

eVALUatiOn Matters

A Quarterly Knowledge Publication of the African Development Bank Group
Independent Development Evaluation

June 2014

Mortality in Africa: The Share of Road Traffic Fatalities

2% *the percentage of the
world's vehicles in Africa*

16% *Africa's contribution
to global deaths*

Why?

The Transport Issue

Lessons from African Development Bank, Japanese International
Cooperation Agency, and World Bank Evaluations



AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE
DE DEVELOPEMENT



Content

6 From the Director's Desk: Transport Challenges in Africa: Where should we go now?

Rakesh Nangia, Evaluator General, Independent Development Evaluation, African Development Bank

8 Did you know?

12 Transport Sector in Africa: What Has Happened during the Last Decade?

Hajime Onishi, Principal Evaluation Officer, African Development Bank

22 Transport in Africa—AfDB's Intervention and Results in the Past Decade

Hajime Onishi, African Development Bank

35 Transport Infrastructure—The Energy Drink for Africa's Transformation

Girma Earo Kumbi, Senior Evaluation officer, African Development Bank

40 The Quest for Road Sustainability to Support Africa's Transformation: Time for Innovative Solutions

Joseph Mouanda, Senior Evaluation Officer, African Development Bank



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48 How well have African Development Bank-funded Air Transport Projects in Ethiopia Performed? Lessons learned

Foday Turay, Chief Evaluation Officer, African Development Bank and Dr. Tesfaye Teklu, Independent Consultant



54 Japanese International Cooperation Agency Support to the One-Stop Border Post Initiative in Africa – Our Past Experience and the Way Forward

Takeshi Kozu, Kaori Matsushita, Tomomi Tokuori, and Kei Yoshizawa, Japanese International Cooperation Agency

64 Improving Institutional Capability and Financial Viability to Sustain Transport. An Evaluation of World Bank Group Support Since 2002 – Overview

Midori Makino, Lead Evaluation Officer, World Bank



72 Options to Reduce Transport Prices in Landlocked African Countries

Jean-Guy Afrika, Senior Trade Policy Analyst, African Development Bank

82 Regional Integration. Trade and Transport Facilitation

Gerald Ajumbo, Principal Trade Expert, African Development Bank

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The **mission of Independent Development Evaluation** is to enhance the development effectiveness of the AfDB in its regional member countries through independent and instrumental evaluations and partnerships for sharing knowledge

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We Changed our Name

The name of the Operations Evaluation Department (OPEV) of the African Development Bank has been changed to **Independent Development Evaluation (IDEV)**.

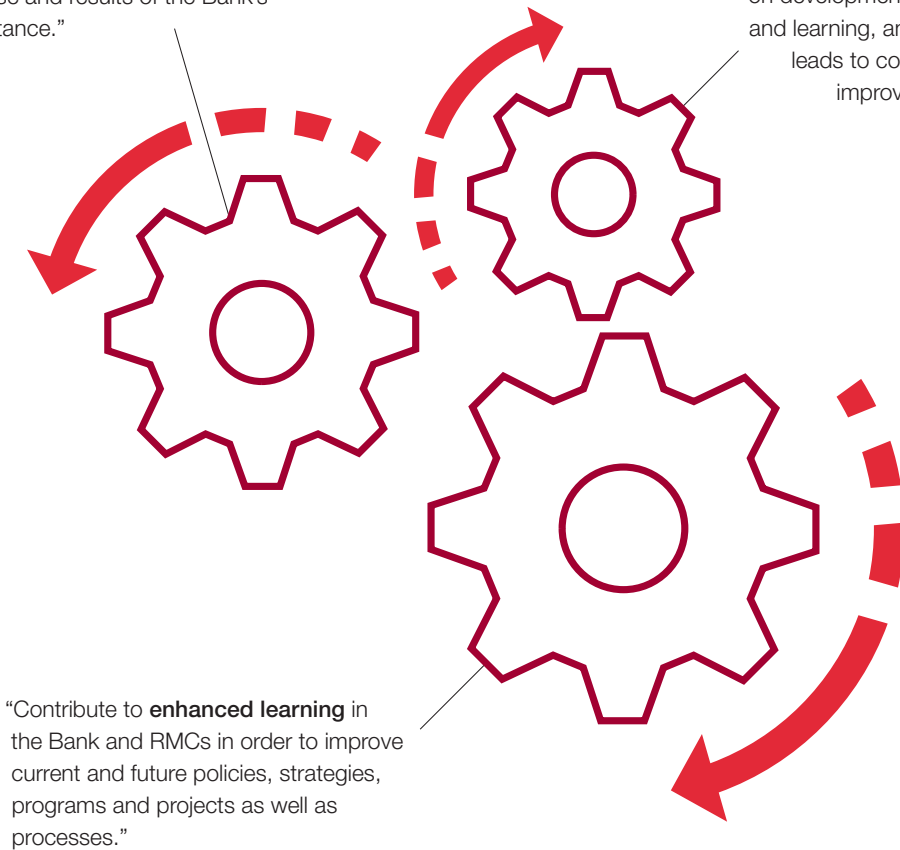
At its October 29, 2013 meeting, the AfDB Committee for Development Effectiveness (CODE) agreed that the department should change its name to include the word ‘independent’. The change aims to better reflect the mandate of the independent evaluation function – it can evaluate any aspect of the Bank’s activities, not just operations – and underscores the independent nature of its work.

The title of the head of the evaluation department is also changed to “Evaluator General”. This better reflects the unique role and position of the department within the organization, and is more in line with the practice in other multilateral development banks.

The three objectives of independent evaluation in the AfDB 2012 Independent Evaluation Policy

“Provide a basis for **accountability** to key stakeholders (including the board, citizens, government) by documenting the use and results of the Bank’s assistance.”

“Promote an **evaluation culture** in the Bank and in RMCs to encourage an orientation focused on development, results and learning, and which leads to continuous improvements.”



“Contribute to **enhanced learning** in the Bank and RMCs in order to improve current and future policies, strategies, programs and projects as well as processes.”

From the Director's Desk

Transport Challenges in Africa:

Where Should we Go now?

Deficiencies in infrastructure—including transport—are holding back Africa's advancement by at least 1 percentage point in per capita growth annually.



Rakesh Nangia
Evaluator General, Independent
Development Evaluation,
African Development Bank

African economies have grown at a solid annual average of 5 percent in recent years, until growth was dampened by the global recession. The fastest growth was in resource-rich countries, which benefited from rising commodity prices. In almost all cases, however, that performance still falls short of the 7 percent growth needed to achieve substantial poverty reduction and attain the Millennium Development Goals (MDGs). The eight MDGs—which range from halving extreme poverty, to

halting the spread of HIV/AIDS, to providing universal primary education by 2015—form a blueprint accepted by most of the world's countries and all the leading development institutions. The MDGs, finalized in 2000 after a two-year consultation process, aim to halve the proportion of people living in poverty—that is, on less than \$1 a day. **Transport does not feature as a specific goal, because it is regarded as a means to an end, rather than an end itself.** Is this the right approach? Good transport infrastructure and services, although not the only factors, are important in helping countries to meet the MDGs by reducing poverty, increasing access to education and health services, and improving the environment.

Where should we go now?

During the past decade, the focus has been on improving the way development agencies tackle cross-cutting issues, ranging from donor coordination and harmonization to improving governance and regional integration. While such issues were peripheral to the previous generation of sector policies, they have become important for newer sector policies that have adapted to a more integrated method of operation.

Some policy issues that were major thrusts in the 1990s—such as the promotion of road agencies, road funds, and public-private partnerships—are not new. However, it is important to acknowledge their continued relevance and our commitment

to pursuing these policies as well as developing new approaches based on old models.

The transport sector also needs to be more realistic about the time it takes to bring about change. Development is an ongoing process, and changes can be reinforced through follow-on projects and projects financed by other institutions that agree with the goals that the AfDB is striving to achieve. As well, building capacity is important; it takes longest, but can be the most rewarding. Measurement is also important. As they say, what gets measured gets done; thus the lack of indicators to measure outcomes as opposed to outputs in capacity building deserves much more attention.

Independent evaluation's contribution to development effectiveness at the AfDB



Did you know?



- Deaths due to road traffic accidents are highest among the most economically active population (15-59 years).
- Men are three times more likely to be involved in road traffic accidents than females in the 15-59 age group.
- Nearly one in ten deaths of men (15-59 years) in North African countries can be attributed to road traffic accidents: 10% in Libya and Tunisia, 8% in Egypt and 7% in Sudan and Morocco.
- Road traffic accidents constitute 25% of all injury-related deaths in Africa.
- In Egypt, Tunisia, and Morocco, road traffic accidents account for more than half of injury-related deaths (Egypt –64%, Tunisia –58%, Morocco –51%).
- Nearly twice as many males aged 15-59 die from injury-related causes (road traffic accidents, violence and others) than those that die from tuberculosis (20% vs. 10%), respiratory infections (20% vs. 6%), cancers (20% vs. 5%) while deaths due to HIV/AIDS were only slightly higher than those for injury related deaths (22% vs. 20%).
- Strategies that can be adopted by governments to reduce the number of fatalities and injuries due to road traffic accidents include improved road infrastructure, speed limits, compulsory seat belts and child restraints, drunk-driving laws, bans on the use of cellphones while driving, and legal requirements for motorcyclists to wear helmets.
- Enforcement of road safety measures is generally weak across the continent.

Alice Nabalamba, Assistant to the Director, Statistics Department

Source: Market Brief, Statistics Department, June 2013, AfDB Chief Economist Complex www.afdb.org



Road Safety in the WHO African Region

The Facts 2013

At a glance

- The African Region has the highest road fatality rates of all the world's regions.
- Young men are the most vulnerable road users.
- Pedestrians, cyclists, and persons travelling on motorized 2- and 3-wheelers are at great risk of death and injury on the roads.
- Most countries still lack policies for protecting vulnerable road users and promoting investment in public transportation.
- Most countries are yet to enact comprehensive laws concerning the major risk factors of speed control, drink-driving, helmet use, seat-belt use, and child restraint.
- Even where comprehensive laws are in place, poor law enforcement renders the laws ineffective.
- Post-crash care is inadequate or lacking in many countries.

From: Global status report on road safety 2013: supporting a decade of action

Source: http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/factsheet_afro.pdf



Did you know?



I – Deaths on Africa's roads

The African Region remains the least motorized of the six world regions, but suffers the highest rates of road traffic fatalities, with 37 of 44 surveyed countries having death rates well above the global average of 18.0 deaths per 100 000 population. While the regional average is 24.1 deaths per 100 000 population, for the 19 countries in the middle-income category, covering 44% of the Region's population, the rate is 27.8 deaths per 100 000 population. By comparison, the global average for middle-income countries is 20.1 deaths per 100 000 population.

Source: Global status report on road safety 2013: supporting a decade of action

While the African region possesses only 2% of the world's vehicles it contributes 16% to the global deaths.

Nigeria and South Africa have the highest fatality rates (33.7 and 31.9 deaths per 100 000 population per year, respectively) in the region. More than one in four deaths in the African Region occur on Nigeria's roads, and with six other countries; Democratic Republic of Congo (DRC), Ethiopia, Kenya, South Africa, Tanzania, and Uganda are responsible for 64% of all road deaths in the region. While Ethiopia, Kenya, and Tanzania have relatively low (for the region) road fatality rates, Nigeria, South Africa, and Uganda combine big populations with very high fatality rates, resulting in large numbers of deaths. These seven countries must reduce their road deaths considerably if the region is to realize a significant reduction in deaths.

Source: http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/factsheet_afro.pdf

Did you know?



Road safety parameters and indicators

Road Safety Management & Policies

Road safety management parameter	Number of Countries	Countries
Countries with funded national strategy that sets targets for reduction of deaths & injuries	12	Burkina Faso, Central African Republic, Côte d'Ivoire, Equatorial Guinea, Ghana, Kenya, Lesotho, Mauritania, Mauritius, Namibia, Rwanda, Zambia
Countries with national policies to separate road users as a way of protecting vulnerable road users	10	Benin, Burkina Faso, Cameroon, Ethiopia, Malawi, Mali, Namibia, South Africa, Tanzania, Zimbabwe
Countries with national policies to support investment in public transport	11	Benin, Equatorial Guinea, Ethiopia, Ghana, Kenya, Mauritania, Niger, Nigeria, Senegal, South Africa, Togo
Laws on major risk factors		
Countries with national speed limits on urban roads less than or equal to 50km/h AND allow local authorities to reduce these	11	Benin, Burkina Faso, Cape Verde, Equatorial Guinea, Kenya, Madagascar, Mali, Niger, Nigeria, Rwanda, Senegal
Comprehensive speed law as above with good law-enforcement	0	
A national drink-driving law based on Blood Alcohol Concentration (BAC, and where the BAC limit for the general population is ≤ 0.05 g/dl.	9	Benin, DRC, Equatorial Guinea, Liberia, Mali, Mauritius, Nigeria, South Africa, Swaziland
Comprehensive drink-driving law as above with good law enforcement	0 -	
A national motorcycle helmet law that covers all riders, on all roads and all engine types, and requires an international or national helmet standard (comprehensive law).	14	Botswana, Burkina Faso, Central African Republic, Equatorial Guinea, Ethiopia, Guinea-Bissau, Kenya, Lesotho, Madagascar, Mauritius, Namibia, Nigeria, Sierra Leone, South Africa
Comprehensive helmet law and good law enforcement		Botswana, Mauritius
A national seat-belt law that applies to all private car occupants (front and rear seats)	18	Angola, Central African Republic, Congo, Equatorial Guinea, Ethiopia, Ghana, Kenya, Mali, Mauritania, Mauritius, Mozambique, Namibia, Rwanda, Sierra Leone, South Africa, Swaziland, Uganda, Zambia
Comprehensive seat-belt law as above with good	6	Angola, Ethiopia, Mali, Mauritius, Rwanda, enforcement Zambia

Source: http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/factsheet_afro.pdf

Transport Sector in Africa since 2000: What Has Happened during the last Decade?

This article was excerpted from “Evolution of AfDB Transport Policy Framework, Policy Review: Transport Sector in Africa,” a policy/literature review report from the AfDB transport sector thematic evaluation. The report was prepared by Hajime Onishi, Principal Evaluation Officer, IDEV, and Peter N. Freeman, Consultant.

Developments that have influenced the transport sector in Africa since 2000 fall under nine main groups (see Table 1). These groups were identified through the literature review conducted for the AfDB Independent Development Evaluation transport sector evaluation. For the most part, these issues were identified because they have been pursued by at least two, and often several, development institutions.

Three of the groupings—donor support, political economy, and regional integration—are cross-cutting themes, and although they impact all sectors, they clearly influence the transport sector and its policies. The other groupings represent other themes that were identified in the literature. Some issues (for example, the establishment of road agencies and the scaling down of force account works) were clearly already part of accepted policy in the 1990s. The evaluation confirms their continued validity and tries to bring out any new directions and emphasis that have materialized since 2000. The approximate date when each topic was launched or gathered momentum is indicated in the table.

Before 2000, cross-cutting issues were given little prominence in sector policies, but as the decade continued, considerable attention was given by multilateral development banks (MDBs) to streamlining internal processes, developing new

financial instruments, and mainstreaming certain components such as gender and safety. The transport sector clearly benefited from these endeavors.

The following section highlights and elaborates on some of the salient developments, focusing on development finance institutions.

Donor Support

Donor coordination

Since 2000, there has been growing willingness on the part of development institutions to cooperate more effectively, both formally and informally. However, as a 2006 Danish International Development Agency (Danida) evaluation of the joint road program in Ghana found, there are practical difficulties that have to be overcome (Danida 2006). According to Danida, donors may have differences in agreeing on the extent to which projects contribute to national development objectives and the indicators to be used in a monitoring and evaluation system. Donors sometimes have priorities that are not necessarily “owned” by the client country. Problems also stem from differing donor procedures for implementation (in particular, procurement), monitoring, accounting, and reporting. While harmonization of these approaches is being actively pursued, it involves working through a series of complex issues, and progress is slow.

Table 1: Developments that have influenced the transport sector in Africa since 2000

<p>1. Donor support</p> <ul style="list-style-type: none"> • Coordination between donors • Sector-wide approaches (1995 onward) • Millennium Development Goals (2000) • Harmonization of procedures (2005) • Multilateral Debt Relief Initiative (2005) • Closing the funding gap (2005) • New lending instruments (2005) • Use of trust funds (2005) • Aid-for-Trade (2005) 	<p>5. Urban transport</p> <ul style="list-style-type: none"> • Urbanization – greater emphasis (2007) • Reducing traffic congestion/pollution • Traffic management • Urban transport planning/public transport (2008) • Integration of land use and transport planning • Public transport options, including bus rapid transit (BRT) • Pedestrians/ non-motorized transport
<p>2. Political economy issues</p> <ul style="list-style-type: none"> • Political instability • Improved security (2002) • Maritime piracy (2009) • Fragile states (2006) • Emergency response (2007) • Governance/ anti-corruption measures (2006) 	<p>6. Transport financing</p> <ul style="list-style-type: none"> • Road funding models and funding gaps (from 1995) • Transport subsidies • Network size
<p>3. Regional integration</p> <ul style="list-style-type: none"> • Transport corridors and logistics (2000+) • Cross-border trade facilitation • Connecting missing transport links • Institutional harmonization 	<p>7. Private sector facilitation</p> <ul style="list-style-type: none"> • Promoting/supporting public-private partnerships (from 1995) • Regulatory frameworks and regulators • Railway, airport, and seaport concessions • Tariff setting and market forecasts
<p>4. Roads and road transport</p> <ul style="list-style-type: none"> • Strengthening institutional and maintenance capacity (from 1995) • Road agencies • Reducing “force account” works • Road construction industry support • Management systems (from 1995) • Road prioritization and use of highway design models • Regulation and law enforcement (2001) • Vehicle overloading • Road and vehicle safety (2005) 	<p>8. Environmental/social/ monitoring issues</p> <ul style="list-style-type: none"> • Climate change/vehicle air pollution (2009) • Social and environmental safeguards • Mainstreaming gender and HIV/AIDS prevention programs (2004) • Extent and quality of monitoring and evaluation (2000 onward) • Development of indicators (2006) • Impact surveys (from 1994) <p>9. Rural transport</p> <ul style="list-style-type: none"> • Access and farm-to-market roads (from 1990) • Accessibility indicators (2006) • Non-motorized transport (rural) (2002) • Public transport (formal and informal) (2003)

Source: Evaluation of AfDB Transport Policy Framework

Cooperation among donors led to the establishment and continuation of the sub-Saharan Africa Transport Policy Program (SSATP). All stakeholders surveyed in a mid-term review of the SSATP confirmed that the program remains a relevant tool for facilitating policy development and capacity building in the transport sector in Africa, although no formal, rigorous evaluation of the effectiveness of the organization was carried out in the absence of baseline information (SSATP 2010). A retreat organized in Addis Ababa to consider the findings, conclusions, and recommendations of the review, however, proposed adjustment of the program through three strategic considerations: (a) increase country ownership of SSATP and anchor the program in Africa; (b) align SSATP with the Program for Infrastructure Development in Africa and other recent initiatives; and (c) make SSATP more demand-driven. The SSATP annual report for 2011 provides the context and rationale for deciding on these measures (SSATP 2011). The SSATP continues to rely on donor support for its existence.

Funding gap

The current funding gap or shortfall in transport infrastructure finance is not as great as for other infrastructure sectors. According to the Africa

Infrastructure Knowledge Program (AICD) report, existing spending on infrastructure in sub-Saharan Africa is higher than previously thought, amounting to \$45 billion a year when budget and off-budget spending such as state-owned enterprises and extra-budgetary funds are taken into account.¹ In the transport sector, the overall figure for sub-Saharan Africa in 2006 was \$16.1 billion a year: \$7.8 billion (48 percent) for operations and maintenance, \$4.5 billion provided by the public sector, \$1.1 billion by the private sector (7 percent), \$1.8 billion from Organization for Economic Co-operation and Development (OECD) overseas development assistance (11 percent), and a further \$1 billion from non-OECD countries, especially China (6 percent) (Briceño-Garmendia, Smits, and Foster 2008). To put this into context, had the pledges made at the G8 Summit materialized—doubling development aid contributions—the total needed for the transport sector in 2010 as estimated by AICD (\$18 billion) would have been reachable with some improvements in efficiency. However, the global recession led to a shortfall in available donor assistance and a gap for transport in the order of \$2 billion a year remains.² This is much better than for power and water, where the funding gaps are in the order of \$23 billion and \$11 billion, respectively.

Aid-for-Trade

An important development impacting the transport sector has been the growth of Aid-for-Trade. The concept of Aid-for-Trade was first

The current funding gap or shortfall in transport infrastructure finance is not as great as for other infrastructure sectors.

¹ Based on annualized averages for 2001–06; averages weighted by country gross domestic product.

² Based on data from AICD, OECD, and African Economic Outlook 2012. www.africaneconomicoutlook.org.

articulated around 2001, but gained momentum in the years following the 2005 Hong Kong World Trade Organization (WTO) Ministerial Declaration. The initiative is led by the WTO, the World Bank, and the United Nations Economic Commission for Africa (UNECA), as well as the U.K. Department for International Development (DFID) and other OECD members. As generally defined, Aid-for-Trade comprises aid that finances trade-related technical assistance, trade-related infrastructure, and aid to develop productive capacity (IMF 2007). There is also recognition that, in the long run, important gains in economic growth can be achieved, especially in Africa, if coupled with trade liberalization. Such liberalization of trade occurs through the abolition of customs duties levied on imports and exports in countries belonging to an economic community and the abolition of non-tariff barriers in order to establish a free trade area.

The number of days it takes for a typical 20-foot container to reach the most accessible port is a critical factor, as UNECA has noted. In Bangui, Central African Republic, it takes 116 days for such a container to be moved from a factory in the city to the nearest port on the Gulf of Guinea. It takes 71 days to move a container from Ouagadougou, Burkina Faso, to the nearest port. In contrast, it takes 5 days from Copenhagen, 6 days from Berlin, and 20 days from Shanghai, Kuala Lumpur, and Santiago de Chile. A delay of one day reduces trade by more than 1 percent. In terms of trading impact, this has been equated to further distancing countries by an additional 85 kilometers. This is especially true for landlocked countries. **Landlocked countries**

have been found to trade less than coastal countries. They have also been shown to have lower growth, on average, than maritime countries. By some estimates, being landlocked reduces average growth by as much as 1.5 percent.

Political Economy Issues

Governance and Corruption

The incidence of corruption and improved governance has affected the transport sector, which involves substantial contracts and procurement needs. The more successful corruption-reduction strategies create a situation in which a potentially corruptible government official chooses not to engage in corruption because the cost of doing so outweighs the benefits. In 2009, the World Bank decided to publish the names of companies that were found guilty of misconduct (Human Rights Watch 2012). Corruption deters investment and hinders growth. It spurs inequality and erodes macroeconomic and fiscal stability. It reduces the effectiveness of public administration and distorts public expenditure decisions, channeling urgently needed resources away from sectors such as health and education to corruption-prone sectors or to personal enrichment. It erodes the rule of law and harms the reputation and trust in the state.³ **Unfortunately, the transport sector is one in which the potential for misconduct is great, because of the number of large construction contracts, which means that MDBs need to be vigilant and transparent, in procurement guidelines and activities in particular.**

³ <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTPUBLICSECTORANDGOVERNANCE>

Regional Integration

Crucial to transport and logistics investments has been progress toward regional integration, since effective trade and transportation underpin the economies of all African regions. Continuous efforts have been made in the last decade to find the right solution and to hasten the process of integration, but progress has been slow.

The benefits of regional infrastructure development are clear, but reaping these benefits poses political, institutional, economic, and financial challenges that are far from trivial. A recent An Independent Evaluation Group (IEG) evaluation of World Bank regional integration projects (including several in Africa) concluded that a majority of regional programs have been effective (if still on a relatively small scale), but that regional partnerships have performed less successfully, because they tended to be dominated by donors or have lacked sufficient resource

Africa needs strong, high-level advocacy and leadership to promote regional integration for infrastructure development.

mobilization plans to ensure financial sustainability (IEG 2007).

Africa needs strong, high-level advocacy and leadership to promote regional integration for infrastructure development. Because of the

pivotal importance of infrastructure, African leaders have agreed to several plans and initiatives over the years. Beginning with the concept of spatial development initiatives in South Africa in the late 1990s, the idea of regional integration on a broader scale gradually took root (Jourdan 1998). Clearly a new direction was needed, and, in 2010, the African Union (AU) established the Program for Infrastructure Development in Africa (PIDA). This program, the successor to the New Partnership for Africa's Development's (NEPAD) Medium- to Long-Term Strategic Framework, developed a vision and strategic framework for the implementation of regional and continental infrastructure. The PIDA initiative is led by the African Union Commission (AUC), the NEPAD Secretariat, and the African Development Bank (AfDB). The Bank's role covers the responsibility for contractual, financial, technical, and administrative management of the program, including responsibility for procurement procedures, in conformity with its existing regulations, budget management, and disbursements. Of crucial importance is that regional projects are prioritized on a rational basis. AfDB is now spending more on infrastructure than on any other aspect of development, and there is increasing regional cooperation on cross-border projects, exemplified by the Trans-Africa Highway and West African power pool.⁴

⁴ The overall goal of PIDA is to promote socioeconomic development and poverty reduction in Africa through improved access to integrated regional and continental infrastructure networks and services. The PIDA initiative requires a total operational amount of US\$11.4 million, which includes the cost of an independent advisory panel of experts (supported by DFID), regional and sector consultative workshops (supported by the European Union (EU) and the Nigerian Technical Cooperation Fund (NTCF), and implementation of an infrastructure database (supported by the EU). The sector studies component alone requires a total amount of US\$7.5 million.



Roads and Road Transport

Strengthening institutional and maintenance capacity: roads

Since 2000, the focus has been on improving effectiveness. Attention has also been given to the prevention of vehicle overloading; to improvements in vehicle roadworthiness and road safety; and, somewhat unevenly, to strengthening the capacity of the local road construction industry. “Force account” departmental labor has been shown worldwide to be expensive and inefficient, and in many countries, such as Tanzania, it has largely been phased out in the past decade in favor of bidding by private sector contractors (IEG 2011).

Concerns about the sustainability of donor-funded road investments are not new. As far back as 1988, a report was prepared on the lack of maintenance of roads, especially in Africa (World Bank 1998). The approach to road maintenance, however, continues to evolve.

Originally, many road authorities used in-house force account units to perform maintenance work. This was a very expensive way of carrying out this activity because the real costs were hidden in the departments’ often complex accounting and reporting structures. Over time, this began to give way to more efficient method-based contracting, whereby a bid system was used to select contractors through tenders for specified work. The system also helped to develop local contracting industries.

In the past decade, however, many countries have moved beyond this model to performance-based contracting, led by Argentina and other countries in Latin America. Performance-based contracting involves explicitly linking payments for the management and maintenance of road assets to clearly defined minimum performance indicators. In Africa, this approach is being used with success in Chad, South Africa, Tanzania, and Zambia.

Vehicle overloading

Vehicle overloading is not a new issue, but since 2000 there have been additional efforts to tackle the problem to ensure that heavy vehicle axle loads are not exceeded. The damage caused by overloading rises exponentially with each additional ton of axle load, and this reduces the life of a road substantially. A series of SSATP documents has now spelled out in detail the steps needed to tackle vehicle overloading, and several donor-funded projects have included provision for portable and fixed weighing stations. The results, however, largely depend on successful enforcement of the legislation and overcoming corruption in the enforcement agencies, which remains an obstacle in some cases. Where these problems are entrenched, it may simply be better to construct thicker pavements, even though this is more expensive. In any case, overloading will lead to more maintenance and earlier rehabilitation (Pinard 2010).

Vehicle and road safety

The road accident death rate per capita in Africa is the highest of any region in the world, at 28.3 deaths per 100,000 people, with an estimated

The road accident death rate per capita in Africa is the highest of any region in the world, at 28.3 deaths per 100,000 people, with an estimated cost of around \$3.7 billion.



cost of around \$3.7 billion. Given that Africa has only 4 percent of the world's vehicle fleet, the rate of return on investment to reduce road crashes is very high, which should provide a strong incentive to introduce accident-reduction programs (SSATP 2012). But, like road maintenance, this is an area that is often neglected. Nevertheless, since publication of the *World Report on Road Traffic Injury Prevention* (WHO and the World Bank, April 2004), various initiatives and resolutions have been taken. These efforts culminated in the March 2010 UN General Assembly resolution proclaiming 2011–20 to be the Decade of Action for Road Safety (resolution A/RES/64/255). In addition, the African Road Safety Action Plan 2011–20 is organized under five pillars: (i) road safety management; (ii) safer roads and mobility; (iii) safer vehicles; (iv) safer drivers and other roadusers; and (v) post-crash response. The Action Plan was adopted at the African Union Conference of African Transport Ministers.



The 5 Pillars of the African Road Safety Action Plan 2011–20

1. road safety management;
2. safer roads and mobility;
3. safer vehicles;
4. safer drivers and other road-users; and
5. post-crash response.

Urban Transport

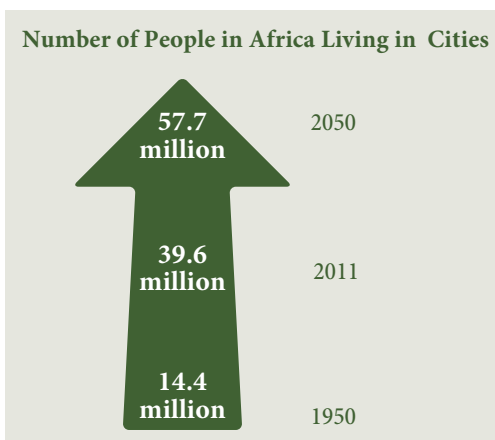
During the past decade, urban transport has gained increasing prominence as urbanization has increased the size of not only the larger cities such as Johannesburg, Lagos, and Cairo, but also that of smaller cities such as Abidjan, Accra, Casablanca, Dar-es-Salaam, and Nairobi. According to the United Nations, in 2011 there were 39.6 million people in Africa living in cities (compared with 14.4 million in 1950), and this number is projected to rise to 57.7 million people by 2050 (United Nations 2012). This growth emphasizes the need for integration between land use and transport planning and the importance of coordination through the creation of metropolitan authorities or similar entities. Isolated examples of good planning and public transport practice can be found, but they are not widespread. A perusal of recent SSATP publications shows a growing interest in public transport know-how on topics such as bus rapid transit (BRT)⁵ and bus renewal schemes. BRT essentially emulates the performance and amenity characteristics of a modern rail-based

⁵ Bus Rapid Transit (BRT) is a high-quality bus-based transit system that delivers fast, comfortable, and cost-effective urban mobility through the provision of segregated right-of-way infrastructure, rapid and frequent operations, and excellence in marketing and customer service. www.sustainableindustries.com/resources/bus-rapid-transit-planning-guide.

transit system, but at a fraction of the cost. A BRT system will typically cost 4 to 20 times less than a tram or light rail transit system, and 10 to 100 times less than a metro system.

Public-Private Partnerships

Although the private sector has been willing to invest in Africa, most investment to date has been in container ports; airport expansion; transport services, including stevedoring; and specialized oil and coal terminals. When compared with progress in other world regions, however, private sector participation lags significantly. Toll roads, for example, are currently only found in Morocco, Senegal, Nigeria, South Africa, and Tunisia, although interest is now being shown in a number of other countries. Regarding railways, according to an AICD report, most African railways are confronting major infrastructure problems, primarily associated with aging track: insufficient ballast, rail wear, deteriorating earthworks and formation, decrepit structures, rail signaling and telecommunications with obsolete equipment, and a lack of spare parts. They are therefore unattractive candidates for private sector finance.





Although contract negotiation, monitoring, and enforcement have proved more time-consuming and difficult than expected in all transport sub-sectors, AICD's evaluation finds that there have been significant gains from private participation in some areas and for certain aspects of performance. For example, a higher degree of private sector involvement is associated with higher labor productivity. A similar conclusion for urban transport has also been put forward by Willoughby (Willoughby 2012).

Environmental and Social Issues

Since transport projects have the potential to harm the environment and can lead to the involuntary resettlement of people, developments in this area are important. The IEG evaluation found that more than a third of the projects in the portfolio had inadequate environmental and social supervision, which manifested itself mainly through unrealistic safeguards ratings and poor or absent monitoring and evaluation.

In the past decade, environmental projects in Africa in the transport sector have clearly focused on reducing greenhouse gases, improving vehicle efficiency, and mitigating possible harm from climate change. Many of these projects have been financed bilaterally with European agencies or global funds, sometimes as part of larger global project. Nevertheless, the number of projects is relatively small, since the bulk of available funding is directed toward renewable energy projects.

Rural Transport

Most rural transport takes place near villages. Trips generally involve short distances and small

loads carried on paths, typically for collecting water and firewood and tending crops and animals. The majority of trips are on foot. Because funds are very limited, it is essential to carefully select and prioritize rural road investments designed to improve local accessibility or investments in non-motorized transport. Agricultural potential and distance from markets are key factors in prioritization.

It is important to strategically align rural road investments with agricultural development programs at the national level, and to prioritize the rural roads likely to have the greatest effect on agricultural productivity and market access.⁶ In many rural communities, volumes of production may be well below the threshold needed to justify the use of a truck to collect produce, and simpler roads targeted more at ensuring accessibility for two-wheeled vehicles or animal-drawn carts may be more suitable (Raballand, Macchi, and Petracco 2009).

Providing full road accessibility to 100 percent of Africa's rural inhabitants would entail a vast expansion in the all-season road network, virtually tripling its length (by AICD report). For most African countries, this goal is unlikely to be affordable, highlighting the need to carefully select and prioritize rural road investments.

⁶ During the mid-2000s, the World Bank developed a rural accessibility index measuring the number of people who live within two kilometers of an all-season road.

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Transport in Africa—AfDB’s Intervention and Results in the Past Decade

This article was extracted and edited from “Transport in Africa – AfDB’s Intervention and Results for the Last Decade: Summary Report,” a synthesis report of the AfDB transport sector thematic evaluation. The report was prepared by Hajime Onishi, Principal Evaluation Officer, AfDB; and Max Hennion, Consultant.

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Background, objectives, and methodology

The transport sector is a core priority for the African Development Bank (AfDB). Deficiencies in transport infrastructure and high transport costs have a substantial impact on development, posing challenges for economic competitiveness of business, provision of social and economic services and intraregional trade. AfDB’s existing transport sector policy (AfDB 1993) was prepared in 1993 and is in need of renewal. In 2000, Independent Development Evaluation (IDEV) conducted an independent evaluation of the road subsector based on a desk review of 30 completed projects approved between 1981 and 2000 (AfDB 2000). In light of the Bank’s intention to formally review the Transport Sector Policy, a more comprehensive independent evaluation was undertaken in order to guide and inform the Bank’s future strategic and operational approach to transport sector assistance.

The goal of the AfDB transport evaluation is thus to inform future policy, strategy, and operational directions for the Bank’s assistance in the transport sector by identifying emerging trends in the sector, assessing how the Bank has responded to

these trends, taking stock of the results of the Bank’s assistance, and drawing lessons for future work. It combines the two objectives of evaluation, (i) accountability, through determining the extent to which the Bank’s activities have contributed to the development of the transport sector in Regional Member Countries (RMCs), and (ii) learning, through the identification of best practices and lessons learned to be carried forward to future projects.

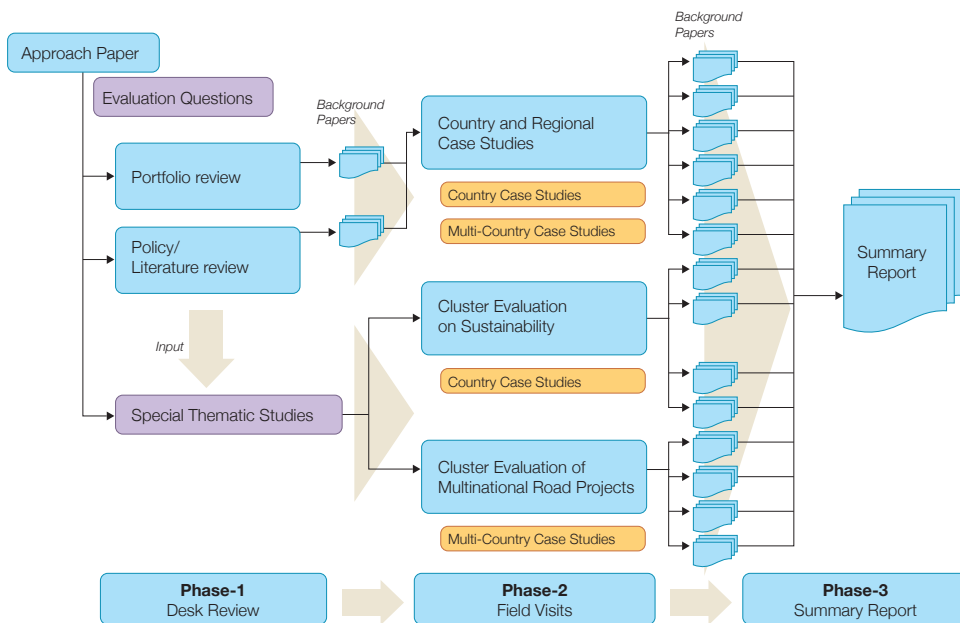
In informing the renewal of the Transport Sector Policy, this evaluation sought to answer four main evaluative questions:

1. How relevant are the Bank’s policies and activities in the transport sector to the needs of recipient counties and other clients?;
2. To what extent has the Banks assistance been delivered efficiently?;
3. To what extent has the Bank contributed to the development of the transport sector in RMCs?; and
4. To what extent are these results sustainable?

The evaluation followed a phased approach. The first phase consisted of desk reviews, including a literature/policy review (OPEV 2013a) and a portfolio review (OPEV 2013b). The second phase of the evaluation involved the conduct of country and regional case studies as well as special thematic studies, which provide an in-depth assessment of the Bank’s assistance at both the country and regional levels. The second phase of the evaluation covered 14 countries⁷ and 6

⁷ Benin, Djibouti, Cameroon, Chad, Ghana, Lesotho, Namibia, Nigeria, Madagascar, Mauritania, Mauritius, Mozambique, Tunisia, and Uganda.

Figure 1: IDEV Transport Evaluation: Inputs to the Evaluation



regional/development corridors,⁸ for a total of 25 projects. Coverage of the various modes of transport corresponded to the content of Bank's transport sector portfolio, which is dominated by road projects rather than railway or port/airport projects. The third phase of the evaluation involved the preparation of a synthesis/summary report of key findings and analyses from the first and second phases.

Portfolio and policy at a glance

Transport infrastructure development continues to be the main priority underpinning the African Development Bank's assistance. Since 2000, the Bank has continually increased its financial

commitment to transport sector projects. It committed about UA⁹ 7 billion over the last twelve years, representing the largest share of any sector among the Bank's overall portfolio. The total funds allocated to the transport portfolio increased by more than sixfold between 2000 to 2011, from UA 150 million to approximately UA 1 billion. This level of financial commitment is greater than that for any other sector, representing nearly a quarter of the Bank's total portfolio. This increase reflects efforts to align the Bank's activities with its medium-term strategies, which emphasize infrastructure development in Africa as a key priority.

8 Rwanda-Burundi, Mali-Burkina Faso- Ghana (BOAT corridor), Tanzania-Rwanda (Central corridor), Burkina-Niger, Cameroon-Chad, and Swaziland-South Africa.

9 UA = Unit of Account

Figure 2: Trends in Transport Sector Share of Total Bank Group Commitments (2000–11)



Source: AfDB 2013, p.4.

The Bank has also progressively increased its focus on multinational (regional) operations. Over the twelve years between 2000 and 2011, resources committed to multinational operations accounted for 27.2 percent (UA 1.8 billion) of Bank support to the transport sector. Moreover, the share of multinational operations among transport sector support nearly tripled between the periods of 2000–05 and 2006–11, and now represents the largest share of projects within the transport portfolio.

The AfDB Transport Policy was issued in 1993. The policy covers all transport subsectors and provides a comprehensive set of principles that govern the eligibility of country proposals to receive Bank support. However, the policy has not been used to guide the selection and approval of transport projects. After 20 years, the Bank’s

transport policy—which could have provided a useful reference framework for most of the period under review—is becoming outdated. The Transport and ICT Department (OITC) is in the process of developing a new transport policy and strategy (including an urban transport strategy) with a related action plan. This new policy will have to address the emerging issues for transport sector development in Africa, including: regional transport facilitation; development of logistic chains, regulation of the road haulage market; railway competitiveness; and governance in building and managing transport infrastructures and services.

Initial investigation into the Bank's transport policy and how it relates to its RMCs brought out 10 key messages to guide us on the road ahead.

Message 1: Bank assistance contributed to mobility and accessibility, but not always to the expected level.

Achievement of project outputs is the strong point of AfDB assistance. All evaluated projects achieved this first level of expected results, whether through work as planned or at the cost of increased project cost or duration. The Bank's contribution to developing mobility was verified by ex post economic internal rates of return that were almost systematically (81 percent) above the opportunity cost of capital. AfDB assistance to improving transport infrastructure freed market forces and individuals from insurmountable transport constraints. Together, these gains represent an invaluable contribution to Africa's development. However, the short-term outcome indicators stated in project logframes often (25 percent) do not meet initial expectations. Measures of the achievement of short-term outcomes have remained elusive due to excessive emphasis placed on project management as opposed to the achievement of outcomes.

Regional corridor projects have faced several challenges due to a lack of coordination among beneficiary RMCs and there is little evidence that results have been achieved at the outcome level. The hypothesized natural order is alignment toward the same development goal; but this is not the case. The results of regional projects have been proportionate to RMCs' commitment to the project and to regional integration in general: promising for Central and East Africa, and less so for West Africa. However, it

is evident that the Bank has successfully applied lessons learned during the implementation of the Bamako-Ouagadougou-Tema Corridor (BOAT) to the Central Corridor project, as demonstrated by the inclusion of ESW to guide project implementation and help ensure an appropriate level of coordination. The capacity limitations of RMCs have not received sufficient analysis or attention at the outset of projects and have often been only partly addressed, particularly for road projects. Despite the fact that institutional weakness in the transport sector exist across the continent, only 36 percent of the 129 transport sector projects implemented between 2000 to 2011 included a capacity-building component.

The Bank-financed public-private partnership (PPP) projects reviewed were proactive in facing contextual and market constraints. The limiting factor of these Bank projects was the lack of a strategic plan to help maximize their contribution to the local economy and upper-level outcomes such as regional integration, tourism development, or urban mobility.

Recommendation 1: Adopt a holistic approach while applying the other nine recommendations

- Non-lending activities such as ESW policy dialogue, institutional restructuring, and capacity development should be incorporated into Bank support for transport infrastructure provision.
- Emphasis should be placed on multi-country assistance, which combines infrastructure development, transport facilitation,

institutional development, harmonization of the haulage market regulations, and integration of the logistic chain with rail and port operations.

- Additional emphasis should also be placed on the development of regionally harmonized transport policies and regulatory frameworks, by supporting RMCs and RECs.
- The Bank should also increase its focus on PPPs via a “bottom-up” approach, which relies on private partners to identify viable business opportunities.

Message 2: *Dysfunctional infrastructure asset protection and maintenance systems limit the sustainability of the results achieved through Bank- assisted projects.*

Except for the PPP projects, for which maintenance is assured over 20 to 40 years via a contractual arrangement, sustainability is a major concern for the Bank's transport sector projects, particularly for road projects. Only a handful of RMC and PPP projects involving links that were constructed or rehabilitated with Bank support were subject to regular preventive maintenance.

Axle load control has been noted as a key issue in most road projects, but generally did not drive the development of new policies or regulations by RMCs or the acquisition of suitable weighting equipment.

The analysis of the effectiveness of RMC maintenance systems in Project Appraisal Reports (PARs) is often brief and generally paints a rosy picture. The scope of the discussion on sustainability is narrowed to the impact of the recurrent costs of the project on the nationwide maintenance budget. The Bank's knowledge base for infrastructure asset protection and maintenance capacity is limited at the level of individual countries.

There was no relationship between improvement in nationwide resources for maintenance and Bank assistance. In the few cases where projects involved a small increase in resources for road maintenance, the effects on road conditions were limited by poor absorption capacity owing to weak road administration and nascent local construction industries, which have sometimes been crippled by market failure. Improvement in road maintenance systems has focused mainly on resource mobilization (by setting up road funds). Projects often did not include non-lending activities that address administration and construction industry absorption capacity. Lessons learned regarding the importance of such non-lending activities have been applied by the Bank in the implementation of new regional projects such as the Central Corridor, which integrated maintenance capacity into the policy dialogue.

Axle load control has been noted as a key issue in most road projects, but generally did not drive the development of new policies or regulations by RMCs or the acquisition of suitable weighting equipment. RMCs found it difficult in most cases to overcome the resistance of importers, wholesalers, and haulage truckers. The Bank's

project approach has placed insufficient emphasis on policy decisions that have significant social or political consequences.

Recommendation 2: Enhance sustainability

- Infrastructure asset protection and maintenance should be prioritized at all stages of the project cycle and via non-lending activities such as policy dialogue and capacity building. This support should adopt a sector-wide perspective and ensure that public sector reform and weaknesses in public finance management are addressed in a systematic manner.
- The Bank should place increased emphasis on both resource mobilization and absorption capacity for road maintenance, including the clearing of maintenance backlogs and support for the establishment of a competitive and robust construction sector.
- The sustainability of the results achieved should be monitored following the completion of an AfDB-supported project. This long-term monitoring should be incorporated into RMCs' monitoring system at the sector-program level in a manner to ensure that the achievement of results at the outcome level is properly assessed.

Message 3: *The 1993 transport policy did not mainstream Bank assistance in a forward-looking vision of Africa's transport.*

Projects do not refer to a specific transport sector policy or even a shared understanding of guiding principles such as a unified theory of change or policy framework. In general, PARs did not reflect the 1993 transport policy.

The 1993 transport sector policy preceded major developments in the transport sector policy framework and lessons learned over the last 20 years. Most of its underlying principles are still sound, but the increasing complexity of tackling transport challenges in Africa requires regular updates.

An up-to-date transport sector policy and regularly updated action plans for all modes of transport are lacking, and there is no reinforcement of the operational synergies between Regional Integration Strategy Papers (RISPs) and CSPs or strengthening of the Bank's leadership in the transport sector. Areas where the Bank could focus include the following: the introduction of performance-based contracting, road and aviation safety, competition in the road freight industry, streamlining procurement procedures, ensuring there is sufficient competition when tendering, translating sound strategies into action plans and implementing them, and advocacy in member states to encourage greater private sector opportunities.

Recommendation 3: Update the Bank's transport sector policy with a new strategic action plan

- The Bank should update its transport sector policy and strategy and adopt a more focused, strategic and integrative approach to transport sector support that places additional emphasis on tackling RMC's administrative and market failures.
- As part of this process, the Bank should identify an underlying theory of change for the transport sector, which can then serve as the common framework for Bank staff to

- operationalize this vision into the new policy, strategy and action plans.
- Operationalize the new vision and the underlying theory of change for the transport sector in Africa in the Bank's transport policy and strategy in a medium-term action plan (the next 'four-eight years'). Related new advocacy background and skills should be developed for the operational staff.
 - Annexes to the Bank's transport sector action plan in the upcoming new transport strategy should be used to elaborate regional strategies (regional transport action plans), using the same country groupings as those used for RISPs in order to operationalize the strategy and identify synergies between infrastructure development and regional integration.

Message 4: Alignment on RMC investment plans prevented strategizing and prioritizing Bank assistance at the country level.

Appraisal and supervision of transport sector projects has been conducted without a guiding policy framework at the country level. The CSPs do not refer to the 1993 Bank transport sector policy. Nor do they present a country or regional transport strategy, or introduce reforms or advisable "institutional stretches" for the sector. Five RISPs that were recently issued only provided managers with a priority list of regional links rather than a comprehensive approach to regional transport facilitation and harmonization of infrastructure asset policy.¹⁰

¹⁰ *Institutional stretches is a new concept emerging among DFIs to depart from best practices, deriving from several political economy works that assessed the shortcomings of the "institutional mimetism" of the 1990s and the "best fit" of the 2000s.*

Efforts to address the needs of the population in RMCs have been limited to ensuring alignment with a national development or poverty reduction plan. Most country projects in the transport sector were identified by RMCs with no input by the Bank. Economic analysis was used afterward to justify the choice and not to inform the strategic selection of projects, which could have resulted in better use of scarce public resources to be mobilized over time to repay the Bank loan. Mere alignment with RMCs' transport sector investment plans did not ensure the best added value for Bank assistance, because project selection was not guided by a prioritized action plan based on reliable data and transport models.

A country-specific transport action plan should be provided as an annex to the CSPs. Such a document would look at the country needs and macro-level economic potential and use these forecasts to identify possible funding gaps.

Bank assistance to the transport sector has been limited to a very large extent to lending activities. The new generation of projects, and in particular regional (that is, multi-country) corridors, made far more consistent use of economic and sector work (ESW) and the logical framework to guide project implementation. Recent changes in OITC are beginning to pay dividends in this regard.

Recommendation 4: Improve sector approach at the RMC level

- The Bank should elaborate and periodically update a country transport action plan or roadmap that is aligned with CSPs. Such an approach could add value to the country sector portfolio and strategy.

- ESW could be used more extensively to elaborate inclusive sector approaches at the RMC level in close coordination with other donors.
- The process of prioritizing lending and non-lending activities could be done in a manner that is aligned with the transport policies and investment plans of RMCs. The Bank should bring about more value added in identifying such activities, not simply by using EIRR but by exploring alternatives more rigorously.
- RMCs should be involved more systematically in developing sector-wide approaches. The Bank should consider mainstreaming support for certain essential reforms, such as the strengthening of maintenance systems as well as market, technical and economic regulation.

Message 5: Market failures in the transport services and the construction industry are absorbing a substantive share of the economic benefits of Bank assistance.

The link between reduced vehicle operating cost (VOC) and lower price is all but mechanical. Almost everywhere on the continent, experience has demonstrated repeatedly that various forms of market failure such as cartelization and governance issues (customs corruption, roadblocks) are creating market distortions and diverting the benefits of transport sector projects (such as reduced vehicle operating costs (VOC)) away from the intended beneficiaries.

Market failures in the construction industry are similarly hampering transport infrastructure development. The ability of the executing agencies to implement Bank projects within the

agreed duration and cost is limited, not only by the increase of the cost of construction products but also by cartelization among the few existing construction firms and misuse of public funds, including corruption. These essential factors have not been addressed by Bank projects nor considered through policy dialogue or country-centered ESW.

Recommendation 5: Secure level playing fields

- Activities that seek to ensure a level playing field among private sector actors and appropriate regulation throughout the logistic chain should be mainstreamed into all projects in order to allow for price adjustments when operating costs are reduced by the Bank's interventions.
- The Bank should also ensure that a fair and competitive market exists for the construction industry by providing technical support to small and medium-sized enterprises as well as their intermediary organizations and ensuring access to suitable fundraising, procurement and supervision mechanisms.

Message 6: Policy dialogue and other non-lending activities were not mobilized effectively to contribute significantly to Bank assistance objectives.

The projects in the transport sector have generally not been used to promote policy dialogue on transport issues. The Bank's contribution to transport sector development through non-lending activities has been marginal. The Bank has only engaged in ESW and policy dialogue as part of its most recent regional corridor project. Decentralization has contributed to greater

emphasis being placed on non-lending activities in this regard.

There is an apparent skills gap among staff within the Bank with respect to transport sector policy and dialogue as well as institutional development. Hiring consultants has not become a common practice. Experience and skills are concentrated on the roads subsector, largely leaving the other modes of transport and policy dialogue aside.

Recommendation 6: Mainstream policy dialogue

- The Bank should strengthen its contribution to constructive policy dialogue in RMCs by undertaking targeted and strategic ESW in the transport sector, linking it to SSATP, PIDA, and other initiatives that support transport policy development and planning.

Message 7: Although recently progress has been encouraging, improved quality at entry will be key for enhancing the performance of Bank assistance, notably for achieving ambitious results.

Quality at entry concerns cause delays and cost overruns. Specifically, the quality of the engineering design has proved to be a major issue during project implementation, resulting in cost overruns. The main causes for cost overruns were constant and steady price hikes in oil product sub-products, which constitute the major share in infrastructure construction. Increase in delays implies a price increase. Market failure in the public works industry in Africa has exacerbated these problems.

Quality at entry (QaE) controls largely continue to be formal requirements that emphasize technical issues and the achievement of outputs. In particular, there is a need for greater emphasis to be placed on ensuring the existence of an enabling environment for Bank projects. The time and budget available for appraisal missions are well-acknowledged obstacles that limits more fulsome assessments of QaE. The skill mix of staff assigned to appraisal mission does not adequately reflect the need for an integrated approach which involves combination of both lending and non-lending activities. The quality assessment of projects' engineering design was sometimes unable to ensure safe implementation of AfDB transport projects, and in particular of road projects.

Combining of infrastructure and institutional development in Bank projects has not been the rule. At best, minimal resources are left to tackle huge and persistent challenges that affect sustainability and effectiveness. There is scope for further improvement in facilitating drivers of change throughout the appraisal process. Donors increasingly value support provided to reform champions, governance reform initiatives, and inclusively elaborated institutional capacity building initiatives. Institutional shortcomings of the executing agencies are typically underestimated in PARs. Analysis of assumptions and risks has been conducted routinely, but has not contributed to the strategic selection and management of transport sector initiatives as expected and has failed to identify means of maximizing the potential benefits of projects.

The ultimate value of transport projects is often assessed based on the economic internal rate of

return (EIRR), which is calculated and tested for one individual project and engineering design. However, such analyses could be used more strategically to guide decision making for a road network management strategy, prioritize proposed projects at the country level or chose between alternative designs, provided that sufficient forecasting ability could be developed. Unfortunately, the Bank's staff have had to rely on poor contextual data provided by RMCs to set the context for the Bank's assistance context and foresee potential transport challenges. However, the presence of field offices is facilitating access to more in-depth and updated background information.

Deficits in quality at entry are resulting in delays and cost overruns. Cost overruns were almost inevitable given project design and management and were then exacerbated by delays. Strategic adjustments made during project implementation in response to these delays and cost overruns have not been sufficiently backed by ESW to ensure that changes will provide the best value for money for Bank assistance.

In contrast, the PPP projects reviewed incurred minimal delays and cost overruns, due in part to the needs of private operators to ensure the profitability of concessions. This optimism must be balanced, however, by the limited opportunities for PPPs in the transport sector in Africa, particularly for roads.

Recommendation 7: Improve quality at entry

- An assessment of the extent to which an enabling policy, institutional environment and sector governance are addressed as sub-components of transport sector projects and/



Deficits in quality at entry are resulting in delays and cost overruns. Cost overruns were almost inevitable given project design and management and were then exacerbated by delays.

or sector-wide approach should be better integrated into the appraisal process in order to enhance quality at entry and promote the achievement of short-term outcomes (level playing fields, logistic chain, maintenance systems, and cross-cutting issues).

- The Bank should ensure that RMCs follow best practices to prioritize transport infrastructure development projects. The Bank should also engage, where required, with RMCs to improve their capacity of data collection and management to operationalize transport models.
- The Bank should improve quality at entry by providing technical support to executing agencies to enhance the quality and reliability of critical design inputs (e.g. databases, engineering, etc.).
- Environment/social and organizational audits should be used more consistently to enhance efficiency in delivering assistance at two critical stages: (i) during project preparation (quality assessment of environment/social mitigation plans, safety audits, and resettlement plans); and (ii) after completion of the infrastructure component (ex post engineering, environment and social specifications audits).

Message 8: *Project supervision has exclusively focused on implementing activities rather than contributing to the achievement of higher-level objectives.*

The Bank's supervision has supported executing agencies in the management of projects. Bank staff have been flexible and responsive in addressing engineering implementation issues, often to the extent that reaching reasonable proxy of outputs with limited delays and cost overruns becomes the main—if not the only—driving factor of Bank project management, without any further reference to the outcomes.

In the portfolio review, the lack of an appropriate skill mix within the supervision teams was frequently mentioned as a major issue.

Overall, however, supervision remains unsatisfactory. Despite increases in frequency, the quality of supervision during project implementation remains an area of concern. The serious weakness of the causal chain (story line) in most projects and the frequent confusion between outputs and outcomes has made it difficult to implement results-based monitoring and management.

In the portfolio review, the lack of an appropriate skill mix within the supervision teams was frequently mentioned as a major issue. The fundamental factor that affects supervision performance at the Bank is a persistent approval

culture and incentives are stacked toward that end, while the overall accountability for results remains low. It is expected that the recent introduction of the Implementation Progress and Results Reporting (IPR) system will lead to a significant improvement in this respect.

Recommendation 8: Improve supervision

- Supervision should center upon monitoring performance and the achievements of short-term outcomes instead of activity management.
- The Bank should ensure that the skill set among supervision teams is appropriate to support the implementation of policy dialogue, capacity building and cross-cutting initiatives.

Message 9: *AfDB positioning into donors' division of labor led it to keep a low profile in RMC reform agendas.*

Although the Bank has been involved in donor coordination, its involvement in platforms for transport sector policy dialogue had been limited for a long time. Most coordination with other donors had focused on shared investment in the improvement of infrastructure according to investment plans endorsed by RMCs. However, the Bank has often been seen as the last-resort donor.

Decentralization is enabling a wider scope for Bank involvement. Recently the Bank has become more actively involved, in some cases (Rwanda, Burundi) taking the lead in coordination of sector donors. The effects of the decentralization process were clearly identified in the new generation of (regional) projects: more presence,

more authority, better understanding of the background, and better personal connections.

Recommendation 9: Ramp up the Bank's role in policy dialogue and donor coordination

- Reinforce the Bank's involvement in donor coordination and transport sector thematic groups through leveraging the long-term partnership established with RMCs, providing support from specialists and placing additional emphasis on ESW.
- Accordingly, the Bank should ensure that staff have the appropriate skill set to support policy dialogue with RMCs, particularly staff posted in field offices.
- The Bank should guide and facilitate both the strategic direction of its own activities and donor coordination in the transport sector through investing in human resources and transport sector expertise within the Bank.

Message 10: Results-based monitoring and evaluation practices implemented to date have not been sufficient to improve the performance of Bank-supported projects.

The Bank has struggled to demonstrate the achievement of short-term outcomes. These difficulties are rooted in shortcomings in the identification and appraisal stages, and then reinforced by project implementation practices. The quality of the logical frameworks among the sample of approved projects has been uneven. The issue has been recently addressed for project design through initiatives such as the Internal Working Group (IWG), through which a culture of consistency is being developed. Core sector

indicators (CSIs) are being integrated, and the quality of logframes is improving.

Any assessment of the extent to which outcomes have been achieved has typically been postponed to project completion. Monitoring of the results achieved has often been left to the executing agencies, who have also generally been unable to provide sufficient baseline data. Furthermore, assessments of the extent to which results have been achieved at the outcome level have tended to cease after the Bank's administrative involvement in a project has come to an end. In recently approved projects, collection and monitoring of baseline data are incorporated into the project as part of an independent contract or are integrated into the construction supervision services, with the objective of assisting the executing agency in those areas and to build their capacity.

Bank staff continue to require support in implementing results-based monitoring, particularly with regard to the guiding principles of results-based monitoring (understanding of the chain of effects) and practice (designing indicators and monitoring and evaluation systems).

Recommendation 10: Improve monitoring and evaluation systems both inside and outside the Bank

- The performance of projects should be assessed against objectively verifiable indicators. Particular emphasis should be placed on the achievement short-term outcomes in overall performance ratings.
- The Bank should also improve the quality of short-term outcome indicators at the project level by ensuring that they are relevant,

specific, targeted and time-bound and that they support the enhancement of subsector national monitoring systems.

- The same set of core indicators should be used for all Bank activities in the transport sector to facilitate consistency and coherence in policy dialogue, supervision missions, and mid-term reviews.

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Transport Infrastructure—The Energy Drink for Africa’s Transformation



A truck is loaded on a ferry on the Chobe River at the Botswana-Zambia border.

*Girma Earo Kumbi, Senior Evaluation officer,
African Development Bank*

A comparison made by one of my former teachers—that transport is synonymous with the blood vessels of the human body—has always resonated in my mind. One can easily envision what would happen to someone if these blood vessels failed to work properly. Similarly, lack of adequate function in transport infrastructure and industry highly constrains the economic growth of a country. It is known that poor quality of transport infrastructure partially contributes to higher transport costs, which in turn reduces the competitiveness of the economy, impedes the delivery of socioeconomic services, and hinders international and regional trade.

Evidence shows that Africa’s transport costs range from 30 to 50 percent, on average, of its total value of exports, compared with about 17 percent in other developing countries (AfDB 2013). This figure is significantly higher for landlocked African

countries. The Africa Infrastructure Country Diagnostic Study estimates that deficiencies in infrastructure (including transport) are holding back the continent by at least 1 percentage point in per capita growth each year.

In its effort to transform the continent’s economy, the African Development Bank (AfDB) made the transport sector one of its operational priorities. The discussion in this article draws on observations made during field visits to Namibia and Botswana to evaluate the Bank’s contribution to the sector.¹¹

Evidence of AfDB’s contribution

Namibia: Roads and Railways

The AfDB has funded two completed projects in the transport sector: the Northern Railway Extension and the Aus-Rosh Pinah Road. The

¹¹ The stakeholder consultation in Namibia was jointly conducted with Professor Gavin Maasdorp (Consultant)

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The Africa Infrastructure Country Diagnostic Study estimates that deficiencies in infrastructure (including transport) are holding back the continent by at least 1 percentage point in per capita growth each year.

objective of the railway project is to stimulate trade with Angola by providing a direct rail link, while the Aus-Rosh Pinah Road is intended to reduce the transport costs of mineral exports. It could also provide another link to South Africa, provided connecting roads are bitumenized, and therefore help to stimulate trade between the two countries. These projects are intended to boost local economic growth, lower the transport costs of domestic trade, and facilitate the mobility of the local residents in their areas.

The road has considerable benefits in terms of lowering vehicle operating costs, the number of accidents, and travel time. According to a transporter interviewed, the benefits of the bitumen road include a 70 percent reduction in vehicle operating costs, a one-hour saving for a heavy vehicle on a single trip, and a reduction in accidents (particularly rear-end collisions between passenger cars and heavy vehicles in the dusty conditions on the previous gravel road). With regard to vehicle operating costs, the lifetime of

heavy vehicles has lengthened substantially on the bitumen surface, and the riding quality of vehicles has improved.

Travel times quoted by a mining company were 2.5–3 hours to Aus on the gravel and 1.5 hours on the bitumen road. This would work to at an average speed of between 56–68 kilometers per hour on gravel and 113 kilometers per hour on tar. According to the former project engineer, it is now possible to average about 110 kilometers per hour on the bitumen road as against less than 80 kilometers per hour on the gravel road. Taking a time saving of 60 minutes per trip, this would result in a savings of N\$125 for a passenger car and N\$85 for an articulated heavy vehicle (VKE Namibia Consulting Engineers). Another mining company put the time for a trip from Rosh Pinah to Aus by truck at about four hours on gravel and a maximum of two hours on bitumen. Productivity had increased both for the company and its clients, which meant a quicker turnaround time and higher profits.

Social benefits have also accrued through greater mobility and a corresponding reduction in the feeling of isolation among residents of Rosh Pinah, and through employment and skills created during construction. Travel between Rosh Pinah and the nearest main towns, such as Luderitz and Keetmanshoop, has been facilitated, and there is greater social interaction with the rest of the Karas District as well as with Windhoek. The Northern Railway Extension had expected a 3 percent growth of traffic, a reduction of 25 percent in the average costs of transport compared with movements by road, a reduction of 60 percent of congestion in truck

traffic, and lower maintenance costs for roads. The railway was opened in 2006, so taking 2007 as the first year of operation, the expected traffic according to the feasibility study would have been in the range of 171,650–321,125 tons. However, according to the 2008 Annual Report of TransNamib Rail, the line carried 131,290 tons that year (2008). Data from the station master at Ondangwa showed that in 2012, the line carried 159,620 tons. This was made up very largely of cement and crushed stone, where the private sector is the main beneficiary. The 2012 figure is well below the forecast figures, but numbers will pick up, because cement and crushed stone traffic is expected to increase rapidly.

Field interviews with users indicated that costs of transport had indeed fallen compared with road, the differential varying by commodity. Thus, for cement, rail was 102 percent cheaper than road, while for fuel, the differential was 15 percent. A stone-crushing company estimates the saving at N\$100 per ton, as result of shifting to the new railway transport, which would in turn benefit the wider construction industry through price reduction for crushed stone. Interviewees, however, stated that the railway had had no apparent effect on the actual volume of heavy vehicles on the road. Because of economic growth in the north, heavy vehicle volumes had grown, but not as rapidly as would have been the case in the absence of the railway. The same reasoning would apply to road maintenance costs. However, the impact of the railway on road traffic and maintenance costs would have been more favorable had the locomotives and rolling stock in use been suitable for the traffic on offer and if the line from Kranzberg to Tsumeb had been

maintained and upgraded to enable rail to compete for traffic from Walvis Bay and Windhoek.

Connecting Botswana and Zambia: The Kazungula Bridge

An efficient transport network linking a land-locked Botswana to its trading partners is a prime requirement for promoting growth and the government's policy of economic diversification. Road infrastructure development has been central to the government's transport effort.



... the benefits of the bitumen road include a 70 percent reduction in vehicle operating costs, a one-hour saving for a heavy vehicle on a single trip, and a reduction in accidents (particularly rear-end collisions between passenger cars and heavy vehicles in the dusty conditions on the previous gravel road).



Ondangwa railway station

The Bank's support to the sector was through the *Botswana/Zambia North-South-Corridor Study* (a regional operation). The North-South Corridor Feasibility Study (Botswana/Zambia) was completed in May 2011. The study led to the realization of the Kazungula Bridge Project, a multinational project that links Botswana and Zambia. Without the bridge, the trucks are loaded onto a ferry to transverse the Chobe River, which is time consuming (see picture on page 31). Discussion with ferry attendees indicated that it takes three to seven days for trucks to queue to use the ferry to cross the river. The Kazungula Bridge is currently under implementation, and

the construction is expected to begin next year. Upon completion, it is expected to contribute to the regional integration agenda by enhancing trade between Zambia and Botswana.

Maximizing the benefit of investment in transport infrastructure

Notwithstanding the achievement mentioned above, the railway project in Namibia is underutilized, due to poor maintenance elsewhere on the rail network (internal problem) and the failure of Angola to build a connecting line to its system (external problem). The root causes of the domestic rail problems are twofold: first,

the lack of funds for rehabilitation, maintenance, and upgrading of the track and the purchase of locomotives and rolling stock; second, to the shortages of skilled personnel at the managerial, administrative, and technical levels in TransNamib Holdings (TNH), the railway operator. As a result, TNH has been unable to regain the traffic for which it has an economic advantage over road. On the Angolan side, the failure to extend the line to join with the Northern Railway Extension at the border is regarded in Namibia as attributable not only to addressing of infrastructure priorities (of which the rail connection is not one), but also to political strategy regarding the development of the port of Namibe and the protection of Angolan producers. If these

could be rectified, the project should be able to meet its objectives in the long term.

The Aus-Rosh Pinah Road can be counted a success, but in the very long term (longer than 20 years). Once the present mines are exhausted, traffic will depend on the links from Rosh Pinah to the south being bitumenized.

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The Quest for Road Sustainability to Support Africa's Transformation: Time for Innovative Solutions

*Joseph Mouanda, Senior Evaluation Officer,
African Development Bank*

Abstract

With its impressive, albeit insufficient, economic growth, Africa is moving toward economic transformation. Closing the infrastructure gap, including the needed roads to link the continent and its production and consumption areas, becomes a leitmotiv for development partners. During the 2000–11 period, for instance, the African Development Bank commitments in the transport sector increased more than six times, with 78 percent dedicated to roads, mainly road rehabilitation.

However, building new roads or rehabilitating existing ones is not sufficient to guarantee development results. The roads also need to be properly maintained. Increasing the road network adds to the maintenance burden. This is why road sustainability—mainly in sub-Saharan Africa—has been an issue for almost two decades. Unfortunately, the issue of unsustainable roads remains a concern. Therefore, development



partners and African client countries should work together to identify innovative solutions to make the road network sustainable in order to really support Africa's transformation.

Sustainability Level of AfDB-funded road projects.

- *Road projects are technically viable, but shortcomings – such as the nature of the basic studies, which are sometimes superficial and are not subject to appropriate quality control – affect sustainability.*
- *Maintenance remains a major challenge for road sustainability.*
- *Fostering the economic viability of roads requires their integration into urban and rural development programs.*
- *Progress in institutional frameworks is visible but not sufficient.*
- *Road projects generate environmental viability and positive socioeconomic benefits.*

What Does Sustainability of sub-Saharan African Roads Look Like?

This article adopted the operational definition of sustainability provided in the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee's "Glossary of Key Terms in Evaluation and Results-Based Management" (OECD-DAC 2002): "the continuation of benefits from a development intervention after major development assistance has been completed."

Consequently, the term "sustainability" describes, in this instance, the project's ability to maintain an acceptable level of benefit flows throughout its economic life span. It includes the following interacting dimensions: (i) technical viability, (ii) maintenance of physical infrastructure, (iii) financial and economic viability, (iv) socioenvironmental viability, (v) long-term institutional capacity, and (vi) stakeholder support. This holistic approach is considered essential, especially as the sustainability of results may be jeopardized if one or more of its dimensions are missing or inadequately taken into account in the road projects.

Based on a cluster evaluation *carried out by the African Development Bank (AfDB) Independent Development Evaluation on about 10 projects*¹² from a sustainability perspective, the

¹² The 10 projects reviewed cover different regional groupings and are located in Mauritania (North Region); Cameroon and Chad (Central Region); Benin and Ghana (West Region); Uganda, Madagascar and Mauritius (East Region), and Lesotho and Mozambique (South Region).



sustainability level of the selected AfDB-funded road projects can be characterized as follows.

Road projects are technically viable, but there are shortcomings affecting sustainability. The road projects assessed are, on the whole, technically viable. The technical options implemented (road width, choice of surfacing, drainage, roadside improvements, and the like) are often adapted to the project's geographical/physical needs. They frequently convey a concern for long-term resilience and works implementation in compliance with best practices. However, the aspects relating to the promotion of safety for road users and those living in their vicinity, equitable service provision (particularly in the case of pedestrians and two-wheeled vehicles), and provision of adequate equipment for monitoring and controlling axle loads remain a real concern that deserves further consideration. The joint efforts of the main implementation actors, especially contractors, and monitoring and control missions, including laboratories, have made



it possible to construct road infrastructure in compliance with best practices and achieve the required technical performances.

Shortcomings that affect sustainability have been identified. These include the nature of the basic studies, which are sometimes superficial and are not subject to appropriate quality control. Therefore, modifications are made during implementation. These modifications are often judicious, especially because they are generally aimed at improving infrastructure operability and sustainability. While they may be perceived as indicators of sound project management, their scale often highlights the extent of weaknesses and/or errors at the preliminary and detailed design stages. They often lead to additional costs, which stem from works contracts that are sometimes based on inaccurate or unrealistic specifications. These modifications also result in technical choices dictated by budget cuts, choices that, in some cases, affect sustainability, including reduction of the thickness of a base course and reduction in pavement/shoulder width. These measures exacerbate pavement

wear and tear during the operational phase, limiting infrastructure sustainability.

Maintenance remains a major challenge for road sustainability. In terms of road infrastructure maintenance, the apparent condition of the roads is considered satisfactory overall. Nevertheless, signs of pavement wear and tear have already been observed in many projects. This is due to a combination of several factors, including (i) limited maintenance, mainly owing to a lack of resources and low absorptive capacity of available funds; (ii) nonadherence to axle load limits; and (iii) weak ownership of infrastructure by the beneficiary communities, particularly users and local residents. Limited resources also result in the postponement of road maintenance, which creates an accumulation of maintenance delays over the years.

Therefore, maintenance remains a major challenge for road sustainability. The countries under consideration and, indeed, most sub-Saharan African countries, have made outstanding efforts to extend the road network. However, maintenance policies and programs have not achieved the same success.

Fostering the economic viability of roads requires their integration into urban and rural development programs. Undoubted economic viability was highlighted in the majority of the projects. However, this should be treated with caution because of the calculation methods used and, in particular, the categories of benefits taken into account. Fostering the real economic viability of road projects requires their integration within urban or rural development programs

along with the complementary projects or supportive measures needed to accelerate the emergence of positive economic impacts.

Progress in institutional frameworks is visible but not sufficient. Institutional frameworks are making progress, especially regarding planning and design tasks, where the project owners are becoming more professional. However, effective decentralization is necessary in order to integrate anchor projects into development plans. There has also been undeniable progress on downstream links (operation-maintenance). The reforms implemented also focused also on the mobilization of long-term resources and on building intervention capacities (network auscultation/monitoring, programming of maintenance operations, and boosting the small of medium enterprise sector to implement them), are making real progress, and their impacts are already noticeable in the road network.

But this progress is impeded by: (i) the fragility of road fund resources, resources that remain dominated by oil taxation proceeds and transfers from the government budget/development partners, which are uncertain or nonpermanent resources; and (ii) a lack of commitment to follow through on some key aspects of sector reforms, particularly recovery from users (increase in the number of toll booths, tariff policy, and the like). Furthermore, the absorptive capacity of available resources remains weak. Finally, the infrastructure is not equipped to withstand axle overload, given the lack of equipment and the ineffectiveness of actions taken to enforce axle load limitations.



Environmental viability and undoubted positive socioeconomic benefits generated by the road projects. Environmental standards were complied with in all the projects evaluated. However, some negative environmental impacts brought about by the transport system are highlighted in the projects evaluated. There has been a strong economic impact on the development of the regions concerned.

Weak ownership of infrastructure by the beneficiary communities and populations is a factor of vulnerability noted in most of the road projects examined. This is repeatedly reflected in: (i) the uncontrolled installation of petty traders encroaching on the road right-of-way; (ii) the discharging of liquid and solid waste on the pavements (including oil products); and, in particular, (iii) vandalism and stealing of road signs and electric cables.

In conclusion, there are still a variety of reasons for the unsustainable road infrastructure in sub-Saharan African countries.

Two Critical Failure Factors of Unsustained Road Infrastructure in sub-Saharan African Countries

Insufficient sustainability mainstreaming during the road project cycle

Design quality, sustained adaptation to the context, and reality on the ground as well as sound implementation are the main guarantors of a strong likelihood of road project sustainability. Analysis of the infrastructure in relation to the different dimensions of sustainability shows that the countries examined through the projects evaluated have, to varying degrees, made significant strides toward quality that will strengthen sustainability. However, further efforts are required, especially to improve the quality of basic studies.

The identification of potential threats, as early as possible in the project cycle, is essential in

Design quality, sustained adaptation to the context, and reality on the ground as well as sound implementation are the main guarantors of a strong likelihood of road project sustainability

Box 1 : Road design pitfalls

- Road pavement design is sometimes based on superficial studies with inadequate quality control and on traffic levels poorly understood, mainly due to uncertainty about development projects likely to be implemented in the project area of influence.
- Road project preparation and monitoring that has benefited positively from high-caliber international expertise, but with persisting shortcomings related to complex issues emerging in the region: crossing difficult terrain and innovative developments (cycle tracks, for example).
- Insufficient consideration during the design phase of aspects concerning road safety and equitable service provision, due mainly to weaknesses in engineering designs. At the same time, environmental safeguard measures have been adequately integrated.
- Road maintenance and adherence to axle load limits are specifically mentioned in the ex ante evaluation reports as sector requirements. However, their analysis is sometimes superficial.

order to include the mitigation measures no later than the implementation phase.

During the implementation phase, the governments and executing agencies, backed by consultants and contractors, including laboratories, are the main actors engaged in implementing measures to eliminate or mitigate sustainability-related risks, while the Bank ensures smooth project implementation. However, faced with some complex issues such as those arising at the design stage, the mechanism remains ill-prepared to provide satisfactory responses.

During the road infrastructure operational phase, the provision of funds by regional member countries (RMCs) for road maintenance, the transparent, effective, and efficient use of resources, as well as control of vehicle axle loads, are the main actions envisaged by the RMCs to ensure road project sustainability. These are carried out fairly successfully in the countries whose projects were selected for this study. For its part, the Bank does not have a post-completion road project monitoring mechanism that could ensure the effective implementation of the envisaged actions.

Unfinished Reform Agenda

In institutional capacity, development partners have supported the programs and policies as well as the sector policies in a consistent and coordinated manner. The impact of this support has been considerable, particularly with the establishment and development of road funds. However, much remains to be done toward establishing road agencies that are more autonomous and efficient in road network management due to constraints on/reluctance on the part of RMCs. The support provided to small and medium enterprises (SMEs) involved in road maintenance remains transient. In general, initiatives to help remedy poor road maintenance have met with limited success. Therefore, the reforms have not been substantial, with the result that the road networks of these countries remain in a worrisome condition.

The Way Forward

- **Improving quality at entry.** There is need to further strengthen the criteria and standards of quality at entry of road projects by

Box 2 : Mitigating sustainability-related risks during implementation

- To address the reality on the ground, judicious modifications are made to the project during implementation to offset the shortcomings of the basic studies and the exogenous hazards that occur between appraisal and works start-up and to meet actual requirements.
- Though judicious, such modifications have resulted in: (i) additional costs, (ii) slippage on the implementation of certain works or the provision of consulting services, and (iii) the cancellation or reduction of works to offset the additional costs. They also raise management problems, especially since some are made after contract signature, thereby compromising competition conditions.
- Furthermore, the countries' capacities in terms of monitoring environmental impact management programs are limited and compromise the results of the environmental mainstreaming, safeguards, and results of road projects.
- Limited local community involvement was noted in all the projects evaluated.

adopting guidelines that will contribute to the operationalization of a concept of sustainability that incorporates all the dimensions (technical, economic, social, environmental, and institutional) throughout the project cycle, including the post-completion phase.

- **Fostering the promotion of safety and environmental protection in road projects.** There is need to further strengthen the promotion of safety and environmental protection aspects by institutionalizing: (i) independent safety audits prior to the commissioning of

Box 3: Road funds and road maintenance—An alternative solution

Despite the advantages of implementing a road maintenance fund in a developing country, a country may refrain from taking steps to implement it. One of the reasons is that the country is being pressed to reform too quickly or too soon. Rather than forcing the issue, it may be better to step back and let the country itself set the pace of change (if it is prepared to do so) and take responsibility for determining its own reforms—which may ultimately include road maintenance funds. There is much in favor of self-reliance in the process of change, which involves: (i) a transformation forum of stakeholders to be the focus and initiator of change; (ii) an agenda for change; (iii) development agencies as facilitators, not drivers, of change; (iii) supporting the change process by promoting understanding, dialogue between countries, information updates, wise use of external resources, and flexible support from development agencies; and (iv) keeping changes on track through stakeholder influence, regular assessment, audits, and focusing on minimizing known problems and regular and effective monitoring.

Source: Asian Development Bank 2003.

roads and during operation; and (ii) post-completion environmental audits to provide measures to eliminate or mitigate unforeseen impacts occurring after the implementation phase.

- **Technical audits before major modification.** The systematic use of technical audits should be institutionalized prior to any major modifications to road projects, especially as these compromise competition conditions.

- **Resource mobilization.** Mobilize special funds to support RMCs that have initiated significant sector reforms to gradually make up the accumulated delays in preventive maintenance (routine and periodic) by:
 - ✓ Organizing an international conference with the participation of development partners, the ministries responsible for finance and road infrastructure, road agencies, road funds, and all other stakeholders, in order to define an action plan to halt the deterioration of road networks in sub-Saharan Africa due to a lack of appropriate maintenance.
 - ✓ Mobilize resources to establish a special fund (over five or ten years), like the road project preparation facility, to finance preventive maintenance arrears (current and periodic) to bolster the own resources of states engaged in major reforms.
- **Decentralization:** Pursue and consolidate decentralization in order to have a real partnership with local communities throughout the infrastructure project cycle.
- Tackling the unfinished reform **agenda.** Pursue the reforms embarked upon in some countries in order to:
 - ✓ Mobilize reliable, stable, and sustainable resources to meet all the routine and periodic road maintenance requirements in the RMCs through: (i) the consolidation of the road funds' own resources by revising toll tariff policy, expanding toll stations wherever the profitability of the site is confirmed, and seeking innovative solutions; and (ii) continuation of the efforts (still in their early stages) to involve the private sector in the development and operation

of infrastructure, which could help to leverage additional sustainable resources for the sector. The expertise to be provided to RMCs in this area is paramount for the future.

- ✓ Diversification and safeguarding of resources of road funds, including fuel levies, axle taxes, and insurance surtaxes. If necessary, assist the countries in conducting a study on the consolidation of road maintenance resources. In order to better serve road maintenance needs, these quasi-own resources should also be better mobilized and available in a timely manner.
- ✓ Enhance the efficacy of institutions responsible for the development and maintenance of road networks.

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How well have African Development Bank-funded Air Transport Projects in Ethiopia performed? Lessons learned



(This note is based on a synthesis report on the performance of the Airline Infrastructure Development Project and Addis Ababa International Airport development Project prepared by Dr. A. Ezzine Independent Consultant)

Foday Turay, Chief Evaluation Officer, African Development Bank and Dr. Tesfaye Teklu, Independent Consultant

I. Introduction

Developing transport infrastructure and services has been and is still a core partnership area for the Government of Ethiopia (GoE) and the African Development Bank Group (the Bank) in order to strengthen Ethiopia's competitiveness in regional and world markets, and regional integration. The support of the Bank focuses over the years on the removal of some of the binding constraints in road transport and air transport.

The Bank support to the transport sector started in 1975. Its total approvals over the period between 1975 and 2011 amounted UA341.17. The specific support to the air transport amounted UA 77.7 (or, 23 percent of the total approvals). This was channeled to finance three projects: the Ethiopian Airlines Infrastructure Development Project (EADP); the Addis Ababa International Airport Development Project (AADP); Ethiopian Airlines Project (EAP). The EADP (1990-1997) and AADP (1996-2004) have been completed, while the EAP (2011-2017) was approved in 2011 and ongoing. These three projects are complementary but sequentially implemented.

This note summarizes the performance of the EADP and AADP in particular to bring out pertinent issues for learning and informing future design and management of similar Bank-supported air transport projects in Ethiopia. The synthesis note is organized in five sections. Following this introduction, section two briefly sets the policy context, and the choice and purpose of the projects. Section three highlights the projects' successes including sustainability of benefits. Section four underscores the design and implementation challenges. Section five draws the conclusions and lessons learned.

II. The Ethiopian Airlines Infrastructure Development Project (EADP) and Addis Ababa International Airport Development Project (AADP)

The transport system in Ethiopia consists of four modes: (1) a classified road network, (2) railways running from Addis Ababa to the ports of Djibouti, (3) air transport – international and regional airports as well as domestic airstrips, and minor (4) river and lake transport services. Access to these transport modes is limited due to underdeveloped transport infrastructure and services. And, despite the importance of air transport for connecting long-distances between regions and strengthening Ethiopia's competitiveness in regional and global markets, the sub-sector had been characterized by critical infrastructure and institutional constraints.

In view of the importance of developing the transport sector, the policy of the Government

of Ethiopia (GOE) emphasizes on the expansion and improvement of the country's roads and air transport infrastructure and transport services. With regard to air transport, the priority has been on developing the country's airports particularly the airports that inter-connect the regions starting with expansion and improvement of the Addis Ababa Bole International airport and enhancing the capacity and efficiency of the national carrier, the Ethiopian Airlines. The EADP and AADP, which were implemented over a period of 14 years (1990-2004), were part of the GOE's priority interventions.

With regard to EADP (1990-1997), the GOE sought to expand its route network, modernize its fleet, and improve aircraft maintenance and productivity. It was established at appraisal that lack of engine test cell and flight simulator hampered effectiveness of operations and created financial pressure as the national carrier had to depend on facilities located overseas. The project was thus designed to construct a Jet – engine Test Cell and a Flight Training Simulator (for pilot training), and to undertake a feasibility study for a cargo terminal and a maintenance hangar and engineering design. At appraisal, the project cost was estimated at UA31.4 million with the Bank contributing 90 percent (UA28.2) and the rest by GoE (UA3.2 million).

In the case of the AADP (1996-2004), it was meant to increase the capacity of the Addis Ababa International Airport to meet the expected increase in passenger traffic and aircraft movements, as well as to comply with ICAO

standards. The AADP was thus formulated to upgrade the existing airside infrastructure and the communication systems as per ICAO standards. The total AADP cost, at appraisal, was UA49.55 million, with the Bank's share standing at 39 percent (UA19.5 million) and the rest by the GoE and five other development partners.

III. What the EADP and AADP achieved

The EADP and AADP were successful in maintaining the relevance and achieving their respective objectives.

Relevant project objectives from design through implementation to completion: The objectives of developing the operational capacity of the national carrier to enhance its operation, efficiency and profitability (EADP), and infrastructure of the Bole airport and its safety standards (AADP) were consistent with the GoE development objectives of economic growth and poverty reduction, and its transport sector policy and priorities of investing in roads and air transport infrastructure. Furthermore, the objectives of developing airport infrastructure development that inter-connect the regions and strengthening the national carrier were relevant ex-post as these were consistent with the prevailing GoE development objectives. The objectives of the projects were also in line with the AfDB country assistance strategy at appraisal that aimed at supporting priority road and air transport investments that could ensure sustained economic growth and poverty reduction. Furthermore, the projects were adequately aligned with the current Strategy of the Bank Group focusing on strengthening

transport infrastructure for reduced barriers to economic and non-economic transactions, and for improved regional integration.

Successful achievement of the EADP and AADP objectives: The EADP procured and ensured the functionality of the Jet Engine Test Cell, Flight Training Simulator and related buildings, and also conducted the feasibility with preliminary detail engineering design and other related study for Cargo Terminal and Maintenance Hangar.

The project deliverables enhanced the Ethiopian Airlines' capacity to: (1) assemble and test aircraft engines; (2) operate an aviation academy to meet its own as well as third party training needs (pilot training as well as training in aircraft maintenance and repair services); (3) meet the growing demands for passengers and freight transport on existing routes; (4) expand its domestic and international destinations with regional hubs in Africa East, West and South.

The growth in the operation of the Ethiopian Airlines owes in part to the development of the Addis Ababa Bole International airport. Through the AADP, the airside infrastructure and the communication systems of the Bole International airport were expanded and upgraded with new facilities (runway with taxiways, the air traffic control tower with associated communications, navigation aid and power supply systems) and land services (new international passenger terminal). These facilities, which meet the ICAO standards, have attracted foreign airlines and associated traffic.

Both projects recorded highly favorable financial and economic rates of returns. For example, the estimated economic rates of returns, associated with the EADP and AADP at completion were 20 percent and 36 percent respectively; both rates being far in excess of the 11 percent opportunity cost of capital in Ethiopia. These high rates of returns were due in part to increase in demand for the services of the Ethiopian Airlines Enterprise and Ethiopian Airport Enterprise. In addition, the institutional reforms allowed the Ethiopian Airlines Enterprise and Ethiopian Airport enterprise, though government owned public utilities, to operate on business principles.

The projects' success was associated with good performance of both the GoE and Bank especially in correctly aligning the projects with the national development priorities, and the delivery of appropriate feasibility studies for informing the design, and in the regularity of implementation supervision. The GoE's institutional reform enabled the Ethiopian Airports to operate as a commercial entity. This, coupled with the increasing volume of passengers and freight traffic not only resulted in the enhancement of revenue from airport services (e.g. aircraft take-off and landing fees), but also in providing a basis for organizational and financial sustainability.

EADP and AADP benefits are likely to be sustained: Both the Ethiopian Airlines enterprise and the Ethiopian Airport enterprise have expanded their operations and achieved high rates of financial and economic rates of return. Although the Ethiopian Airport enterprise remains a government owned entity, the institutional reform that allows it to operate

on the basis of business principle is significant. However, the challenges for the two enterprises are to continue to provide adequate infrastructure and services whilst improving operational efficiency and profitability in partly regulated environment.

For the Ethiopian Airport Enterprise, the threats to long-term sustainability of benefits include: (1) ability to sustain profitability through regulated tariff setting; (2) adhering to financial and economic principles prior to investment decisions; (3) generating resources through cost recovery and operational profitability to build new and upgrade airport infrastructure in several places of the country; (3) developing specialized skills necessary to support commercially oriented practices (e.g. business planning, accounting and finance, and setting cost-based tariffs), (4) strengthening financial management such as sound credit control system; and (5) readiness to operate in de-regulated environment in competition with the private sector (when such possibility arises).

The prospect for sustaining the benefits of the Ethiopian Airlines Enterprise is strong in the medium-term, as there is internal and external demands for its services including the aviation academy. However, its long-term sustainability of benefits is subject to threats from: (1) the institutional capacity to survive, grow and expand in the competitive environment of the air transport industry; and (2) the capacity to allocate sufficient resources to carry out routine and periodic maintenance of the assets developed with the project.

IV. EADP and AADP design and delivery challenges

Although the EADP and AADP were in general a success, they were challenged by gaps in project design and implementation that could impose some risk to sustainability

The project designs were deficient in some of the design elements, particularly in risk and assumptions analysis and specificity of risk mitigation measures. In addition, delivery time and cost estimates were also unrealistic; the time overrun was in excess of 200 percent and cost was underestimated by 22 percent.

The monitoring and evaluation (M&E) systems were not clearly and adequately designed at appraisal, and remained so throughout project implementation. The performance indicators and their baselines especially those concerning outcomes were missing. The weak M&E system challenged considerably project performance evaluation at completion and thereafter.

Both projects experienced substantial start-up and implementation delays: the EADP exceeded its planned implementation time by 60 months, and AADP by 58 months. These delays were associated with the change in Government and difficulties in fulfilling the loan conditions and in complying with the Bank's procurement rules and processes. The modification of the project design, coupled with the prolonged rainy season also contributed to the delivery delays of the AADP.

V. Conclusions and lessons learned

The two projects, on whole, were successful in strengthening the capacity of the Ethiopian Airlines enterprise and Ethiopian Airport enterprise, and in generating substantial financial and economic benefits with moderate threats to their sustainability. The project performance was, however, challenged mainly by the weakness in design in terms of realism and adequate assessment of assumptions and risks, and in M&E system, as well as by the relatively high implementation delays.

The note draws from the successes and challenges of the project performance four main lessons learned:

1. Project quality design matters for timely and efficient delivery of intended outputs especially in ensuring adequate matching of project outcomes with the resources, time, loan conditions, engineering works and context dynamism.
2. Lending for investments that complement (e.g. investing in airport infrastructure and strengthening airline carrier) has synergic effect on the benefits generated (the whole is greater than the sum of its parts)
3. Appropriate institutional reform is important for the financial and organizational viability of public enterprise such as the Ethiopian Airports Enterprise and Ethiopian Airline Carrier
4. Undeveloped ME system restricts information to monitor performance, and detect problems for early remedial solutions, as well as for evaluation

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Japanese International Cooperation Agency Support to the One-Stop Border Post Initiative in Africa – Our Past Experience and the Way Forward

*Takeshi Kozu, Kaori Matsushita, Tomomi Tokuori, and Kei Yoshizawa*¹³

1. Introduction

In recent years, Africa has maintained its share of traditional export markets while diversifying and expanding trading relationships toward emerging economic powers (UNECA 2012). To reap the economic benefit from international trade and promote the inclusive and sustainable growth of Africa, it is critical to facilitate intra-regional trade by developing cross-border transport infrastructure (CBTI) in order to develop industry, and thus contribute to employment creation and regional development and satisfy the demands of the expanding market. However, the high cost of logistics due to the limited capacity of infrastructure facilities and inefficient customs/cross-border formalities constrain economic and social development in Africa. Further efforts should target integrated corridor development by focusing resources on corridors with high development potential to promote a shift from resource-dependent economies to regional economic structure.

The one-stop border post (OSBP) has been introduced as a solution to these challenges. In this system, neighboring countries jointly conduct immigration control, customs clearance, and quarantine at the one-stop border post to cut the time and cost of cross-border transport and

facilitate cross-border trade among neighboring countries.

Against these backdrops, the Tokyo International Conference on African Development (TICAD) IV (May 2008) designated regional infrastructure development as a pillar of the Yokohama Action Plan, adopted in TICAD IV, to improve both the physical and software sides of CBTI in Africa. As a part of such regional development efforts, Japan announced in TICAD IV that it would provide new overseas development assistance (ODA) loan financing of up to 4.0 billion dollars, mostly focusing on infrastructure development in Africa, and extend support to 14 OSBPs during 2008–12.¹⁴

In TICAD V (June 2013), the above commitments were renewed. The stakeholders agreed to provide financial assistance of 6.5 billion dollars in infrastructure construction, as well as capacity building of 300 people in 20 countries to run OSBPs in the next five years (2013–17). These commitments are mostly to be implemented by the Japan International Cooperation Agency (JICA), a governmental institution of Japanese development aid.

¹³ This report is edited by Kei Yoshizawa (JICA), based on “Cross Border Transport Infrastructure,” written by Kaori Matsushita (JICA) as chapter 8 of the policy research of the JICA Research Institute (2013), with contributions from Takeshi Kozu (ICA Secretariat) and Tomomi Tokuori (UEMOA).

¹⁴ Tokyo International Conference on African Development (TICAD) is a high-level international forum co-organized every five years since 1993 by Japan, the African Union Commission, the United Nations, the United Nations Development Programme, and the World Bank. TICAD IV (May 2008) and V (June 2013) received around 40 African heads of state and government and high-level presence from development partners such as the Prime Minister of Japan, UN Secretary-General, World Bank President, and others.

This report summarizes the experience of OSBP and proposes a course of action for promoting the OSBP initiatives in Africa.

2. Perspective of OSBP Development

(1) OSBPs to be developed as a part of overall corridor development

Trade promotion and economic growth can be achieved by combining a wide range of policies, of which OSBP development constitutes a part. OSBP development should be positioned in an integrated corridor development framework that takes into consideration agricultural, industrial, and mineral and energy resource development, as well as trade promotion in the entire cross-border area.

(2) Three-way approach to OSBP development, involving infrastructure development, institutional development, and human resource development

To implement OSBPs requires not only the construction of conventional infrastructure such as ports, roads, railroads, and border facilities, but also, as Feaver and Wilson (2007) noted, understanding that trade facilitation and secure trade commitments impose significant adjustment burdens on regulatory authorities as a consequence of legislative and regulatory harmonization, systems, and process reengineering requirements, as well as capacity building and administrative reorganization. Effective operation of border-related government agencies is key to cutting the time for clearance, while capacity development of human resources, cross-border



Effective operation of border-related government agencies is key to cutting the time for clearance, while capacity development of human resources, cross-border officials (customs, immigration, quarantine, cross-border police, and the like), and the private sector (customs clearance agencies, transportation companies, and so on) are also critical

officials (customs, immigration, quarantine, cross-border police, and the like), and the private sector (customs clearance agencies, transportation companies, and so on) are also critical.

(3) Cooperation with Regional Economic Communities (RECs)

When improving the institutions noted in (2), above, a legal framework covering multiple countries needs to be introduced. In Africa, RECs carry out such institutional improvements in each region. Therefore, it is expected that focusing on OSBP in cooperation with RECs

will deliver benefits to business more effectively and efficiently.

3. Experience with OSBPs and Support from JICA

Chirundu OSBP (Zambia/Zimbabwe)

Chirundu is at the border between Zambia and Zimbabwe on the North-South Corridor. The border is key to cutting time and cost of transport for inland mineral resources, such as copper produced in Zambia, to Durban Port in South Africa and Beira Port in Mozambique. Many development partners, such as JICA, the Department for International Development (DFID)/Trade Mark Southern Africa (TMSA),¹⁵ World Bank, and others have joined this project. Japan has implemented grant aid assistance for the Chirundu Bridge Construction Project¹⁶ and technical assistance to an OSBP-related legislative bill enacted in the two countries.¹⁷ With support from JICA and development partners, the first OSBP in Africa started operating in December 2009.

JICA/East African Community (EAC) (2011) reports the impacts and challenges of the Chirundu OSBP as follows;

¹⁵ Trade Mark Southern Africa (TMSA), an implementation instrument totally supported by DFID, which aimed at promoting a regional integration agenda in the southern and eastern Africa regions, was announced in December 2013 by the U.K. International Development Secretary, to be closed down shortly due to the critical report on Trade Mark Southern Africa performance and governance made by the U.K. Independent Commission for Aid Impact.

¹⁶ Japan provided grant aid assistance totaling 1,514 million yen to Zambia to implement this project from 1998 to 2002.

¹⁷ Zimbabwe One-Stop Border Posts Control Act, No. 21 of 2007 and Zambia One Stop Border Control Act, No. 8 of 2008.

- From an average of 225 trucks passing per day in 2007 (120 north-bound and 105 south-bound), the average increased to 380 per day in 2011 (200 north-bound and 180 south-bound).
- The time taken to cross the border for passenger cars reduced from 1-2 hours to only 20 minutes. For buses, the time taken reduced from 2 hours to 1 hour. For trucks, the time taken reduced from 1-2 days to less than 1 day.
- Along with these remarkable results, there remain further challenges, such as to fully utilize the facilities introduced, to standardize customs formalities, and to promote further cooperation between the agencies of the two countries.

Malaba OSBP (Kenya/Uganda)

Malaba is an important post (or crossing point) between Kenya and Uganda in the Northern Corridor. The first OSBP exclusively for railroads in East Africa was established in 2007 at Malaba, based on a bilateral agreement concluded by the governments of Uganda and Kenya in 2006. Malaba OSBP is one of the target sites of a JICA-EAC technical cooperation project, Capacity Building for the Customs Administrations of the Eastern African Region, which provides Master Trainer Programs for training instructors on customs duties, including tariff classification and customs valuation.

Following the establishment of Malaba OSBP, the time required for railroad crossing has been reduced from 4-7 days to 2 hours. For road cargo, the time was reduced from 4 days to 3 hours

(JICA/EAC 2011).¹⁸ These impacts were created through the improvement of yard and customs facilities and the implementation of 24-hour operation and joint customs screening by the two countries for some items (12 items, accounting for 30 percent of all cargo).

The World Bank sub-Saharan Africa Transport Policy Program (SSATP) and the Northern Corridor Transit Transport Coordination Authority (NC-TTCA) studied Malaba border post to measure the border crossing time by the choke monitoring method and estimated cost of border crossing, applying the results of CPCS Transcom Limited's Study (2010) on the Northern Corridor. The results of survey baseline showed that the cross-border time dropped from an average of 24 hours to 4 hours, and estimated the value of the time improvement for logistic companies and traders at US\$70 million per year. Significant amounts of time were saved through the introduction of pre-arrival clearance lodgment and establishing an information communication and technology (ICT) system for this period. (Fitzmaurice and Hartmann 2013).

Namanga OSBP (Kenya/Tanzania)

Namanga, on the border of Kenya and Tanzania, is located on Trans-African Highway 4, known as the Cape to Cairo Highway, connecting Nairobi and Arusha. Forty-one percent of exports from Kenya to Tanzania and 20 percent of exports from Tanzania to Kenya pass the Namanga border post. The governments of Kenya and

Tanzania, together with JICA and the African Development Bank (AfDB), apply a three-way approach—legal framework, capacity development, and construction of facilities—to this border post.

JICA and the AfDB provide co-financial support to the construction of OSBP facilities and 240 kilometers of road construction. As of November 2013, the road construction was almost completed, and one-stop border facilities are expected to be completed by the first quarter of 2014 on the Tanzanian side, and by September 2014 for the Kenya side. The border post is expected to start operating in 2014 as an OSBP.

Namanga OSBP is also a target site of the JICA-EAC project of the Capacity Building for the Customs Administrations of the Eastern African Region. The project introduced a Real Time Monitoring System and Cargo Control System (RTMS/CCS) to provide Master Trainer Programs at Namanga OSBP, as well as Malaba.

Dissemination of OSBP experience: “OSBP Source Book” and Regional Workshops

Based on the experience at the Malaba and Namanga OSBPs, the EAC compiled the “OSBP Source Book” (JICA/EAC 2011), a practical guidebook for designing OSBPs, with the support of JICA. This source book outlines steps necessary for establishing OSBPs and indicates points for developing organizational and institutional systems, simplifying cross-border formalities, designing facilities, and introducing ICT. Following the joint work with EAC, JICA

¹⁸ TMSA (2012) presents other ex post valuations of Malaba OSBP, which reports that customs clearance times have been shortened from 3 days to 3 hours, and that transit times have fallen from an average exceeding 12 hours to an average of 6 hours.

“*Based on the experience at the Malaba and Namanga OSBPs, the EAC compiled the “OSBP Source Book” (JICA/EAC 2011), a practical guidebook for designing OSBPs, with the support of JICA*

organized dissemination workshops for the OSBP source book jointly with the Southern Africa Development Community (SADC) in southern Africa and the West Africa Economic and Monetary Union (UEMOA) in western Africa. SADC and UEMOA, with support from JICA, have also compiled a local version of the source book that incorporates the actual conditions in each region. The book is expected to be upgraded based on detailed information, progress, and lessons in each country and to be used in the future.

Capacity Development of Customs on the Borders of East Africa, Namibia, and Botswana

A JICA technical assistance project that supports the establishment and capacity development of OSBP on the border of Mamuno/Trans-Kalahari between Botswana and Namibia has been in implementation since 2010. The border is becoming increasingly important because it connects Walvis Bay in Namibia and Johannesburg in South Africa with less time and distance. Both

Botswana and Namibia have strategic intentions of establishing a model case of OSBP in the region in order to lead the negotiations with other countries in the future. Although the initial project plan has been reviewed because of the belated approval of the bilateral agreement between the two countries, OSBP is expected to be steadily introduced on the Namibia-Botswana border with the support of the JICA technical assistance project.

Harmonization of the Cross-Border Transport System

The East African Legislative Assembly (EALA) has passed two long-outstanding bills, including the One-Stop Border Posts Bill and the Vehicle Load Control Bill, and they are now awaiting signature by the EAC heads of state to complete the first transport community law in East Africa.

To formulate an OSBP bill, the EAC Secretariat secured technical assistance from JICA, in September 2009, to conduct “the study on the Legal Requirement for Introducing One-Stop Border Post (OSBP) in East Africa” in order to draft the legal requirements for OSBP operations.

The OSBP concept requires border control officers to execute border controls within the common control zone, whether in their own or the adjoining country. There is need for a legal framework that provides for border agencies to apply their laws within the territory of an adjoining state, which is known as extra-territorial application of national laws. The adjoining state also needs a reinforcing legal framework that allows the hosting of the agencies of another state with powers to apply their own national



Eric McGaw, DRC, August 2011

laws within the respective jurisdiction of that adjoining state, which is known as a hosting arrangement. Therefore, the legal framework for OSBPs is underpinned by the need to create extra-territorial application of national laws and hosting arrangements in the national law of both countries involved in an OSBP (JICA/EAC 2011).

Following this, the EAC Secretariat also secured another round of technical assistance from JICA, in January 2011, to conduct the “Study for Harmonization of Overload Vehicle Control in the East African Community” (JICA Africa Department 2011). Through discussions on harmonizing overloaded vehicle regulations based on the technical outcomes and recommendations of the study, the five EAC member states agreed on 23 items, including vehicle gross weight limit (56 tons) and interlink vehicles (full length of up to 22 meters permitted only on specified routes), to build the foundation of institutionalization.

In principle, the EAC Assembly approves an EAC law that defines broad rules of regulation, and the EAC Council proclaims domestic laws and

ordinances that stipulate detailed operational and administrative matters. The EAC laws and ordinances will supersede conflicting domestic laws and ordinances in member states.¹⁹ This is a strong and immediate mechanism for establishing a harmonized institutional system.

4. The Way Forward

As noted above, our experience of OSBP in Africa is unique, but needs to be enriched, broadly shared, and rendered more evidence-based.

The first JICA-supported OSBP project was started in 2007, jointly with DFID, at Chirundu OSBP, which was officially opened in December 2009. In eastern Africa, Malaba OSBP started operation in June 2009 as a pilot in the East Africa OSBP program, with support from the World Bank, DFID, the U.S. Agency for International Development (USAID), JICA, and others. The Namanga and Rusumo OSBPs, which are receiving JICA technical and financial support, including support for OSBP facility

¹⁹ Based on subparagraphs (4) and (5) of Article 8 in EAC law.

JICA will continue to promote partnership with development partners such as the AfDB, the World Bank, DFID, USAID, the European Union (EU), the World Customs Organization (WCO), and others

construction, as well as support from the AfDB, are expected to start operation in 2014.²⁰

JICA will continue to promote partnership with development partners such as the AfDB, the World Bank, DFID, USAID, the European Union (EU), the World Customs Organization (WCO), and others.²¹ At the project level, it will continue to explore new opportunities for partnership in policy research and monitoring/evaluation efforts.

In evaluation, Trade Mark East Africa²² (2012) argues, after reviewing various reports on the

20 Rusumo OSBP is on the Tanzania-Rwanda border. JICA provided both of the Tanzania and Rwanda governments with grant aid totaling 3,800 million yen (1,900 million to each of the governments) to construct a cross-border bridge and OSBP facilities.

21 SSATP report (2013) illustrates the current donor partnership in the EAC OSBP program as follows: “Several bilateral and multilateral donors participated in the effort according to their respective comparative advantages: Infrastructure development supported by WB, AfDB, and TMEA; The institutional framework by JICA; The enabling IT by TMEA USAID; Capacity building for logistics operators by JICA, USAID, and TMEA.”

22 Trade Mark East Africa (TMEA) is an implementation instrument principally supported by DFID, which aims at promoting regional integration agenda in the eastern Africa region.

existing OSBPs (Chirundu, Malaba, Beitbridge,²³ and others), that all studies reviewed suggest there is a positive link, while there is no robust evidence that OSBPs reduce border crossing times and associated costs (or by how much), or, furthermore, that OSBPs lead to an increase in trade flows and market integration. It seems to be through exceptional effort that the World Bank SSATP was able to recently report a rough estimate that the savings generated by the improvement of the situation (at the three major border posts along the Northern Corridor; Malaba, Busia (Kenya-Uganda), and Gatuna/Katuna (Uganda-Rwanda)) represent up to \$70 million per year (Fitzmaurice and Hartmann 2013, see para3).

Thus, it will be critical to estimate more vigorously overall economic impacts of the OSBP initiatives. It will also be important to analyze each of the existing OSBPs to understand how they can fully work up to their potentials and what the constraints are for more effective OSBP operations.

In the recent annual meeting of the Infrastructure Consortium for Africa (ICA), held in Arusha in November 2013, implementation of OSBPs was also discussed under the theme of “Boosting African Trade: Cross-Border Harmonization of Transport Regulation and Policy.” Harmonization of relevant regulations and policies is basic to the acceleration of transport and trade facilitation, but application of these instruments within effective institutional frameworks is another challenge we will face from now on.

23 Beitbridge OSBP is on the South Africa-Zimbabwe border. JICA provides no support to this post.

Following the TICAD V commitments, JICA will continue to follow the “three-way approach” to OSBP through infrastructure development, institutional development, and human resource development. In doing so, JICA will enhance partnership with RECs and member countries to promote their OSBP and CBTI initiatives.²⁴ JICA will provide OSBP capacity development and dissemination support to RECs and member countries by organizing training programs and regional workshops.

OSBP is a part of comprehensive development efforts of CBTI and intra-regional trade facilitation. In this regard, the OSBP initiative should be well coordinated and balanced with physical infrastructure development programs (road, railway, ports, and the like) and properly prioritized in the overall picture of regional and subregional integration in Africa.

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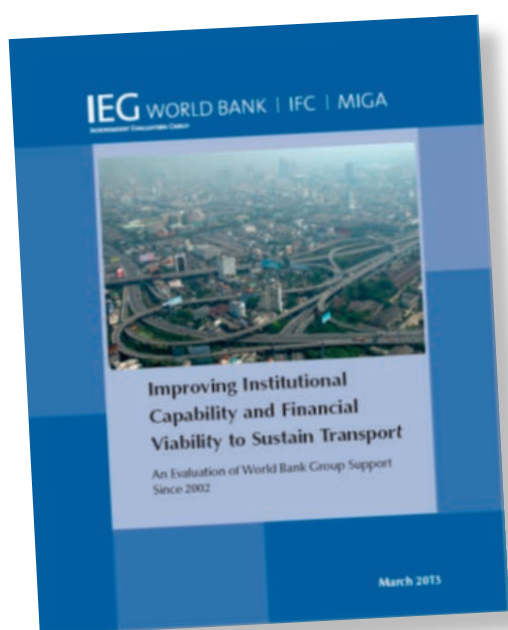


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Improving Institutional Capability and Financial Viability to Sustain Transport



Overview of an Evaluation of World Bank Group Support Since 2002

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The services provided by investments in road networks, railways and transit systems, and ports for trade by air and water are important contributors to poverty alleviation and economic growth. Sustained transport investments can support poverty reduction directly by improving access and economic opportunity for the rural poor, and through facilitating broad-based growth. But the impact of infrastructure investments and the services that arise from them can be undermined by poor operations and maintenance.

Over the past decade, the World Bank, International Finance Corporation (IFC), and

Multilateral Investment Guarantee Agency (MIGA) have committed about \$50 billion for operations or guarantees in the transport sector, amounting to 12 percent of the World Bank Group's total commitments and guarantee volumes. The performance of World Bank transport operations at project closure has been high—almost 89 percent are rated moderately satisfactory or better. Yet inadequate operations and maintenance—raised as an issue more than 20 years ago—has remained a concern.

Objective and Scope of the Evaluation

The objective of this evaluation is to assess the effectiveness of World Bank Group support to countries in sustaining the provision of transport infrastructure and services and to distill lessons on the factors contributing to sustained transport. In the context of this evaluation, *sustained provision of infrastructure and services* is defined as the extent to which the policies, institutional and regulatory framework, sector management capacity, and financial arrangements are in place to ensure that transport infrastructure is operated and maintained, enabling a reliable flow of services over the long term. The term *transport* is used throughout this report to mean transport infrastructure and services, unless otherwise specified.

The evaluation covers World Bank, IFC, and MIGA transport operations approved over fiscal years 2002–11. It includes investments in all six transport subsectors—intercity highways, rural roads, urban transport, railways, air transport, and ports and waterborne transport—in all client countries of the Bank Group. The evaluation recognizes the potentially complementary

approaches of the three agencies in sustaining transport. The World Bank helps governments improve the enabling environment for sustained transport and finance physical investments. IFC and MIGA complement these efforts by supporting profitable private sector transport-related investments.

Evaluation Questions and Framework

The evaluation addresses the following four questions: (i) To what extent have Bank Group strategies and operations aimed to sustain transport? (ii) To what extent have countries implemented the policies and regulatory framework, institutional framework, financial mechanisms, and capacity building activities needed to sustain transport supported by the Bank Group? (iii) How effective have these measures been? (iv) What factors have determined success? The analytical framework for this evaluation traces a results chain, starting with: (i) physical investments and various other measures that help sustain transport (outputs); (ii) financial viability and institutional capability (intermediate outcomes); and (iii) sustained transport (the outcome). The impact of sustained transport on poverty reduction and economic growth is beyond the scope of the evaluation.

Methodology

The evaluation employs multiple analytical building blocks and sources of evidence to answer the evaluation questions: (i) a portfolio review of all World Bank projects managed by the Transport Sector and of projects managed by other sectors with more than 30 percent of funds flagged for transport; IFC investments, MIGA guarantees, and country and sector strategies

approved by the Board of Directors from fiscal 2002 to 2011; (ii) review of World Bank analytic and advisory activities with a focus on transport, and IFC advisory services completed during the same time period; (iii) 9 field-based and 11 desk-based country assessments, which included a detailed review of 68 World Bank projects an average of 5 to 6 years after closing; and (iv) a review of 30 IEG field-based transport project evaluations, also known as Project Performance Assessment Reports.

Findings: To what extent have Bank Group strategies and operations aimed to sustain transport?

Sustained transport features prominently as a concern in Bank Group strategies and analytic and advisory activities. Sustained transport has been a key feature of the Bank Group's work since its 1996 strategy, *Sustainable Transport: Priorities for Policy Reform*, and remains a focus in the current strategy, *Safe, Clean, and Affordable Transport for Development (2008–2012)*. Country Assistance Strategies over the past decade have generally emphasized the need for sustaining transport, focusing primarily on roads. Much of the analytic and advisory activities supported by the World Bank also focus on sustaining transport. Support for output and performance-based road maintenance contracts and plans for public-private partnerships were on the increase.

The share of World Bank operations with explicit objectives to sustain transport is low, and it has declined by half. World Bank projects are accountable for their objectives. Only 15 percent of the 287 projects managed by the

Transport Sector and approved during fiscal 2002–11 had explicit objectives to sustain transport. That share has declined over the decade from roughly a quarter of projects to only 1 in 10. The downward trend persists even when looking within each country income group and within the main subsectors (urban transport, intercity highways, and rural roads).

A small and declining share of World Bank operations explicitly support financial arrangements that would contribute to sustained transport outcomes. To help countries sustain transport, the World Bank has supported measures related to: (i) financial arrangements for operations and maintenance; (ii) sector policy and regulatory frameworks; (iii) institutional frameworks; and (iv) sector management and capacity building. Almost all World Bank transport projects support measures for sustaining transport in their project components. They typically finance sector management and capacity-building activities, such as attention to Road Authority capacity for procurement, contract management, and planning, for example. However, only 16 percent support financial arrangements to secure adequate, reliable, and predictable resources to operate and maintain the infrastructure, and that share has been declining.

Nearly a third of World Bank operations identified lack of maintenance funding as a risk at project appraisal. A large share (43 percent) of the projects that identified maintenance and funding shortfalls as risks had sustaining transport as an objective, compared with only 15 percent of projects that did not flag these risks.

In addition, the projects that identified maintenance and funding shortfalls as risks were more likely to include financial arrangements as a measure to help sustain transport in their project components. The share of projects that identified maintenance risks at appraisal, however, has been declining over time, from 39 percent in the first half of the decade to 24 percent in the latter half.

Ex ante economic analysis rarely takes into account the effect of underfunding of maintenance on the benefit flows. Sensitivity analysis is normally carried out at appraisal for most projects as a basis for investment decisions. However, the effect of maintenance underfunding, which leads to the reduction in expected flow of benefits, has not been systematically included in these calculations. An implicit assumption in the calculation of the economic rate of return at project completion is that condition-based maintenance will be carried out throughout the life-span of the asset, so that the benefit flow is maintained.

Projects are rarely designed to minimize maintenance needs. Intercity highways and rural roads projects, which usually depend on constrained public resources for maintenance, are not based on evaluation of cost-effective rehabilitation and maintenance solutions for entire road networks or subnetworks.

For IFC- and MIGA-supported projects, sustained operation of investments is always an implicit objective. IFC and MIGA support private infrastructure and service providers in the transport sector through investments,



Eric McGaw, DRC, August 2011

guarantees, and transaction-oriented advisory services. As these private providers are exposed to commercial risks, IFC and MIGA satisfy themselves at the time of due diligence—before financing the operation—that their prospective private sector engagements are likely to remain financially and operationally viable in the long run. Thus, sustained transport is an implicit objective in all of these operations.

When there is a need to improve the project design to enhance the sustainability of the investments, IFC adopts proactive measures. IFC has adopted proactive measures in 32 percent of its transport projects. Most of the measures were related to enhancing the financial viability of the project enterprises. These additional measures included mobilizing funds from commercial lenders, enhancing financial structures, and modifying concession contracts (for example, mitigating the effects of delay in making the land available in a toll road construction project). Measures related to enhancing management capacity included provision of technical advice—for example, to ensure that technical expertise is in place to oversee quality of physical works, or redesign the project to

avoid social conflicts—or enhancing corporate governance.

Findings: Has Bank Group support to sustain transport been implemented, and is it effective?

Sustained transport varies by country income and subsector. Transport is likely to be sustained in high- and upper-middle-income countries, compared to low- and lower-middle-income countries. The subsectors most likely to have sustained transport are intercity highways and ports. Railways have faced difficulty sustaining their infrastructure and services; urban transport, air transport, and rural roads have shown mixed results. Projects managed by the transport sector had higher sustained outcomes than those managed by other sectors.

Projects that implemented measures to sustain transport were more likely to achieve the intermediate outcomes. Sector management and capacity building activities had the highest implementation rate by project closure, followed by institutional frameworks, sector policies, and regulatory frameworks. Financial arrangements had the lowest implementation rate, but if implemented, they had the largest impact on the intermediate outcomes.

Results are based on projects in selected countries due to lack of systematic monitoring of transport outcomes beyond project closure.

For more than half of the World Bank projects reviewed in the selected countries, transport was sustained five to six years beyond project completion. Since there is no mechanism to

systematically monitor sustained transport beyond project closure, these results are limited to the findings from the subset of 76 operations supported by the World Bank. There was very little documentation on the impact of analytic and advisory activities.

Operations supported by the World Bank often have impact at the sector level. Assessment of most projects supporting the intercity highways subsector indicates sustained transport outcomes at the sector level. This is because World Bank support has focused on creating an enabling policy, financial, and institutional environment for the entire road sector to manage and maintain road networks.

IFC investments and MIGA guarantees were effective in sustaining transport, but only one-third of IFC Advisory Services completed their transactions. About 80 percent of IFC transport investments approved and operationally matured between fiscal 2002 and 2011 and the three evaluated MIGA guarantee projects showed evidence of sustained transport at operational maturity and beyond. Both intermediate outcomes—management capacity and financial viability—were achieved in most cases.

Although 85 percent of IFC Advisory Services transactions delivered the needed outputs for the transaction process, only about a third were successfully completed. A comprehensive assessment of the outcomes of these transactions is, however, not possible, because these projects have not matured sufficiently and only a few post-completion reports are available.

The World Bank Group has leveraged the complementary roles of the three institutions in sustaining transport to some extent, but more can be done. The World Bank's efforts in creating an enabling environment to sustain private sector participation through the Public-Private Infrastructure Advisory Facility (PPIAF) and other lending and analytic and advisory activities (AAAs) have a complementary character to IFC's investments, since the World Bank's activities focus on creating an enabling environment for sustained transport, including the policy and regulatory frameworks conducive for private sector participation. At the project level, coordination was found between IFC Advisory Services and the World Bank.

In a few cases, IFC's due diligence for investments built on World Bank expertise. Beyond these cases, however, little evidence was found that IFC liaised at the project level with the World Bank on a regular basis.

Findings: What factors have contributed to success?

Projects with objectives to sustain transport and those that identify maintenance funding risks are more likely to be sustained in the long run. Among the projects reviewed that had an explicit objective to sustain transport, three-quarters achieved it, compared to half of the operations without such an explicit objective. If issues related to sustaining transport are the focus of project objectives, they are likely to have measures to improve financial viability or institutional capability in the project components and to sustain the provision of transport

infrastructure and services beyond project closure. Similar results were found for projects that identified maintenance funding risks. They are also more likely to sustain transport in the long run.

Financial viability and institutional capability are linked to sustained transport. The key shortcomings for poorly sustained transport were associated with institutional capability—weak institutional frameworks and lack of autonomy and technical capabilities in the responsible institutions needed to efficiently design, plan, construct, operate, and maintain transport. The other factor was financial viability—difficulty in ensuring adequate, reliable, and predictable financial resources needed for service providers to operate and maintain infrastructure services.

A clear accountability framework and incentive structure for operations and maintenance are critical for sustained transport. Across IFC-, MIGA-, and World Bank-supported operations in certain subsectors—including ports and toll roads—the key factors that contributed to improved institutional capability and financial viability were the contractual arrangements and user pay principles often featured in public-private partnerships. In intercity highways and rural roads, institutional frameworks can adopt similar features if they are designed and operated according to contractual agreements/guidelines.

A broad-based approach that aligns funding sources has helped allocate maintenance budgets. Transport financing that relies on diverse funding sources has improved financial viability, especially in urban transport and intercity



Transport financing that relies on diverse funding sources has improved financial viability, especially in urban transport and intercity highways

highways. But these funding sources need to be aligned. World Bank investments linked to countries that had public expenditure reviews (PERs), especially with explicit mention of transport maintenance, were more likely to realize sustained transport outcomes. However, more than half of the PERs reviewed failed to highlight the transport maintenance funding issue.

Supporting appropriate government-led reform programs in a realistic time frame through continuous and sequential engagements has been effective. Continuous policy dialogue and sequenced World Bank operations to support government-led reform programs, rather than just episodic project engagements, have been effective. The time frame for the supported actions should take into account the capacity of the government to carry out the reforms, especially in lower income countries and in challenging subsectors like rural roads.

Political economy considerations need to be taken into account. It is critically important to understand the political economy of reforms—who benefits, who doesn't, and how the latter can be compensated. In countries where political

economy was factored in during the preparation process, stakeholder consultation, inclusive analysis, and communication have also contributed to reducing the resistance to reforms, including for the establishment of road funds in highways, central coordination agencies for urban transport, and staff rationalization in railways.

Multi-modal planning is more effective than fragmented interventions. As evidenced especially in the railways, multimodal planning and coordination at the country's sector level has also been important in generating the necessary level of demand to make transport services viable.

Two key factors affect sustained transport in IFC and MIGA operations: the quality of preparation and incentive and accountability frameworks. In the cases where transport was not sustained, the key reasons were attributed to corporate governance, sponsor quality, and commercial reasons.

Recommendations

Increase the focus on sustaining transport infrastructure and services in project design.

- Increase the focus on sustained transport in projects with sector reform objectives and components through measures to adopt or strengthen the financial arrangements and enhance the institutional capability needed to plan and carry out operations and maintenance.
- World Bank-supported projects for the intercity highways and rural roads subsector should: (i) systematically carry out ex-ante risk analysis and mitigation with regards

to operation and maintenance and funding shortfalls; (ii) conduct sensitivity analysis on the effect of inadequate maintenance on net benefit flows resulting from transport infrastructure and services; and (iii) systematically evaluate the entire network or sub-network managed by the road agency to seek cost-effective rehabilitation and maintenance solutions.

- Link World Bank transport investment operations with sector-wide reforms that will sustain these investments through support for complementary development policy operations and analytic and advisory activities.
- World Bank-supported projects that finance transport components and are managed by other sectors should ensure that transport components are integrated into the operations and maintenance of transport sector plans and strategies.

Improve the long-run financial viability of support for sustained transport.

- For the subsectors and transport modes that rely on operations and maintenance funds from public sources or earmarked funds such as intercity highways and rural roads: (i) engage with the client where high level policy decisions related to maintenance funding can be taken; (ii) within the Bank, put a more prominent emphasis on the adequacy and reliability of transport maintenance funding in Public Expenditure Reviews.
- Diversify the sources of financing for roads and urban transport for more reliable financing, such as axle control fees, fuel surcharges, vehicle registration fees, and congestion charges.

- In the railways subsector, critically assess the viability of investments, with particular attention to: (i) realistic demand forecasts based on analysis of potential competition from other transport modes; and (ii) realistic estimation of rehabilitation and maintenance costs.
- Support to urban transport should include a comprehensive financial analysis of the overall urban transport system, including fare integration, tariffs and subsidies, and the net impact on the poor.

Strengthen institutional capability to sustain transport outcomes.

- Where complex reforms are planned, encourage continuous and sequential engagement and support appropriate government-led reform programs in a realistic time frame, taking into account the capacity of the government to carry out the reforms.
- Factor in the political economy in the reform process by identifying the key stakeholders and constituencies upfront, carrying out stakeholder analysis, ensuring consultation and communication during preparation of the reform, and adopting ways of compensating the affected groups to minimize the resistance to change or delays in legal or regulatory approvals.
- In subsectors that are dominated by the public sector, such as intercity highways and rural roads, mainstream proven models of demand-side governance and commercial principles to ensure that there is a proper accountability and incentive framework in place, such as output- and performance-based maintenance contracting, second-generation road funds, and microenterprise models.
- In order to strengthen the ability of countries to routinely collect data on, monitor, and assess sustained transport outcomes, support governments to put in place a reliable system to monitor and evaluate such outcomes systematically in all subsectors, particularly for ensuring adequate road maintenance.

Profile of the author

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Options to Reduce Transport Prices in Landlocked African Countries

Jean-Guy Afrika, African Development Bank

Introduction

There are 42 landlocked countries in the world today. Except for the relatively wealthy landlocked states in Western and Central Europe, the rest are all poor, and 31 landlocked countries can accurately be classified as landlocked developing countries (LLDCs) (UNDP and UNCTAD 2009). With more than 16 landlocked countries out of 53, Africa has the world's largest concentration of LLDCs. African LLDCs have unique developmental challenges when compared with developing countries with coastal access. It takes 28 days to move a 40-foot container from the port of Shanghai, China, to Mombasa, Kenya, at a

cost of a little less than \$1,000, while it takes 40 days for the same container to reach Bujumbura, Burundi, from Kenya, at a cost of \$7,000.²⁵

The export capacity of LLDCs is greatly hindered by their physical distance from global markets and the need to go through transit countries to access the sea. Their geography drives up the import prices of critical parts and inputs necessary for the development of competitive export goods. High transport prices not only reduce the supply capacity of LLDCs, they also erode the purchasing power of their national residents. To make matters worse, LLDCs are also difficult to access by air—very few airlines (for cargo or passenger) provide them with direct access to and from global markets.

For LLDCs to enhance their trade competitiveness, a host of structural interventions will be required, such as scaling up regional transport infrastructure (road, aviation, and rail), lowering the cost of energy, communications and transport, investing in science and technology, and creating a vibrant private sector capable of producing a spectrum of goods and services that are competitive in regional and global markets.

This article only explores one of the factors constraining the competitiveness of LLDCs: high transport prices. Since the transport challenges faced by LLDCs often stretch well beyond their borders, the article suggests that more must be done to develop innovative joint regional approaches. More specifically, the article argues that it will be critical to enhance regional

It takes 28 days to move a 40-foot container from the port of Shanghai, China, to Mombasa, Kenya, at a cost of a little less than \$1,000, while it takes 40 days for the same container to reach Bujumbura, Burundi, from Kenya, at a cost of \$7,000. High transport prices reduce the competitiveness of firms in African LLDCs

²⁵ Trademark East Africa; www.trademarkea.com

transport and customs cooperation, increase corridor monitoring capabilities, raise the efficiency of the regional transport service industry, and significantly scale up regional infrastructure investments.

After this introduction, the second section provides a brief overview of Africa's main trade corridors and the key factors influencing transport prices along those corridors. The third section proposes options to reduce transport prices. The options center on the need to: (i) intensify regional transport cooperation and enhance corridor monitoring capabilities; (ii) join *Transports*

Internationaux Routiers (TIR) or establish a TIR-like system; and (iii) scale up investments in regional infrastructure. The fourth section concludes.

I. Factors influencing transport prices

All goods from overseas destined for a landlocked country must move through a series of transit operations. Those transit operations generally take place along trade corridors or transit routes. A trade corridor is a set of rules, public institutions, transport infrastructures, and service providers facilitating and regulating the movement of goods and people within and

Table 1: Africa's main trade corridors

Corridor	Distances	Transport modes
Dakar – Mali	1,250km	Rail
Abidjan – Burkina –Mali	1,200km	Multimodal options
Tema/Takoradi – Burkina Faso (BF) – Mali	1,100km to BF	Road
Lome – Burkina Faso- Niger/Mali	200km	Road
Lagos – Niger	1,500km	Road
Douala – Central African Republic – Chad	1,800km	Multimodal
Pointe Noire – Central African Republic – Chad	1,800km	Rail/river
Lobito – DRC – Zambia	1,300km	Not currently used
Walvis Bay – Zambia (ZA) – DRC	2,100km to ZA	Road
Walvis Bay – Botswana – South Africa	1,800km	Road
SA – Zim – ZA – DRC (North–South Corridor)	2,500km to DRC	Multimodal options
Beira – Zimbabwe – Zambia – DRC	N/A	Multimodal options
Maputo – South Africa	600km	Multimodal options
TZ – Rwa – Bu – Uganda – DRC (Central Corridor)	1,600km to Kampala	Multimodal options
Mombasa – Rwanda – DRC (Northern Corridor)	2,000km to Burundi	Multimodal options
Berbera – Ethiopia	850km	Road
Djibouti – Ethiopia	900km	Multimodal options
Assab – Ethiopia	900km	Not used
Massawa – Ethiopia	N/A	Not used
Lagos – Niger – Mali – Lagos – Chad	8,000km	Multimodal options

Source: ECA 2003.

across countries. Trade corridors are sometimes referred to as transport corridors, transit corridors, African highways, and the like, but their function remains essentially the same: facilitating the movement of goods and people. For purposes of this paper, they shall be referred to as trade corridors. There are many such trade corridors in Africa, and more are being added. The main ones are listed in table 1. Figure 1 shows the steps of transit operations that must be followed to move cargo to an LLDC.

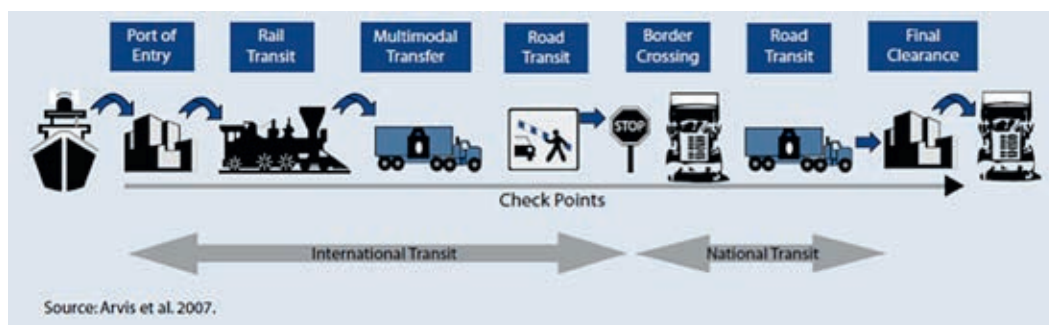
Figure 1 highlights the typical transit operations that LLDC traders must go through when importing a product from overseas, while table 2

depicts the various actors involved and the main challenges constraining the movement of goods.

The high transport prices in African LLDCs are essentially rooted in inefficiencies in the above transit operations. Very broadly, it could be argued that the fault lines fall along three main dimensions: (i) lack of quality regional infrastructure; (ii) inadequate regional institutional and regulatory frameworks; and (iii) inefficient transport service providers (figure 2).

Poor regional infrastructure such as inefficient ports, poor roads, and the quasi absence of quality regional railways act as major bottlenecks to transport efficiency.

Figure 1: Steps in transit operations



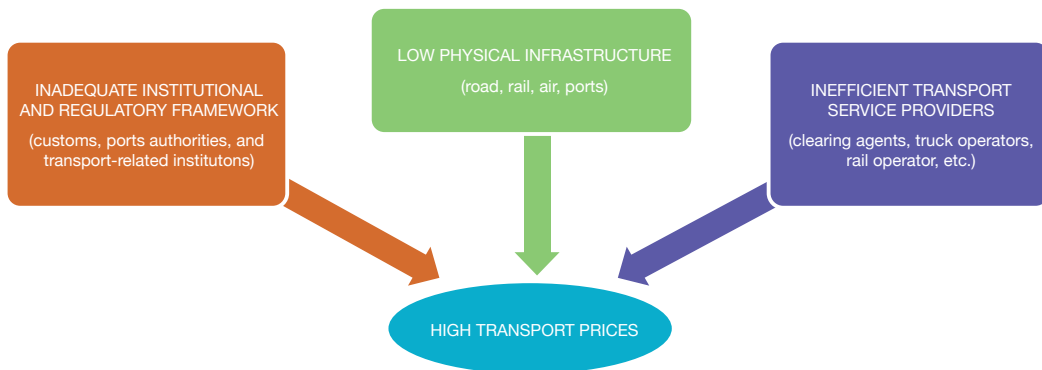
Source: Arvis, Smith, and Carruthers 2011.

Table 2: Actors and challenges

Mode	Port	Rail	Road	Borders	ICDs	Destination
Actors	Customs, terminal operator, clearing agents	Rail operator	Truck operators, drivers, police	Customs, clearing agents	Operators, customs	Firms and individuals
Challenges	Volumes, capacity, dwell time, performance	Volumes, maintenance, delays	Delays, truck utilization, customs bonds, return cargo	Delays, checkpoints	Transit times, Dwell Time, capacity	Time, money, and costs

Source: Arvis, Smith, and Carruthers 2011.

Figure 2: Factors influencing transport prices



Source: Author.

African ports are generally small and riddled with structural inefficiencies related to lack of quality infrastructure, technology, and institutional capacities. In most African ports, growth generally outstrips capacity. Port capacity is of particular importance because increased port capacity is directly correlated with increased trading capacity. Inadequate usage of port storage combined with poor take-off by rail often results in abnormally high container dwell times. In other cases, improper booking of cargo by shipping lines, unscheduled arrivals, and bunching of vessels leads to efficiency losses.

With regard to railways, the situation is similar. A study conducted by the African Development Bank and the African Union concluded that the capacity of 6 out of 8 African freight-rails needed physical expansion by 2020, and that all 11 cross-border railways needed to be expanded to meet demand (SOFRECO 2011).

Poor hinterland connections, especially by road and rail, further drive up transport prices. The lack of rail options on most African trade

corridors is a major cause of high transport prices, since competition between road and rail has a natural leveling effect on transport prices.

Inadequate regional institutional and regulatory frameworks, including lack of quality cross-border interagency coordination, is another major issue of concern.

The interaction of customs agencies and other trade- and transport-related agencies is generally regulated through a transit regime. A transit regime is a set of procedures under which goods are transported through countries from one customs operation to another without payment of duties, domestic consumption taxes, or other charges normally due on imports and exports (Raballand and others 2008). The procedures and rules are meant to ensure that while in transit, goods do not end up in the domestic market, depriving transit countries of potential fiscal revenues. All LLDCs rely on such transit routes to access the sea, and the inefficiencies of these transit regimes often translate into additional delays and higher transport prices for their firms.



A simple example is that the business hours of customs authorities often conflict, resulting in significant delays. Another is that customs documentation and procedures, especially those relating to customs guarantee requirements, vary from one state to another, creating confusion over clearance. In most LLDCs, when goods cross one or more states, the customs authorities of each state require lodging of customs bond guarantees (CBGs). The CBGs are meant to protect the transit country from potential revenue losses in the event that the goods transported are leaked into the local economy. CBGs are a great nuisance to exporters in LLDCs. For example, imports for Zambia that pass through the port of Durban, South Africa, have to go through South Africa, Zimbabwe, and sometimes Botswana before reaching Zambia. This means passing through three countries and would require three CBGs to comply with the customs laws of each country (Mputa 2011). Such measures considerably reduce the competitiveness of LLDC firms by negatively affecting their cash flows, increasing delays, and

ultimately impacting consumers through higher prices and fewer choices of goods.

On certain transport routes, LLDCs also incur unjustifiably high numbers of non-tariff barriers such as police road blocks, bribes, and check points. These barriers create additional delays and inflate transport prices. Estimates by Djankov and others (2008) for a large sample of countries estimated that each delay at customs is equivalent to the country distancing itself from its trading partner by 85 kilometers (AfDB 2010).

Finally, the **inefficiency of transport services providers** serves as another major cause of high transport prices. In particular, improving the structure and functioning of the trucking industry should be at the heart of LLDCs' struggle to reduce transport prices. This is because in most African countries (including LLDCs), the trucking industry appears to operate under a system that limits productivity, discourages competition (while promoting cartelization), and perpetuates poor quality services and excess capacity while driving up prices (Raballand and others 2008).

A study conducted by the Raballand and others (2008) demonstrated that in numerous African countries, transport costs (costs to transport service providers) were not excessively high in sub-Saharan Africa, but that transport prices (costs to shippers) were, especially in Central Africa. The study, which was based on trucking surveys of more than 400 companies in 13 African countries, noted that truckers kept production costs low through low capital costs (purchase of second-hand trucks) and minimal maintenance expenditures, while they maximized revenues

through high truck (over) loads. This indirectly impacted the quality and price of transport service. The study also found that in a bid to ensure the survival of trucking companies, both LLDCs and coastal countries often enacted regulations to provide informal and formal support to existing trucking companies, which facilitated further cartelization of the industry.

Regulations will need to be enacted and implemented to restructure the transport services sector in order to promote a culture of competition, quality, and efficient service delivery and to significantly curb instances of cartelization.

II. Options to reduce transport prices

Intensify regional transport cooperation and enhance corridor monitoring capabilities

For LLDCs, reducing transport prices calls first and foremost for the intensification of regional transport cooperation. Major cuts in transport prices may be achieved by simply enhancing the quality of cross-border interagency coordination (especially customs) and restructuring transport services markets along key corridors.

Transit transport, particularly the efficiency of the main trade corridors it utilizes, should therefore form a central part of the LLDC development agendas. The objective of their regional transport cooperation should be to work with regional partners toward the creation of “seamless” trade corridors. Seamless here is defined as a corridor with efficient multimodal options and minimal customs involvement. The concept

of seamless corridors is often used to describe some of Europe’s most efficient trading corridors.

To create seamless corridors, LLDCs, with the support of their coastal neighbors and development partners, need to invest adequate amounts of resources in monitoring and enhancing their understanding of the dynamics of the major corridors to which they belong. This is particularly important because of the multiplicity of factors causing hikes in transport prices and the variation in those factors from one corridor to the next.

Corridor monitoring could be achieved through the development of more robust corridor performance measurement mechanisms. Such mechanisms should include specific indicators to measure time, flows, delays, costs, operator efficiency, and tariffs. The core monitoring activities should rely mostly on existing consolidated data (customs and port data) and targeted surveys (freight forwarders, major trucking companies, truckers, and transport unions) (Raballand and others 2008).

There have been attempts in Africa to monitor corridor performance, particularly in the Northern Corridor, but most initiatives were fraught with sustainability issues arising from lack of financing for systematic data collection and analysis. It also appears that where bottlenecks were identified, funds were not quickly dispatched to address the issues while they were still relevant. In cases where the constraints were in policy, reforms were often too slow to come. This highlights a mix of institutional deficiencies, lack of resources, and weak political will.

Corridor management is not a static process. Bottlenecks evolve, morph, and sometimes relocate. Therefore, it is absolutely critical that once issues are identified, resources are mobilized and actions taken swiftly in order to maximize the impact of reforms. To ensure ownership and political clout, corridor monitoring mechanisms should be spearheaded by a high-level (preferably ministerial-level) Regional Coordination Committee that meets on a regular basis to oversee implementation of agreed upon action plans and the progress made in reducing transport prices and improving the transport experience of traders.

Join or establish a TIR-like system

To establish seamless corridors, African LLDCs and their coastal neighbors may look into the possibility of joining the TIR or establishing similar transit arrangement systems. The TIR is

the very system that facilitated the creation of seamless trade corridors in Europe. It is currently the most efficient system in the world for regulating transit trade in goods. The TIR is an internationally harmonized system of customs control that facilitates movement of goods with minimal customs involvement, while protecting the revenue of each country through which goods are carried. The system rests on six key pillars or principles:

1. **Secure vehicles and containers** – The goods should travel in vehicles and containers that are approved by customs and re-approved every two years.
2. **International guarantee** – The duties and taxes at risk (bond guarantees) are covered by an internationally recognized guarantee throughout the journey.
3. **The TIR carnet** – Goods must be listed on and accompanied by the TIR carnet, which is issued in the country of departure and recognized by the customs authorities of the countries of departure, transit, and destination.
4. **Controlled access** – Access to the TIR system for national issuing and guaranteeing associations is given by a competent national authority, while for transport operators it is issued by the national customs authorities and a national association.
5. **Safe TIR** – The Safe TIR is a software system for TIR carnets that facilitates traceability and risk management throughout the journey.
6. **Mutual recognition of customs control** – The measures taken in the country of departure must be accepted by the countries of transit and destination. (Source: TIR System)

Corridor management is not a static process. Bottlenecks evolve, morph, and sometimes relocate. Therefore, it is absolutely critical that once issues are identified, resources are mobilized and actions are taken swiftly in order to maximize the impact of reforms

As of 2011, according to the International Road Union, the TIR system included 68 countries worldwide, with 3 countries negotiating for entry and 6 having demonstrated interest in joining. Figure 3 depicts the geographical coverage of the TIR system as of 2011.

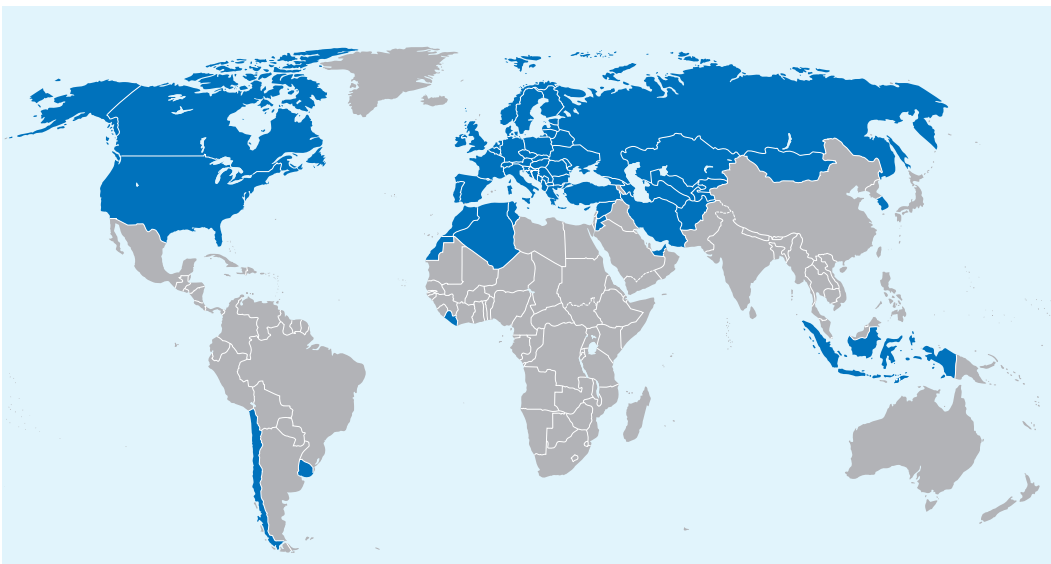
Goods that are moved under TIR can pass through these countries with customs duties and other taxes suspended, without the need for unloading/reloading at international frontiers. For LLDCs, the benefits of the TIR are clear. The TIR system would offer opportunities to lock in domestic trade facilitation reforms and rapidly raise the efficiency of its customs operations to an international-standard level. They would only need to carry out customs formalities at origin and destination, rather than at each frontier. There would be no need for unloading and reloading. The customs bonds issue would

be solved, significantly enhancing the cash flow positions of LLDC importers and exporters, and probably raising trading volumes.

But what is in it for their coastal neighbors? Transit cargo attracts more transport operators, helping to create economies of scale, and could help drive up trade volumes. For coastal countries, the TIR system could also facilitate access to both coastal and inland European markets. It would facilitate industrial migration by sending a very strong signal to manufacturers worldwide that the country is a trade-friendly destination. Looking inward at regional markets, the TIR would facilitate intra-regional trade.

At the regional level (SADC, COMESA, EAC), there have been some unsuccessful attempts to establish lighter versions of the TIR system. Most of the initiatives focused on the regulation of

Figure 3: Geographic scope of the TIR



Source: International Road Transport Union.

the CBGs issue, with minimal attempts to fully harmonize the functioning of customs systems. More research must be done to understand why such schemes have been unsuccessful in the past and the best way forward.

Scale-up investments in regional infrastructure

Beyond regional transport cooperation, corridor monitoring, and customs modernization, reducing transport prices in LLDCs will also require significant investments in transformative regional infrastructure projects, especially railways. By intensifying competition in the transport sector and providing an alternative and cheaper mode of transport, railways could play a critical role in reducing transport prices in African LLDCs.

However, regional infrastructure development is a protracted and capital-intensive process, and Africa's \$45 billion regional infrastructure financing gap is far beyond the financing capacity of the countries and their development partners. This situation requires African LLDCs, coastal countries, and development partners to think beyond traditional means of financing infrastructure. The recently launched Africa50 Infrastructure Fund is emblematic of the kind of pioneering thinking that will be required if Africa is to fill its massive regional infrastructure gap. The idea behind Africa50 is to leverage the African Development Bank's track record in infrastructure, Africa's natural resources, and internal savings with smart use of external support and capital markets to finance bankable, high-return, transformational regional infrastructure projects (Kaberuka 2013).

III. Conclusion

As highlighted in this article, high transport prices in African LLDCs are caused by an intricate web of poor regional infrastructure, inadequate regional institutional and regulatory frameworks, and inefficient transport service providers.

Identifying innovative ways to finance transformative regional infrastructure projects will therefore be crucial. Similarly, the quality of the relationships and interactions of cross-border transport-related institutions will also need to be enhanced. Finally, the structure and efficiency of transport service industries (especially trucking) may need to be revamped to improve service delivery, promote a culture of competition, and reduce instances of cartelization.

Much of the above could be achieved through more robust monitoring of corridor performance and better implementation of recommended reforms. In terms of best practices in transit management, there is no need to reinvent the wheel. The TIR system offers a practical template to raise the efficiency of transit and customs operations in Africa. Should joining the TIR system prove inconvenient to LLDCs and their coastal neighbors, at the very least they should seek to abide by similar operational principles.

Due to distance alone, transport prices (especially road transport) in LLDCs will always be higher than for their coastal neighbors and will continue to pose a challenge to trade competitiveness. The issue in Africa's LLDCs is that in many regions, these prices tend to be exceedingly high. More must be done to lower transport

prices in order to reduce trading costs and enhance the competitiveness of LLDCs.

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Prior to joining the Bank, he worked as Senior Trade Officer with the East African Community (EAC). He was recognized by the Chairperson of the EAC Council of Ministers for special contributions in the finalization of the EAC Common Market Protocol. Before EAC, he worked as Director of Export Promotion at the Rwanda Investment & Export Promotion Agency. Jean-Guy graduated from George Mason University (GMU) with a MA in International Commerce and Policy. In 2012, his alma mater (GMU) honored him with the Distinguished Young Alumnus Award.

Regional Integration Trade and Transport Facilitation

*Gerald Ajumbo, Principal Trade Expert,
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Introduction and Background

This paper highlights trade and transport sector issues in the context of regional integration. It endeavors to explain why transport costs are significantly higher in Africa by indicating the key barriers and what is being done to address them. While concerted efforts to resolve the barriers are important, the paper argues that the private sector's involvement could make an impact. Moving forward, the lessons learned by the Bank in its multinational regional operations in the transport sector could help in defining its future rationale for involvement.

Regional integration is fundamental for the realization of sustainable and inclusive growth in the continent, as illustrated by the Bank Group Strategy (2013–22) (AfDB 2013), which seeks to address economic fragility, enhance connectivity, and boost intra-African trade. Even though the global economic system is characterized by growing levels of integrated movement of persons, goods, and services, as exemplified in the developed and emerging countries, the depth of such integration is rather shallow in Africa's context.

The continent's failure to exploit its comparative advantage is attributable to many factors, one of which is inability to harness and improve the efficiency of trade, transport, and logistics facilitation. The characteristic weaknesses and barriers have been documented. Key among these are policy and regulatory obstacles that have amplified and compounded the costs of doing business, while persistently undermining the transactional environment, and hence

correlate with the low volumes and values of intra-trade, which has been only 16 percent over the last decade. Because Africa's high-cost production setting is inimical to factors mobility, capital inflows, and investment, the continent's potential for growth in merchandise trade is undermined. This situation has constrained economic opportunities, leading to low job creation and insufficient generation of wealth.²⁶

Regional member countries (RMCs) and other regional partners like the regional economic communities (RECs) aim to harmonize and coordinate regimes to reduce the general costs of doing business, tariffs, transport costs, and border delays. While the development of regional infrastructure such as roads and railways has been ongoing, and therefore requires little emphasis, the inattention to soft infrastructure constraints through severe underinvestment underpins what Africa has to tackle in order to improve its trade and transport regimes, and hence bring down its significantly higher overland transport costs.

The proliferation of and signature to numerous agreements by RMCs have hardly translated into implementation. Consequently, the results measures and indicators that relate to trade and transport, such as delays at the ports, border posts, cabotage regulations, axle load limits, and informal payments along transit corridors all remain weak. Inadequate policy and regulatory response is evident and proven by the challenges—the numerous documentary requirements and complex procedures—for trade and transport. Limited innovation and absence of resources to

²⁶ Estimate by the African Development Bank.

improve the modes and infrastructures in terms of capacity and throughput is equally daunting. The resulting lack of transport efficiency has limited and undermined the movement of goods.

Only 20 percent of the roads in Africa are paved (AfDB 2011). This significantly limits connectivity through low cross-border traffic and road transport flows, thus restricting market access. Low transport volumes in the western, central, and eastern parts of Africa are attributable to underinvestment in both the hard and soft aspects of road infrastructure. A study done in West Africa on corridors spanning Burkina Faso, Ghana, Benin, and Niger by the Borderless Alliance documents the constraints, such as the number of control points/road blocks and the informal payments demanded by various officials, as shown in table 1.

Why Road Transport Costs Are Higher in Africa

The significant costs associated with road infrastructure development have compelled African countries to adopt a corridor approach. The corridor concept enables major national roads to link to the corridor backbone, which is sometimes linked to other modes (rail or pipeline), but more importantly to have access to a port route.

Important information on what obtains in some of the continent's corridors is summarized in table 2. In many parts of the continent there are attempts at shared development and linkage to vital road infrastructure. The important sea routes linked to the regional corridors include Djibouti, Mombasa, and Dar es Salaam in eastern/Horn of Africa; Abidjan, Tema, Lomé, Cotonou, and Dakar in West Africa; Douala in

Central Africa; and Walvis Bay, Durban, Maputo, and Beira in southern Africa. The general road infrastructure, governance, transport market structures, and road usage in terms of trucking is comparatively better in southern Africa, where private sector involvement is visible and trucking prices are competitive. Due to perennial congestion, the ports of eastern Africa are undertaking modernization and making efforts to link to corridor transport through regional competitive arrangements.

The transport corridors in West Africa traverse long distances to the ports, particularly corridors linked to the Sahelian countries. Attempts to apply common policies and regulatory requirements along the corridors have been made by RECs and RMCs with mixed results. Enforcement is uneven. While some RMCs have gained traction on implementation, most grapple with governance challenges. Demand for informal payments by officials is the most rampant challenge, and this inevitably raises transport costs significantly. Private sector lobbies such as the Borderless Alliance in West Africa have worked to reverse the adverse conditions through contribution to improved road transport governance by looking at the issue of competitiveness and identifying appropriate means to sustain it.

Trade and Transport Barriers

It is not uncommon that cargo clearance time and costs to export a 20-foot container from some of the ports mentioned above can reach US\$1,915 and require a turnaround time of 33.6 days. This compares dismally with other developing regions. For Asia and Latin America, the average is US\$960 and 25.1 days (2009 figures)(AfDB 2014). While the

efficiency of trade and transport systems increases productivity, competitiveness, and economic growth, in African countries these have not been realizable. Instead of ports, borders, and transit corridors becoming significant for reducing costs and duration of time required for business, they have engendered the opposite effect. Some of the barriers peculiar to trade and transport include:

- a. Delays at the ports of entry due to disproportionate documentary requirements and complexity of procedures and processes
- b. Varying application of axle load specifications
- c. Excessive number of weighbridges
- d. Lack of harmonization of standards and procedures
- e. Unharmonized transit charges and other fiscal impositions
- f. Absence of customs reforms and modernization and border management issues
- g. Lack of customs systems interconnectivity and establishment of a single window environment with other border agencies and stakeholders
- h. Demand by officials for informal payments at the ports of entry/exit, borders, and along the transit corridors
- i. Nonexistence of security and protection to transport systems and the cargo supply chain
- j. Absence of transparent cabotage²⁷ policies and regulations
- k. Weak integration of regional infrastructure: roads, railways, airports, pipelines, and ports
- l. Poor appreciation and weak exchange of information/data by border agencies
- m. Lack of capacity and resources to implement policies and regulations

- n. Weak or absent national and regional institutions.

What Fewer Barriers Would Mean

Elimination of the barriers to trade and transport could lead to greater openness of African economies, improve factor mobility, and serve as a strong catalyst for other forms of development. Trade and transport facilitation would, for instance, lead to the improvement of the continent's global supply and value chains for Africa's businesses and lead to export competitiveness. Complementarities in trade and transport could make the RMCs borderless through creation of single economic spaces and deepen integration through trade. There could be fewer barriers if RMCs and RECs could expeditiously mobilize political will and harmonize, coordinate, and synchronize their many requirements and streamline implementation. Synergies of capacity building through developing training institutions and programs to increase the knowledge and skills of field and office staff may assist significantly in terms of spreading and disseminating best practice. Pooling of resources for the development of soft and hard infrastructure aimed at the improvement of trade and transport issues could also enable removal of the barriers.

Role of the Private Sector

The private sector in Africa has scant knowledge of and access to information on trade and transport facilitation. Where such knowledge exists, it is limited to the national situation. For instance, in the Economic Community of West African States (ECOWAS) region, many private sector operators do not have information on the region's trade liberalization scheme (ETLS), which is the

²⁷ The rules/regulations that confer the right to operate sea, air, or other transport services within a particular territory.

tool for promoting the region as a free trade area. Unavailability of information on the duty-free movement of goods, harmonized procedures on transport, and other issues manifest as non-tariff barriers. Formation of private sector lobbies covering nine countries—Benin, Burkina Faso, Côte d’Ivoire, Ghana, Mali, Niger, Nigeria, Senegal, and Togo—has helped in coming up with common objectives to eliminate barriers and create sustainability. RMCs in eastern and southern Africa have more organized private sector institutions that have regional-level affiliations through bodies such as the East African Business Council, COMESA Business Council, and the Association of SADC Chambers of Commerce and Industry.

Lessons from Bank Operations

Trade and transport facilitation is a growing policy area for the Bank, and the challenges entailed correlate with the development interests of RMCs. Even though over time the Bank has built comparative advantage in financing development of road infrastructure, appreciation of investing on soft infrastructure components has been late in coming.²⁸

28 The Arusha-Namanga-Athi River Road has since been officially commissioned and is operational, yet the development of the one-stop border posts (OSBPs) is sluggish, with completion rates of only 75 and 15 percent realized for Tanzania and Kenya. If soft infrastructure activities such as customs reforms and modernization, training of border officials on OSBP operations, and general capacity building for the simplification of border procedures and documentation had been initiated before commencement of the road construction

Memorandum of Understanding between the Bank and the World Customs Organization

On 30 January 2012 the Bank and the World Customs Organization (WCO) signed a memorandum of understanding (MoU) that enables both institutions to collaborate and partner in undertaking customs reforms and modernization within the continent. The two are generally keen to improve the efficiency and effectiveness of customs administrations to facilitate international trade, maximize revenue yield, and control frontiers through the use of international instruments, adoption of best practices, capacity building, and programs of reform and modernization. Much more specifically, the Bank believes that customs modernization will contribute to the sustainable development and social progress of RMCs as well as enhancing cooperation, including regional and subregional cooperation, while enhancing intra-African and international trade, with gains that would be mainstreamed into the development priorities of the RMCs.

The two institutions have developed a joint work program for the continent with an estimated budget of US\$10 million. Through the joint work program, it has been feasible to identify and pursue specific programs and projects that require and emphasize cooperation; prepare implementation plans for each identified program and project; and work out details for joint monitoring and evaluation of the programs and projects selected. The MoU was to have been operationalized by June 2013.

Source: ONRI.2.

During policy dialogue and project preparation, the Bank has not been catalytic in promoting and urging RMCs to implement international agreements, best practices, and regional protocols signed on trade and transport facilitation. While RMCs eventually secure their projects, these are never given regional context, and therefore have limited linkage to the regional obligations. Under the circumstances, some of the road infrastructure projects undertaken through Bank assistance have not had wider impacts.²⁹

29 The completion of the Arusha-Namanga-Athi River Road has improved time taken to drive from Arusha in Tanzania to Athi River in Kenya, but due to issues at the border, movement of persons, goods, and services has not significantly increased.

Despite the Bank's growing interests in trade and transport facilitation, this still does not show through budgetary allocations. Even though regional operations command 20 percent of the Bank's African Development Fund resources, limited funds are available for trade and transport facilitation.

The Bank's capacity in trade facilitation is low, which threatens its institutional response. Although in terms of values it has a large portfolio of transport operations, few technical staff are assigned to trade and transport facilitation responsibilities. The resource limitations and insufficient internal capacity have therefore circumscribed mainstreaming of trade facilitation in the Bank's multinational transport operations, thereby limiting influential policy dialogue with the RMCs.

Rationale for Future Bank Involvement in Trade and Transport Facilitation

Policy makers in RMCs have the tendency to focus on the benefits of regional integration, without necessarily considering the significant up-front costs entailed in mitigating obstacles such as those associated with the trade and transport sectors. Even with the finalization of the World Trade Organization (WTO) Agreement on Trade Facilitation, implementation can be slow. This situation compels the Bank and other development partners to expand mitigation of trade and transport challenges through increasing their support for regional public goods. Realization that regional infrastructure development requires complementary soft infrastructure components to make the development

impact more compelling has gained traction. The Bank's rationale for involvement could therefore be grounded on (i) the development impact of trade and transport facilitation in mitigating the challenges for intra-African trade; (ii) increasing the impact of lending for the multinational regional operations in the transport sector; and (iii) ensuring quality at entry and developing capacities to mainstream soft components in hard infrastructure development across the Bank.

The Bank's criteria for success could be guided by (i) recognizing the scarcity of internal capacity for trade and transport facilitation and expanding technical expertise; (ii) increasing operational efficiency for trade and transport policies through deepening its collaboration with other institutions already known for best practice, such as the WTO, the World Customs Organization, and a number of transport agencies; and (iii) having only targeted interventions that could maximize the impact of its hard infrastructure regional operations.

Conclusions

To facilitate the necessary reforms and make it easier to modernize Africa's trade and transport facilitation, policy makers must embrace deregulation and make it a priority. Since the up-front costs entailed in undertaking reforms are large, incentives should be provided to encourage participation of the private sector players. Governments could dismantle cartels that operate across the trucking businesses, reduce the high fees, and provide security for people and cargo. Ports, borders, and transport corridors should be modernized as a way of lowering the costs for business and duration times, as well as encouraging more operators.

Key Messages

- Trade and transport facilitation is a contemporary policy issue and should be given greater attention if Africa is to achieve industrialization, expand its trade, and attain sustainable growth and development.
- Systematic reforms to trade and transport issues require coordinated and harmonized approaches by both national and regional institutions, bringing together governments, development partners, and the private sector.
- Investing in customs reforms and modernization without coming up with simplified trade regimes targeted at simplification and standardization of procedures and processes would still not attain the desired results.

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Gerald Ajumbo is a Trade Expert at the AfDB. His experience includes trade policy analysis, regional/international negotiations and management, mobilization of resources for trade policy-related causes, macroeconomic policy analysis (fiscal, monetary, econometrics), fiscal management, private sector development, and industrial policy issues. The responsibilities crystallized through activities such as provision of leadership for the EAC-EU-EPA negotiations, the COMESA-EAC-SADC Tripartite FTA negotiations, and the Trade and Investment Framework Agreement negotiations between the EAC and the United States. In the Bank, his responsibilities include trade facilitation. He is a graduate of the Universities of Nairobi, Japan, and Cape Town.



Table 1: Governance Statistics for Select Countries/Corridors in West Africa (1 January to 31 March 2013)

Corridor/country	Quarter	No of trips	Distance in kms	Average number of controls per trip by service						Average bribes in CFA per trip by service						Delays per trip (min)				
				Police		Customs		Gender-marie		Others		Total		Ratio per km			Total in CFA		Ratio per 100 km	
				Police	Customs	Gender-marie	Others	Total	Ratio per km	Police	Customs	Gender-marie	Others	Total in CFA	Ratio per 100 km		Total	Ratio per 100 km		
Burkina Faso	Q1-2013	33	400	1	3	1	-	5	1	8,303	18,849	4,394	-	32,546	8,137	21	5			
	Q4-2012	44	400	2	6	2	-	9	2	14,500	51,200	8,575	-	74,275	18,569	22	6			
	Q1-2012	26	400	2	6	2	-	10	3	9,820	34,861	15,221	-	59,902	14,976	62	15			
	Q1-2013	33	916	4	3	-	3	11	1	3,412	3,726	-	3,073	10,211	1,115	82	9			
Ghana	Q4-2012	44	916	9	8	-	3	21	2	6,495	14,334	-	3,034	23,863	2,605	85	9			
	Q1-2012	26	916	10	10	-	-	20	2	8,347	13,257	-	-	21,604	2,359	63	7			
	Q1-2013	33	1316	6	6	1	3	15	1	11,715	23,576	4,394	3,073	42,767	3,249	-	8			
	Q4-2012	44	400	2	6	2	-	9	2	14,500	51,200	8,675	-	74,276	18,559	22	6			
Burkina Faso	Q1-2012	8	1,316	12	17	2	-	31	2	19,738	59,478	10,000	367	89,593	6,807	-	11			
	Q1-2013	14	150	2	1	1	1	4	3	6,214	1,571	4,071	2,071	13,929	9,286	6	4			
	Q4-2012	16	150	2	2	1	1	6	4	6,367	7,433	4,867	3,133	21,800	14,533	13	9			
	Q1-2012	20	150	2	2	1	1	6	4	8,860	2,500	6,800	3,000	20,160	13,433	5	3			
Benin	Q1-2013	14	319	1	1	1	1	6	2	23,500	30,000	30,643	9,250	93,393	29,277	6	2			
	Q4-2012	16	319	1	1	1	1	7	2	23,333	34,333	34,333	13,200	105,200	32,978	21	6			
	Q1-2012	20	319	1	1	1	1	7	2	30,000	35,000	35,000	10,850	110,860	34,749	7	2			
	Q1-2013	14	489	3	2	2	4	10	3	29,714	31,571	34,714	11,321	107,321	22,883	12	3			
Fada-Parakou	Q4-2012	15	489	3	3	2	5	13	3	29,700	41,767	39,200	16,333	127,000	27,079	33	7			
	Q1-2012	20	489	3	3	2	6	13	3	38,860	37,500	40,800	13,860	131,000	27,932	12	3			
	Q1-2013	71	463	10	4	-	1	15	3	3,130	2,999	-	450	6,679	1,421	8	2			
	Q4-2012	16	463	10	4	-	1	15	3	4,312	2,626	-	497	7,435	1,606	37	8			
Ghana	Q1-2012	10	463	11	3	-	1	15	2	3,733	1,764	-	588	6,085	1,314	36	8			
	Q1-2013	71	513	1	7	2	1	11	2	2,777	21,070	2,507	586	26,939	5,251	6	1			
	Q4-2012	16	513	2	7	2	1	12	2	3,467	16,000	2,700	600	22,667	4,418	29	6			
	Q1-2012	10	513	2	6	3	1	11	3	2,500	13,100	4,700	760	21,060	4,103	28	5			
Teshiman-Kantohari	Q1-2013	71	976	12	11	2	2	26	3	5,908	24,070	2,507	1,034	33,519	3,434	14	1			
	Q4-2012	15	976	12	11	2	2	27	3	7,779	18,626	2,700	997	30,102	3,084	67	7			
	Q1-2012	10	976	13	8	3	2	26	3	6,233	14,864	4,700	1,338	27,135	2,780	64	7			
	Q1-2013	17	323	3	4	1	1	9	3	58,588	85,588	11,765	12,235	168,176	52,067	26	8			
Benin	Q4-2012	29	323	6	7	5	4	21	7	5,052	126,379	6,310	4,034	141,776	43,893	18	6			
	Q1-2013	17	282	1	4	2	-	8	3	3,824	104,235	7,824	-	115,883	41,093	35	12			
	Q4-2012	29	282	1	4	1	0	6	2	22,690	47,276	20,207	22,310	112,483	39,888	22	8			
	Q1-2013	17	605	4	8	4	1	17	3	62,412	189,823	19,589	12,235	284,059	46,952	61	10			
Q4-2012	29	605	6	11	6	4	27	5	27,741	173,656	28,517	26,345	254,259	42,026	40	7				

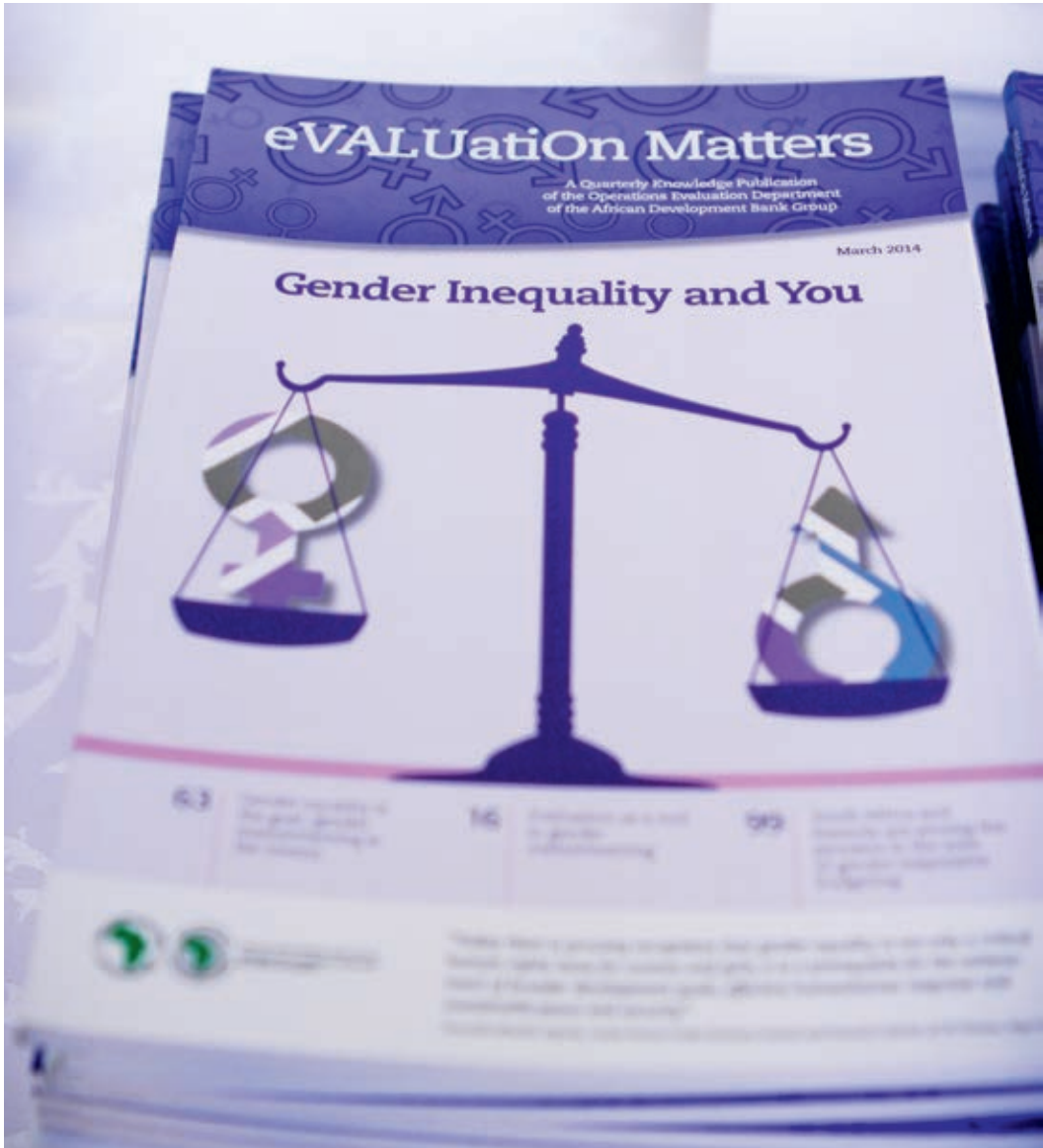
Source: Borderless Alliance 2013.

Table 2: Regional Transport Corridors in Africa

African Region	Transport corridor	Beneficiary countries	Regional ports	Governance/market structure	Road transport characteristics
Eastern/ Horn (and Southern)	North-South Corridor (Dar es Salaam-Durban)	Tanzania, Zambia, Zimbabwe, South Africa	Djibouti, Mombasa, Dar es Salaam	<ul style="list-style-type: none"> Some of the ports have ambitious modernization plans and are managed competitively, such as the Port of Djibouti. Regulation through port authorities, competitive but prices still significantly higher for regional-bound cargo. Regional protocol signed for improving port-corridor operations. More regional ports planned in both Kenya and Tanzania through corridor development. 	<ul style="list-style-type: none"> Transportation by road is the main mode. The port of Mombasa is served by rail links to Malaba. Regional partners granted rights to construct freight stations to serve their countries.
	Northern Corridor (Mombasa-Malaba-Kampala-Katuna-Bujumbura)	Kenya, Uganda, Rwanda, Burundi			
	Central Development Corridor (Dar es Salaam-Kigoma-Burundi-Rwanda-DR Congo-Uganda)	Tanzania, Rwanda, Burundi, Uganda and DR Congo			
West	Djibouti-Ethiopia	Ethiopia	Abidjan, Tema, Lomé, Cotonou, Dakar	<ul style="list-style-type: none"> Seaports are farther apart, with no common regulatory requirements. Shipper councils through emergent groups. Different languages with limited harmonization. 	<ul style="list-style-type: none"> Transport mainly by trucks. Majority of trucks are old. Services are of medium to low quality. Costs are high and characterized by informal payments to government officials.
	Lagos-Abidjan Corridor	Côte d'Ivoire, Ghana, Togo, Benin, and Nigeria			
Central	Abidjan-Ouagadougou Corridor	Côte d'Ivoire, Burkina Faso	Douala	<ul style="list-style-type: none"> Transportation is shared between road and rail transport. Regulatory environment weak and unharmonized regionally wide. 	<ul style="list-style-type: none"> There are trucking cartels. Services generally of lower quality. Trucking costs are high.
	Oubangui-Congo-Sangha River Navigation Project and Construction of the Ouesso (Congo), Bangui (CAR)-N'Djamena (Chad) Road	CICOS member countries/ Congo, CAR, DRC, Chad			
	Doussala-Dolisie	Gabon-Congo			
	Ouesso – Sangmelima	Congo-Cameroon			
	Walvis Bay Corridor	Namibia, Angola, Zambia, DR Congo, South Africa, and Botswana			
Southern	Nacala Corridor	Mozambique, Malawi, and Zambia	Walvis Bay, Durban, Maputo, Beira	<ul style="list-style-type: none"> More organized and advanced in terms of policy and regulatory regimes. Private sector engagement highly visible through private sector and shipper councils. There is evidence of dedicated corridor development. Port development linked with corridor demands. 	<ul style="list-style-type: none"> Trucking is private sector driven and is organized where similar rules are applicable. There is contracting between shipping lines and trucking firms. Trucking costs are manageable and reasonable.
	Beira Corridor	Zambia, Zimbabwe, and Malawi			

Source: Compilation by author from various sources.

Last Issue



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See page 4 for more details



Eric McGaw, DRC, August 2011

About the AfDB: The overarching objective of the African Development Bank Group is to foster sustainable economic development and social progress in its regional member countries (RMCs), thus contributing to poverty reduction. The Bank Group achieves this objective by mobilizing and allocating resources for investment in RMCs and providing policy advice and technical assistance to support development efforts.

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*From Experience to Knowledge ...
From Knowledge to Action
... From Action to Impact*

Independent Development Evaluation