical questions about the extent to which expensive infrastructural provision is likely to generate returns given limitations on the demand side in Africa, i.e. there is a lack of capital to take advantage of the new opportunities that may be presented by rural road provision.

The HIV/AIDS pandemic further complicates matters. There is broad disagreement on the impact of HIV/AIDS socially and economically (Bennett & Whiteside, 2002; Nattrass, 2004; Haacker, 2004). Disentangling the impact of rural roads from the impact of HIV/AIDS and other remedial interventions could prove tricky with current evidence and techniques not providing much of a guide.

Given these limits methodologically and contextually, some suggestions have been made to improve the knowledge of the impact of rural roads. Howe states that “[r]e-orienting the debate away from a focus on investment in roads and towards more holistic changes in transport conditions has to be a key component of any way forward” (Howe, 2003: 3). This statement reverberates amongst other experts. Van de Walle (2002), for example, focuses on developing a methodology for measuring social benefits through combing equity and efficiency criteria. Moving from a statement of intent to the actual measurement of social benefits is a little trickier, however.

Grootaert and Gannon and Liu have suggested the widespread use of household surveys implemented in an experimental or a quasi-experimental methodology (Gannon & Liu, 1997; Grootaert, 2002). It is in this school of thought that van de Walle can be situated. From a different angle, as part of a DFID funded project and in association with the work of Howe, a rural road appraisal methodology has been developed focusing on the measurement of the impact of roads as a medium for social capital enhancement. Emphasis in this study is placed on the ability of roads to facilitate social service provision and access, and the potential of roads to encourage economic poverty alleviation.

In summary, the role of rural roads in poverty reduction and social development has been stressed in recent literature and influential reports on Africa, yet some serious concerns remain about the extent to which rural road provision does actually act as an influential catalyst for development. Attribution of impacts to rural road provision has not been empirically robust. In the context of the HIV/AIDS pandemic and the general problems facing Africa, contributing to improved knowledge of the changes wrought in people's lives by rural roads is pertinent and can potentially contribute to debate about necessary policy choices. Appraisal techniques grounded in a sound approach can help improve empirical knowledge and also enhance the selection of interventions.

### **3. Review of Recent Methodological Enhancements of Rural Road Appraisal Procedures**

Recently, two methods have been proposed to enhance rural road appraisal techniques approach to 'social benefits'. These are: van de Walle (2002), and the UK's Department for International Development (DFID) funded study that designed and tested an appraisal technique in three locations (DFID, 2004; Bryceson *et al*, 2004). A brief examination of both of these approaches will be undertaken in this section from a capabilities perspective. To that end the discussion will now take a brief detour to expand upon the capabilities approach, its basis and terminology.

Centralising the attainment of human freedom as the space in which the achievement of development should be evaluated and judged effective is the main tenet of the capabilities approach. As Sen states "development can be seen...as a process of expanding the real freedom that people enjoy" (Sen, 1999:3); freedom is both the "*primary end* and...the *principal means* of development" (*ibid*: 36). Development therefore can be considered to be the removal of the ills of unfreedom such as poverty and tyranny, and the enhancement of valued 'doings and beings', for example, literacy, and political participation (*ibid*: 10, 32). Viewing humans as the ends of development can be contrasted with approaches that centralise the growth of GNP, which tend to view people as the means of growth rather than the ends. The capabilities approach therefore redefines development in a terrain away from utilitarian preferences or indeed Rawlsian basic goods (Sen, 1999: 74; Clark, 2002; Sagar & Najam, 1999), these issues are returned to below. The market economy in the capability approach although a means and a possible indicator of development – vis-à-vis the ability to exchange goods freely (Sen, 1999: 6) - is only one amongst many. The ability to achieve in areas of liberty, education, and

healthcare are also considered constituent components of the achievement of substantive well-being (*ibid*:5).

Terminology is very specifically distinguished and defined in the capabilities approach, as it serves to conceptually frame and differentiate it. Key terms used in the capabilities approach and this paper are outlined here: functioning and capability, and well-being and agency. Functionings are “the various things a person may value doing or being” (Sen, 1999: 75) and represent the achievement of well-being. There can be elementary functionings, for example, being nourished, and complex functionings, such as, being able to take part in social activities of a community. Functionings can be considered both instrumental and intrinsic freedoms. Unless basic functionings are achieved, other valued doings and beings are out of reach, riding a bicycle may not be possible unless one is adequately nourished. Some authors have called for an intermediate category to reflect ‘actual abilities to function’ (Clark, 2002: 63), this argument is not expanded upon here. Functioning is the achievement of valued doings and beings related to a persons well-being.

Different combinations of functionings are enabled by capability “[a] person’s “capability” refers to the alternative combinations of functionings that are feasible for [an agent] to achieve. Capability is thus a kind of freedom: the substantive freedom to achieve alternative functionings” (Sen, 1999: 75). Capability put another way, represents the freedom to achieve valued doings and beings in the enhancement of well-being.

Interlinked to functionings and capabilities, is the distinction made between agency and well-being. A person can attain objectives in both the well-being and agency spaces. Enhancement of agency and well-being objectives can correlate, co-exist, or diverge. Both well-being and agency operate at two different levels: freedom and achievement (for further illustration and discussion see Sen, 1985, 1992: 56; Crocker, 2006; Robeyns, 2005;).

Well-being itself is described by Sen thus:

“Having well-being...is not something outside her that she commands, but something in her that she achieves. What kind of life is she leading? What does she succeed in doing and in being? Being “well off” [i.e. opulence, having economic means] may help, other things given, to have “well-being”, but there is a distinctly personal quality in the latter absent in the former” (Sen, 1985: 195)

Well-being is therefore related to doings, eating well, and beings, inner peace. The informational basis of well-being is incomplete. This is because of Sen’s

critique of utilitarian and basic goods approaches. For example, Sen criticises Rawls' basic goods approach on conversion rates, the inability of different people in different circumstances to convert the same bundle of goods equally. A pregnant woman, for example, is likely to have a higher nutritional need than one who is not (Sen, 1992: 113; Sen, 1999: 70-71). The importance of considering well-being in the space of capability and functioning in addition to agency is that:

“well-being...is especially important in such matters as social security, poverty alleviation, removal of gross economic inequality, and in general the pursuit of social justice. That case...is not conditional on the person himself attaching overwhelming priority to his own well-being in his agency objective” (Sen, 1992: 71)

Consideration of well-being allows us to *evaluate* development in terms of broader concerns of capability and functioning.

The ability of individuals to act in their own right and make the choices which they value in life is free agency (Sen, 1992: 56). Free agency defines how *effective* development is. Agency is the ability of a person to choose and pursue the life they value beyond their well-being in their *capability set* and is a constitutive part of development: “well-being freedom is the freedom to achieve something particular...agency freedom is more general, since it is not tied to any one type of aim” (Sen, 1985: 203-204). Agency is also the ability of an individual “to help themselves and also to influence the world” (Sen, 1999: 18). Agency can but does not necessarily have to enhance well-being (Sen, 1992: 59; Crocker, 2006; Robeyns, 2005: 13-14). An agent can chose to pursue a course which is morally reprehensible and can conflict with not only their but also others well-being, for example, by not saving someone from drowning (Sen, 1985: 219) Agency freedom is important as it represents the ability for a person to achieve what they value in terms of their own objectives beyond their well-being.

This is a very brief overview of the key aspects of the capability approach. Sen has developed an approach that posits ‘development as freedom’. The capability approach recognises the plurality of lived experience, leaving valued ‘doings and beings’ largely undefined to be explored in a broad and incomplete informational basis. This means that appraisal of development interventions within the capability approach should take place in the space of end impacts that people value and the means by which people affect change whether enhancing their well-being or agency objectives. This is as opposed to understanding development purely through instrumental freedoms that enable change, such as income or consumption.

A capabilities based appraisal ought to *evaluate* what valued changes have been brought about in the space of well-being, the enhancement of capability and functioning, and the extent to which people *effectively* are able instigate changes by themselves, the exercise of free agency.

One final note needs to be added. Until this point the term ‘social benefits’ has been employed in the discussion referring to the broader non-economic benefits that accrue to people from road provision. Both methodologies to be surveyed seek to measure ‘social benefits’. The language of this paper ceases to discuss ‘social benefits’, however, shifting instead to a discussion of the measurement of instrumental and substantive freedoms and the valued and disvalued impacts of rural road provision. The reason for this is to enable analysis in terms of the distinctions of and within capabilities and functioning and well-being and agency surveyed above. In order to examine the extent to which the ‘social benefits’ evaluated in the methodologies are relevant and valuable in understanding how freedoms have been impacted, they need to be assessed in terms of whether they actually look at substantive freedoms that people value, as opposed to comprehending the results of an intervention in only instrumental terms. With this in mind, this paper now returns to the evaluation of the two methods that have been proposed to enhance rural road appraisal.

Van de Walle’s methodology is an approach that has been developed in accordance with evaluation ‘best practices’ of prior rural road investigations by the World Bank (van de Walle, 2002). In van de Walle’s methodology, analysis is undertaken *ex-ante* in a ‘hybrid’ fashion, which takes into account a number of dimensions and measures of poverty in a single formula, not too dissimilar to the approach of Fan *et al* (2000, 2004a, 2004b). The methodology is defined as an attempt to aid selection of rural roads by developing an “operational approach that is grounded in a public economics framework in which efficiency and equity concerns are inseparable, information is incomplete in important ways, and resources are limited” (van de Walle, 2002: 575). The main tenets of this approach are as follows: (i) the informational basis is grounded in key indicators, for example, school enrolment, income, and consumption; (ii) this data is to be collected at community level; (iii) the methodology is ‘participatory’ in that focus groups are held with NGOs in consultation with local and international experts to assign weights to aid prioritisation of equity and efficiency indicators; (iv) money for upgrading rural roads is to be distributed amongst provinces based on defined criteria (*ibid*: 586-587). It is foreseeable that this methodology could also be carried out *ex-post* without point (iv) to aid evaluation of the impacts of rural road provision.

A study was initiated by van de Walle virtually simultaneously to developing the above methodology in Vietnam. The objective of this study was to expand

knowledge of the impact of rural roads and aid the development of ex-ante evaluations and monitoring indicators (van de Walle, 2002a). It would therefore seem laudable to review the commune level survey tool of this project as an example of the technique outlined above<sup>1</sup>.

The commune questionnaire designed for the Vietnam project resembles World Banks Living Standards Measurement Survey design (see for example, Grosh & Glewwe, 2000). The survey is divided into a number of different sections, such as, employment, living standards and, transport and infrastructure. Various dimensions of indicator are covered in these sections. For example, the ‘economy’ section covers economic indicators such as income earning opportunities, while the ‘living conditions’ section covers social aspects of well-being such as housing conditions and perceptions of change (van de Walle, 2001a). The ‘hybrid’ method of assessment proposed by van de Walle would draw together a number of these dimensions in order to assess poverty in a broader amalgamated fashion than say looking purely at income. It is suggested that NGO groups be utilised in this methodology to check results and assign weight. Their ‘participatory’ role beyond this though remains unclear.

Although this approach is indeed broader than simply viewing poverty as income or consumption deprivation, an examination grounded in Sen’s capability approach offers insights. Assessment of people’s valued substantive freedoms is not undertaken in van de Walle’s methodology. As Sen states “the real ‘bite’ of a theory of justice can, to a great extent, be understood from its informational base: what information is – or is not - taken to be directly relevant” (Sen, 1999: 57). In the same sense, the ‘bite’ of an evaluation or appraisal can be understood by what it does and does not take to be of relevance.

Van de Walle’s methodological ‘bite’ is more than a basic utilitarian approach of ‘the greatest good to the greatest number’. She devises an approach where the instrumental freedoms that people enjoy in a commune can be judged comparatively and in reference to equity criteria. This could contribute positively to a more effective and equitable provision of roads. Especially commendable is the attempt to make explicit and transparent in assigning weights thereby helping to come to terms with the inherently political nature of the weighting process which can be hidden within coding formulas in some CBA approaches (Alkire, 2002: 216-217).

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<sup>1</sup> A household level panel survey was also utilised as part of this study that may also be used in van de Walle’s appraisal methodology. Implementation of a household survey is, however, not discussed in van de Walle 2002 and so is not examined here.

Yet, the methodology still has three areas of shortcomings identified through a capabilities based examination (in particular reference to Sen, 1999: 62)<sup>2</sup>. First the aggregation of results at commune levels leads to distributional indifference, i.e. it is difficult to understand differences within the community. There are issues in comprehending the relative inequality within a certain commune in different dimensions of life if the ‘sum total’ is taken. People could be relatively rich in a number of dimensions, but totally impoverished in an important or valued area against which the weightings are biased. Further aggregated scores in an area of high inequality can upwardly shift averages and lead to analysis that is biased against the poor living side by side with extreme wealth, a not entirely unfamiliar scenario within the African continent.

Second, alternative valued freedoms and choices could be neglected in this approach. In van de Walle’s methodology, information is excluded that could be of concern to people. Though many instrumental freedoms are measured, certain substantive freedoms would not be registered in the community level survey. In Soviet Russia, for example, it could be imagined that a person was able to live in reasonable housing and have a job, and their children have access to schooling, but yet not have the freedom of worship. Instrumental freedoms measured by pre-set objective indicators do not tell us, necessarily, what a person values, and what choices they may make if they were able. Pre-set indicators can close off important areas of analysis and understanding.

Third, exploration and enhancement of individual agency is not undertaken in this approach. Van de Walle’s appraisal does not investigate either the extent to which people’s choices may have been enhanced, or the choices that they would make regarding an intervention. Free agency in rural road appraisal needs to be given space in order to examine the effectiveness of a development intervention. Proxies may point to instrumentally important areas of change, but it is not clear whether people value these areas, or would have chosen change in these areas.

In summary, peoples desired freedoms and achievements of well-being and agency aims in van de Walle’s methodology cannot be fully appreciated.

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<sup>2</sup> A fourth prospective deficiency noted by Sen which could also offer an angle of examination is the possibility of mental adaptation. This argument asserts that people in certain conditions may have adapted their attitudes enabling them to live with poverty stricken conditions perceiving minor changes as great goods. This argument is employed to criticise utilitarian approaches which centralises happiness as an indicator of ‘well-being’. This argument is consistently maintained throughout Sen’s work (Sen, 1985: 188-189; Sen, 1992: 55; Sen, 1999: 62-63). Adaptation of preferences, however, may not be consistent across continents even countries given specific circumstances, such as culture, surrounding inequality, and the laws of the land. Preliminary research on this issue is ambivalent (Clark and Qizilbash, 2005: 23-26). Due to these issues, examination of methodologies through the mental adaptation critique is not taken up in this paper.

Inequality within and between different spaces is shrouded by aggregation, evaluation of substantive freedoms is not undertaken, neither is assessment of the choices that people have or would take.

The DFID funded study which developed the *Overseas Road Note 22* (ORN) methodology makes use of a different informational basis to van de Walle's. The ORN document is one of the final deliverables in a DFID funded research and knowledge project. The production of the ORN document followed a logical process: inception drew together a wide grouping of social scientists and engineers from across the developing and developed world to advise on the production of a methodology; testing of the methodology was implemented in three countries with a variety of social and topographic environments, Vietnam, Ethiopia, and Zambia; finally reporting produced the main bulk of documentation analysed in this paper: the ORN methodology (DFID, 2004) and the final results document (Bryceson *et al* 2004).

The ORN approach seeks to investigate the impact of roads as a medium for the enhancement of various freedoms. This is demonstrated by the three main objectives of the study: (i) "analysing the social benefits and costs of rural road improvements"; examining (ii) the "differentiation in the experience of social benefit and cost"; and (iii) testing "techniques for rapid appraisal of rural people's perceptions and preferences vis-à-vis rural road development relative to other investments". Operationalising these objectives involved developing a range of techniques for differentiating and understanding the social impacts of roads (Bryceson *et al*, 2004: 14).

The implication of these objectives is that, in operation, they take into account a broader informational basis than van de Walle's. The ORN methodology is explicit on the need for individuals and groups in the local community to provide information beyond that sought in the household surveys of the project. A variety of local level informants are interviewed and focus groups sessions are undertaken with, men, women and high school students from across wealth brackets defined by community leaders, being interviewed in different focus groups. These interviews are aimed at understanding the "community's perceptions of social costs and benefits attributed to transport interventions" (Bryceson *et al*, 2004: 17). The focus groups "were designed to be participatory not prescriptive" (*ibid*: 17). The linking of focus groups with household surveys overcomes in part one of the criticism of van de Walle's approach. Inter- and intra-group inequality which impacts well-being can come to the fore in the ORN's methodology. Experiences and inequalities, for example within gender and income, are disaggregated within the results.

Though the ORN study is framed in a manner that would seem attempts to be open in its informational basis - indeed in all three community survey tools opinions were sought expressly on the advantages and disadvantages of transport intervention in open-ended questions - three areas of concern arise. First, inequality in different spaces is still shrouded within results. The focus groups were designed to elicit information specifically on social movements and household surveys on various instrumental freedoms not on doings and beings important to participants. The pair-wise<sup>3</sup> ranking procedure, for example, is an interesting and commendable method to help understand trade-offs between different ends, social and economic. However, participants again do not define what the trade-offs are. Instead ‘indicators’ are chosen *a priori*, avenues of discussion and important information are therefore closed off. Inequality of what – to distort the context of a famous question of Sen’s – ought to be more fully explored.

Second, and related to the first point, many of the focus group indicators are centred around understanding mobility and accessibility within the village, for example, nine of the ten questions in the focus group session are concerned to some degree with accessibility and mobility (Bryceson *et al*, 2004: 95-101). The downstream influence of this is that the results reflect an ‘N’ of social movements, a number of social excursions taken, rather than the value that is attached to the movement by participants.

Third, the agency aspect of the methodology needs to be more fully developed. A more open pair-wise ranking scheme and focus group methodology would help to comprehend the trade-offs outside of the area of well-being. This would enhance understanding of the desired ends of the community, allowing them to state courses of action in which certain needs could be left unmet, also helping assessors to comprehend how choices may have altered as a result of the intervention (Alkire, 2002: 195).

Therefore, the ‘bite’ of the ORN’s informational basis does appear broader than van de Walle’s, yet the methodology, based on the results from the field tests, suffers from much the same concerns: the veiling of inequality, not exploring agency objectives, and not seeking information on people’s valued freedoms. In the practical experience of Oxfam it was found that output indicators can ‘crowd out’ impact indicators (Roche, 1999: 47). This experience, it is tentatively asserted, did play out in this study. The methodology tries to gather too much information on social movements, output indicators which are more easily quantified, are analysed to the detriment of the open-ended questions on the valued and disvalued impacts of the rural road intervention. Valued capabilities

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<sup>3</sup> See Bryceson *et al*, 2004: 76 for a fuller explanation of the ‘pair-wise’ process.

and opportunities for free agency, consequently, are not sufficiently followed up in the methodology.

In sum, both approaches are admirable in their attempts to gather a deeper understanding of the expansion and enhancement of instrumental freedoms in rural road appraisal. Van de Walle incorporates equity concerns with efficiency concerns, while the ORN starts to open up broader informational avenues of appraisal demonstrating a concern with community inequality and issues of movement and accessibility in the broader scope of transport changes. When examined from a capability perspective, however, neither approach quite goes far enough. Neither delivers an assessment of substantive freedoms, while opening up space to explore inequality, nor do the methodologies consider free agency objectives, the choices that people may make regardless of their well-being and the impact of rural road provisions upon those choices.

## **4. A Suggestion for Enhancement**

Focus within this paper now shifts from examination to suggestion. A recently developed impact assessment methodology may offer an avenue for the investigation of valued doings and beings in rural road appraisals. The methodology suggested is outlined in Sabina Alkire's book, *Valuing Freedoms* (2002). The discussion here is limited offering grounds for development rather than a prescription for change. Answering 'what' the methodology seeks, and 'why' it could be an enhancement is undertaken. Discussion of 'how' the methodology is to be adapted and spliced with existing appraisal techniques is a rather more speculative, tentative, exercise.

Alkire's methodology has been chosen as, at present, it represents the most systematically and developed methodology for assessing development interventions in terms of their impact upon capabilities and functioning while also opening consideration of aspects of free agency. Although other scholars are attempting to understand substantive freedoms and appraise the capabilities approach, the fit is not necessarily proximate or the work on-going. The work of Clark and Qizilbash (Clark, 2002, Clark and Qizilbash, 2005), for example, seeks to further understand the kinds of capabilities people value, rather than assess their enhancement as a result of an intervention. Where assessment has been carried out by Sen it has assessed changes in instrumental freedoms utilising proxies of functioning and basic capability rather than assessing directly changes in substantive freedoms as expressed by the people themselves (for example Sen, 1999).

Methodologically Alkire's approach is quite advanced and through field tests has generated results which at face value represent assessments of people's valued beings and doings. The methodology itself was developed with ground level NGO interventions in mind and with reference to a number of techniques: participatory rural/poverty assessment (PRA/PPA), cost-benefit analysis (CBA), and social impact assessment (SIA). Testing and fleshing out of the methodology was undertaken in a number of field tests in Pakistan where it proved to be adaptable for projects involving men, women, and the literate and illiterate. Subsequently the methodology has been adjusted and was utilised in the assessment of a number of USAID and Oxfam projects (Alkire, 2002) and a recent pilot with an NGO in Cape Town (Porter & Wale, 2005).

So 'what' is the methodology? At its base the methodology is an open style of focus group interviews that deliberately aims to use public reasoning to understand whether and how freedoms that people value in certain dimensions have been impacted by an intervention. Reason for acting is central in this approach; people are encouraged to recognise, define, and choose examples or instances of change themselves. People are assumed to be able to reason through how an intervention has impacted upon their lives. Further, participants are invited to make choices and discuss the ways an intervention could be enhanced. Explicitly this "allows commendation of activities that may be expected to meet basic needs. But it also allows a community to choose to leave some basic needs unmet" (Alkire 2002: 195). Necessary account of free agency in this approach consequently is accorded.

The methodology eschews low level 'indicators' based on predetermined project objectives, which could be considered to be narrow in their informational basis, such as, income, consumption, or indeed vehicles per day. As a result this approach broadens the information taken into account by opening up discussion on unintended as well as intended impacts. Alkire argues that the methodology overcomes issues "of overspecification by proposing generic dimensions, rather than needs or virtues or capabilities," (Alkire, 2002: 76). These dimensions, or 'middle level' indicators, it is argued, also help to overcome issues of purely open-ended questions i.e. likelihood of positive answers while ignoring areas of valuable change while also providing an overarching framework to understand answers in different perspectives. The dimensions of development are described as:

"like the 'primary colours' of values. An infinite range of shades can be made from our three primary colours, and not every painting (or life or community or income generation project) uses all or even most shades, but if, for example, all red hues were entirely missing, then my

understanding of colour would be consistently skewed” (Alkire, 2002: 52)

The reason ‘why’ Alkire’s approach could be useful is that it appears to overcome the three main criticisms of the previous section and opens up new angles for insight. First, issues related to informational basis are overcome. Participants are encouraged to discuss the valued and disvalued impacts upon their lives related to the intervention. Second, information is solicited but free agency is also encouraged. Changes in how choices may have altered before and after the intervention can be appreciated and peoples own views on an intervention are sought. Third issues surrounding distributional indifference, comprehending inequality in a range of areas between groups, though tricky are potentially overcome. Inequality may begin to be sorted via the focus groups which can be held with different social groupings while seeking to disaggregate choices and valued or disvalued impacts felt by participants.

These advantages have particular relation to the strategic issues noted earlier. Focus on attribution through public reasoning may help to disaggregate impacts in terms of local conditions such as HIV/AIDS prevalence. Further appraisal before road provision is undertaken could reveal important insights on the demand side: it is possible that the road may not be supplying any desired need of the communities.

Turning to the slightly trickier issue of ‘how’ to incorporate Alkire’s approach into rural road appraisal a number of issues and tentative suggestions come to the fore. Alkire’s methodology in this paper is envisaged to be complementary to other techniques; it is not seen as a stand alone model for rural road appraisal. Although implementation by itself would possibly yield interesting results, other methodologies, especially those surveyed in this paper offer their own insights. It is suggested that Alkire’s capabilities assessment methodology would be spliced with the other methodologies, or indeed conducted in tandem to offer a different perspectives of insight.

Alkire’s methodology was designed for assessment during or after a ground level NGO project intervention, not prior to an intervention. Adjustment therefore needs to be undertaken so that it is applicable for before, ex-ante, and after, ex-post, rural road appraisal. The difficulty is not so much re-orientation to road provision – rural road provision could be seen as a ground level intervention as NGO programmes are - but in changing the procedure to be applicable ex-ante appraisal. The suggestion is that in the short term development and investigation ought to take place along the following lines: (i) the perceived needs of the community; (ii) the past impacts of transport interventions; and (iii) the perceived impacts of future transport interventions

and development interventions more generally. In the longer term assessment ought to take place before and after intervention within treatment and control groups. It may be possible, if a large enough sample is gathered to start to learn lessons and understand causality and attribution of valued changes. All of these options require further research beyond the scope of this paper.

## **5. Concluding Comments**

This paper has argued that appraisal and subsequent selection of rural road provisions in Africa could be enhanced through the incorporation of Sen's capability approach. This paper has come from an angle in which development is envisioned enhancement of people's freedoms. The discussion within this paper has examined three ground level appraisal methodologies, van de Walle's, the DFID produced ORN, and Alkire's.

Generally it has been asserted in influential supranational bodies that rural road provision is a critical component in the alleviation of poverty in Africa. Evidence for this can be found in some recent literature. However, gaps still remain; actual empirical research and appraisal methods incorporating understanding of impacts upon valued freedoms is weak. Recently two suggestions have been put forward to enhance knowledge of 'social benefits': van de Walle's approach and the ORN document. Both of these though potentially contributing to broader understanding of rural road provision when examined from a capabilities perspective appear insufficient. Alkire's methodology is tendered as an approach that could supplement van de Walle's and the ORN methodologies. The methodology opens up space for recipients to discuss their valued beings and doings helping to comprehend impacts that are intended and unintended and freedoms and achievements that could be extenuated.

A 'copy and paste' of Alkire's methodology into the arena of rural road provision in Africa is not advised. However, with further research and field work Alkire's approach could make a valuable contribution to enhancing policy maker's information base in appraisal, helping to establish empirical evidence of the broader impact of rural roads, and perhaps enabling the improved selection of complementary interventions to rural road interventions. Indeed, other areas of intervention may be seen to be more 'developmental' by participants for their free agency rather than well-being objectives. Broadening the appraisal of rural roads to include an appreciation of the valued doing and beings of people in the selection and assessment of rural roads, thorny as it is, is undoubtedly a worthwhile endeavour. Provision of rural roads is after all quite expensive and

without a valid appraisal mechanism money spent on some rural roads may be more constructively utilised elsewhere either on other roads, or on other sectors.

## References

- Alkire, S, 2002. 'Dimensions of Human Development' in *World Development* 30(2):181-205
- Bennett, T and Whiteside, A, 2002. *AIDS in the 21<sup>st</sup> Century: Disease and Globalisation* New York: Macmillan
- Bryceson, D., Davis, A, Ahmed, F., Bradbury, T., 2004. *Framework for the inclusion of social benefits in transport planning: Final report*, unpublished, electronic, [http://www.transport-links.org/transport\\_links/projects/projects\\_document\\_page.asp?projecttitle=&projectid=322](http://www.transport-links.org/transport_links/projects/projects_document_page.asp?projecttitle=&projectid=322), accessed 15 March 2005
- Clark, D, 2002. *Visions of Development: A Study of Human Values*. London: Edward Elgar
- Clark, D. and Qizilbash, M, 2005. 'Core Poverty, Basic Capabilities and Vagueness: An Application to the South African Context' *Global Poverty and Research Group Working Paper*. GPRG – WPS – 26
- Commission for Africa (2005) *Our Common Interest: Report of the Commission for Africa*, electronic, [www.commissionforafrica.org](http://www.commissionforafrica.org), accessed, 5/10/2005
- Collier, P. and O'Connell, S, 2005. *Opportunities, Choices and Syndromes*, Paper presented to AERC/Harvard workshop on Explaining African Economic Growth
- Cooper, F, 2002. *Africa Since 1940*. Cambridge: Cambridge University Press
- Crocker, D, 2005. 'Sen and Deliberative Democracy' electronic, <http://www.wam.umd.edu/~dcrocker/Courses/Docs/Crocker-Sen%20and%20Deliberative%20Democracy.pdf>, accessed, 19/12/05
- DFID, 2002. *Transport's Role in Achieving the Millennium Development Goal*, London: HMSO, electronic, [http://www.worldbank.org/transport/pov&tra\\_resources.htm](http://www.worldbank.org/transport/pov&tra_resources.htm), accessed 9 September 2004
- DFID, 2004. *ORN 22: A guide to pro-poor transport appraisal: The inclusion of social benefits in road investment appraisal*, electronic, [20](http://www.transport-</a></p></div><div data-bbox=)

- [links.org/transport\\_links/projects/projects\\_document\\_page.asp?projecttitle=&projectid=322](http://links.org/transport_links/projects/projects_document_page.asp?projecttitle=&projectid=322), accessed, 15 March 2005
- Englebert, P, 2000. 'Solving the Mystery of the AFRICA Dummy' in *World Development*, 28(10) 1821-1935
- Fan, S. Hazzel, P. Thorat, S, 2000. 'Government Spending, Growth and Poverty in Rural India' *American Journal of Agricultural Economics* 82(4) 1038-1051
- Fan, S., Zhang X, 2004a. 'Infrastructure and regional economic development in rural China' *China Economic Review*, 15(2) 203-214
- Fan. S., Zhang, L., Zhang, X, 2004b. Reforms, Investment, and Poverty in Rural China, *Economic Development and Cultural Change*, 52(2)395-421
- Gannon, C. & Liu, Z, 1997. *Poverty and Transport*, Washington: World Bank. electronic, <http://www.worldbank.org/transport/publicat/twu-30.pdf>, accessed 9 September 2004
- Gannon, C. & Liu, Z, 2000. 'Transport: Infrastructure and Services' in the World Banks *Poverty Reduction Strategy Paper A Source Book*, Washington: World Bank: Washington electronic, <http://www.worldbank.org/transport/publicat>, accessed 9 September 2004
- Grootaert, C, 2002. *Socioeconomic Impact Assessment of Rural Roads: Methodology and Questionnaires*, Washington: World Bank, electronic, [http://poverty.worldbank.org/files/11274\\_Cgrootaert-Impact-Rural\\_Roads\].pdf](http://poverty.worldbank.org/files/11274_Cgrootaert-Impact-Rural_Roads].pdf), accessed 09/09/2004
- Grosh, M., Glewwe, P. ed, 2000. *designing Household Survey Questionnaires for Developing Countries Lessons from 15 years of the Living Standards Measurement Study*, Washington: World Bank
- Haacker, M, 2004. 'HIV/AIDS: The Impact on the Social Fabric and the Economy' in Haacker, M. ed. *The Macroeconomics of AIDS*, Washington: IMF. pp. 41-95
- Howe, J, 2003. *Inclusion of Social Benefits in Transport Planning – Review of Developing Country*, electronic, [http://www.transport-links.org/transport\\_links/projects/projects\\_document\\_page.asp?projecttitle=&projectid=322](http://www.transport-links.org/transport_links/projects/projects_document_page.asp?projecttitle=&projectid=322), 15 March 2005

- Narayan, D, R. Chambers, M. K. Shah, and P. Petesch, 2000. *Voices of the Poor: Crying Out for Change*. New York: Oxford University Press.
- Nattrass, N, 2004. *The Moral Economy of AIDS in South Africa*. Cambridge: Cambridge University Press
- Porter, S. and Wale, K, 2005. *The Amy Biehl HIV/AIDS peer educators programme: An impact assessment of the valued benefits and disbenefits for the programme participants*, unpublished paper
- Rimmer, D, 2003. 'Learning about Economic Development from Africa' in *Africa Affairs* 102:408 pp473-491
- Roche. C, 1999. *Impact Assessment for Development Agencies: Learning to Value Change*. Oxford: Oxfam Publications
- Sachs, J., McArthur, J., Schmidt-Traub. G., Kruk, M., Bahadur, C., Faye, F., McCord, G, 2004. *Ending Africa's Poverty Trap*, electronic, [www.unmillenniumproject.org/documents/BPEA%20Ending%20Africa's%20Poverty%20Trap%20FINAL.pdf](http://www.unmillenniumproject.org/documents/BPEA%20Ending%20Africa's%20Poverty%20Trap%20FINAL.pdf), accessed 1 May 2004
- Sagar, A.D. & Najam, A, 1999. 'Shaping Human development: Which way next?' *Third World Quarterly* 20(4) 743-751
- Sen, A, 1985. 'Well-being, Agency and Freedom: the Dewey Lectures', *Journal of Philosophy*, 82(4), 169–221.
- Sen, A, 1992. *Inequality reexamined*. New York: Sage
- Sen, A, 1999. *Development as Freedom*. Oxford: Oxford University Press
- Robeyns. I, 2005. 'The Capability Approach a Theoretical Survey', Final version accepted for publication in *The Journal of Human Development* , electronic, [www.hd-ca.org](http://www.hd-ca.org) . accessed 28 October 2005
- UNDP, 2003. *Human Development Report 2003*, Oxford, New York: Oxford University Press, electronic, <http://hdr.undp.org> , accessed 19 April 2004
- UNDP, 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*, New York: Hoechstetter Printing Co., electronic, <http://hdr.undp.org> , accessed 17 August 2004

van de Walle, D, 2002. 'Choosing Rural Road Investments to Help Reduce Poverty' in *World Development* 30(4) pp.575-589

van de Walle D, 2001. *Commune Level Questionnaire: Round Three*. 2001. Washington: World Bank

van de Walle D, 2001a. *Household Level Questionnaire: Round Three*. 2001. Washington: World Bank

World Bank, 2001. *Project Appraisal Document on the Second Rural Roads Project Peru*, Washington: World Bank, electronic, [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2003/04/05/000094946\\_03032104003172/Rendered/INDEX/multi0page.txt](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2003/04/05/000094946_03032104003172/Rendered/INDEX/multi0page.txt), accessed 09 September 2004

World Bank, 2001. *World Development Report 2000/2001: Attacking Poverty*, Washington: World Bank

World Bank, 2004. *World Development Report 2004: Making Services Work for Poor People*. Washington: World Bank

World Bank Africa Transport Sector AFTTR, 2004. 'Report No. 27669-MLI' *Republic of Mali Transport Support to Sustainable Economic Growth*, Washington, World Bank, electronic, [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/07/20/000012009\\_20040720102847/Rendered/PDF/276690MLI.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/07/20/000012009_20040720102847/Rendered/PDF/276690MLI.pdf), accessed 15 August 2004

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