Governance of road infrastructure in Eastern Democratic Republic of Congo

Omer Kambale Mirembe
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Omer Kambale Mirembe*

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* Postdoctoral researcher at the Institute of Development Policy and Management (IOB), University of Antwerp.
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1. Introduction

During the 1960s and 1970s, many African states chose a means of infrastructure development that was focused largely on the public sector. However, the debt crisis, the sub-standard performance of public enterprises and poor governance caused many of them to experience socio-economic failure. During the 1980s, proposed recovery solutions included a significant reduction in public expenditure, resulting in a reduction or even suspension of the production of certain public goods and services. Structural adjustment programmes conducted by the International Monetary Fund advised indebted developing countries to adopt policies of minimal government intervention, decentralization, market orientation of public services, privatization and performance management. These features signify a marked contrast with the traditional model of administration, which embodied the dominant role of the government in the provision of public goods, infrastructures and services and a hierarchical and centralized structure of organization. New Public Management (NPM) assumes that the private sector is more efficient, and that by learning from it and imitating it, public administration may become more efficient in its allocation and use of resources (Ehsan, M. and Naz, F., 2003:31, 33). Consequently, infrastructures sectors were forsaken. For instance, in the mid-1990s most African roads were in bad condition because state funding declined. Ian Heggie (1994:1) notes that:

“In spite of their importance, roads in SSA are poorly managed and badly maintained. The replacement cost of main roads in SSA is nearly $80 billion and it requires annual expenditures on routine and periodic maintenance of over $800 million to keep these roads in a stable long term condition”.

Weak states are generally unable to carry out basic functions including regulation, redistribution and allocation. The latter refers to the production and provision of public goods and services to citizens. For several decades the Democratic Republic of Congo (DRC) has found it difficult to carry out this function in several areas, such as road infrastructure. As suggested by Roland Pourtier (2008:45) regarding the image of the DRC, “il n’est que d’observer l’état des routes pour mesurer la déroute de l’État”.

However, initiatives for rehabilitation and maintenance are now carried out both by state and non-state actors. They had been plugging the gap by providing alternative or complementary solutions. As explained by Kristof Titeca and Tom de Herdt (2011: 230) with regard to the education sector, this also applies to road infrastructure “the retreat of the state from the public sector has not led to a vacuum, but rather to the filling of this public arena by a range of other actors, who play a crucial role in the provision of public services”.

In spite of its weakness, the DRC government still plays a role in delivering some public goods and services.

This paper will therefore analyze which modes of governance of road infrastructure are used by these state and non-state actors. ‘Governance’ includes any organized method of delivering public or collective services and goods according to specific norms and stated forms of authority. These specific official and practical norms, involving a specific form of authority, are considered as ‘modes of governance’ (Olivier De Sardan, J.P., 2009: 4). As governance is a polysemous concept, is to be understood here as way to produce, implement and manage a public good or service (Brunelle, D., 2010). In this way, in the DRC public infrastructures are provided by governments, private enterprises, and international and local associations. In this context, modes of governance analysis should not be limited to public and private realms. Various actors

[1] It is only to observe the roads conditions to assess the State failure.
are involved in public goods or services provision to such an extent that it is more relevant to take into account various ways of governance beyond the state and market duality (Baron, C., 2003: 331). We will not theoretically discuss the concept of governance. We simply understand it in terms of ways of decision making and implementing actions. The term ‘modes of governance’ refers here to the manner in which road infrastructures are provided, including road works and bridges.

We thus wonder whether there is a link between the form of funding road infrastructure and the mode of governance. This paper’s characterization of modes of governance draws on Olivier de Sardan’s (2009) framework concerning Niger but some forms may be applied in the DRC. The State uses the bureaucracy of ministries, devolved administrations, technical services and specialized agencies to deliver public goods. Taxation is the fundamental internal resource for many countries. Associations that produce these goods in Africa are largely international NGOs within the framework of their development projects. Indeed, some corrupted states have lost their credibility. This leads funds donors to channel development aid through international NGOs. Their work is based on criteria such as performance, accountability, transparency, participation etc, in accordance with project-based mode of governance. In some countries public enterprises failure gave way to privatization policies. In the domain of infrastructure, the merchant mode of governance thus appeared. Road infrastructure is entrusted to a private provider who actually funds the investment and reimburses himself by road toll. It is obvious that such providers are driven by profit seeking. The sponsorship-based mode of governance refers to the generosity of sponsor such as entrepreneurs, politicians or any other philanthropist involved in funding community goods or services. Other modes of governance may be used to provide public goods or services: chieftain, communal, religious etc. But these modes are less used in road infrastructure provision in the DRC context. There is thus a range of ways of delivering collective goods or services.

This paper aims to explain the modes of road infrastructure governance in relation to funding. It is an empirical and qualitative case study of road infrastructure in the eastern Democratic Republic of Congo, based on a survey we conducted in Beni and Lubero territories in April and May 2012. Several roads in North Kivu are dirty. They become quickly degraded by regular rainfall. The clay also makes them slippery during the rainy season, thus reducing the traffic load which they can bear. Different modes of governance are implemented by the actors involved in building, rehabilitation and maintenance of roads in the eastern DRC. This paper is articulated as follows. The first section explains the issue of road toll governance. The second highlights the project-based mode of governance. The third section illustrates associational initiatives. The fourth focuses on state governance and the fifth examines co-production and multi-actor governance.
2. **MERCHANT MODE OF GOVERNANCE: THE ROAD TOLL**

This mode refers to private infrastructure provision. The private sector is involved in funding and carrying out infrastructures. The provider is more driven by private profit. This way to deliver collective good or service supposes that users or beneficiaries have to pay for it. Private providers regard public good or service provision as a commercial investment and users as customers. In this sense, Ian Heggie (1999: 89-90) notes that in general road infrastructure has become too large and too important to continue being financed through annual budget allocations. This author thus wonders what the alternatives are. Can we bring roads into the market place, and manage them like a business? In this way merchant mode of road governance could be associated with “commercializing roads” model:

“...the main idea underlying commercialization of roads is the ‘fee-for-service’ concept – making road users pay for roads in the same way that rail users pay for usage of rail services. Roads have grown too large to be financed through the consolidated fund. So why not move them off-budget and make road users pay directly for the road services they consume. This is a modernized and extended version of the old ‘user-pay’ principle which gained popularity during the 1950s. Under this system, users paid for road services by way of road user charges and taxes, the revenues were credited to a road special account and were managed independently of the government's consolidated fund.” (Heggie, I., 1999:90).

This mode uses methods such as outsourcing, public-private partnership etc (Olivier de Sardan, J.P., 2009: 29). Broadly speaking, merchant delivery of public infrastructures refers to concession model. A concession is generally identified as a system by which a public authority grants specific rights to an organization (whether private or semi-public) to construct, overhaul, maintain and operate an infrastructure for a given period. This corresponds to a contract, under the terms of which a public authority charges a company with making the investments required to create the service at its own cost and operated the service at its own risk. The company is remunerated in the form of a price by the users of the service and/or the public authority (Bousquet, F., and Fayard, A., 2001:3). A road toll paid by road users is a market-type mechanism similar to a price. Strictly speaking, this mode differs from privatization because in the DRC context road infrastructure coordination and control are still under the State’s responsibility. It is an entrepreneurial type of infrastructure provision because the provider expects to gain profit from road users. He is not the owner of the road infrastructure, it is a public good maintained by private sector. In North Kivu, public and private sectors have been in partnership in road infrastructure maintenance. According to Derick and Jennifer Brinkerhoff (2011: 6, 7) public-private partnership (PPP) is an expression of alternative governance modalities to state hierarchies and markets. Infrastructure PPPs bring together governments and the private sector to finance, build, and operate infrastructure.

During the 1990s, when international cooperation programmes were suspended and the Congolese government was unable to invest in road infrastructure, the road network was severely deteriorated and in bad condition. As an example, the road from North Kivu to Kisangani was unusable. In 1998, the Butembo trade union (FEC) branch addressed itself to the governor of the North Kivu province for road maintenance. The members of this association were among the big losers from road damage. On the one hand their trucks often broke down, and on the other their sales dropped as customers from other provinces could not easily reach suppliers’ shops in North Kivu. The governor approved the proposal and established road tolls...
in the province to finance roads maintenance. The FEC was designated to collect tolls and to use them for road works. It was in charge of roughly 450 kilometers in Beni and Lubero territories. Toll collections were set up at barriers. Hundreds of road menders worked manually to fill in potholes, canalize rain water and cut the grass around the road. The FEC members’ tipper trucks were rented out. Financial receipt books were provided by the province, as a means of financial control. Technical inspection was carried out by the Office of the Roads, a state agency. At the provincial level, the governor appointed a provincial toll roads committee (CPPR') for monitoring and control. The committee set the toll rate based on local assessments. It also ensured the coordination of the various toll committees in the territories and cities of the province. At a local level, the committee was chaired by the FEC and also included representatives of the transport service and communication, territorial administration, the Office of roads and associations of carriers and drivers. According to a former member of the toll of Butembo, local public administrations used to intrude on toll resources management. Some of their officials, when they needed cash, used to ask the FEC to lend them money from toll revenues. This is one of the reasons why the FEC decided some years later to hand roads maintenance responsibility to some of its members.

From 2001 to 2003, these territories were administrated by a rebel movement, the RCD-KML. Under this regime, national and provincial roads were “privatized”. Road sections were allotted to private assignees, usually traders. Thus the toll governance went from “public-private joint management” to “private management of the assignee”. Earlier on, the FEC had been involved in the selection of assignees, which was then being carried out by the rebel administration or some years later by the province. By the provincial Order no 01/026/cab-GPNK/2007 of May 23, 2007 the governor assigned main road sections in Lubero and Beni territories to 10 local assignees. Most of them have been engaging in trade. This local arrangement did not follow the tendering procedure as recommended in order to select the supplier of public works. The contractor should have financial and material resources and some experience in road works. Many areas did not have any public works supply companies. In some aspects, this is a type of concession in the sense that the assignee finances road works and is reimbursed by tolls revenues after his report is approved by the province.

Assignees set up teams of toll collectors and road menders. These ones worked manually, with one mender in charge of each kilometer. If a road section has less traffic, the province could allocate additional resources to its assignee. An assignee is responsible for maintaining his road section, not for opening or rehabilitating roads. Each contractor is generally assigned a section of road between two major cities. The assignee pre finances works and is reimbursed from the toll revenue. This is similar to the way that the FEC has used: setting up barriers, collecting tolls, using menders etc. At the local level, the FEC was involved in financial monitoring and the Office of the roads in technical control. The heavier works such as bridges were carried out by the Office of Roads with the province funding. A settlement between the province, the FEC and the assignees set the terms of monthly toll revenue allocation: 5% to the province, 5% to the committee as bonus for road supervision missions, 10% to the assignee for his pay, 80% for road maintenance (purchase of materials, rental of dump trucks, payment of menders etc). This illustrates a case of real governance negotiated between local state and non-state actors (Titeca, K., and De Herdt, T., 2011:226).

As traffic importance is different depending on road sections, an equalization ac-

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[2] Comité provincial de péage routes
count should support assignees of low traffic roads. Even if it is a public service, it is clear there is economic incentive. It is thus happened that the province switched road sections assignees. The one who lost the most important road traffic could not agree willingly. This shows that there was competition among assignees. According to a former assignee, under their governance road sections were well maintained. One of the key factors, he said, is that:

“The assignee is under local pressure as soon as the road is in bad condition. Drivers and hauliers’ associations question you. The FEC committee is quickly grasped by the road users and asks you how your road is in such a condition. To avoid this kind of ‘display’, you prefer to spend your money on road works even if you have to wait to be reimbursed. When the road is in good condition, the traffic is also important and can generate more resources”.

According to him, the main control is conducted by the users. If the toll revenue is not allocated to maintenance, road falls in bad conditions; it is immediately visible, users are displeased, and consequently traffic and road toll revenue decrease. In contrast, when the road is in good condition, users willingly pay tolls.

Another former assignee said that their expenditure chain is short, so this enables them to react and allocate fund quickly and cope with an urgent road maintenance work.

Assignees noted that roads works require a lot of money and that they are themselves struggling to be reimbursed by the toll. One used this metaphor: “the road is like a beard, you can shave but it grows,” to mean that road maintenance offers no respite. Roads must be maintained regularly and therefore require that funds are still available.

According to an engineer of the Office of Roads, maintaining a kilometer of dirt road requires at least 5,000 dollars. The road from Butembo to Beni, which is 54 kilometers long, has the most traffic. Its toll can generate up to 18,000 dollars monthly; 80% of which should be devoted to the maintenance. This revenue only allows the allocation of less than 270 dollars per kilometer. This reflects the fact that the toll revenue is not enough to systematically maintain the roads. In addition, a part of revenue is absorbed by toll collection costs that reduce the socio-economic return for the roads. There is also a lack of democratic control in the road toll system (Bousquet F., and Fayard A., 2001: 8). In Beni and Lubero territories, the assignee accounted for his toll revenue allocation to the FEC or the province; the toll payers did not know how much was collected and how was it shared out.

At local level this Public-private partnership practice was thus associated with contractual arrangements which appeared to be informal between trade union members and the province government. It could be argued that their selection was likely based on clientelistic practices. The tendering procedure was not the rule followed. It was also an unaccountable model to the public. There should be formal assessment of assignees’ works. Indeed, the assignee was responsible for funding by toll collection and road works contractor, two conflicting responsibilities. According to Mustapha Benmaamar (2006:5), one of the criteria of efficient road management is the separation between the purchaser and the service provider. To hold both positions creates conflict of interest, weakens financial discipline and compromise efforts to control costs and maintain quality. Local assignees capacity was also limited according to their weak technical, financial and managerial competence. This private investment in road infrastructure was limited to basic manual maintenance. The assignee system was applicable until FONER was set up.
3. **Project-based Mode of Road Infrastructure Governance**

This mode refers to bilateral, multilateral and non-governmental aid. It is carried out through ‘development projects’ or emergency programmes. A development project includes all forms of development aid present on a local scale, regardless of the promoter (national or international). It is both a financing agency supporting various local actors (in particular the local associations it has itself created), and a fulfillment agency, providing certain goods and services either directly or indirectly (Olivier de Sardan, J.P., 2009: 24, 25). This is the case for road infrastructure in the DRC. National and international support is given for road building, rehabilitation and maintenance. As in other fields, international NGOs involved in road infrastructure provision play the role of funding agencies in subsidizing various local operators (in particular local associations) or of implementing agencies, providing a direct or indirect supply of certain goods and services (ibid: 25). Local people are often simply considered as recipients.

We will illustrate few cases in North Kivu. Since the end of 1990, in the context of wars in the East of the DRC, many NGOs have been operating in this area. In the Beni and Lubero territories international NGOs specialize in development or humanitarian aid. Others work for international cooperation. For instance, GIZ, a German agency carried out financial management for the European Union programme supporting the Congolese Office of roads at the East of the DRC. The German Agro Action Allemande (AAA) has been realizing rural roads rehabilitation and maintenance on behalf of the European Union, the USAID etc. In 2010 and 2011, the Office of Roads support in the South and North Kivu provinces was funded by the FED⁴. The EU integrates an approach to linking relief, rehabilitation and development in post-conflict countries such as the DRC. In this way, the EU has been supporting rural roads rehabilitation in order to open up agricultural production areas and to contribute to peace and development. This working method is based on a high intensity labour approach known as HIMO⁵ (Razafindrakoto, M., and Roubeaud, F., 1997); a manual working method involving the use of the Office of Roads’ equipment. Employment and income are thus created for local people. The European Union grant of 20 million Euros consisted of material, financial and technical support to the Office of roads teams in Bukavu, Goma and Beni. It supported the construction of direction offices, staffing survey equipment, geotechnical laboratories, spare parts, fuel and lubricants, trucks and construction equipment. In the territories of Beni and Lubero these road works were implemented by the Congolese Office of Roads. Dirt roads from Butembo to Mangurejipa (95 km) and from Beni to Mambasa (126 km) were repaired and reopened. According to the COFED⁶, the project reached a realization rate of 95%. However some officials of the Office of roads at Beni stated that the real rate was below 90%. They thought that the GIZ financial procedure of the project was too heavy. In 2007 and 2008 the European Development Fund also supported the opening and rehabilitation of 75 kilometers of dirt road between Mbau and Kamango, to the northeast of the territory of Beni.

The Agro Action Allemande is also involved in roads repairs in these areas. As well as its ‘food for work’ and ‘cash for work’ approaches, it uses a high intensity labour approach by combining small equipment and tools with manual work. It is clear that works cost less than using a high equipment approach. In 2004, this organization rehabilitated the rural road from Butembo to Vuyinga, which is approximately forty kilometers long. The AAA also works on

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[4] Fonds européen de développement
[5] Haute intensité de main d’oeuvre
behalf of some international donors, especially the European Union, the USAID and the KFW (German cooperation). In 2009, it promptly rehabilitated some streets in the city of Butembo, with funding from the MONUC and Consolidation of Peace (United Nations). After restoring road sections, the AAA involves local authorities in establishing road toll to collect revenue funding roads maintenance.

The ‘Bureau diocésain de développement’ (BDD) is a local NGO of the Catholic Diocese of Butembo-Beni. Between 2006 and 2010, it opened up a rural road in the west of Butembo, from Vuyinga to Mangurejipa, so that local crops could be transported to market centres. The project was funded with support from the Flemish International Centre, a Belgian organization. The BDD has already completed 95 kilometers of road and the project still goes on. The completed road will be handed to the province for maintenance. The BDD also uses the HIMO approach and works with village development committees. One might consider that the BDD mode of governance is a religious one. Indeed, it relies on local development committees generally inserted in local catholic parishes’ organizations. Its case shows that project-based and religious modes of governance can be combined. According to the programme manager of the BDD, the project-based mode is the best for road infrastructure because road works require substantial resources which exceed local capacity. On rural roads, the toll is not sufficient given the low importance of traffic. In addition, he said, project management is more transparent because the work is regularly evaluated by the donors.

In recent years, the province has also entrusted rural roads to local NGOs. However, local organizations do not have enough money to function as international donors. On rural roads traffic is low so toll resources are not adequate for road repairs. For instance, the AAA pays menders 3 dollars per kilometer, but local assignees who inherit roads after rehabilitation are not able to pay more than 1 dollar. The quality of work is undoubtedly affected by scarcity of resources.

In other provinces of the DRC, the Belgian Technical Cooperation (BTC) supports rural road rehabilitation and maintenance. For instance, in Bas Congo, the BTC involves local road maintenance committees (LRMC) in roads projects implementation. They receive equipment, training and funds from the projects. A LRMC consists of a management team of about 10 people and menders. It usually takes charge of 30 kilometers. According to one of the BTC road managers, the partnership with LRMC ensures adequate and sustainable maintenance of roads. But the risk, of course, is that everything will collapse after the BTC support ends. There should therefore be support from the national agency for rural roads, the DVDA. However, it does not have enough resources to support LRMC. This LRMC approach inspires other road infrastructure providers. For the BDD, local development committees play the same role in road infrastructures. Nevertheless, they are also donors’ partners for other development projects in villages. This mode is associated with institutional solutions implemented by international development institutions. One of their most challenges is to provide public goods without substituting for the State. If this is the case, it contributes to weakening the DRC government. According to David Booth (2010: 26-27) their imported norms are supposed to ensure sound, accountable and transparent management of the aid and other desiderata such as sustainability. In practice, they permit social advancement by those with sufficient literacy and ability to master donor ways of thinking, while demobilizing communities. But such opinion should not be generalized; it may be true in some cases.

[8] Direction des voies de desserte agricole
4. **The Associational Mode of Governance and Local Initiatives**

The associational mode of governance applies to local community-based organizations such as development associations in villages and their local collective initiatives. They include local NGOs, cooperatives, religious associations, inhabitants’ organization, natives’ associations and other community institutions involved in local development initiatives such as community services delivery. Paul Francis (1996: 21, 23, 26) wrote that these associations play an important role in community life in south-eastern Nigeria. For instance in Afikpo, members advance the prestige of their own age grades in the community by contributing to community development through, for example, building civic centres, town halls, village squares, roads, bridges, culverts, and sometimes schools. In the oil producing areas, oil companies fund development initiatives, including schools, roads, jetties and bridges, in communities around oil wells.

In the DRC context, contrary to Olivier de Sardan (2009:16), all local associations are not necessarily promoted by development institutions from the North. There are local associations whose funding does not depend on development aid. Some associations raise resources at a local level and provide community development through self-organization. In the DRC, some rural and urban local associations take initiatives to support road infrastructures. Members contribute in cash or in kind. For instance, to build a bridge in a quarter, residents may bring stones, sand etc. Moreover, it happens that a collective work day is organized to build a bridge, draw a road or a street, to channel rainwater etc. In eastern Congo, this type of community work is locally called ‘salongo’. Such local initiatives are often implemented through the self organized provision of infrastructure. But they also use co-production arrangements. Thus, individual consumers or groups of consumers, acting outside of their regular production roles, contributed to the production of some of the goods and services they consumed. In such cases they act as consumer producers (Parks, R.B., and al. 1981:1002).

By illustration, in the village of Kipese, in the southeast Lubero territory in 2009, a bridge was built over the Talihya river. To organise this work, villagers formed a ‘bridge committee’ for the management of the initiative. It was led by the chief of the village and a priest of the Catholic parish of the village was the treasurer. Local people carried sand and provisions were collected on a weekly basis from local markets to feed the masons and their helpers. The bridge construction was mainly funded by the North Kivu province. Now this rural road leads to Edward Lake.

In Butembo in 2010, people living in the Katsya area contributed to building the bridge connecting them to the town. Each plot contributes five dollars or the equivalent in quarry stones or sand. Money was collected by inhabitants’ association, the Katsya development committee (KDC). As local contribution was inadequate, the president of this association sent a demand for support to the North Kivu governor, who agreed. Since 2011, the province has supported building works with more than 60,000 dollars, managed by the KDC.

This working method represents a kind of co-production of public good in the sense that local people supply a part of materials or money in public infrastructure achievement. According to Elinor Ostrom (1996: 1073) co-production means the process through which inputs used to produce goods or services are contributed by individuals who are not in “the same or-

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[9] Discussion in Butembo with the KDC president and secretary, and with a provincial deputy, 21/04/2012
ganization”. This implies that citizens can play active role in providing public goods and services from which they are going to benefit.

This associational governance may be combined with the merchant mode. Some rural road sections have been assigned to local associations for maintenance. To the west of Butembo, some local mutual organizations were responsible for local roads maintenance. However, some of their officials required salaries from the established road tolls. Menders were not regularly paid, so they abandoned the road work. Due to this, the province re assigned these roads sections.

The associational mode of governance may also be combined with sponsorship-based methods. Indeed, community initiatives may be supported by gifts from local generous donors. At a local level in Africa some public services have been funded with support from sponsors such as rich entrepreneurs, politicians, sportsmen or migrants. By illustration, some infrastructure initiatives in Lubero territory have been supported by the provincial government. The contractor is not selected through public market procedure considered as a lengthy selection process. But the province works together with local development committees. The province argues that this saves money and time. Even if it is the normal allocation mission of this institution, it is locally seen as a ‘gift’ from the governor, his personalized response to a local requirement. Although there is no counterparty, such gifts to the community contribute to the fame of the donor, and if he is a politician, he can get an electoral rent from it (Fisette J., and Salmi, M., 1991). In this way, citizens are more considered as voters. Successful coproduction appears to rely on establishing and sustaining a pattern of reciprocal exchange between the parties which produce a public good or service by joint efforts. According to Anna Workman, coproduction is more likely to succeed when both parties recognize their mutual need. In this way, coproduction is underlain by reciprocity (2011:21).

The FEC is also involved in sponsorship initiatives. In 2008, an important bridge on the border between the DRC and Uganda collapsed. The FEC of Beni and Lubero territories funded a temporary bridge used during repairs. It then conducted an advocacy at national level. A metal bridge was also donated by the European Union in Kinshasa. It was carried by the MONUC from Kinshasa and installed by the Office of Roads engineers. The FEC has also contributed financially to the works. According to its president, in urban area like Butembo, bridges built in recent years by NGOs, the municipality or the province, always received financial or material support from the FEC. It appeared to play an important philanthropic role.

Associational and sponsorship-based modes are often related to relationships. Their mobilization for the public good or service delivery is closely linked to the sponsor’s situation. As noted by Olivier de Sardan (2012: 8), this therefore makes them fragile. Indeed, if the initiator or the sponsor loses his opportunity, the infrastructure work may be compromised. Road infrastructure works require stable funding.
5. **State governance**

Public goods should be delivered by the state. This is one of the reasons why the state levies taxes. Infrastructure is often provided by the state through the bureaucratic mode of governance. The bureaucratic arena refers to all state organizations engaged in formulating and implementing policy as well as in regulating and delivering services (Hyden, G. et al., 2003: 2). In the DRC, the Ministry of Infrastructure and Public Works led the road works programme of the government. In order to do this it has various services and specialized agencies: the infrastructures unit, the Congolese great works agency, the national road maintenance funds, the Office of Roads etc. According to the Ministry, in December 2010, only 13.5% of the main roads were in good condition, 10.4% were in fair condition and 76.1% in poor condition (2011: 9). The government has taken the option to rehabilitate at first 23,140 kilometers which represents 40% of total State main road network.

We will shortly describe how the DRC state operates road infrastructure implementation. In the DRC, many road works are funded with support from bilateral (Belgian, German, English, Chinese assistance etc.) and multilateral cooperation (European Development Fund, World Bank). According to the ministry (2011:8), of 2696.5 million dollars that should be allocated to the rehabilitation of road infrastructure in the DRC from 2006 to 2011, grants accounted for 28%, 54% loans and equity 18%. So during this period there is a strong dependence on external financing, particularly loans from China (650 million) and the World Bank (445 million). Contractors are selected through a bidding process. Even if the ministry is coordinating various road works, project-based governance remains the dominant mode. International cooperation demands that its projects should be implemented by enforcing management standard indicators such as efficiency, responsibility, accountability and transparency. For example, within the Ministry, the Infrastructure unit was created in 2004 on the initiative of the DRC government, the European Commission and the World Bank. Its staff includes international experts. Within the department, the Congolese agency of great works, created in 2008, is responsible for coordinating and monitoring infrastructure projects carried out within the “Chinese contract” between the DRC and Chinese companies. The key partners in the field of roads are two Chinese companies, the SINOHYDRO and the CREC. They are funded by Exim Bank of China and the repayment is achieved through the exploitation of mining projects in the DRC. In this way Philippe Hugon (2010) states that the Chinese cooperation is also accompanied by a search for markets for its enterprises. China’s aid policy in Africa uses a ‘resource-backed’ approach called ‘Modèle Angolais’: using African mineral resources in exchange for infrastructure funding (Guerin, E., 2008: 108).

Until 2007, the transportation of goods between the Province Orientale and North Kivu was made partly by Antonov aircrafts, given that several stretches of road were no longer passable. Between Kisangani and Beni, 750 kilometers of dirt roads have been rehabilitated with funding from the World Bank. Part of the work was carried out by the SinoHydro. In 2009-2010 it has also tarred 60 kilometers of road from Beni to Luna, supported from the Chinese cooperation. These achievements are locally displayed by the activists of the current regime as evidence of “cinq chantiers”.

In 2008, the DRC established a national road fund. Since the 1990s more than twenty African countries have established road funds. The programme of transport policy in

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[10] Road infrastructure construction is among the five election promises taken by president Kabila in 2006

sub-Saharan Africa (SSATP), which is funded by international donors, supports the creation of these funds. It is always suggested that they should be funded by road users’ payments and fuel taxes, managed independently and that revenue should be allocated exclusively to road maintenance. This is a commercial approach of roads funding which is supposed to ensure greater efficiency for road management (Benmaamar, B., 2006: 18). Carole Biau, Karim Dahou and Toru Homma (2008) suggest that, to be efficient roads fund in Africa should be separated from the general budget of the State in order to allow it to be allocated solely to roads maintenance.

At present, the FONER income is the main internal revenue assigned for road works. It is supervised by the Ministry of Infrastructure, Public Works and Reconstruction. It levies road tolls: at each toll passing from a territory to another, small cars pay one to two dollars; trucks are charged 10 to 50 dollars according to their weight. To do so it has installed barriers and gates along roads. In addition, the customs office called DGDA[^12] levies a tax of 100 dollars per a cubic meter of imported fuel on behalf of the FONER. Its management is centralized: money is collected inland but allocation decisions are taken in Kinshasa. Because of this lengthy process roads works are sometimes delayed. In the DRC, road tolls have also some drawbacks. Firstly, several informal services graft illegal taxes onto toll gate charging. For road users road toll is associated in this way with hassle and corruption. Secondly, it increases transport costs which has repercussions for goods prices.

In 2011 the FONER collected almost 5 million dollars per month, or 60 million per year across the country; it is not enough for all roads to be systematically maintained. The amount represents only 30% of the annual maintenance cost of national dirt roads and tarred networks. Dirt roads maintenance requires 45 million dollars annually while the tarred call for 150 million (Ministry of Infrastructure, 2011: 7, 20). In eastern Congo, the road users have difficulty to understanding that FONER is a national institution whose mode of allocation does not specify that revenue gathered in one place must finance road infrastructure where it was mobilized. Law simply indicates that 40% of resources (tolls, fuel charges etc.) are withheld on behalf of the provinces for the maintenance of roads of provincial interest. Road users and their associations in Beni claimed in 2011 that this clause should be enforced. They wrote a memorandum to the North Kivu province governor. For them, with more than three million dollars collected by the FONER during that period in this area, their local roads should be maintained. However, as with other national resources whose 40% should be kept in provinces, the same stipulation relating to the FONER resources has not yet been applied.

Since the FONER arrived, in the Beni and Lubero territories, road toll activities are no longer exercised by private assignees. Its main contractor is often the National Office of Roads. This is a public institution responsible for the implementation of road works. It was created in 1971. During the 1990s, its activities faded because the international cooperation was suspended and the Zairian government did not invest in infrastructures. Since the mid 2000s, with the resumption of international cooperation and the government infrastructure programme, the company took over road works provision on behalf of the government, and even for local and international organizations. In North Kivu, menders and assignees were not excluded by the FONER. But assignees are no longer road sections managers. They now supervise menders teams and their manual work.

From 2003 to 2010, the province of North Kivu collected international tolls at the
borders. The revenue collected should finance the provincial infrastructure programme. The province actually built some bridges and rehabilitated road sections inside its territories. Since 2011, this levy has changed, so that the province collects “fees for the reconstruction of the province of North Kivu”. This revenue should be used for infrastructures provision. Each year, it foresees how its budget resources can be allocated to road rehabilitation and maintenance. In 2011, the budget for infrastructures was 4.7 million dollars. The province works with local development committees. Some members of the provincial parliament (2009 Commission report) have denounced the lack of transparency in the collection of road fees and their allocation by the provincial government, and the contractors or local development committees’ selection. Moreover, provincial infrastructure works appear to be used to enhance the governor’s fame. Be that as it may, it illustrates that sometimes the government supports non-state infrastructure providers.

State governance should be underlain by professional norms, formalized through official documents (laws, decrees, decisions and regulations), procedures (the bureaucratic rationality...), organizational structures, terms and conditions etc (Olivier de Sardan, J.P., 2008:8). But local practices described such as arrangements between road assignees, and the provincial government and the governor support to local initiatives are more related to professional practices than to the normative tendering procedure. These aspects are consistent with real governance implementation, referring to the manner in which public goods and services are really delivered and the manner in which the State is really managed (ibid: 1, note 2).

In our opinion, in the DRC context the state remains a central actor in road governance arrangements in relationship with private firms, interest groups, community bodies, associations etc. It should play the main role in overseeing, steering and coordinating governance arrangements; in selecting and supporting the key participants; in mobilizing resources and in ensuring that wider systems of governance are operating fairly and efficiently. Governments and state agencies thus typically play roles at two levels in governance arrangements. Firstly, they need to operate with other players in specific governance arrangements. Secondly, they also have an overall management strategy and oversight role.
6. Public goods co-production and multi-actor governance

A state-centric approach commonly argues that the main public services and infrastructure provider is the state. Public goods and services delivery is one of its basic missions. In this “etatist” model, the state is the main agency responsible for citizens’ well-being and has established redistribution through wealth programmes. These programmes are funded by taxes and debt. After World War II, in many countries key economic sectors were regulated by government, which also played an essential role in providing public goods and services. In many countries the State played the principal role in regulation, redistribution and allocation activities. This paradigm influenced by John Maynard Keynes was based on the fact that the great depression of 1929 has revealed that markets have failed to provide socio-economic efficiency. So government had to intervene to regulate socio-economic activities and to deliver public goods and services. The state should thus be the centre of the redistribution and allocation process. There may be different situations of state-led socio-economic development. But this does not mean that the state is the only actor in public goods and services provision and governance. According to Stephen Bell and Andrew Hindmoor (2009), governments and the broader set of agencies and public bodies that together constitute the state are, and should remain, central players in governance processes. A ‘state-centric’ approach in which governments are imagined to operate in isolation from the societies they govern is to be rejected. The authors suggest a form of interventionism, developing a “state-centric relational” account of governance, arguing that states have enhanced their capacity to govern by strengthening their own institutional and legal capacities but also by developing closer relations with non-state actors.

Since the 1980s, market-oriented programmes have spread under the influence of “neo-liberalism”. This argument is based on the state’s failure to ensure welfare and economic efficiency. It has been noted that welfare programmes caused great public deficits, fiscal pressure and a rise in debt. Welfare economics argues that efficiency is achieved through competitive markets. Thus, to the extent that privatization promotes competition, privatization can have important effects on efficiency. Inevitably, the effectiveness of privatization programmes and markets themselves are simultaneously determined (Megginson, W.M. and Netter, J.M., 2001: 10). The market driven approach calls the state’s allocative capacity into question. It has been argued that a more efficient allocation is driven by market forces, including demand and supply, profit seeking, competition and customer preferences. The neo-liberal approach suggests that public services and goods should be produced by the private sector. Thus the statist model has been hollowed out. Private initiatives in infrastructures provision have been promoted. It is argued that the state’s role in socio-economic activities should be minimal.

Since the 1990s, there has been a growing involvement of the so called third sector in the delivery of public goods and services. In some countries, the third sector has traditionally played a large role; as in Germany and the Netherlands; where it has been an essential part of the construction of the post-war welfare state. In others, like the United Kingdom, it took shape in the context of outsourcing in the 1990s and in New Public Management. In addition, there has been a growth of organized initiatives in which citizens play a direct role in the production of the services, so far largely ignored in public management literature (Brandsen, T., and Pestoff, V., 2006: 494). Collective goods and services are provided by hybrid organizations. They combine action modes of the public, the private and the associational realms. In concrete terms, this means that the third-sector organizations have taken on more characteristics of state administrations (e.g. in terms of formalization), of market logics (e.g. maximizing their income) and of voluntary organizations (e.g. non-for-profit institutions).
By illustration, we noted above that in 1998 the FEC, an entrepreneurs union, established barriers on national roads in the Beni and Lubero territories, charged for tolls, maintained roads and later provided support to road works carried out by state agencies.

In the provision of public goods, infrastructures and services arena, the action logics of actors are not confined to a dichotomy between market and state driven actions. In practice, actors are in interaction and may mix different modes of action or governance. For instance, on one hand government may be able to evade some procedural requirements that might restrict its operations. We noted above how provincial government funds local roads initiatives. Local assignees belonging to the private sector gain public approval and toll funds for projects that might be difficult to bring to fruition without those resources (Peters, B.G., and Pierre, J., 1998: 226). In this way, there are hybrid practices and hybrid organizations.

Moreover, due to the fact that different actors may be involved in public goods, services or infrastructure provision, various modes of governance may be used simultaneously. Mbabazi characterizes this as ‘mixed actor’ governance (Mbabazi, P. and al., 2002:34). Public administrations, international organizations, private contractors, local associations, beneficiaries are active in infrastructure implementation in the DRC. This situation characterizes multi-actor governance. State agencies use administration logic, international donors are more driven by project frameworks, private providers by profit, local association by community interest etc.

Some initiatives in goods and services provision are carried out with contributions being made by different actors. As road users, citizens may contribute time, effort and materials to road works undertaken by the state, the province or an NGO, for their benefit. In such situation we use the concept of ‘co-production’. This relates primarily to the involvement of citizens or clients in production, direct users involvement either in the public or private sectors. At first the co production theory found that the production of a public service is difficult without the active participation of those supposedly receiving the service. Co-production was one way through which synergy could occur between what a government does and what citizens do (Brandsen, T., and Pestoff, V., 2006: 496). In co-production situation there may be multi-actor governance. The authors also distinguish co-management from co-production. Co-management refers to an arrangement by which third-sector organizations produce services in collaboration with the state. Co-production, in the restricted use of the term, refers to an arrangement whereby citizens produce their own services; at least in part. In some cases, there may also be co-governance. This refers to an arrangement by which the third sector participates in the planning and delivery of public services (Brandsen T., and Pestoff, V., 2006: 497). We assume that non state actors are not yet really involved in the planning process for the DRC. In the infrastructure sector, the Ministry of Infrastructures, Public Works and Decentralization is responsible for planning. If citizens’ organizations are involved in the planning and implementation process this may contribute to more allocative efficiency.

The project-based and associational modes of governance refer to third sector actors. Many third sector organizations build strongly on public rules, programmes and money while public organizations often allow for a considerable degree of direct local and group-related participation (Evers, A., 2004: 13). This also highlights coproduction. This is illustrated, for instance, by bridges being supported by the North Kivu province with inhabitants’ contributions. This meets with Vincent Pestoff’s suggestion of an extension of the concept of co-production in order to include collective efforts to provide publicly financed services produced by third-sector providers (2006:515). The two main requirements for coproduction are the continued pub-
lic financing of such services and the participation of consumer producers or citizens in their provision. Furthermore, an important determinant of the quality of the outcome is whether the co-production in question is based on a real coordination of efforts among the actors, and on structures which are consistent (Booth, D., 2010:8).

Despite FONER’s bureaucratic centralization, which has some disadvantages, road works at Eastern North Kivu are carried out through hybrid modes of governance. In the context of the DRC, strictly speaking neither etatism nor neo liberalism respond alone to people’s socio-economic demands. Regarding the debate between “etatism” and liberalism, hybrid governance draws upon merchant, bureaucratic, associational and project-based modes of governance.
CONCLUSION

In the Eastern Congo, different actors are involved in road infrastructure provision. This paper deals with practical ways in which they provide this public good. The Olivier de Sardan characterization is relevant to explain the modes of governance of road infrastructure in the DRC. This research found that different modes of governance are implemented: merchant, project-based, associational, state etc. They are not mutually exclusive but often complementary. In the Beni and Lubero territories, various actors are involved in road works: public agencies such as FONER and the Office of Roads, international NGOs such as Agro Action Allemande, local NGOs such as the Bureau diocésain de développement, international donors as the European Union and the World Bank, international contractors such as the Chinese company Sinohydro etc. In rural areas, local associations take initiatives or collaborate with other institutions in road maintenance.

A mode of road governance is connected with its source of funding. The merchant mode of governance establishes a price paid by road users, which finances road works. Infrastructure provider charges a toll. The project-based mode of governance is associated with aid from national or international donors within the framework of their development or relief programmes. The associational mode of governance relies on community contributions. The state mode of governance is related to taxes as main public resources. Road works are carried out following a competitive tendering procedure and are financed by the Road Fund. Government agencies are involved in works planning, funding and implementing. Overall, local community-based associations and local assignees are driven more by practical rules in their mode of governance. On the other hand, state agencies and the international donors are driven more by official norms.

All these modes of governance are valuable as they contribute to provide road infrastructure. In Africa non state actors initiatives are considered to respond to state failure. But in the DRC, road infrastructure is also funded from government. Non-state actors do not always provide general interest services in the absence of the state. The state is still present at different levels, involved in arrangements with other actors. Therefore, with regard to practices, road infrastructure in Eastern DRC is provided through multi-actor governance and co-production approach. The plurality of actors is associated with the fact that road infrastructure is produced through the combination of different modes of governance. The diversity of road work providers and their interaction calls for co-production and multi-actor governance beyond market-based and state-centric approaches. Varied modes of governance coexist, involving different players and institutions (Olivier de Sardan J.P., 2009: 5).

Each mode has its shortcomings. For instance, some relevant comments have been formulated about project-based governance. The interventions of development agencies emphasize the dependence of developing countries on the outside world while donors claim to support the strengthening of beneficiary states. Their actions are as ephemeral as their projects are short-lived although they claim to promote sustainability. They make their realizations in clear visibility even though they insist on the urgent need for the developing State to assert itself (Olivier de Sardan, J.P., 2012: 17).

But up to now, in the DRC road infrastructure provision depends for the most part on international donors’ aid and foreign loans. As a result, the project-based mode of governance is important. The bulk of domestic road revenue should come from taxes and charges levied
on transport vehicles and fuel. But the income generated by the FONER is insufficient compared to the magnitude of the road task. In addition, its centralized approach keeps the centre of funds allocation a long way from the places where roads are in bad conditions and need urgent repairs. This often leads to misunderstandings and dissatisfaction from road users. The suggestion is that provincial road funds should be set up. This may contribute to moving the center of decision making closer to citizens who are both road tax payers and road infrastructure beneficiaries. In this way, the road fund may meet the expectations of road users. Decentralized governance for local roads will probably encourage citizens to appropriate road works responsibility. In addition, people are more convinced of the need for a road toll when they see what it is being used for.

Because of the magnitude of road costs, local initiatives tend to be grafted onto projects of international donors or gifts from generous sponsors. This is of course a factor in their fragility. If merchant road assignees are paid back only by road toll, they may prioritize stretches of heavy traffic.

Nevertheless road infrastructure delivery in the DRC is fragmented. It needs more co-ordination between different initiatives. The DRC, as a fragile state, still has a low capacity to ensure sustainable resources to fund road infrastructures. As elsewhere in Africa, road infrastructure delivery requires the involvement of varied providers and thus complementary modes of governance.
References


