Rural transport solutions: issues and opportunities by Paul Starkey
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Transport for poverty reduction and growth
- Rural transport essential for several millennium development goals (MDGs)
- People need dependable and affordable transport to
  - access daily needs
  - access health and education services
  - access markets and engage in economic opportunities
  - access social, political and religious networks
- When transport available, rural people become more productive and sell and buy goods and services
- Need to improve transport for poverty reduction and economic growth

Policy priority: Burkina Faso

Develop integrated transport systems
- Infrastructure
  - National, regional, district and village hub and spoke systems
- Motorised transport
- Intermediate means of transport

Policy priority: Lesotho

Develop integrated transport systems
Rural transport hub

Policy priority: Uganda

Develop integrated transport systems
Small transport hub
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Emphasise basic access infrastructure

Burkina Faso
Need for access roads and paths to rural hubs
Access to basic services
Access to transport hubs
Develop agricultural markets
Stimulate economic growth

Cameroon
(but: decision makers often see improving intercity roads as rural transport)

Policy priority
Emphasise basic access infrastructure

Policy priority
High aspirations, often unrealistic
- The need for better roads is always high on people’s agendas
- Aspirations are often unaffordable.
- Despite inadequate funds and inadequate existing maintenance governments seldom address the unrealistic aspirations directly
- IRAP planning does this indirectly by considering choices and options

Policy priority
Climate change and fuel prices

Lesotho
Existing poor infrastructure will deteriorate

Policy priority
Climate change and fuel prices

Severe weather will increase maintenance requirements

Policy priority
Climate change and fuel prices

Severe weather will increase risk of flooding and road washouts

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Climate change and fuel prices
Disproportionately greater affects of weather and fuel on vulnerable feeder roads as surfaces and structures washed away, landslides, higher remote costs

Lesotho

Governments will retrench and concentrate more on maintaining the main roads
Fuel prices will increase maintenance costs

Lesotho

Governments pay little attention to the importance of paths, trails, footbridges, IMT infra-structure (including IMT parking at hubs) or inter-modal links (quays).

Tanzania

Basic access: need for safe crossings

Colombia

Papua New Guinea

Cambodia

Matching demand?
Linked to path and trail improvement?
Linked to transport and hub development?

Several countries have active footbridge programmes

Lesotho

Access to basic services
Access to transport hubs
Develop agricultural markets
Stimulate economic growth

Lesotho

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Develop sustainable labour-based roads

- Labour-based roads increasingly appropriate in carbon constrained world
- Low requirement for fossil fuel
- Justifies investments in animal power and/or tractors (helps agriculture)
- Provides employment for rural poor
- Increases local ownership and responsibility for basic infrastructure

But Decision makers: ‘an inferior, second-class technology’

Eg Lesotho 2008: Policy labour-based roads
Practice: New public sector bulldozers and graders

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Ensure suitable transport services
Fuel price raises will disproportionately affect rural transport
Fuel is very high percentage of vehicle operating costs

Burkina Faso
Rural vehicles are older and less fuel efficient

Ensure suitable transport services
High prices, low predictability, fewer people travel
Vicious circle
Long waiting times, fewer people travel, higher prices

Chad
Vicious circle
Low/ expensive transport reduces economy, trading and production

Ensure suitable transport services
People (particularly women) need reliable, predictable services

Madagascar
Queuing for full load huge problem

The system of queuing in turn affects the profitability of minibus taxis while the practice of waiting for a full load and is particularly problematic for women passengers

Lesotho
Vicious circle
Low prices, low predictability, fewer people travel

Ensure suitable transport services
Need to stimulate virtuous circle of transport

Cameroon

Policy priority

Improve transport services
• Government services (health and education) are adversely affected by the combination of
  ➢ Inadequate vehicle provision
  ➢ Poor public transport services
  ➢ Lack of schemes to consolidate transport demands of rural people, private sector and government services.
• Transport services could be improved through
  ➢ Greater trust and consultation
  ➢ Consolidation, route sharing
  ➢ Willingness/ability to spread operating risks and profits over time (avoiding wait for a full load)
  ➢ Effective (self) regulation and enforcement

Policy priority

Policy priority
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Lesotho

Some Zambian roads have no motorised transport services. The only way is by bicycle (70 km to a national road). Bicycle taxis operate up to 120 km

100 pedestrians / day
80 bicycles / day
0 animals / day
0 vehicles / day
0 motorcycles / day

Lesotho

Large buses and minibus taxis both consider the other to take away their custom by lower prices (of buses) and faster journey and queuing (for minibuses)

BUT Decision makers: ‘prohibit these second class transport services’

Investing in safety should be based on positive planning and not simply negative prohibition

Policy priority

Ensure suitable transport services

Many vehicles are forced to operate outside law, without insurance due to unrealistic regulation

Some minibus taxis are heavily regulated for passenger transport, with fixed routes and prices and limitations on the transport of goods. They are also regulated by their own transport associations.

Colombia

Bus fleets are being modernised (mainly intercity routes), but a major advantage of older buses is their ability and willingness to transport goods on their roof racks

Lesotho

Consolidation and regulation

Recent trend

- ‘Waiting for full load’ is major problem (operators need to cover costs each trip)
- Regulation for predictability (timetables) important (particularly for women)
- New transport firms and franchises are having a positive impact on transport quality and predictability and should be encouraged
  ➢ Operate from private terminals with good security, facilities and timetables
  ➢ Competition between transport firms improves standards
  ➢ Agents are paid to encourage business and consolidate loads
  ➢ Mainly inter-urban but some starting to serve and consolidate rural transport
- Transport associations can assist by members agreeing to alternate high density and low density routes

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Burkina Faso
Importance of animal power for agriculture
Increasing in most SSA; greater comparative advantages in low carbon economy

Nicaragua
Importance of IMTs for livelihoods
Increasing in many countries
Many IMTs have comparative advantages in low carbon economy

Cambodia
Stimulate diverse use of IMTs
Policy priority

Vietnam
Access to basic services
Access to transport hubs
Develop agricultural markets
Stimulate economic growth

Laos
Loads on bicycles
Loads carried on bicycles increase capacity and reduce drudgery

Uganda
Bicycles can transport quite heavy loads

Cuba
Bicycles can transport quite heavy loads

Tanzania
Transport for healthcare

Note: parking for bicycles

Bicycles can empower women

Men own most means of transport and women generally only start to use transport technologies when adoption levels for men are quite high.

Bicycles can assist access to health care

Bicycles can assist with access to health care and also its provision by rural village clinics and nurses.

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Stimulate diverse use of IMTs

Some countries have very under-developed markets for bicycles and motorcycles

- 10 donkeys / day
- 1 horse / day
- 220 vehicles / day

mainly pickups and taxis

Men own most means of transport and women generally only start to use transport technologies when adoption levels for men are quite high.

Burkina Faso

Bicycles can assist access to health care

Bicycles can assist with access to health care and also its provision by rural village clinics and nurses.

Stimulate diverse use of IMTs

Colombia

Increasing in many countries; possible greater comparative advantages in low carbon economy

Importance of motorcycles for services

Stimulate diverse use of IMTs

Policy priority

Some countries have very under-developed markets for bicycles and motorcycles

- 10 donkeys / day
- 1 horse / day
- 0 bicycles / day
- 0 motorcycles / day

220 vehicles / day

mainly pickups and taxis

Lesotho

Stimulate diverse use of IMTs

Imporatance of motorcycles for services

Colombia

Increasing in many countries; possible greater comparative advantages in low carbon economy

Motorcycles increasingly provide affordable rural transport services

- Chinese imports half Japanese prices
- Initial urban use (personal/taxis)
- Profitable investment model often with urban funds for rural transport
  ▶ Investor buys motorcycle for $ 600
  ▶ Hires to operator for $ 4.6 a day
  ▶ Recovers capital within six months
  ▶ Sells at half price after six months
  ▶ Buys one or two replacements
  ▶ Operator profits by eg, 8 x $1 journeys
  ▶ Rural people get available transport service
- Critical mass of users/services develops
- Many safety issues (helmets, loading)
- Growth in rural motorcycles will increase and help rural transport


Note: Colombian system for protecting the arms of taxi drivers

Increase in motorcycles
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Rural transport solutions

Neglected local transport solutions

- Rapid increase in the use of motorcycles in many countries

- Rural investment in IMTs is often high, but ignored
- Many politicians and the urban elites regard IMTs as backward.
- The image problem is greatest with animal power
- Also affects handcarts, cycles, motorcycles
- Few serious attempts by governments or donors to provide an enabling environment, in which the private sector can supply and maintain IMTs with a critical mass of users

Stimulate diverse use of IMTs

- Decision makers still consider bicycles and IMTs are a ‘u-turn back to the stone age’
- They fail to realise the truth of the Ethiopian expression
- “A woman without a donkey, is a donkey”

Promote non-transport solutions

- Mobile phones can decrease need to travel
- Mobile phones link transporters and markets
- Mobile phones increase efficiency of transport operators
- But mobile phones eat into household spending
- But mobile phones mainly help those with better access, not the most remote poor
- Develop local transport and service hubs
- Less need to travel to regional / national hubs
- Importance of well stocked stores and services
  (Chinese?)

Devolved governance with local hubs

- Good governance requires integrated participative pro-poor planning for local economies
- Development of local hubs with key services
- Promote well-stocked stores and trading posts
- Increase access roads, paths and footbridges to connect the remote poor to rural hubs
- Develop predictable motorised transport serving key rural hubs
- Develop complementary intermediate means of transport to connect villages with transport hubs
- Maintain assets with community participation
- Expand mobile phone coverage and internet hubs
- Link people through local radio stations

**Develop more responsive indicators**

- Existing rural accessibility indicator: percentage of rural population living within 2 km of a motorable road
- This indicator helps estimate rural road provision
  - But only estimates proximity to roads
  - Does not take account of transport services (if any)
  - Does not take account of paths or footbridges
  - Does not take account of terrain
  - (2 km as crow flies can take 40 minutes or 200 minutes)
- ‘Journey time to essential services’ would be a better indicator of rural accessibility as this responds to:
  - Road maintenance and spot improvements (changing from 4x4 road to minibus route)
  - Improved transport service frequency
  - Investments in footpaths and footbridges
  - Providing services closer to the population

**Address the misunderstanding mindsets**

- Need to address the mindsets of urban-orientated governments
- Decision makers often lack rural knowledge and lack understanding of poor rural people

**Vietnam**

- Address the misunderstanding mindsets
- Policy priority

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**Tanzania**

- Address the misunderstanding mindsets

- Policy priority

**Rural transport services requirements**

- Good infrastructure
  - Roads, routes, traffic controls, terminals
  - Cycleways, Cycle parking
  - Pedestrians, walkways, footbridges
- Intermediate means of transport
  - Bicycles, Motorcycles, Three-wheelers
- Positive policy and regulatory environment
  - Informed decision making
  - Safety education and enforcement
- Predictable, reliable and safe transport services
  - Suitable mixture of transport modes (buses, taxis)
  - Associations and regulators planning together
  - Route allocation and frequencies agreed by all
  - Transparency of prices, costs, subsidies

**Brazil**

- Address the misunderstanding mindsets

**International champions?**

- The World Bank can be a champion
  - eg: WB has leveraged production of Poverty Reduction Strategies
  - eg: WB has made loans for large infrastructure projects dependent on some pro-poor activities

But this has not yet changed hearts and mindsets!

**World Bank ‘Brown Bag Lunch’ 4 November 2008**