Partnership on Sustainable Low Carbon Transport

Rural Transport and Sustainable Development

Fact Sheet

Photo: Paul Starkey

Rural Transport and the new Sustainable Development Agenda 2015-2030

The year 2015 will be decisive in determining the global sustainable development architecture to 2030. The United Nations (UN) General Assembly meeting in September 2015 is expected to adopt the Sustainable Development Goals (SDGs) and for the first time, sustainable transport is poised to be recognized in the architecture, through its contribution to several of the proposed 17 SDGs. However, the need for improved rural transport and enhanced rural access is not featured prominently in the proposed SDGs, which ignores the direct contribution of improved rural access to the achievement of several proposed SDGs:

- SDG 1: End poverty in all forms everywhere
- SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- SDG 3: Ensure healthy lives and promote well-being for all at all ages
- SDG 4: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
- SDG 5: Achieve gender equality, empower all women and girls
- SDG 6: Ensure availability and sustainable use of water and sanitation for all
- SDG 7: Ensure sustainable energy for all
- SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Why is Rural Transport Important?

- *58% of developing country population live in rural areas, yet 78% of the extreme poor[1] are located in rural areas.*
- *In total one billion people live more than two kilometres from an all-season road[2].*
- *By 2030, 30% of the global population, over 2.5 billion people, will still live in rural areas.*

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Isolation is a major contributory factor to poverty. Rural isolation makes it extremely difficult to access medical facilities, education, employment and markets. Poor accessibility raises the costs of transport, reduces the earnings of farmers, increases the prices of consumer goods in rural areas and the price of food in urban areas. It also reduces the availability and quality of health care, education, water, and extension services. In some countries, including Ethiopia, Nepal and Papua New Guinea, there are many villages that are more than four hours walk from a road.

Rural transport infrastructure and services that improve access to markets, goods and services are fundamental to the achievement of many of the SDGs.

Poor rural transport and poverty can form a vicious circle that must be broken. Infrequent and high cost transport services lead to low mobility rates and poor interaction with markets and services. There is low movement of goods and little development of resources. People spend a huge personal effort on carrying goods and walking long distances. These factors, in turn, lead to poor health, low education outcomes, low productivity and to poverty.

Women suffer, by far, the biggest transport burden.

It is common for households in rural Africa to spend 5 hours per day on transport tasks such as collecting water and firewood, and going to and from the farm, grinding mill and local market. Most of this effort is by women carrying goods on their heads and backs. In rural Tanzania it is estimated that the women carry 5 times more load on their heads and back than men.

Rural Transport incudes both infrastructure and services

Rural transport covers to both infrastructure (i.e. footpaths, tracks, earth, gravel and paved roads, bridges, river jetties etc.) and transport services or the means of transport (i.e. walking, head and back loading, animal transport, cycles, motorcycles, farm vehicles, pickups, buses, cars, trucks, country boats etc.).

Rural roads are often unpaved and narrow, often a single lane, and carry very low traffic volumes per day (generally below 200 vehicles per day) but they are a vital means of communication. Rural roads should not be confused with inter-urban expressways and national highways that run through rural areas.

Rural road investment and maintenance accounts for over 95% of public funding of rural transport. The remaining 5% of investments in transport services will often determine the overall developmental impact of efforts to improve rural transport.

Photo: Paul Starkey

What are Rural Transport Interventions and how can they be integrated with other sectors?

Rural Transport Interventions include:

- Rural road construction and maintenance
- The integrated planning and provision of different services (e.g. water, education, health, markets) along with village transport infrastructure[3]
- Water transport investments (e.g. jetties, canal dredging and widening)
- The promotion and introduction of Intermediate and Non-Motorised Transport services
- The control and management of conventional transport services (i.e. fares, licences, subsidies, new forms of competition)
- The introduction and development of transport services to improve outcomes in other sectors –particularly health.

Rural road investment may take many forms from spot improvements of an earth track, to laying a gravel surface, through to the building of a bitumen or concrete surfaced road. Because the costs of moving goods by alternative methods are so expensive (i.e. headloading can be up to 30 times more expensive per tonne km than by a medium truck) vehicle passability is extremely important.

Where traffic volumes are low then low cost interventions (e.g. a spot improvement approach for bad sections) to ensure passability make the best economic sense. Where traffic volumes are higher then it is necessary to keep road surfaces in good condition to reduce vehicle operating costs and gravel or paved road surfaces are appropriate.

Photo: Paul Starkey

Best Practices of Integrating Rural Transport with Rural Development

The Ethiopian Rural Travel and Transport Programme (ERTTP) provided a framework for planning district development including agriculture, irrigation, health, education, income generation, as well as rural transport infrastructure[4]. In Peru it was found that when rural roads are supplied together with other infrastructure, such as water, telecommunications and electricity, then the economic returns were much higher than when different types of infrastructure were supplied separately.

In Northern Nigeria taxi drivers are trained on what do when a woman is in labour and needs to be taken to hospital. Between December 2009 and September 2013 19,811 Emergency Transfers by trained drivers were recorded. For the majority of these transfers there were maternal complications, hence the drivers played a vital role in helping to prevent maternal and new born deaths[5].

What are the impacts of investment in rural transport?

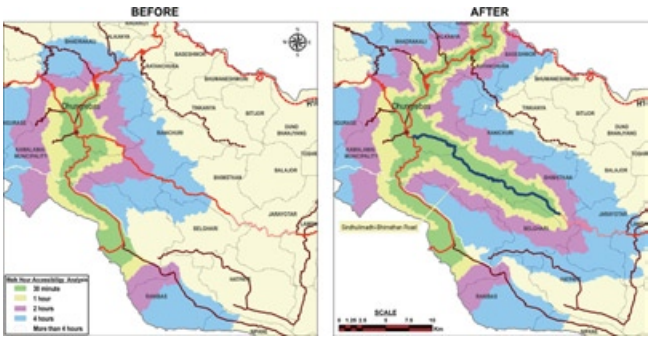
The impact of rural transport investment varies according to the associated reduction in transport costs (i.e. a major improvement of a long road will have a greater chance of impact than a minor improvement of a short road), the availability of underused land and labour and whether there are urban markets that can absorb larger agricultural production. The evidence base on impact of rural transport improvements is very positive and points to reduced fares and tariffs, increased traffic, increased agricultural production, improved agricultural markets, increased incomes better health and education outcomes and reduced poverty:

- Studies of the International Food Policy Research Institute (IFPRI) found that rural road expenditure, per dollar spent, is one of the most effective ways in reducing rural poverty, coming second only to agricultural research. The studies show that $10,000 (2011 prices) spent on rural roads would lift 261 people in Uganda, and 170 in Tanzania, out of poverty[6].
- Studies of rural road investment in Ethiopia similarly show substantial impact with improved road access could realize a 27% increase in agricultural output[7].
- Rural road investment has been found to have important beneficial effects in improving the utilisation of health care facilities, increasing vaccination rates, the use of modern birth attendants and improving the availability of latrines.
- Better rural accessibility has also been found to increase female school attendance in Morocco[8] and female school enrolment rates Pakistan[9] and increase primary school completion rates in Vietnam[10].

How is rural access measured?

The Rural Accessibility Index is the most accepted measure of rural access. It was developed by the World Bank that originally defined the indicator in 2003 as part of the Results Measurement Framework of the International Development Association (IDA).

The indicator measures the number of rural people who live within two kilometers (typically equivalent to a walk of 20-25 minutes) of an all-season road as a proportion of the total rural population. An “all-season road” is a road that is motorable all year round by the prevailing means of rural transport (typically a pick-up or a truck which does not have four-wheel-drive). Occasional interruptions of short duration during inclement weather (e.g. heavy rainfall) are accepted, particularly on roads with little traffic[11].



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How can importance of rural access be strengthened in the current SDG process?

Two options to better integrate the critical role of rural transport in the draft SDG Framework:

Add a new rural transport related target

SDG 2
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

New Additional Target:
Universal access, by sustainable transport, for rural populations by 2030 (desired achievement 100%).

Modify existing targets to highlight rural transport

SDG 2
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Modified Target 9.1:
Develop quality, reliable, sustainable and resilient infrastructure, including ***rural***, regional, and transborder infrastructure, to support economic development and human well-being,

For a closer link between rural development and rural transport a modified target for SDG 2 could also be considered:

SDG 2
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Modified Target 2.3:
2030 double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, access to basic services, ***including transport***, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment.

Further reading

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Partnership on Sustainable Low Carbon Transport

The Partnership on Sustainable, Low Carbon Transport promotes, through a multi-stakeholder membership, the integration of sustainable, low carbon transport in global policies on sustainable development and climate change

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