

THE PROBLEM STATEMENT

2.2 SUSTAINABLE LIVELIHOODS APPROACH

Problem: Decisions on transport planning are often made without considering the impact on rural livelihoods or the sustainability of interventions.

Solution: The Sustainable Livelihoods Approach builds on existing strengths of the rural poor and is used to identify strategies which can improve their livelihood outcomes and aid poverty reduction.

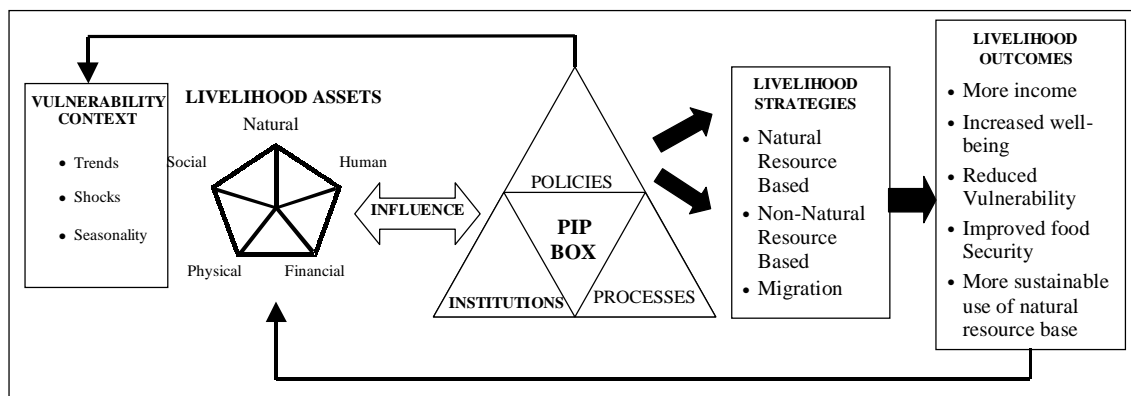
BACKGROUND

In planning the implementation of transport interventions, it is imperative that rural people are first consulted as to the potential implications of interventions on their livelihoods, and specifically how they impact directly on their capital asset stocks and ways in which they affect strategies during periods of severe vulnerability. The objective is to alleviate the vulnerability of the poor, not to exacerbate it.

The Sustainable Livelihoods (SL) Approach was formally conceptualised by the Department for International Development (DFID). Notions of sustainable livelihoods emerged following the 1997 UK Government White Paper on International Development, and has since influenced the way in which research and development projects are undertaken, with particular emphasis on the policies and actions which promote sustainable livelihoods. Oxfam, CARE and UNDP advocate their own sustainable livelihoods approach and customised framework.

The Livelihoods Framework was developed to help understand and analyse the livelihoods of the poor. It is not intended to provide an exact representation of reality, but to stimulate thinking about what exactly constitutes a livelihood, and the way in which the interactions between stakeholders represented in the framework can be examined, and how these interactions can foster livelihood improvements and poverty reduction. The SL Approach provides a philosophy for the application of tools for which there is a plethora of reference material. The application of the SL Approach is continually evolving and it is difficult to do justice to its flexibility in a few pages. What follows outlines how the SL Approach can be applied to the transport sector (refer to **Appendix A** for a comprehensive review of transport and the SL Approach). **Figure 1** shows the schematic Sustainable Livelihoods Framework conceptualised by DFID.

Figure 1: The DFID Sustainable Livelihoods Framework



The main factors which characterise a typical rural transport environment are the low population densities, low levels of economic activity (and hence low incomes), low vehicle ownership levels (of any description, including non-motorised vehicles), inferior provision of roads (both quality and quantity), and near absence of regular transport services. Transport is integral to livelihood improvements through access to essential services, generation of employment opportunities, economic prosperity and social interaction. Transport is a service industry that provides a means to an end, and is therefore regarded as fundamental in the process of multi-sectoral development. Sustainable Livelihoods advocates a holistic

approach and a livelihoods analysis exercise will undoubtedly incorporate the accessibility dimension when evaluating asset status and propensity to risk.

KEY PRINCIPLES OF THE SUSTAINABLE LIVELIHOODS APPROACH

Livelihood Assets: A breakdown of the five capital assets used in the framework are listed below:

- **Natural Capital:** The natural resource stocks from which resource flows useful for livelihoods are derived (including land, water, wildlife, biodiversity, environmental resources)
For transport: Rural road construction can have ill-effects on slope stability, erosion and natural drainage patterns. Mitigation measures to control erosion can be included in the design (eg. drainage channels and culverts) and implementation (eg. labour based construction).
- **Social Capital:** The social resources upon which people draw in pursuit of livelihoods (ie. networks, membership of groups, relationships of trust, access to wider institutions of society).
For transport: The value of access to social structures, networks and co-operative groups is increasingly being realised, and transport has an obvious role to play, particularly maintaining rural-urban linkages and extended family contacts.
- **Human Capital:** The skills, knowledge, ability to labour and good health important to the ability to pursue different livelihood strategies.
For transport: Transport development provides employment, but also raises exposure to traffic accidents, which directly impinge on livelihoods due to loss of earnings when productive household members are incapacitated.
- **Physical Capital:** The basic infrastructure (transport, shelter, water, energy and communications) and the production equipment and means which enable people to pursue their livelihoods.
For transport: Maintenance of roads and transport typically constitute 20% of a country's development budget. There is evidence of over-design of roads in rural areas where the measurable benefits are marginal compared with construction costs. Communities place far higher priority on simple access and transport services rather than highly engineered roads.
- **Financial Capital:** The financial resources which are available to people (whether savings, supplies of credit or regular remittances or pensions) and which provide them with different livelihood options.
For transport: In rural areas the main saving from transport investments are in vehicle operating costs, which contribute to lower farm input and produce prices.

The framework represents different types of capital assets on a five-axis graph on which access to the different types of asset by the poor can be plotted subjectively. The pentagon presents a multi-sectoral approach to sustainable livelihoods, aiming to strengthen existing assets of the poor whilst building on weaker capital assets. The centre of the pentagon denotes the weakest point, and the further an asset plot lies from the central intersection of the pentagon, the more resilient the sample population is likely to be because it benefits from a balanced source of capital assets.

The Vulnerability Context: The vulnerability context frames the external environment in which people live. Factors which make people vulnerable are important because they have a direct impact on options that are open to people in their pursuit of livelihood outcomes. The key factors of vulnerability are:

- **Trends:** The current and changing status of resource stocks, population density, technology, politics and economics.
- **Shocks:** A large infrequent, unpredictable disturbance which has immediate impact, for example, the way in which climate and conflict affects people's livelihoods by altering the balance of capital assets available to them. Assets may be prematurely abandoned as part of a coping strategy.
- **Seasonality:** Seasonal shifts in prices, employment opportunities, and food availability are one of the most enduring sources of hardship for poor people.
- **Culture:** The effect of cultural practices on the way people manage their assets and the livelihood choices they make.

Vulnerability is not necessarily characterised by a catastrophic event, and perceptions of vulnerability are dependent on personal experience. In particular, seasonality may affect an individual household as

opposed to an entire community, to the extent that assets are sacrificed as a coping strategy. Vulnerability affects the ability of the poor to withstand shocks and stresses and becomes a barrier to the empowerment of rural people, in particular women, the elderly and infirm.

Policies, Institutions and Processes: 'PIPs' indicate the institutions, organisations, policies and legislation that shape livelihoods from national to village level interactions. These structures and processes are critical in determining who gains access to various assets, and influencing the effective value of each asset. Markets and legal restrictions also impact on the value and use of an asset, as well as the convertability of an asset into one that increases choices available to the poor. An enabling environment of effective institutions and policy will support and strengthen existing assets of the poor and limit the adverse impacts of vulnerability. In this context, it is useful to consider the roles and responsibilities of different organisations, and the rights and relations between different stakeholder groups.

PIPs describe the governance environment in which livelihoods are constructed. They constitute the macro-meso-micro linkages and relationships between the state, private sector, civil society and citizens. Unsupportive legal and regulatory frameworks are a key constraint to the creation of a supportive institutional environment for sustainable livelihoods. Good governance requires democracy, transparency and accountability in decision-making, removal of corruption, responsiveness, and to be participatory.



PIPs have a powerful influence over the rate of capital asset accumulation, as well as strategies employed by the poor to improve their livelihood outcomes. PIPs determine the availability and access to capital stocks, especially social services and amenities, infrastructure and credit facilities. Access to different combinations of assets is also a major influence on the choice of livelihood strategies made by the poor, for example, people can only diversify their income earning activities if work is available. Increasingly, the rural poor are adopting strategies that do not require assistance from formal institutions and are strengthening their capital asset supplies themselves, for example by providing voluntary labour to mend impassable roads and providing teaching skills for their children. In the absence of formal mechanisms to supply essential services, the rural poor are resorting to viable alternatives, even to the extent that local community groups are becoming credit providers.

A policy and institutional environment that supports multiple livelihood strategies is essential for promoting equitable access to competitive markets for all. Legislative transport policy which advocates access to markets is fundamental to this process and provides a mechanism by which road investment programmes can be both funded and implemented in rural regions.

Livelihood Strategies and Outcomes: Livelihood strategies indicate the choices and associated activities that households undertake in order to maximise the use of existing capital stocks. They are measures employed by rural households to increase their livelihood options by reacting to constraints and vulnerabilities. Strategies adopted by communities sometimes extend beyond that of income generation; in fact many strategies have direct links to transport and value of time. Transport is integral to agrarian livelihoods in rural areas, particularly with respect to agricultural marketing. The means by which agricultural inputs are transported to the farms, and produce evacuated to the markets is critical to the profitability of small-hold farms. Typically, rural farmers will trade off the cost of transporting harvests to the market themselves, with selling their goods to traders who purchase produce at the farm-gate and transport the goods to market for a substantial profit. The value of time is a powerful incentive for producers to avoid extraneous travel, especially when road conditions are unfavourable for the transit of crops and vegetables, and the means of transport required are inaccessible to the farmer.

Rural communities are extremely adept at managing their assets and creating safety nets in the event of adversity (see **Box 1**), by adopting both natural and non-natural resource based strategies (including rural-

urban migration for formal/informal employment). Yet, to a large extent their strategies are governed by institutional decisions and policies that are imposed upon them, which in turn affect the achievements or outputs of their actions and standard of living. The government and private sector have a tremendous influence on the strategies households can adopt, which ultimately affect their livelihood outcomes or goals.



Box 1: Case Study of Sustainable Livelihoods and Transport in Zambia

A case study of rural Zambia was undertaken as part of the research for the Policy Toolkit for Increased Rural Mobility, which provided an insight into the needs and constraints of the rural poor in the Northern and Copperbelt Provinces. Transport emerged as a serious constraint, particularly with regard to the impact of poor accessibility and mobility on food security, subsistence activities, agricultural marketing and provision of health and education.

The combination of an inadequate transport infrastructure, and transport service provision were shown to have an adverse impact on access to rural health centres and primary schools. Rural farmers are unable to evacuate produce to the market without a considerable capital outlay with which to purchase an intermediate mode of transport, such as a bicycle, or animal cart. There is typically a trade off between the value of time and cost of transit, hence a majority of farmers choose to sell or barter produce at a much reduced price to traders at the farmgate than pay excessive tariffs to transport produce to market.

The field study revealed that the rural poor in both Northern and Copperbelt Provinces have very little scope to adopt transport based strategies with which to markedly improve their livelihood potential. Yet, the poor are remarkably enterprising and evidence of the following demonstrates their resilience through adaptation of transport based livelihood strategies:

- Headloading or cycling to farms, services and markets when rural transport services cease during the wet season. Also, using a 'machila' stretcher for medical emergencies.
- Community groups collectively hire vehicles to obtain agricultural inputs/take produce to market thus sharing costs.
- Motorised trips used for multiple activities eg. Taking maize/millet to the grinding mill and then mealie meal to market for sale to save time and money.
- Mobilising community labour to carry out spot improvements on local feeder roads in the absence of institutional support.

SUSTAINABLE LIVELIHOOD ANALYSIS AND PRIORITISATION PROCEDURES

Sustainable livelihoods analysis is used to identify development priorities, and to assess how development activities influence the livelihoods of the poor. SL analysis can be used to inform activity at field and policy level.

Policy level: At policy level, it provides a common language for cross-sectoral dialogue to ensure that the decision making process does not conflict with the vested interests of other sectors. This is especially important for transport, which is integral to the functioning of, and access to income earning opportunities, amenities and capital stocks. Livelihoods analysis can also identify suitable project entry points (this refers to where intervention is required most and usually relates to either livelihood assets or PIPs), and aids understanding of the proposed beneficiaries of action research projects.

Field level: Rural development approaches typically fail to address the needs of the poor when development gains are based on the economic returns of investment. In very remote rural areas where returns are expected to be reduced because of low population density and low income earning potential, the only means of justifying investment is by identification of social benefits. SL analysis identifies the poorest members of a community, why they are unable to escape the poverty trap, and what assets and strategies other community members employ to manage risk successfully.



Prioritisation is imperative in the decision making process. With limited resources, funding agencies (including governments, NGOs and donor support) are required to make critical choices about geographical and sectoral investment. Livelihoods analysis can be used as a screening process to avoid wasteful investments in sectors which are not prioritised by the poor themselves. Through consultation with the poor, and analysis of existing resources available to the poor, decisions can be made as to where interventions will take place, who will benefit from the interventions and how investment will be spent to maximise poverty reduction amongst the most vulnerable groups.

There are key livelihood indicators, which demonstrate the level of poverty defined by a number of socio-economic factors that can be used to judge the demand for intervention. These indicators are extensive and varied but should be applied holistically so as to capture all infrastructure and service needs of the poor rather than placing constraints on interventions available to them. **Table 1** demonstrates a range of indicators which determine the extent to which capital assets lead to a sustainable livelihood outcome.

Sustainable Livelihoods Analysis is an essential tool in the identification of a (rural transport) problem statement, and in providing a screening mechanism for data collection and analysis for investment in infrastructure and transport services that will proliferate a multiplier effect in other sectors, namely health, education, agricultural extension and marketing. The Sustainable Livelihoods Approach can be used in the monitoring and evaluation of policy impacts following implementation, and performance indicators using Sustainable Livelihoods are explored in Section 5.2.



KEY REFERENCES

Carney, D. (1998). *Sustainable rural livelihoods: what contribution can we make?* London: *Department for International Development*

DFID (2000). *Sustainable Livelihoods Guidance Sheets*. London: *Department for International Development*

Fouracre, P. (2001). *Transport and sustainable rural livelihoods*. The Rural Transport Knowledge Base. Crowthorne: *TRL Limited*. www.transport-links.org/knowledgebase.htm

Livelihoods Connect Website: www.livelihoods.org

Table 1: Framework for livelihood assessment and monitoring

	Status of asset	Unsustainable	Constrained	Sustainable	Progressive	Abundant
Ranking of capital asset	Capital assets	Indicators defined by community	Indicators defined by community	Indicators defined by community	Indicators defined by community	Indicators defined by community
Community assigned	Financial	Destitute – not enough money for basic essentials	Lack of credit and finance restricts livelihood to subsistence, despite other assets	Sufficient finance to purchase non-essential items given absence of other constraints	Enough finance to overcome restrictions in other capital assets	Rich – sufficient wealth to overcome any shortage in other capital assets
Community assigned	Physical	Isolated – insufficient infra-structure to access necessary resources for survival	Physical isolation and lack of communication restrict livelihoods to subsistence despite other assets	Sufficient infrastructure to improve conditions through trade given absence of other restrictions	Infrastructure sufficiently good to allow alternative livelihood options despite restrictions in some areas	Connected –access to products and services so easy that livelihood opportunities are abundant
Community assigned	Natural	Degraded – Resource failure due to irrevocable degradation of natural resources	Degradation of resource base restricts options to those of subsistence despite other assets	Enough natural resources to allow cash sale or trade given absence of other restrictions	Natural resource surpluses are sufficient to overcome restrictions in other areas	Verdant – natural resources so plentiful that adequate livelihoods are guaranteed
Community assigned	Human	Uneducated – education and skills so limited that opportunities to survive cannot be taken	Lack of education and training restricts options to those of subsistence despite other assets	Enough education and skills to develop non-subsistence opportunities given absence of other restrictions	Skills and education are sufficiently in demand that other livelihood restrictions can be overcome	Educated – skills and training offer more than one livelihood opportunity
Community assigned	Social	Oppressed – institutions persecute or fail to protect livelihoods	Social organisation so weak that it restricts livelihood options despite other assets	Social networks allow the development of organised support structures for non-subsistence activities given absence of other restrictions	Social structures sufficiently strong as to compensate for restrictions in other areas.	Supported – social structures offer varied opportunities for employment and income generation

Source: Macqueen (2001)