Transport Bottlenecks in Tanzania: Causes, Concequences and Future Policy Options

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A new road extends a man's freedom only if he travels upon it. - Nyerere (1968)

No problem is more pervasive in Tanzania at present time than that of transport bottlenecks. ILO (1982)

Introduction

Tanzania is a huge country covering 364,000 sq. miles. It is about the size of Nigeria (or four times that is West Germany) but poorer and less populous. The vastness and climatic diversity has influenced the location of economic activities and transport provision. Over 75% of the population is concentrated in the outlying peripheral areas including the Southern Regions, some of which can be inaccessible in the rainy season. These pupulated areas surround a semi-arid, sparsely populated centre.

Manufacturing and other industrial activities are concentrated in and around Dar es Salaam, Morogoro, Tanga, Moshi, Arusha, Mwanza, Iringa and Mbeya.

Tanzania is essentially an agricultural country. Despite efforts at pre-export processing, raw materials (coffee, cotton, sisal, cashew-nuts, tea, tobacco) dominate exports, accounting for over 60% of total export earnings. In general, these crops are concentrated in the outlying areas of the country, heightening the transport burden. Sisal is cultivated near railways and ports for easy transportation, cashew-nuts come mainly from the hinterlands of Mtwara, through which 75% of the crop is exported. Growth prospects for cashews are partly dependent on improved feeder roads.

The major mining activities now hing on the coal and iron ore deposits in South-west Tanzania. Gas production is under way and there is intensive oil prospecting along the coast.

A major challenge to the transport system is the haulage of the agricultural products mainly for export, but also for the internal market.

The Tanzanian economy and its transport sector is influenced by the following Party policy guidelines:

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The Tanzanian economy and its transport sector is influenced by the following Party policy guidelines:

(a) A policy of self - reliance,
(b) general social equality, aimed at regional, inter-personal and rural-urban equity.
(c) Socialist and cooperative economic activities, with emphasis on rural development.
(d) public ownership and control of the "commanding heights" of the economy.

The Tanzanian economy is in pretty bad shape. This is partly because of bad weather (drought), the Uganda war (estimated to have cost US $500 million), generally unfavourable commodity prices, the 1973 and 1979 astronomical oil price increases, etc. Thus despite a substantial inflow of foreign assistance especially following the 1986 agreement with the IMF, imports and infrastructural investments have been scaled down. In recent years about 60% of all export earnings have paid for oil imports, 55% of which is for transport. Much foreign aid has gone into transportation. For example about 40% of World Bank loans to Eastern Africa have been for transportation, 25% of which have gone to railways. Reduction of foreign assistance, would hurt most the transport sector which can hardily withstand such shocks. The transport and communicaions system is already so shaky that some traffic is uncollected. Its share as a percentage of GDP fell from a peak of 9.1% in 1974 to 5.4% in 1980, due to a general shortage of transport facilities and capacities.

The development of the Transportation System in Tanzania

"A cheap and extensive network of communications", Arthur Lewis has written, "is the greatest blessing that any country can have from the economic point of view" (1955, p. 73). In this regard the railways fed by (feeder) roads has initiated growth.

A comparative sectoral resources allocation shows that except for the Second Five Years Development Plan (1969 - 74) the national development plans have put greater emphasis on directly productive activities. Coinciding with the construction of both the Tanzania - Zambia Raillways (TAZARA) and the Tanzania - Zambia Highway (TANZAM) and the Kilimanjaro International Airport among others, the Second Plan had 46% of its development resources devoted to economic infrastructure, with the main emphasis since then shifting significantly towards smaller scale projects, tapping in the case of the transport sector, the potential of the major transport links. Some of these infrastructural projects (the TANZAM Highway, TAZARA, and TAZAMA pipeline and Dar es Salaam port development) were as relevant to Zambia's needs (Mwase 1987). They accounted for over a fifth of all 1965-75 fixed investment.

Rail Transport

Tanzania railways have ben geared to opening up the interior and tapping its agricultural and minerals potential. Railways provide relatively low-cost transport for heavy bulky goods over long distance. Save for the proposed 540 km Arusha Musoma line, future railway lines are bound to be shorter, and to serve industrial development areas such as: (a) phosphate mining at Lake Natron, (b) coal and iron ore exploitation in Chunya and Tukuyu. The underdevelopment of South-West Tanzania is very much explained by non-availability, at least until the TAZARA, of a railway line. The Arusha - Musoma line would offer Uganda and other land-locked Kagera Basin Development organisation (KBO) countries (Rwanda and Burundi) an alterntive "gateway" to the sea. In the near future the KBO and Musoma traffic could rely on a rehabilitated Central line, especially given the bitumenizaion of the Musoma - Arusha road. This would, as Mwase (1979) has argued, save money, protect the ecology and environment of the National Parks and thus ensure that "the Serengeti shall never die.

The railway system generally runs from the ports of Dar es Salaam and Tanga to the interior (Map 1). Its East-West orientation reflects Tanzania's depend on foreign trade and explains the economy 's dualism and spatial regional inequalities. Initially this acted as a centrifugal force with the border Lake Victoria and Moshi-Arusha areas developing closer transport and trade ties with Uganda and Kenya than with the rest of the country. The Kenyan port of Mombasa was the entreport.

There is a railway network of 3,500km; of which 2,600 km is under Tanzania Railways Corporation (TRC) and essentially serves northern Tanzania. Some of branch lines e.g. the "groundnut lines" (to Kongwa and Nachingwea) proved uneconomical and were removed. Some depend of subsidization from the main lines and/or Government. The uneconomical Kaliua-Mpanda spur is a case in point. It provides the only all-weather transport link to Mpanda region. It is the Government policy to develop this region around the railway line (Mwase 1984, p. 126). In some years Government subsidy of about US$0.2 million has been paid. A new Central line branch to Singila is under construction.

Branch line losses may reflect uneconomical/untimely investments or unrenumerative pricing system. The "groundnuts" branch lines exemplify the former, while the heavy "public service" obligations of the Railways relate to the latter. Furthermore raising tariffs to meet costs escalation is cumbersome and difficult.

Investments both in uneconomic lines and rail/road competition could have been avoided through coordinated provision of transport facilities, preferably under one authority. Before the break-up of the East African transportation system in 1977, the railways were operated jointly, but not road transport.

Deterioration in rail and road transport is partly due to lack of spare parts and inadequate maintenance. Save for the TAZARA, the rail track and locomotives are old. The latter is exemplified by outdated German colonial steam locomotives and some mid-1950s Manchester-built Bayer-Carrets. Worse still TRC locomotive engines declined from 176 in 1973 to 158 in 1978. Freight rolling stock declined from 6,799 in 1974 to 2,742 in 1980. For various reasons, presently 50% of TRC's 4,000 wagons and 48-51 per cent of TRC's locomotives are out of circulation (*Daily News*, 6 March 1986). Hence TRC's poor performance. (Table 1).

Table 1 Performance of Tanzania Railway Corporation

Year	Passengers (No. in '000)	Freight (ton '000"	Ton Km (million)	Net Earnings (Tsh. million)
1971	3,376	3,561	1,106	-
1972	3,738	1,633	1,230	-
1973	4,518	1,588	1,195	-
1974	5,136	2,412	1,147	-
1975	5,262	1,459	1,148	19.3
1976	4,652	1,281	1,008	80.9
1977	3,490	1,167	919	-51.2
1978	3,200	1,200	944	-57.7
1979	2,494	861	-	-25.3
1980	2,043	-	-	-
1981	1,437	889	-	-

Source: Tanzania Railway Corporation.

Total goods ferried declined from 3.56 million tones in 1971 to 0.89 million tons in 1982.

Despite loss of traffic, revenue has increased because of higher tariffs. However as Table 1 (last column) shows, the TRC registered profits over 1975-76 and persistent deficits thereafter. The latter is due to failure to handle about 50% of available traffic. What has been said of Nigerian Railway is here relevant.

> "The volume of traffic moved by rail has been limited by the Railways' capacity to carry it. The Railways have even lost considerable long distance bulk traffic to the roads in spite of the fact that they would carry this for a lower charge and at a lower cost to the country's economy. This situation is largely attributable to the unreliability, slowness and inadequancy of Railway goods transport services (Government of Nigeria 1975).

Such railway shortcomings have led to reliance on more costly road transport - entailing excessive road deterioration, greater foreign exchange drain, etc.

Much bulky freight, including oil and petroleum products that should have moved at less cost by rail, is moving by the more costly road transport reflecting poor railway service particularly *vis-a-vis* wagons availability and timing. As argued elsewhere (Mwase 1986) the "service characteristics" are key determinants of inter-modal choice.

With Canadian technical assistance, TRC programmes of track relying and strengthening, improving the communications system, reinforcing old bridges, infusion of more rolling stock, etc. Are either ongoing or are on the agenda. The persistent locomotives maintenance problems following the break-up of the East African Railways Corporation and the non-accessibility to the hitherto central railway repairs and maintenance workshop in Nairobi have diminished with the commissioning of the heavy-duty railway workshop at Morogoro.

In the TAZARA case, passenger traffic increased from 826,000 people in 1976/77 to 1,161,000 people in 1985/86. Goods traffic declined from 1,135,000 tons in 1976/77 to 984,000 tons in 1985/86. The traffic decline coincided with the beginning of the loan repayment period. Repayments originally due in 1983 were rescheduled to 1993 due to economic constraints in both debtor countries. The traffic decline is partly due to: (a) landslide problems which in 1979 caused a months' closure, (b) destruction of two bridges by Rhodesian forces in 1979; (c) shortage of skilled and experienced manpower, (d) inherent engine problems of the original locomotives' fleet, and (e) inadequancy of wagons round is particularly acute on the TAZARA. At the end of 1985 only 26 of the 97 Chinese built diesel locomotives were available any one time. These had to be overhauled twice per year, even though they were hauling trains totalling only half the 1,100 tons for which they were supposedly designed. However with the injection of US$18 million locomotives from West Germany, some of these problems are being arrested.

Partly due to increased motive power, increased tariffs, etc. the TAZARA hitherto in persistent losses has registered modest profits since 1983. According to TAZARA report (1986, p. 19) it had a surplus of US$5.00 million in 1983/84; US$3.66 million (1984/85) and US$2.77 million (1985/86).

Road Transport

Road transport developed slowly in Tanzania because of inadequate roads, a general shortage of capital, relatively long distances (more attuned to railway transport), railway protection policies, etc. With independence, road transport was encouraged. Hitherto, the road network was largely unsurfaced and unsuitable for heavy traffic. During the 1961-64 transitional Plan period, it was Government policy to build up the main road system to an all-weather standard and to attend to feeder road improvements on a limited scale. The upgrading and construction of major feeder roads continued during the First Five Year Plan (1964-69), with minor feeder roads providing access to developing areas.

The major trunk road network is a grid of three East-West and three North-South Roads, the former almost parallel to the railways:

> Segera-Korogwe-Moshi-Arusha-Dodoma Corner Dar-Chalinze-Morogoro-Dodoma -Singida-Nzega-Nyalanazi Mtwara/Lindi-Masasi-Tunduru-Songea-Njombe Makambako,

These major trunk routes, virtually established by 1969, partly contradicted the World Bank (1960) recommendation for the gradual reduction of major road development in favour of feeder roads. It marked a departure from past policies which avoided providing direct road connections to the coastal ports to discourage rail/road competition. (Hofmeier 1973).

The Tanzanian road network consists of about 45,000 km. of which only 2,339 km. (5.2%) are bitumenized; 5,731km. (12.73%) are gravel roads. The remaining 36,960 km (82.07%) are earth roads, of which 1,174 km (26.61%) are "unclassified roads.". Most of the tarmac roads are in the Dar-Tanga-Arusha triangle and the Dar-Mbeya stretch. The two bitumen road corridors: Dar-Arusha and the TANZAM Highway comprise about 70% of the total bitumen roads.

Road projects completed lately include: Morogoro-Dodoma, Makambako-Songea, and Rusumo-Lusahanga. The latter's extension to the railhead at Isaka is envisaged. Roads under construction include: the Mwanza-Musoma Road, Mufindi Paper and Pulp Access Road, Mombo-Lushoto, "pyrethrum" feeder roads in Mbeya and Iringa Regions,etc. Road Maintenance projects include Arusha-Minjingu, and the Chalinze-Segera-Mkumbara-Tanga. A total of US$ 17.3 million has been secured from the African Development Bank (AFDB) for the rehabilitation of the Tanzanian portion of the TANZAM Highway. The construction of the Tanzania-Mozambique Unity Bridge across the Ruvuma River is stalled for lack of funds. Mozambique's accession to the EEC-ACP Lome Convention may attract EEC funding. Other financiers including the AFDB should be approached, since external assistance is now acceptable for this project. Although the construction of the Kibiti-Lindi road is on the agenda, the associated Rufiji Bridge is not. Timely reconstruction of the Chalinze-Segera-Korogwe road is required. The World Bank-funded, National Transport corporation executed Truck Road Maintenance Programme is yet to attain a higher road maintenance standard.

No new major road projects are warranted in the immediate future with the possible exception of a Mwanza-Dodoma connection, and any regional roads whose external finances would not be alternatively available for any other national projects. Such regional projects would include upgrading the road connections to Rwanda, Burundi and Malawi.

Population concentrations should make both the provision of feeder roads and public transport services, not to mention the collection, transportation and marketing of agricultural produce easier. The 1974-78 villagisation experience during a change from 40% to 98% of rural population in villages tends to bear all this assumption (see Mwase, 1984).

Tanzania's geographical and ecological environment is somewhat harsh. The limited fertile volcanic soils in the most important agricultural areas create the severest problems for road transport. Laterite soils and "murram" which are essentially used in the construction of earth and gravel roads, although available in the whole country, are very unevenly distributed at the local level. If it cannot be found close to a road project, its use becomes very costly.

Particularly emphasis should be given to feeder road maintenance in a selected number of major agricultural areas, possibly by extending the current limited ILO feeder road rehabilitation programme. Stricter enforcement of vehicle weight restrictions on roads to prevent premature deterioration is required especially since often only minimum standards of road construction design is attained. Decisions on vehicle imports should take this into account.

Road Transport Services

The growth of vehicle fleet dropped from an average rate of 8.9% per annum over 1962-66 to only 3.5% per annum in 1970-72. Hitherto, Tanzania's high rate of growth in the transport sector was exceptional by international standards. Of all the LDCs with per capita incomes under £130 in 1970, only Tanzania generated transport growth rates in excess of 10% during the 1960s (UN, 1971, Table 183). This surpassed growth in neighbouring countries, including Kenya, which grew at 10%.

Table 2: Tanzania: New Registration of Motr Vehicles, 1962-1978

Year	Total Vehicles	Govt. Vehicles	Govt.Vehicles as % of Total Vehicles
1961	6,445	n.a	-
1962	7,418	396	5.3
1963	7,702	409	5.3
1964	8,130	574	7.1
1965	7,809	756	9.7
1966	9,276	1,082	13.1
1967	8,691	1,119	12.9
1968	9,735	1,084	11.1
1969	9,300	874	9.4
1970	10,619	1,861	17.5
1971	7,203	1,178	16.4
1972	4,737	598	12.6
1973	7,156	2,377	33.2
1974	9,585	2,922	30.5
1975	6,058	821	13.6
1976	4,935	1,094	22.2
1977	7,894	1,554	19.7
1978	8,612	n.a	-

Source: Central Registry of Motor Vehicles

Note: Government vehicles exclude cehicles of State institutions such as the Army.

This was partly because of (a) the rapid expansion of the transport sector and huge road investments which induced the acquisition of trucks both for road construction/upgrading and use on the better roads, (b) the growth of the Tanzania-Zambia traffic, and (c) the easing of restrictions on road transport partly to encourage enterpreneurship.

The 1970s and 1980s have witnessed transport sector deterioration. Vehicle stock rose by over 100% from 45,000 in 1962 to 94,000 in 1972. This is equivalent to one vehicle per 192 and 145 inhabitants respectively. This compares very favourably with Kenya which had about one vehicle per 80 inhabitants in 1972 (World Bank 1974, p. 16).

In the 1960s vehicle importers placed monthly orders directly with overseas suppliers and there were no restrictions on the quantity or value of vehicles and spare parts imported. In the early 1970s, with amounting foreign exchange constraints, the Tanzania Government introduced limitations on foreign exchange expenditure on vehicle and spare parts imports, and established the State Motor Corporation (SMC) to control their importation (Mwase, 1982).

In Table 2 total new vehicles registered over the 1962-77 period are presented. The portion of Government-owned vehicles is also given.

There was a considerable drop in new registered vehicles following the socialist dictates embodied in the Arusha Declaration of 1967. This was exacerbated by import restrictions due to scarcity of foreign exchange and restrictions on acquisition of private motor cars. The latter included the abolition of hire purchase schemes for saloon cars.

From 1971 car importation was virtually banned except by expatriates and gifts, etc. without using Tanzania's foreign exchange. New vehicles registration reached an all time low in 1972. Some recovery ensued, with the Government sector registering a record figure of 2,922 in 1974, of which 1,080 (37%) were motor cars. The trend, as Table 2 shows, was reversed in 1975 with a considerable drop in vehicles registered. With much of the foreign exchange earnings channelled to expensive fuel and food imports, little foreign exchange was allocated for vehicle imports. In due course restrictions were imposed even on individuals with their own independent sources of foreign exchange importing motor cars; a move geared to rationalize the use of imported fuel and spare parts by individuals.

The expression of Government vehicles as a percentage of total (last column) demonstrates further that Government share of total vehicles rose from 13% in 1966 to 33% in 1973, settling down to 20% in 1977. Despite public sector growth, the private sector is still dominant. The relatively low incidences for 1972 and 1975 reflects the curbs on imports introduced in 1971 and the foreign exchange costraints respectively. The increased share of Government vehicles denotes the emergence of the parastatals which have been favoured in the allocation of new vehicles. However, private transporters still provide 60-70% of total road transport. Private transporters are often selective *vis-a-vis* road and/or areas served, since demand outstrips supply. This leaves unprofitable routes especially in remote rural areas virtually unserved.

Where there was over 1960-70 an annual average vehicle registration figure of 8470; in the 1971-78 period the average dropped to 7,022 vehicles per year. Some change over from cars to motor cycles is reflected in a 55% fall in passenger cars and a 59% rise in motor cycles a reflection of Tanznia's egalitarian policies.

Access and in particular ownership of a motor vehicle in the LDCs is a luxury open only to a few. Vehicle ownership is therefore regarded as a measure of wealth. Indeed heavy taxation of motor car ownership and use is essentially rationalized on equity grounds. To qoute the 1971 Annual Plan:

> The policy of heavy taxation on the purchase and operation of private motor cars has apparently quite successfully kept down and even reversed an otherwise likely trend of increasing numbers of new registrations of private motor cars. Other developing countries with a more lenient tax policy in this respect

certainly experience a much higher growth rate of motor cars..... In a socialist country however, it is only reasonable and quite in line with general policy principles to tax those people as much as possible who can still afford to buy and maintain private passenger cars and to save as much foreign exchange expenditure as possible by following such a tax policy.

The purchase of motor fuel for non-commercial use is also seen as a reliable indicator of "luxury" consumption, and therefore subjected to higher taxation. But the Government in the wake of the fuel crisis, opted also for petrol rationing and a ban on Sunday afternoon driving. This could imply that (i) demand for petrol is virtually inelastic and therefore consumption cannot be reduced through higher taxation. (ii) taxes on the motorist have been pushed as far as possible. Given the almost 50% reduction in world fuel prices, the new Mwinyi Government did away with both the petrol rationing and Sunday driving ban.

The Road Haulage Industry.

A World Bank sectoral paper on Tanzanian transportation observed that the Government had paid much attention to track provision, and recommended more attention for organizational aspects (World Bank 1977, pp. 3-5).

Road haulage movements in Tanzania reflect essentially inter- and intra-district traffic and Dar-centred traffic. The latter is perhaps as high as 70%. In general the main types of road haulage in Tanzania fail into the following categories:

(i) Individual peasants/traders transport their own goods within a region.

(ii) Small private transporters with one to four vehicles provide most of the "hire vehicles" used at the local level.

(iii) Peasant societies or planned/ujamaa villages haul their own goods,mainly agricultural.

(iv) Industrial establishments, essentially public, have vehicles to cater for their own production and marketing needs.

(v) District Development Corporations (DDCs), operate a few vehicles to meet their own transport requirements, but increasingly offering them for hire.

(vi) Inter-regional long distance road transport: predominantly the major haulage firms; some of which operate both on long-distance and within the regions on the short-distance transport

of cash crops. Originally private-owned, some of the larger companies are now wholly or partially public-owned.

(vii) Parastatals have their own transport fleets to suppliment their hire services.

(viii) Transport parastatals e.g. Regional Transport Companies (RETCOs) have been launched.

These eight categories can be grouped into three major sectors: private, parastatal /goverment and co-operatives, which operated 68.2%, 25% and 6.8% of the trucks respectively. This is illustrated in Table 3.

Table 3 Tanzania: The Source of Road Transport Services

Sector	Number of Lorries	% of Total Fleet	Production (Mills. of ton-kms.)	% of Tatal Production
Private	6,000	68.2	1,080	59.7
Cooperatives	600	6.8	120	6.6
Parastatals/Government	2,000	25.0	610	33.7
Total[a/]	8,000	100.0	1,810	100.0

Source: Derived from Trimac Consulting Services (1976, p. 147, Table 5.7.1.).

Note: a/ Excludes about 200 foreign vehicles then operating in Tanzania.

Like table 2, Table 3 shows that despite efforts to build the public sector transport fleets, the private sector still dominates the industry. The Government has through licensing and preferences in the distribution of vehicles, tyres, etc, not to mention "cheap money" supported transport parastatals and /or parastatal transport wings. These efforts received a major blow following the abolition of the cooperatives in 1976 and the collapse of the National Road Haulage Company (NRHC) in 1977. An important and long-established Southern Regions transport Company, Teeteeko, also collapsed. These companies collapsed partly because of the accumulation of deficits (and bank overdrafts) too large for the Government to bear (Mwase, 1985). Those which have survived have enjoyed Government subsidies, have "internalized" overhead costs and/or are operating at the expense of economic efficiency. Some are making huge losses.

However, the dominance of small private operators with limited funds for investment and little, if any coordination, continued to necessitate some kind of public sector participation. This came in the form of the Crop Authority transport fleets and the RETCOs. Since the main customers are

also the main share-holders of these World Bank-financed, NTC-coordinated RETCOs, and they are regionally based, they stand a better chance of survival than the NRHC. In some cases it would be more rational for two or more neighbouring regions (e.g. Lindi/Mtwara/Ruvuma, Mwanza/Shinyanga, Arusha/Kilimanjaro) to operate RETCOs on zonal basis. With transport services becoming expensive and unreliable, tendencies for institutional autarchy have emerged. However, being a highly specialized service industry, transportation should not under normal circumstances be undertaken by institutions that have other primary functions.

The Shortage of Vehicles and Spare Parts.

Due to foreign exchange scarcity, rising vehicle purchase costs, but also poor planning and coordination, vehicle supplies are few and declining. In 1969 a total of 2,458 lorries and buses were imported. In 1976 1,218 vehicles were ordered, but only 322 were backed up by actual foreign exchange payments and delivered. Few vehicles (and no Landrovers) were ordered over 1974-76.

In 1966, a year before the Arusha Declaration, 3020 automobiles were imported at a cost of US$3.82 million, or 2.6% of the total imports. By 1976 it was down to US$ 1.39 million or 0.3% of total imports.* In 1977/78 the demand for the important vehicle categories (i.e. lorries, tippers, trailers and buses) was 4,233, but only 1,124 (26.5%) were supplied. Some 2,496 lorries (77%) was the total shortfall; only about one lorry out of four demanded was supplied. Indeed except for the Government the other categories (parastatal, private companies and individuals had less than 34% of their lorry demand satisfied. However, of the total demand for vehicles, only 29% was honoured.

Before the fuel crisis, each six months, the Bank of Tanzania allocated up to US$ 85.00 million and US$14.29 million for vehicles and spare parts respectively. As the foreign exchange position deteriorated the Government ordered a cutback in saloon car imports and imposed a ceiling of 200 vehicles. With the fuel crisis the Bank had to reduce its authorisations and since the war with Uganda in 1979/80 virtually no saloon cars have been imported unless they were part of a project package deal or a gift. Tanzania's own funds are used in exceptional circumstances such as hosting an international conference. Even the purchase of lorries became difficult, and nowadays essentially depends on credit offers.

* In 1970-76, "transport equipment" imports as a percentage of total imports by value was for each year less than 9% (Tanzania, `*Economic Survey*, 1976/77, Table 9.

Table 4 shows that vehicles supplied as a percentage of demand were highest for government, followed by parastals, private companies and lastly individuals.

Table 4: Tanzania: The Satisfaction of Vehicle Demand, 1977/78 (%)

Institution / Vehicle Category	Government	Parastatal	Private	Individual	Total
Overall	44	38	24	19	29
Trucks	55	34	12	11	23
Saloons	64	49	46	15	30

Source: Mwase (1983)

Despite the crucial haulage role of trucks the saloon car demand met was in all cases higher than for trucks, and save for the Government, trucks supplied for the other categories were lower than for the overall vehicle allocations. The percentage supplied for individuals and private companies is low (average 11.5%), showing that this sector is squeezed, while the parastatal sector is less starved (34%). The low car incidence of individuals (15%) reflects a curb on indivial consumption. Although private transporters own 70% of vehicles (as against 25% for parastatal/Government and 5% for co-operatives/RETCOs), they come last in the allocations for new vehicles and spare parts.

Private truckers are very effective coordinators of forward and backhauls, especially on long-distance operations. They have a greater ability to operate and secure return loads on a nation-wide basis (serving different Regions according to seasonal demand) than the NRHC ever did. Moreover some local transport demand is best satisfied by small private transporters. Private transporters, it has been argued, have higher efficiency and greater output than public-owned transport firms. To quote World Bank:

> "Despite the policy of nationalizing services, officials acknowledge that the private sector is more efficient and provides better services at lower cost than parastatals can (1977, p.13).

Given the tendency for private transporters to inflate their costs to minimize taxation, private transporters may be doing better than is acknowledged; and without the preferences accorded public-owned transport firms e.g. training. Indeed their operation could be a yardstick to check the performance and efficiency of the public transport sector. Many public-sector vehicles are not optinally utilized and have a relatively shorter life expectacny. An EEC-assisted programme to rehabilitate 600 grounded public sector vehicles and completion of 700 vehicle bodies should refurbish the road transport industry.

As vehicle and spare parts imports were curtailed, dealers profits dropped. To compensate, they charged more for spares including home-made ones. Although imported spare parts were of a higher standard, and included a 50% plus customs duty, locally-made ones were sold at three times more! (Mwase 1983). Effective trucking capacity was severely reduced. About 40% of the truck fleet was grounded for lack of spares. The worst hit were public transporters and the rural areas. Most spare parts were channelled to city-based transporters. For example in 1976 seven Regions received no foreign exchange for spare parts; the other 12 Regions received less than 10% of the total allocation; over 90% was allocated to Dar-based bazaars and dealers.

This situation is changing with the liberalization policy, with more spares available, albeit at exorbitant prices. Individuals with their own foreign exchange can now import spare parts. Transporters are now able to purchase spare parts at inflated prices and pass on the burden to customers, e.g. riders. Basing the burden on the poorer sections of the population is one area for policy restructuring.

One argument against a liberal importation policy had been that the virtually oligopolistic dealers facing inelastic demand would get windfall profits. However at least this now falls into the company tax net. Hitherto they largely accrued not to the Government or the "infant" local manufacturer, but to dishonest officials, speculative hoarders and the untaxable black market. If the State's share of gross profits is unsatisfactory, it can be increased either through higher taxation or equity participation. In the latter case the State's capital input would boost spare parts availability and retain the dealer's expertise.

The curb on profit margins by wholesale/retail price controls at least before the recent liberalization measures had, in the prevailing shortages, worsed the distributional inefficiencies and driven much of the trade into the black market. The State Motor Corporation's potential for cost reduction especially of vehicle imports given its monopsonistic power, could still be outweighted by appropriation of monopoly profits by corrupt officials, thereby assuming an exploitative "middleman" role, passing on huge overhead costs to the consumer (see Mwase, 1982).

Transport tariffs and fares should recuperate company operating costs and earn a reasonable profit. Presently, national bus fares are set by the Ministry of Communications, Transport and Works, while regional freight rates are prescribed in a general indicative form by regional authorities. Long-distance freight rates are unregulated and more or less left to the free market. Uniform nation-wide bus fares do not allow for different cost structures arising from the terrain, distances from main centres etc. The

allowed differential between tarmac and non-tarmac roads is ridiculously low. Fixation of regional goods tariffs is done in a very uncoordinated and unscientific way; operating costs in Ruvuma for example, are considerably higher than in Mtwara, but tariffs are the same. The National Price Commission has for along time desired to set standard road haulage rates. This is a very complex issue, which should presently be shelved least it further creates ineffective and counter-productive controls, and drives more transporters out of the remote areas.

The tradition of strict division between passenger and freight vehicles should be lifted. In spite of the loss of comforts, in remote rural parts of Africa, lorries should be used to ferry people. With respect to city transport, the Dar-es-Salaam City bus company, Usafiri Dar-es-Salaam (UDA) has faired poorly. The number of its buses dropped from 322 in 1975 to 154 in 1982. Likewise the number of mini-buses dropped from 50 to 40 over the period. Despite this the number of passengers transported increased from 80,751,933 in 1975 to 119,685,780 in 1982. This increase is essentially due to (a) sub-division of routes and (b) buses carrying more passengers than their capacities. Point (a) is illustrated by a drop in kilometres covered from 10,832,533km. in 1975 to 9,517,177 km. in 1982. (Tanzania Government, 1983, p. 150). Point (b) indicates loss of comfort, etc. in the buses. Thus Nyerere's hope that UDA buses would one day provide transport to senior officials so that private Government saloon cars can be reduced has not been realised. However UDA has since 1983 been supplemented by parastatal - owned buses and by controlled licensing of "dala dala" privately owned mini-buses. This has already alleviated the hitherto chronic transport shortages. It has reduced congestion in buses, shortened bus waiting time and therefore saved passenger time, which might compensate for the extra charges.

Maritime and Air Transport

Maritime Transport and Shipping

Shipping unit costs are much lower than other surface transport modes; and ports are important transhipment points for the entire transport system. More attention should therefore be given to the efficient functioning of ocean and inland shipping services (on Lake Victoria, Tanganyika and Nyasa). Dar-es-Salaam's port capacity has increased from four berths at independence to 13 berths. In addition there is a deepwater jetty at Tanga, readily convertible to more general use. There have also been substantial improvements in port operations; which together with reduced cargo throughout from Zambia, which has switched some traffic to Southern routes following Zimbabwe's independence, reduced the congestion that plagued Dar port in the past. However, South Africa's destabilization of its neighbours, has meant that Malawi, Zimbabwe and Botswana have of late looked to Dar-es-Salaam as one of

their outlets to the sea. Rwanda and Burundi have especially in the years that political instability and civil war disrupted Uganda's transit routes, increasingly resorted to Dar-es-Salaam.

Because of Dar's regional importance as an entreport for several land-locked countries its port and the railways and major highways that feed it are receiving increasing attention in the priorities of the Tanzania Govenment and the SADCC. There efforts should be directed at resolving the following problems:

(i) Dar port congestion
(ii) Shortage of storage capacity
(iii) Slow clearance of goods by consignees
(iv) Shortage of loading and unloading equipment
(v) Poor scheduling of ships calling at the ports
(vi) Slow implementation of port development projects.

The improvement of Kigoma port is being carried out with EEC aid. The management of the port and the Lake fleet operations of Burundi and Zaire are being streamlined including the transfer of port operations from Agency Maritime International (AMI) to TRC. Detailed studies on these and other problems, including the proposed introduction of railway wagon ferries are in progress. Shipping operations on Lake Victoria have stabilized considerably following the return of a more peaceful atmosphere in Uganda. Shipping on Lake Nyasa is embryonic; there is need for coordination of shipping operations with neighbouring Malawi and Mozambique.

Coastal shipping is irregular and problematic - high damage and pilferage, lack of storage space at pier, etc. The improvement of the Tanzania Coastal Shipping Line (TACOSHILI) and coordination with Zanzibar Government steamer is desirable. Unfortunately the four-nation Eastern Africa (including Zambia) Inter-State Standing Committee on Shipping (ISCOS) - a negotiating body *vis-a-vis* the shipping conference lines, and the East African National Shipping Line collapsed with East African Community. These organs, if revived on an enlarged scale perhaps under SADCC and /or PTA umbrella could boost maritime transport in, and bargaining power of, the sub-region. Before Tanzania launches its own shipping line, strengthening the joint Sino-Tanzania Shipping Line is desirable.

Air Transport

Air Tanzania has been problem-ridden since it was launched out of the remnants of the East African Airways in 1977. Since then it has accumulated losses totalling US$10 million and had to cut down on its

internation flights and concentrated on essential domestic services plus some limited regional services. New maintenance facilities at Dar-es-Salaam and Kilimanjaro airport rather than new construction is called for. A major French-financed construction of new terminal buildings at Dar-es-Salaam airport was completed in 1985. Work is underway for the reconstruction of the runway at Mwanza Airport.

Foreign Aid

In spite of Tanzania's self-reliance rhetoric, about 55% of Tanzania's annual development finance comes from abroad, much of which has gone into the construction of strategic infrastructure like railways, highways and harbours. Aid donors are more willing to finance the development rather than the recurrent expenditure phases of a project. They are for example, more willing to finance road construction rather than road maintenance. The aid recipient is unlikely to opt for some balance or less costly options for it might mean higher disbursements of local funds. They are many possible responses to this problems, including changes in donor practices and improvements in the country's recurrent expenditure planning. In any case investments in trucks without accompanying ancillary services to promote their utility is uneconomic. It makes no sense to import chassis and new vehicles, if they cannot operate for lack of spares, tyres etc. or for parts to complete the body. All transport components have to be looked at in an integrated way.

However, the critical vehicle shortage could be filled through external commodity credits and grants and/or the purchase of less costly second-hand and "reconditioned vehicles." Such cost-savings could compensate for the shorter life and greater fuel usage especially since with bad roads the differential depreciation for new and used vehicles is minute. This would entail a loss of tax revenue; but since most vehicles are public or quasi-public owned, such taxes are mere transfer payments.

Conclusion

In Tanzania-type economies with serious resource constraints, cost-effectiveness in the provision and use of transport facilities should be adhered to. Maximum use should be made of existing railways and shipping services to take pressure off the over-burdened and comparatively much more expensive road transport system.

Given the failure of state-owned transport firms, as in the NRHC case, private transporters either individually or in cooperatives, should be encouraged. Heavy taxation of profits can be made for income redistribution purposes. As a general rule tariffs and fares ought to reflect transport provision costs, and in particular regional differences in road

standards and cost structures. This would allow transporters to operate with reasonable profits in remote rural areas, and therefore curtail their exodus.

The primary goal should be a minimum cost solution to the provision of transport services and not excessive administrative and bureaucratic restrictions and controls which not only limits capacity utilization, but also open many possibilities for shady deals. The latter can be minimized by greater public accountability of transport planners and peoples participation especially in setting priorities.

Transport planning capacity should be strengthened considerably. A long-term overall transport sector plan entailing detailed forecasts of future transport requirements should be prepared to avert "management by crisis". Unless the transport system can operate more economically and minimize the customer burden, it may not represent an advance over a private enterprise system and may fail to attain the country's lofty socialist objectives.

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Rights and Obligations of Rural Refugees in Tanzania: A Case Study of Mpanda District.

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Introduction

This paper will focus on the rights and obligation of rural refugees in Mpanda District, Tanzania. Refugees are essentially obliged to reside in settlement areas but they have the freedom to move in and out if granted a permit. The various procedures followed by the settlement authorities and other authorised officers and the basis for granting such permits will be critically examined. Attention will also be drawn to cases unlawful entrants to settlement areas by the relatives of the refugees from their country of origin. The right of the refugee to self or wage employment within or outside the settlement setting will also be examined.

The Rural Refugees

Tanzania is a land of rural refugees. The Burundi, mainly concentrated in the rural settlement of Katumba, Ulyankulu and Mishamo constitute the majority. There are however few others who have settled spontaneously in Kigoma region.

Over the past few years, assistance has been given for the development of a number of rural settlements in Tanzania (UN,ICARA 11,1981). These rural refugees escaped to Tanzania as a result of political struggle in their countries. In the case of Burundi refugees, the struggle took the form of a civil war in the early seventies. The scarcely populated areas in Western Tanzania (Mainland) were selected to be refugee settlements. Presently, the Katumba and Mishamo settlements in Mpanda District hosts more refugees (3/4 of the population)[1] within its borders than nationals. This district will be the subject of study in this paper on the obligations and rights of refugees.

Refugees are given free land by the Tanzania Government. The Government also provides the state organs to run the settlements, while the United Nations High Commission for Refugees (UNHCR) provides the funds. The Lutheran World Federation (LWF), which is known as the Tanganyika Christian Refugee Services (TCRS), in Tanzania carries out the actual implementation.

When the rural refugees arrived at their present sites in Katumba and Mishamo, the area was a complete bush, infested with wild animals and

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