
THE PROVISION OF CONVENTIONAL RURAL TRANSPORT SERVICES CASE STUDY: RURAL TRANSPORT SERVICES IN MALI

S. D. Ellis, TRL Limited

Objectives of the case study

Mali has very high transport costs but has limitations on the viability of transport services because of the low population densities in much of the country. However, there are interventions that could be made to improve the efficiency of rural transport services, lower the cost and increase the availability of service.

1. BACKGROUND TO TRANSPORT IN MALI

The length of classified roads in Mali is 14,776km (Annual Transport Statistics, 1995), although there are probably another 30,000km of unmaintained bush tracks. The classified network is poorly maintained with 57% being classified as in poor condition. Mali's road density is one of the lowest in West Africa, with 1.18km of road per 100km², compared to 3.1 for the West African Economic Community (CEAO) as a whole.

The country has just introduced a new vehicle registration system and while determining exact vehicle numbers is difficult, the best estimate is that there is a total fleet of 46,600 with 80% of new vehicle registrations, either from new or used vehicles, coming from the Bamako District. One estimate puts the number of vehicles used for rural operations at 840. The vehicle fleet is extremely concentrated in Bamako and as a result it is generally regarded that there is excess supply.

Table 1 shows the distance to certain essential socio-economic services. Nearly 70% of communities are within 5km of the first stage primary school but the distance increases with access to secondary schools with 88% of communities being further than 15km. Nearly 50% of communities are within 5km of weekly transport but only 21% of communities are within 5km of daily transport. This is a particular problem for emergency access to health services with 37% of communities being further than 15km away. As already discussed the marketing system in Mali is very developed, as a result nearly 50% of communities are within 5km of a local market and 84% within 15km.

Table 1: Distance of rural communities to socio-economic services

Service	Percentage of communities within certain distance to service			
	< 5km	5 - 14km	> 15km	Don't Know
Primary school (1)	69.2	9.8	13.5	7.4
Primary school (2)	47.1	37.8	14.5	0.7
Primary school (3)	11.0	26.0	60.3	2.6
Secondary school (4)	2.1	2.2	88.1	7.6
Post Office	15.4	20.7	60.2	3.8
Local market	48.1	36.2	15.7	0.0
Daily transport	21.4	19.5	44.1	15.0
Weekly transport	46.9	26.1	19.8	7.2
Health service offering family planning	16.8	32.3	37.2	13.7

2. COST AND AFFORDABILITY OF RURAL TRANSPORT IN MALI

In determining the affordability of rural transport it is helpful to put it in the context of rural incomes and expenditure. Table 2 gives the average per capita expenditures for people in Mali. It should be noted that poverty is largely a rural phenomenon in Mali, 92% of very poor people are rural, 86% of poor people are rural.

Table 2: Average per capita expenditures (1997 prices)

	Non-Poor	Poor	Very Poor
Annual expenditure (FCFA)	355,520	178,344	107,562
% share of total expenditures:			
Food	55.8	64.6	64.6
Clothing	13.7	10.1	10.1
Housing, energy and water	12.2	12.1	12.1
Transport and communications	4.0	2.1	2.1
Health	2.6	1.7	1.7
Education	1.4	0.7	0.7
Other	10.3	8.7	8.7
Annual expenditure available for transport (FCFA)	14,220	3,745	2,260

If annual expenditure is compared with typical transport costs that were encountered on the field visits it becomes obvious that the ability of rural people to pay for transport services is very limited. For a person who is very poor and living in a remote area with seasonal access problems, such as Kolokani (rural), they may only be able to make two or three trips per year. Even if it is assumed that this number can be multiplied by the number of people in a household, it is clear that the possibilities for household travel are still very limited.

Table 3 also shows that transport costs are dependant on the quality of the infrastructure and (where roads are in poor condition), on the season i.e. transport

costs increase as the quality of the road deteriorates or where access is threatened by the results of heavy rain. A study in 1978 found that transport costs increased by 1.5 times with a move from a paved surface to a good quality gravel surface, and that there was a doubling in cost with a move from a paved road to a poor quality track. Roughly, these differentials have been maintained to this day.

Table 3: Typical costs of transport found during field visits

Route	Distance (km)	Road type	Load type	Cost (FCFA) ¹
Bamako (urban)	6	Paved	Passenger	155
Bamako-Fana	125	Paved	Passenger	1000
Dioila (rural)	15	Track	Passenger	250
Segou-Katiena	87	1/2 Paved, 1/2 Track	Passenger Goods	1000 (dry) 1500 (wet) 6.0/kg (dry) 12.5/kg (wet)
Kolokani (rural)	25	Track	Passenger	400
Kolokani (rural)	45	Track	Passenger Goods	500 (dry) 1000 (wet) 15/kg (dry)
Kolokani (rural)	11	No vehicle access	Goods by animal cart	5/kg

The combination of the majority of the poor living in rural areas and a poor standard of infrastructure resulting in high transport costs, makes the transport burden particularly acute in rural areas.

3. FACTORS GOVERNING THE EFFICIENCY OF THE PROVISION OF SERVICE

3.1 The Transport Unions

Since 1992 there has been a liberal transport market in Mali and therefore no government regulation over routes and fares. However, after liberalisation there was a significant reduction in transport costs in the country. It was felt that there was a “dumping” of transport services, i.e. freight rates were below long run operating costs, and this led to the demise of a number of vehicle operators in the country. An example from the petroleum industry was that the price per tonne kilometre dropped from FCFA 32-35 before liberalisation to FCFA 16 after liberalisation.

To stop the perceived demise of the transport industry in Mali, the transport unions stepped in to publish voluntary minimum and maximum prices for all road sector transport. These prices were based on the previously used government figures. This practice is still in place today.

¹ Exchange rate is approximately FCFA 770 to 1US\$

There are four main unions (or Syndicates) in existence at the moment. Although it has not been possible to determine the exact numbers of operators who belong to a union, the experience from this field trip would suggest that it is virtually 100% at the rural level and the majority on inter-urban routes.

The union system requires that operators use truck parks where they must wait for loads on a first come, first served basis. This can mean that operators will wait for many days to secure a load. This problem is particularly acute in Bamako but can also be seen in many rural markets around the country. To become a member of a union you must pay a joining fee (FCFA 10,000 every 3 years), an annual membership fee (FCFA 2,000 every year) a small daily fee to use the lorry park (~FCFA 500 per day) and a fee for each trip made (~FCFA 500-1000 depending on trip and size of vehicle).

The practice of queuing for loads and fixed prices for particular routes makes the vehicle fleet very inefficient. There are no incentives for operators to be aware of their operating costs, or to renew their vehicles in order to maximise utilisation. The result is a very old fleet which only survives because it can afford to because of the system.

3.2 The Policy Environment

At the present time there is considerable confusion over transport policy in Mali. There are many different organisations who have a stake in the transport system, but none are aware what the others are doing. For example, the transport unions talk to the Ministry of Transport but the Ministry of Finance collects all import duties, fuel taxes and travel taxes. Neither the Ministry of Transport or the transport unions are sure what the taxes are being used for. There is no co-ordination between the different organisations. At the rural level, the situation is yet more complicated because the Ministry for Rural Development and Agriculture has a stake in the efficiency of the transport system together with the Cotton Marketing Board.

The result is that individual relationships are being developed between the transport unions and each of the interested organisations and an inefficient equilibrium is maintained. There is now a push in Mali to develop a Roads Board where all of the interested parties can get together and develop a co-ordinated policy to transport in the country. More transparency is required as to what revenues are being raised, from where and for what purpose. The confusion makes process of transportation long winded and uncertain. As such there is no incentive for more efficient operators to join the market.

These issues are coming to a head at the moment because an American company wants to invest in the country and in a fleet of modern vehicles. However, they need assurances that they will be able to operate their vehicles without obstructions from check points etc. If they do not receive these assurances they may not invest in the country.

3.3 Finance

Finance is often stated as a major obstacle in the renewal of Mali's fleet of very old vehicles. However, at this present time there is no shortage of vehicles for the demand and people do find ways of purchasing vehicles even though this may be difficult. This is particularly evident in Bamako where there is a fast influx of vehicles being paid for from private finance sources. At this stage the lack of finance is not a constraint to the increased efficiency of rural transport services. If the fleet of vehicles can operated in a more efficient manner than there maybe a case for helping in the finance of a more modern fleet of vehicles.

3.4 Infrastructure

Infrastructure has been cited as the major constraint to both the increased availability of rural transport services and to the improved marketing of agricultural produce. The network of rural roads are in a poor state of repair because of inadequate routine maintenance in some cases and no routine maintenance in most cases. As a result the roads suffer from deep rutting and potholes and seasonal access problems. It is addressing the seasonal access problems which would seem to be the priority. During the dry season vehicles can access villages and take passengers and produce to market but during the wet season some roads become impassable which isolates the rural communities. Most roads could be made passable for the whole year with spot improvements to a small fraction of the total network.

It is unlikely that investments in rehabilitating the whole network would substantially increase the number of vehicles using the roads. The priority is to maintain seasonal access and increase traffickability, which would benefit both the operators and rural communities.