Institutional Constraints and Economic Welfare: The Road Transport Sector in Tanzania

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Introduction

Among the arguments advanced with regard to the poor functioning of the sub-Saharan African (SSA) economies are the presence of institutional constraints including, among others, the lack of a watertight legal and regulatory framework; blurred lines of responsibility between the various implementing agencies; and the lack of management systems that allow for transparency, accountability and continuity in the implementation of activities in an efficient and cost-effective manner. Unlike the first generation reforms that addressed pure economic policies, issues being covered in the second generation of reforms—referred to generally as issues of governance — emphasize institutional reforms. It is argued that the way institutions operate matters in ensuring productive use of resources, effective delivery of services, and allowing the participation of the poor in the growth process. Experience shows that the majority of SSA economies lack institutional structures (and stability) necessary for efficient and cost-effective use of resources. The observation has always been that in most of these countries critical activities are carried out in an ad hoc manner, with the available structures creating room for the domination and influence of personal interests in the allocation of resources. This in turn causes market distortions with devastating effects on the vulnerable segments of the population, the poor, who are denied full integration in the development process.

Tanzania's experience is no exception. The focus in this article is on the road transport sector, a sector critical to the functioning of the economy, but which -- to a large extent -- contributed to the country's plunge into the severe economic crisis experienced beginning in the late seventies. The road transport sector dominates in handling passenger and freight traffic, both domestic and transit. What has been observed over the years has been the frequent changes and shuffling of the organs governing operations in the sector. This has negatively affected the delivery of services, causing huge budgetary losses, and in the process eroding the country's ability to attack poverty.

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As a background, we need to examine the development of transport related institutions as they have affected sector operations. The examination is more important now when the country is en route -- and being redesigned for the broader objective -- to eradicate poverty by 2025. The emphasis now should be on doing things right. Within this context, one of the issues of policy interest should be how to redress the situation, and suggest ways to ensure that the required institutions are put in place, strengthened, and stabilized. This is necessary for smooth operations in the road transport sector, the objective being to implement and support pro-poor (shared) growth oriented policies.

Another focus of this article is the development of institutions in Africa, highlighting their main features, and providing pointers for building effective institutions. Specific attention is directed to the development of the transport sector in Tanzania, and examining its role in terms of output performance and contribution to capital formation. The policy environment and evolution of institutions for the transport sector are examined. The proposed institutional framework is outlined in a critical manner followed by placing the road transport institutional set-up in the wider economy, focusing on (rural) poverty.

The Development of Institutions in Africa

The Concept and Efforts at Building Institutions in Africa: A Synopsis

The central issue of economic history and development has always been on accounting for the evolution of political, social, and economic institutions that create an economic environment geared towards inducing productivity and growth. Institutions are defined as constraints devised by human beings that structure political, economic and social interaction (North, 1991). The institutional framework—devised by human beings to create order and reduce uncertainty in exchange—comprises a complex of both *informal constraints* such as sanctions, taboos, customs, traditions, and codes of conduct; and *formal rules* like constitutions, laws, and property rights. Institutions, therefore, encompass a wide range of diverse indicators, including the quality of institutions, political instability, characteristics of political regimes, social capital, and social characteristics (Aron, 1997; North, 1991). Institutions are critical in organizing activities, and the functioning of economies. They also play a vital role in determining the growth pattern of an economy. Thus, any weaknesses that result in having in place weak institutions harm the economy.

There has been a considerable effort made since independence to reshape the institutional framework in African countries. The aim has always been to ensure the presence of frameworks that fit the requirements of the time—in most cases to build government capacity to deliver. Several distinctive phases can be identified with regard to institutional development. In the 1950s and early 1960s, when many countries were emerging from colonial status to independence, efforts focused on *institutional building*, especially for public sector institutions to manage public investment. In the early 1970s attention turned to *institutional strengthening*, focusing more on improving the operation of existing organizations, and in training government personnel. Attention then shifted to *development management*, which concentrated on the capacity to manage development programs. Currently the focus is on *institutional development*, a concept broadened to include private sector and NGO activities, with the aim to manage change (Hilderbrand & Grindle, 1994).

Performance and Identified Features of Institutions in SSA

Three institutional factors are critical to improved public institutions in SSA: interest groups with a stake against reforms; the state's representatives and bureaucratic organs geared towards the creation of rents through interventions; and the political leadership, a critical factor in sustained economic reforms and in fighting corruption, but lacking capacity for decisive action (Goldsmith, 1998). In Tanzania, for instance, the dominant role of government in the pre-reform era took place in a social environment that involved several interest groups, each keen to protect its own interests, thus complicating the whole reform process. Interest groups included urban wage/salary earners, the commercial entrepreneurs, and the rural peasantry (Ndulu, 1987). Africa also saw a broad wave of authoritarian rule sweep the continent in the 1960s and early 1970s, which contributed to slow growth and an unstable macroeconomic environment, putting at stake the whole issue of credibility in the policy environment. The change in the African political landscape beginning in the 1990s, the movement towards greater pluralism and democracy, and the avoidance of civil strife has seen Africa on the path of rapid growth for several years after 1995 (Ndulu & O'Connell, 1999; Collier, 1996). Certainly, the issue of institutional development as captured in the second generation of reforms is key to sustained socio-economic progress.

The effect of poorly designed and enforced institutions is to provide incentives for unproductive activity. It is within this context that the poor performance of third world countries, SSA countries in particular, is explained. Prominent studies in the area provide evidence to the effect that cross-country variations in institutional quality are an important explanatory variable for cross-country variations in economic growth (Aron, 2000). These countries are poor because the institutional constraints facing them define a set of payoffs to political/economic activity that discourages productive activity (Aron, 1997).

Improper institutional development has made SSA record the slowest rates of growth performance in the world. Poverty is pervasive, and much more severe as countries in general possess a very weak public and private institutional framework. Indeed, institutional shortcomings contribute to SSA's dismal economic performance (Goldsmith, 1998). This is a worrisome situation that causes fragility, and is a source of unsustainable economic and political development. The pertinent issue, therefore, is the need to have in place effective institutions that ensure smooth running of economies, and which minimize distortions. It is important to recognize, while designing institutions, that institutions can be weakened by the absence of rules, or by rules that have evolved to be sub-optimal and/or are poorly enforced. There is need to note also that rules may exist but may be counter-productive, and that useful rules may exist but, for some reasons, may not be enforced.

Also, accumulated evidence points to the fact that many developing countries were pursuing misguided economic policies, and mismanaging public institutions and functions. Discussions thus turned the focus from market failures to government or 'non-market' failures (Goldsmith, 1998). The leadership factor has also been critical: many African countries have been led by leaders who stayed in power for too long, were corrupt and statist, and lacked the vision necessary to implement reforms effectively (Gray & McPherson, 2000; Collier, 1996). The concern here has been the reality that many public actions distorted markets, encouraged extensive rent-seeking, and created disincentives for the productive use of private and public resources (Hilderbrand & Grindle, 1994).

The cause of poor economic performance, stagnation, and decline was thus increasingly explained in terms of the policies and actions of states that had grown too large, intervened in economic interactions too energetically, and that had regularly mismanaged policy-making and implementation. The direction beginning in the 1980s has been, therefore, to urge for radical reduction of the extent of government intervention in the economy. Deregulation, liberalization of trade, and privatisation of state enterprises became the remedial policy tools. This poses its own challenges to the countries in question. Institutions evolve incrementally, connecting the past with the present and the future, always being informed by experiences and the perspectives for the future. Whether the current policy tools will yield the expected results depends again on the quality of institutions the countries will build and nourish. This means that one has to have in place a well-coordinated framework that takes on board all the necessary dimensions. The key to the success of economic reforms and sustainability of the economies is a combination of wider interest group representation, more democratic political and bureaucratic processes, and enhanced leadership to allow for the growth of institutions that are allowed to operate without interference.

The Development of the Transport Sector and its Role in the Tanzanian Economy

Road Transport Sector Development

The role of transport in economic development in Tanzania has long been recognized (Hofmeir, 1973; Ndulu, 1982). The sector accounts for about 6% of real GDP, and 16% of gross capital formation. In recognition of the sector's central position in economic development, the Tanzanian government (GoT) spelt out the long-term strategy for the development of the transport sector in the second five year plan (SFYP, 1969/74). The strategy set out to establish a sound transportation system that would link the production and marketing zones, ensure balanced development, and facilitate travel at a minimum cost and time. This is evidenced by the considerable expansion of the transport network covering all the modes of travel, which was set to be achieved during the 1960s and 1970s with the view to reaching the major corners of the country.

The long-term perspective based on the future pattern of population distribution, marketed agricultural production, and urban development guided investments in the road transport sector in Tanzania. During the 1961-64 period, the GoT policy was geared towards building the main roads system to an all-weather standard, and to improve feeder roads on a limited scale. Upgrading and construction activities were again emphasized during 1964-69. A grid network of trunk roads for economic and social integration of the country, and development of internal trade was specified. Thus plans were to construct three North-South and four East-West main roads.[1]

Current estimates show the total road network to comprise about 85,000 kilometers,[2] consisting of 3,800km of paved trunk roads, 6,500km of unpaved trunk roads, 24,700km of regional roads, and an estimated 30,000km of district, urban and feeder roads. Out of the total network only 5.2% are paved, the rest—i.e., 94.8%—are unpaved.[3] For the unpaved roads, gravel roads comprise 9,300km (10.9%), and earth roads amount to 71,900km (84.6%). Thus, a bigger part of the network is made up of earth roads. Roads in good condition constitute only about 14%, those in fair condition 25.4%, and the remaining 60.6% are in poor condition. There is also an extensive network of paths and tracks that connect villages, as well as providing important access to farms, sources of water, and other facilities.

Due to a number of reasons—including the lack of a proper institutional framework for infrastructure management—the sector's operations have been negatively affected, inflicting considerable harm to the economy. The status of the road network (road condition), as described above, provides one pointer to institutional weaknesses facing the sector. Changes in the country's development strategy and economic management system—the country having moved from market-oriented (1961-66) to socialist-oriented (1967-85), and back to a market-oriented system (1986 onwards)—also caused serious consequences to the spatial organization and distribution of the social and economic infrastructure, as well as to economic progress and poverty alleviation objectives. Most affected have been ownership and operational management responsibilities, which have shifted from private to public and back to private again, with the usual inertia that is expected at the beginning of each policy regime.

Ndulu and Wangwe (1997) note that poor supportive infrastructure has contributed to the bulk of the cost of doing business in the country for a considerable period of time. It is also acknowledged in policy discussions that a sustainable revival of the economy and provision for its steady growth has, perforce, to be predicated on the improvement and stability of the transport infrastructure—roads in particular.

Transport Sector and the National Economy

In the context of Tanzania, the role of the transport sector is critical given that the economy is predominantly agricultural (with a 50% share to GDP); its population and economic activities (mostly smallholder farming) is sparsely distributed, and that it also provides outlets to landlocked countries such as Zambia, Burundi, Rwanda, and Uganda (about 33% of traffic handled is transit). This role is much more pronounced with regard to the distinctive road transport sector, which handles about 70% of the goods traffic, and is the most dependable mode of transport for passenger traffic. Just like most other economies, Tanzania relies heavily on road transport for passenger and freight movement (Maro *et. al.*, 1993).[4]

The poor functioning of the transport sector, itself a victim of the general decline in the economic performance of the Tanzanian economy, is cited as one of the major causes of the economic crisis that beset the country since the late seventies. Thus the revival of economic performance is predicated on, among others, improved performance of this sector. The sector's contribution to the economy may be examined in terms of its contribution to GDP and capital formation (see Table 1).

Output Performance

The transport sector's contribution to GDP averaged 9% for the period 1966-1995. The contribution has varied between the years: the highest having been recorded between 1976-80 (10.5%), the lowest (5.4%) being recorded during 1996-99. Growth in economic services was the highest during 1966-70 (6%), slipping down to 0.4% during 1981-85, having fluctuated in between and rising to 5.8% in 1996-99. The growth of transport GDP averaged 3%, while that of overall GDP averaged 2%.[5]

Table 1: Key Indicators relating transport and the Tanzanian Economy

	1966-70	1971-75	1976-80	1981-85	1986-95	1996-99
Real GDP Growth (%)	3.9	3.8	2.8	0.7	4.1	4.5
Sectoral Real GDP Growth Rates (%)						
(a) Agriculture	2.1	2.5	1.8	3.0	4.9	4.1
(b) Manufacturing	8.1	4.8	2.7	-4.9	3.8	3.6
(c) Economic Services	5.9	3.7	2.6	0.4	4.2	5.8
(d) Public Services	6.0	12.9	9.1	2.6	0.4	3.5
Transport GDP/GDP		10.3	10.5	7.3	6.8	5.4
Land Transport/GDP		4.3	3.0	4.3	4.4	4.7
Land Transport/Transport GDP		68.2	71.2	73.3	73.0	75.1
Fix. Cap. Form/GDP (%)	16.5	20.5	22.2	15.7	31.7	32.8
Sectoral shares of Fixed Capital Formation (%)						
(a) Agriculture	9.0	6.3	8.1	10.7	34.5	35.2
(b) Manufacturing	15.4	14.0	25.3	24.0	13.0	15.6
(c) Econ. Infrastructure	43.1	54.6	34.9	31.7	27.7	31.3
(d) Public services	5.8	2.9	16.1	15.7	5.7	7.6
Total equipment/GFCF				32.0	30.0	32.4

Transport equipment/Total equip.				46.0	42.0	39.3
Road/Transport equipment				13.7	23.1	22.5
Share of Fixed Capital Formation (%)						
(a) Private sector	47.0	32.0	44.0	55.0	60.7	80.1
(b) Public sector	53.0	68.0	56.0	45.0	39.3	19.9

Notes: Economic services include electricity and water, financial, trade and hotels, transport and storage. Land transport includes road and rail transport.

Source: BOT Economic Bulletins, Statistical Abstracts and National Accounts, various issues

Capital Formation

In terms of investment, transport equipment comprised about 46% of total investment in equipment in 1981-85, going down to 39% in 1996-99. The share of economic infrastructure to GFCF averaged 38% during the 1966-99 period. The highest share was recorded during the period 1971-75 (55%), the lowest (28%) during 1986-95, rising to 31.5% in 1996-99. On the average, transport equipment (vehicles, road works equipment) has made up 37% of GFCF per year. Of particular interest is the declining share of the public sector to a low 19.9% during the period 1996-99, with that of the private sector making up 80.1% during the period.

There was an investment boom in transport equipment in the 1980s. This is attributed to the reform measures, including import liberalization policies in the form of establishment of foreign exchange schemes, i.e., export retention, own-funded imports, open general license, and commodity import support schemes: all citing the transport sector as one of the priority sectors (Likwelile, 1996). One notices, however, that the economic infrastructure or services sector was performing relatively better (in terms of their contribution to GDP and GFCF) in the earlier—compared to most recent—periods, and that transport appears still to be a powerful constraint to economic growth (World Bank, 1994). There was some growth in the transport and communications sector in 1997, having grown by 5% compared to 1.1% in 1996, the growth mainly coming from the communications sub-sector (telephone industry) (URT, 1997).

An examination of the incremental capital output ratio (ICOR), its inverse defining investment productivity shows, however, that investments in the transport sector for the period 1982-84 were associated with declining output. The situation changed with the economic reforms. Transport sector ICOR have been exceptionally high compared to those of the aggregate economy, and have been increasing (Bhaduri *et. al.*, 1993). But the large investments in the transport sector, combined with the relatively modest contribution to GDP, tend to suggest that transport equipment was being poorly utilized. This calls for the need to improve the condition of the road network and operational practices through rationalization of the institutional set-up.

Transport Policy Environment in Tanzania

Policy Stance: An Overview

Any meaningful discussion on how the general policy environment in Tanzania has evolved has to address the Arusha Declaration (1967), which marked a transition from a fairly market-oriented economy to socialism. The main purpose of the Declaration was to change the role of the public sector in production from supportive and secondary, to central and dominant. The Declaration sought to redress the experiences of 1961-66, a period that witnessed a combination of fairly rapid growth, increasing domestic income inequality (especially rural/urban), strengthening of capitalist domestic sub-classes, and continued heavy external dependence (Rwegasira, 1982).

Thus the policy environment in Tanzania for most of the post-independence period was influenced by this Declaration. The Declaration ushered in a new policy direction for the country, breaking from the fairly orthodox economic policies followed during the first years of independence, with the emphasis now being placed on the role of collectivism and public ownership of the major means of production. The government was, in line with the adoption of a socialist ideology, relatively centralized, with a weak sub-national government system. It virtually sidelined the private sector -- and the civil society in general -- in the management of the economy. The key policy concepts were central planning, government control, and self-reliance.

Institutionally, following the adoption of a one-party system in 1965, the ruling party and the government played a central role in determining the pace, level and path of socio-economic development (Ndulu, 1987). The government was to be a major participant in the mobilization of resources through its fiscal instruments, and a direct participant in investment. The public sector was a dominant player in the provision of both social and economic infrastructure to support the development process.

The institutional set-up so created led to fundamental structural weaknesses. The over-expansion of the public sector relative to its technical and managerial capacity was a source of problems, and one of the factors that plunged the country into an unprecedented economic crisis beginning the late seventies. For one, there was gross misuse of resources, and a large number of public enterprises got into deep financial losses and became a budgetary burden. Excessive intervention in markets by the government led to a rapid growth of parallel markets with the inefficiencies that go with their operations. Over-centralisation of economic management stifled individual initiative, reduced social accountability, and caused endless delays in the decision-making processes. Tanzania had therefore to work hard to reverse these institutional weaknesses if it was to reverse economic decline.

With the deepening crisis and looming discontent among the masses, the need to reform the management system of the economy became obvious and inevitable. Thus, beginning the mid-eighties Tanzania began to pursue changes vigorously with the aim to reshape the way the economy was organized, managed, and driven. Implementation of the reform measures began in 1986 with the adoption of the Economic Recovery Programme (ERP). ERP ushered in a movement away from a controlled economy with a dominant role of the public sector, to one that is increasingly liberal and much more market-oriented in its operation (Ndulu & Wangwe, 1997). The reforms recognized the critical role that the private sector and individual initiative can play in the management of the economy. The ERP package sought to achieve and sustain macroeconomic stability, open up and free the trade regime, use market incentives in resource allocation, reform the financial sector, and adopt a residual role for the public sector while promoting the role of the private sector. It also addressed the governance structure, including major institutional reforms, to ensure smooth running of the economy and to establish congruence with the new open approaches to the management of its economy and civility.

Policy Framework for the Transport Sector

Before the reforms, the transport sector in Tanzania had (just as had been the case with the other sectors) been subjected to intensive and extensive state control through legislation and regulations, all aimed at ensuring a dominant presence of the public sector in terms of ownership and participation in activities related to transportation. The strategic position the sector holds in the economy rationalized the argument for state control. The main determinant of operations in the sector has been government policy, a Structure-Conduct-Performance (SCP) model derived element. Thus government policy institutionalised conditions for entry, and set general rules of operation in the sector (Likwelile, 1996). The regulatory framework (legislative and administrative) which developed shaped the ownership pattern, determined firm size through vehicle import licensing policy (via the State Motor Corporation), and the distribution of firms and the institutional set-up and policy that governed operations in the transport sector (Hofmeir, 1973; Mwase, 1980).

Influenced by railroad interests, statutory regulation in Tanzania began in the 1930s, and started with prohibiting operators from transporting goods on roads parallel to the railway. This was effected vide the Carriage of Goods by Motor Vehicle (Prohibition) Ordinance in 1934 (Hofmeir, 1973). Then came the Transport Licensing Ordinance in 1956. The Transport Licensing Act of 1973, which also established the Transport Licensing Authority (TLA), repealed the 1956 ordinance (URT, 1973). In 1970, the State Motor Corporation (SMC) was established to help regulate road transport in conjunction with TLA. The idea then was to develop public-owned transport operations through preferential allocation of goods carrying licenses and vehicles.

Also worth mentioning was the establishment of the National Transport Corporation (NTC) in 1969 to replace the failed Tanganyika National Cooperative Ltd. (TNC) established by decree in 1965, with heavy use of political pressure. With regard to goods haulage, NTC formed the centralised National Road Haulage Company (NRHC) in 1971 as its subsidiary. This was decentralised, leading to the establishment of the regionally based Regional Transport Companies (RETCOs) as subsidiary companies to NTC. In addition to these, several crop authorities, cooperative unions, and marketing boards were encouraged to establish transport wings (Likwelile, 1996). The performance of most of these agencies was, however, not satisfactory, eventually leading to their demise (Maro *et. al.*, 1993). With the implementation of ERP, most of these have been, or are in the process of being privatised.

Reforms in the Transport Sector

Beginning the 1990s, the GoT embarked on a number of reforms, touching the civil service, financial institutions, the transport sector, and the parastatal sector in general. The reforms sought to address issues of operational efficiency, reduce the burden of loss-making enterprises on the part of the GoT, expand the role of the private sector, and to increase and encourage wider participation of the people in the running and management of the economy.

With regard to the transport sector, the GoT sought to change the manner of its involvement in the operations of the sector. The decision was to restrict GoT's responsibility to setting broad development policies and strategies; and organization for planning, monitoring, regulation and overall administration of the sector. In this regard, a number of changes took place in the policy arena with tremendous effect on transport sector operations. One can trace these developments since 1987 when the government presented the Transport Sector Recovery Programme (TSRP) to donors. The TSRP was supported by a draft National Transport Policy (NTP), which defined the overall policy guidelines providing a framework within which different sub-sectors could move. Specific policy guidelines also evolved, and these include the Port Modernization Project, Tanzania Railways Corporation (TRC) Emergency Recovery Programme, Railway Restructuring Project, and the Integrated Roads Project I & II.

Presently, the GoT's principal policy objectives are geared towards strengthening its capacity to administer policy formulations and regulations to create an environment for fair competition among operators. In the process it intended to separate operating functions from ministries, and maximizing instead the involvement of the private sector in the delivery of services. This new policy stance is also reflected in the Vision 2025 document. There, GoT has set for itself the main challenge of providing a wide network of efficient transport system in the country, and between the country and other countries in the region, with the aim of ensuring uninhibited movement of people and goods. The strong emphasis here is on the need to strike a balance between the government and other institutions, especially the private sector.

Evolution of Institutions to Cater for the Transport Sector in Tanzania

One of the pervasive features characterizing transport sector operations is regulation. Economic regulations refer to both direct legislation and administrative regulation of the prices and entry into specific industries or markets (Joskow & Rose, 1989). Regulatory policies are thus public measures taken to serve an economic purpose. The arguments usually advanced relate to the need to ensure correct working of the market (market regulation), smooth operations in the industry through issuance of policies—i.e., rules and constraints (operations management)—and to guide traffic movement on infrastructure (traffic management) (Bayliss, 1992).

In this article, we concentrate on the institutional set-up for road network administration and financing, key functions that determine smooth operations in the sector. One of the basic features guiding transport infrastructure is the separation between supplier (usually the government) and provider of the final transport services using the infrastructure (by a wider community). With the main exception of traditional railway companies, transport firms do not own the fixed capital used in the production process -- i.e., the transport infrastructure (TI) -- but acquire TI services on a 'pay as you go' basis (Polak & Heertje, 2000).[6] This has implications for road network management and sustenance, and generates a rather complex set of interactions between various stakeholders including government, land developers, transport operators, travellers, and shippers. For instance, travellers and shippers do not usually perceive the total costs incurred in providing the services they use, thus requiring application of taxes on vehicles and fuel as an approximation of the costs. So unless an effective institutional mechanism that clearly assigns responsibilities between stakeholders with regard to the upkeep of the network is put in place, the quantity and quality of TI are certain to be affected negatively.

Road Network Administration

Shifts in policy have been instrumental in the way road networks have been managed in Tanzania. Upfront is the lack of a 'permanent home' for the administration of road networks. This has mainly been due to the shifts in the responsibilities of managing road networks between the central government and local governments following the decentralization policy in 1972, which shifted responsibilities of the management of road networks from the Ministry of Public Works to the newly created Regional Development Directors (RDDs) and District Development Directors (DDDs). The responsibility for the administration of the road transport network has always been shared by the Ministry of Works, Communications and Transport and district authorities, which have also changed homes, shared between either the Ministry of Local Government independently or under the Prime Minister's Office or the Presidents' Office (see table 2 for some of such changes).

Until 1972, the Ministry of Works (MoW) carried out much of the road works—construction and maintenance—either as MoW or COMWORKS. The picture changed with the decentralization policy in 1972 when, except for the construction of trunk roads, the responsibility for all roads was left with regional administration. Personnel from the MoW were distributed over the country, thus loosing control and supervision of staff and their work.

Table 2: Changes in Road Administration

	Trunk Roads		Regional Roads		District Roads	
	Construction	*Maintenance*	*Construction*	*Maintenance*	*Construction*	*Maintenance*
1960-	MOW	MOW	MOW	MOW	LC, DC	LC, DC
1969-	COMWORKS	COMWORKS	COMWORKS	COMWORKS	LC, DC	LC, DC
1972-	COMWORKS	Regions	Regions	Regions	Regions	Regions
1975-	MOW	Regions	Regions	Regions	Regions	Regions
1979-	MOW	MOW	Regions	Regions	Regions	Regions
1984	COMWORKS	COMWORKS	Regions	Regions	DC	DC
1990	COMWORKS	COMWORKS	COMWORKS	COMWORKS	DC	DC
1993	MOW	MOW	MOW	MOW	DC	DC
1996	MOW	MOW	MOW	MOW	DC	DC
1999-	TANROADS	TANROADS	TANROADS	TANROADS	DC/LA	DC/LA

Notes: MOW - Ministry of Works, COMWORKS - Ministry of Communications and Works, DC and LC - District and Local Councils/Authorities

Source: World Bank (1994); Gaviria (1991), Likwelile *et. al.* (1999)

This was surely an institutional problem that severely affected the quality of work, causing a serious decline of output as road equipment was diverted to other uses (Gaviria, 1991). The situation changed with the implementation of the Fifth Highway project when the MoW was once again made responsible for the maintenance of trunk roads. In 1984, the government merged the Ministries of Works and Transport, and entrusted it with the construction and maintenance of national roads. District councils were once again made responsible for district roads. In 1990, the Ministry of Communications and Works was split into the Ministry of Works (MoW) and the Ministry of Communications and Transport (MCT), with the latter shouldering the overall responsibility of the transport sector. This was also the time when the Integrated Roads Programme (IRP) was launched, and the MoW took responsibility of trunk, regional and rural roads; leaving district councils to deal with district and feeder roads.

The two ministries were merged again in 1993, only to be separated again later. The MoW was now to be in charge of trunk and regional roads in terms of programming, budgeting, and implementing the construction, rehabilitation and maintenance of these roads. The MCT was responsible for sectoral policies and strategic planning. District and urban councils were in charge of district, feeder, and urban roads, under the overall responsibility of the

Ministry of Regional Administration and Local Government (MRALG), now under the President's Office (PORALG).

All these changes led, invariably, to deficiency in planning and administration of the road network, and road transport in general. Such deficiency is still being witnessed now, of course taking note of the various policy reform initiatives underway (discussed in section 6 below). At the policy level, it is acknowledged that there has been lack of effective planning, management, and coordination within the sector. Thus the current policy emphasises institutional rationalization, aiming to transfer responsibility for road works to the roads agency (trunk and regional roads), and local authorities (districts and urban roads) (Taylor *et. al.*, 1997). This can only be effective when the transfer of responsibilities is backed up by measured efforts at building capacity, and a commensurate amount of resources—both human and financial.

Road Network Financing

The experience with the flow of resources to the road network sector is not encouraging, and there are serious implications on the sustainability of the institutional set-up in the sector. Road network financing has experienced marked vacillations over the years. In the years following independence, and especially during the mid-sixties, the proportion of government expenditure going to road infrastructure averaged more than 10%. During the SFYP period (1971/72-1975/76), an average of about 20% of national investment was allocated to the transport sector. The share dropped sharply to about 10% only during the TFYP (1976/77-1980/81), and in the early 1970s the proportion went further down to as low as 4% (Gaviria, 1991).

Table 3 shows budgetary allocations -- both for development and recurrent expenditures -- to the road sector for a selected period, covering the crisis period, and the one following the initial reforms. Overall, on development expenditure, allocations to the roads sector averaged about 13% during the crisis period (1980/81-1984/85). The lowest allocation was in 1986/87 (9.5%). The average picked up to about 19% in the period 1987/88-1992/93.

Table 3: Allocation of Government budget to roads 1980/81 -1992/93 (*m. Tsh*)

Year	Development (1)	Road (2)	(2)/(1) (%)	Recurrent (3)	Road (4)	(4)/(3) (%)
1980/81	736.1	88.3	12.0	2293.7	115.2	5.0
1981/82	732.1	106.8	14.6	2628.3	126.9	4.8

1982/83	698.1	114.4	16.4	3238.1	141.9	4.4
1983/84	721.6	83.5	11.6	3417.5	190.1	5.6
1984/85	828.6	90.4	10.9	1323.7	87.8	6.6
1985/86	939.0	122.1	13.0	1461.0	378.7	25.9
1986/87	1197.4	113.5	9.5	2548.8	238.6	9.4
1987/88	1502.5	241.5	16.1	3039.2	313.4	10.3
1988/89	2192.5	420.6	19.2	3804.1	370.2	9.7
1989/90	22696.0	3409.1	15.0	36960.1	1260.5	3.4
1990/91	46000.0	7941.4	17.3	27671.1	n.a	n.a
1991/92	41188.0	7659.9	18.6	76752.3	4733.2	6.2
1992/93	102062.0	25266.5	24.8	98706.1	8029.7	8.1

Source: Kaombwe (1993), Gaviria (1991)

Table 3 shows that the average for recurrent allocations for the period was 4-5%, going down to as low as 3%. Recurrent allocations serve maintenance purposes. These allocations are very low for keeping the road network in good condition. Inadequate funding has been a particularly major factor behind the deterioration of the transport infrastructure—particularly roads—and the resultant high road user costs, which not only penalize vehicle owners, but also have damaging spillover effects for the economy as a whole.[7]

A deficiency coming out of this arrangement—i.e., subjecting road financing in the general annual budgetary process—is the treatment of roads as a social service to be financed from general tax revenues through budgetary allocations. The economy-wide centrality of roads requires it to be treated differently and much more strategically. The draft National Transport Policy (NTP, 1987) called for a significant shift of public expenditure resources to transport infrastructure to about 20-25% for both capital and recurrent expenditures. At the institutional level, this is a serious issue that needs to be addressed squarely to ensure sustainable and smooth running of the sector.

The Proposed Road Sector Institutional Framework in Tanzania

To solve some of the institutional problems outlined above, the GoT is implementing reforms specifically addressing the transport sector. One, as already mentioned, relates to the preparation of the National Transport Policy (NTP). The overall mission, as stated in the draft document, is "… to develop a modern, integrated, efficient transport system that is safe, secure, environmentally friendly and meets the needs of various users" (URT, 1999). This addresses all the five modes of transportation—road, air, rail, water, and pipeline—drawing attention to the provision of the relevant infrastructure and services, both for passenger and freight traffic. The document also rationalizes responsibilities between the various players, including government, autonomous executing agencies, and the private sector. All across the modes and agency functions, the emphasis is placed on the need to develop local capacity to design, supervise, and execute functions in the best possible manner.

The reforms specific to the road transport sector aim at strengthening the administration and management of roads, and enhancement of road maintenance capacity. They are being implemented through the establishment of the semi-autonomous national roads agency, TANROADS. This agency runs parallel to the legislation of a dedicated roads fund managed through the Road Fund Board (RFB) established through the Road Toll (Amendment) Act No. 2 of 1998, to finance road maintenance. The expectation is that all these measures will alleviate, to a great extent, the institutional problems of inadequate funding for road maintenance, cumbersome administrative and procurement procedures, unmotivated staff, etc.

At the regional level, two institutions are responsible for managing road transport operations. These are RRB, which has an advisory mandate and is charged with making recommendations to the minister responsible for roads, and the Regional Consultative Committee (RCC). The RCC was established following the enactment of the Regional Administrative Act No. 19 of 1997. The similarity of their membership composition and functions implies that there is a duplication, and calls for the need to synchronize the two bodies.

The Institutional Framework and the Wider Economy: Focus on Poverty

The role that the transport sector plays in a wider economy cannot be overemphasized. Issues of accessibility to areas offering opportunities, productivity growth through the effect of the cost structure, and the enhancement of the general welfare of the population through accessibility to social services are cases in point. For economies where poverty is pervasive (poverty being essentially a rural phenomenon), and where women are disproportionately affected by poverty, the role of the transport sector, and rural transport in particular, becomes even more critical.

Tanzania is one of the poorest countries in the world, with about 50% of its population living below the national poverty line. Poverty is defined as the inability to meet the basic minimum requirements to lead a decent living, including lack of access to economic opportunities. Rural areas are the most vulnerable on account of, among others, being poorly served with transport infrastructure and transport services. About 92% of poor households live in rural areas, making poverty in Tanzania, by and large, a rural phenomenon.

Rural poverty is aggravated by the fact that the rural sector is poorly served by transport facilities, affecting farming activities and marketing of produce. The way out is through rural development. Rural development, on the other hand, is facilitated through provision of quality transport services that allow access to farming areas, to marketing outlets, and to social services; which in turn enhance chances of engaging in non-farm and more productive activities. The critical road network that we need to pay attention to in this case is the rural/district road network. Rural roads are an important public infrastructure, providing access to both markets and agricultural output, and to social and economic opportunities. Given the limited policy instruments for reaching the remote rural poor, the building of rural roads and setting up an institutional framework that takes care of rural roads would seem desirable on, *inter alia*, distributional grounds.

The institutional set-up that has been designed for the roads sector unfortunately does not address rural (district) roads. TANROADS is for the trunk and regional roads network -- the network that is of national strategic interest. There is no agency for rural roads. This network is taken care of by local authorities through the offices of district engineers, which are poorly staffed: only two-thirds of local authorities have engineers with the relevant degrees (Likwelile *et. al.*, 1999). What this suggests is that the current institutional set-up is not amenable to serving effectively the rural sector. This has grave implications on the nation's efforts of attacking poverty. For one, it is always important to emphasize the importance of ensuring that roads are in good condition, and in a position that allows easy accessibility to areas of economic opportunities. The mere presence of a road, for instance, may not be enough; it is a necessary but not a sufficient condition for poverty eradication.

The quality of transportation affects the time spent travelling, and hence the overall time constraint facing economic agents, especially women who are the major players in the rural areas. This has welfare implications as it affects accessibility to various public services, ability to access income-generating opportunities, and ability to accomplish the various productive, household, and community tasks. Thus, any transport related institutional development has to take this into consideration to ensure wider participation of the population in the growth process, with the ultimate aim of eradicating poverty.

Another important issue relates to the manner in which infrastructure is provided, given the resource constraints and limited coverage so far of such facilities. Resource limitations call for the use of labour-based technology (LBT) in the provision of, and catering for, the requirements of rural infrastructure maintenance. LBT refers to the use of labour and light equipment as the predominant mode of production. In addition to ensuring that road transport infrastructure is provided in cost-effective manner -- allowing for employment opportunities to members of communities -- it also ensures protection of the environment. This must be another area of concern in shaping the institutional set-up, ensuring that community participation is given the prominence it deserves. This will enhance community ownership of infrastructure, and ensure transfer of technology for road works to local communities. All these are important factors for sustainable upkeep of the facilities.

Conclusion

The lack of an effective institutional framework to govern operations in the transport sector has, and continues to be a matter of policy concern. As observed in the discussion above, the existing set-up in Tanzania is plagued with weaknesses in institutional capacity for the administration and maintenance of the road transport infrastructure and operations thereof. There is evidence that the financial resources allocated to the sector to cater for maintenance is declining, and there are shortcomings in the enforcement of rules and regulations governing road transport operations and traffic management. These need to be addressed effectively through creation of an effective institutional set-up. At the macro level, what is instrumental in ensuring the presence of an effective institutional set-up geared towards advancing productive activity is the manner in which the reform measures are implemented (well sequenced and rationalized), the involvement of the various stakeholders, the credibility of the policy-making environment (avoidance of policy reversals), and political will.

One issue coming out of this is the need to spell out clearly *lines of responsibility* between the various stakeholders, assigning clear responsibilities between agents of the administration and management of transport infrastructure, both for development and maintenance. The creation of a coordinating body, TANROADS, is an important step forward. Such a body should be charged with the responsibility of overseeing developments in the roads sector. There is a need to be explicit about responsibilities for both investment and maintenance, covering different parts of the network. The transfer of responsibilities has to go hand in hand with building of the requisite capacity -- both human and financial -- at all levels.

Related to this is the need to ensure *institutional autonomy, accountability* and *efficiency* in the operations of agencies charged with various responsibilities. The government needs to establish performance agreements with the agencies in terms of setting out quantified performance targets, obligations, regulations, and practices. The other aspect is that of *financial regulation*. The earlier reliance on government financing has proved ineffective. There is a need to involve stakeholders - the road users. Financial discipline is important to attract compliance and ensure accountability in the utilization of resources. The institutional set-up in this regard should address issues of reward and penalty, transparency, accountability, and having clear criteria for conceived expenditures, including procurement procedures.

The third aspect involves creation of a database that shows at any one time the sector's status. Establishment of a *Management Information System* (MIS) is important for efficient administration of the sector. Here issues of research and training are important as well. A strong database will be instrumental in strengthening the organization, management, and financing arrangements of the sector to cover both basic facilities and operating equipment.

Re-defining the roles of government, private sector and community is another key issue. Reforms are underway that relegate the role of government to activities best suited for its intervention. Focus is on market-based operations to avoid market distortions. This means that the private sector and the community at large can take more of the opportunity for providing, operating, and financing transport services, and in some cases even transport infrastructure. But even where the private sector is allowed to provide for certain components of the basic facilities, it will usually have to do so within the context of the interests of the public, with the goals set by the government.

Notes

1. There are currently nine principal corridors that define a national or strategic road network, together with one for Dar es Salaam access. The corridors are: TANZAM (1324km), North East (950km), Southern Coastal (508km), Central (1584km), Lake (1019km), Southern (1326km), Great North (1024km), Western (1286km), and Mid West (1201km) (URT, 1993).

2. It must be noted, however, that the exact length of the road network is yet to be firmed up. The recent inventory for the National Road Network Database carried out by InterConsult (1999) gives a lower number of about 75,000 kilometres only. There is an urgent need to firm up the figure to facilitate effective road network planning and management.
3. This is very low even for sub-Saharan Africa standards with an average share of 17%. The respective shares are 42% for South Asia, and 25% for Latin America (1997/1998 Annual Report, Global Coalition for Africa).
4. In Latin America and the Caribbean, road transport accounts for more than 80% of domestic passenger transport and more than 60% of freight movement, proportions said to be even higher for Africa. Respective figures are 58% and 80% for the former Soviet Union, 98% and 34% for the United States, 76% and 38% for the Republic of Korea, and 46% and 80% for Egypt (Heggie and Vickers, 1998).
5. The rates of growth of transport GDP in the OECD countries for comparable periods are 0.8% and 3.6%; and rates of economic growth have been 1.6 and 3.1 respectively (Nijkamp, 1994).
6. The reason for this is that sharing the fixed capital with others is normally more economical than acquiring the required pieces of transport infrastructure for one's own exclusive use.
7. Calculations suggest that road rehabilitation can cost as much as eight times more than the regular maintenance that would have prevented it, and that countries which neglect maintenance but carry on building may be sacrificing 3km of old road for every kilometre they lay.

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