

# Regionalizing Infrastructure for Deepening Market Integration

The Case of East Africa

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## Abstract

The East African Community has long recognized that regional economic integration can yield significant welfare gains to its member states. To that end, the community has been making steady progress towards the removal of tariffs and quantitative restrictions to trade. Moreover, in recent years, there has been an increasing recognition that: (a) even greater welfare gains could be realized through deeper forms of regional integration which entail harmonization of legal, regulatory and institutional frameworks; and (b) reforms that reduce cross-border transaction costs and improve the performance of “backbone” infrastructure services

are arguably even more important for the creation of an open, unified regional economic space than trade policy reforms narrowly defined. Disparities of regulatory treatment across borders can introduce distortions that hinder both cross-border trade and the aggregate flows of investment on a regional basis. Regulatory harmonization and infrastructure regionalization could make a significant contribution to the region’s economic development by promoting a more efficient utilization of its human and physical resources, enhancing connectivity, reducing the costs of trade, and facilitating the integration of the continent with the global economy.

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# **Regionalizing Infrastructure for Deepening Market Integration: the Case of East Africa**

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# 1. Introduction

The East African Community (EAC) has long recognized that regional economic integration can yield significant welfare gains to its member states. However, regional integration has been impeded by: (i) inadequate and poor regional infrastructure networks that raise cross-border transaction costs, and thus limit competitiveness and economic growth; and (ii) disparate legal/regulatory frameworks with weak institutional capacity. Moreover, national strategic frameworks often are not that strongly aligned with regional priorities for integration and growth. Divergent national attitudes and commitments, perceptions of unequal distribution of the costs and benefits of investment in cross-border infrastructure, and lingering concerns about ceding national sovereignty all have impeded the advance of regional integration.

The member states of the EAC have been making steady progress towards the removal of tariffs and quantitative restrictions to trade. However, these trade policy reform efforts will have only limited success in promoting economic advance through improved regional connectivity and increased intra-regional trade unless they are accompanied by effective measures to alleviate both physical and soft infrastructure bottlenecks. To facilitate further progress towards the creation of an open, unified regional economic space in East Africa, attention needs to be focused on two strategic pillars:

- alleviation of supply-side constraints created by physical infrastructure bottlenecks;
- harmonization of legal, regulatory and institutional frameworks, and capacity building.

One of the most serious obstacles to regional connectivity and economic integration is poor physical infrastructure. There is a long list of supply-side constraints and bottlenecks: poor road and rail networks with important missing links and significant operational capacity problems; congested and inefficient regional ports; inadequate electricity supply; and poor access to information and telecommunications technology. The elimination of these supply-side constraints will require significant amounts of infrastructure investment. The countries in the region do not have the resources to provide the necessary financing from general revenues. Moreover, an investment plan of this magnitude cannot be undertaken by the private sector alone. It will require creative partnerships between the public and private sectors supported by complementary strategic investment in key bottlenecks by the World Bank and other multilateral institutions. In view of the massive investment required, there is an urgent need for a careful sequencing and prioritization—and thus for comprehensive application of cost-benefit analysis. The World Bank could provide significant technical and analytic support to these efforts at strategic planning and evaluation.

The lack of policy harmonization coupled with weak institutional capacity at both national and regional levels is an even more serious impediment to regional integration in East Africa. The benefits of regional integration can only be achieved in the context of harmonization of policy and regulatory environments. Disparities in regulatory treatment across borders introduce distortions

that hinder both trade and the aggregate flows of investment on a regional basis. Similarly, market opening and restructuring in the backbone infrastructure sectors of individual countries need to be complemented by parallel developments (reciprocity) across countries. Otherwise, significant differences in market structures (e.g. in vertical structure and the type of ownership) could lead to inefficient volume and composition of cross-border trade. Sufficient regulatory and market structure harmonization, the reform of trade-distorting inefficient national regulations, and regional cooperation to overcome capacity constraints thus are essential components of regional economic integration.

Views on regionalism's welfare implications vary considerably. Some observers argue that regionalism has been used as a vehicle for import-substituting industrialization and consequently has led to inward- rather than outward-looking economic policies. Thus there is a danger that regionalism might actually inhibit Africa's integration to the world economy and further entrench the continent's marginalization in an era of globalization. Others are pointing out that unlike the previous waves of regionalism the initiatives of the past two decades have focused on market liberalization, export- and foreign-investment-led policies. This new wave of regionalism seeks to facilitate the participation of developing countries in the global economy rather than their withdrawal from it through inward-looking import substitution policies. Indeed, regionalism that focuses on policy coordination, harmonization of administrative rules and regulations, and the removal of cost-raising infrastructure barriers may improve the continent's investment climate and facilitate economic growth (De Melo et al, 1992; Panagariya, 1994; Mansfield and Milner, 1999; Panagariya, 1999; Lee, 2002; Baldwin, 2006).

This paper argues that infrastructure regionalization could make a significant contribution to East Africa's economic development by promoting a more efficient utilization of its human and physical resources, strengthening connectivity, reducing the costs of trade, and facilitating the integration of the continent with the global information economy. Regionalization of regulatory policy in particular could mitigate the problem of regulatory capture, facilitate regulatory reform, enhance the capacity of national governments to make credible policy commitments, and through the pooling of resources, help them overcome technical capacity constraints.

The paper focuses on East Africa in order to provide concrete examples of infrastructure bottlenecks to regional connectivity. However, the paper's main arguments could be applicable to other parts of the African continent.

## **2. The trend towards regionalism in Africa**

Economic globalization has been matched with a parallel and increasing trend towards regionalism. Indeed, regional economic integration is now a prominent feature of the global economic order. Many factors have contributed to this growing trend of regionalism: the desire to obtain secure access to major markets; creating opportunities to expand trade, coordinate investment, enlarge local markets, and foster more efficient industrialization by exploiting economies of scale; and the desire of governments to enhance their credibility by binding themselves to regional policies and by

signaling such commitment to domestic and foreign investors. The expected cumulative effect of all these factors is enhanced economic growth (Schiff and Winters, 2003).

Around 125 regional trade agreements (RTAs) were notified between 1948 and 2002—an annual average of less than 3 notifications during the five decades of GATT. In contrast, from the establishment of the World Trade Organization in 1995 to 2002, an additional 125 RTAs were formed—an annual average of more than 15 notifications (WTO, 2002).<sup>1</sup>

Regionalism has a long history in Africa, dating back to the creation of the South African Customs Union in 1910 and the East African Community in 1919. Since the early years of Africa's independence, the imperative of regional integration has been a key component of the political and economic vision of the continent's leadership. Pan African leaders championed the idea of a unified Africa as a powerful response to the challenges of colonization and focused on continental coherence and unity, and political and economic cooperation. Thus regionalism in Africa has had a stronger political motivation and support than in other parts of the world. Moreover, especially during the past two decades, the forces of globalization have brought the regionalization imperative even more sharply into focus as Africa has been grappling with international competitive pressures and mounting challenges in attracting foreign direct investment (McCarthy, 1995; AfDB, 2009; Bachmann and Sidaway, 2010).

In May 1963, representatives of 32 African countries signed in Addis Ababa a Charter establishing the Organization of African Unity (OAU). Subsequently, 21 more states gradually joined, with South Africa becoming the 53<sup>rd</sup> member in May 1994. In 1991, a treaty was signed in Abuja establishing the African Economic Community (AEC) as a step towards continent-wide economic integration. The objectives of the AEC, which came into force in 1994, are to promote economic, social and cultural development in Africa to ensure higher standards of living, economic stability and peaceful relations among member states, and to coordinate and harmonize policies among existing and future regional economic communities. An open, unified economic space, with a common currency, full mobility of factors of production, and free trade is AEC's ultimate goal (Geda and Kebret, 2007).

A large number of regional economic communities (RECs) have been established in the African continent with varying objectives, goals, and strategies. Currently there are 14 RECs.<sup>2</sup> Of 53 countries in the continent: 27 belong to two RECs; 18 belong to three; one belongs to at least four; and only 7 countries hold membership in only one REC (Ndomo, 2009). Thus there is an inherent complexity of economic cooperation between the different African states and an overlap and redundancy of certain regional organizations. Still, a number of RECs have been designated pillars of the AEC. These include the Southern African Development Community (SADC), Common

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<sup>1</sup> The current proliferation of RTA's is the third wave after the first in the 1930s that was based on discriminatory and highly protectionist trade blocks and the second from the late 1950s to early 1970s which sought to promote the development of domestic industries by elevating import substitution policies to the regional level (Guerrieri and Caratelli, 2006).

<sup>2</sup> The African Union officially recognizes eight RECs: UMA, EAC, ECOWAS, SADC, CENSAD, IGAD, COMESA, and ECCAS.

Market for Eastern and Southern Africa (COMESA), Economic Community of West African States (ECOWAS), Economic Community of Central African States (ECCAS/CEEAC), and the Arab Maghreb Union (UMA). Other active regional integration initiatives include the Inter-Governmental Agency for Development (IGAD), Central African Economic and Monetary Community (CEMAC), Community of Sahel-Saharan States (CENSAD), the Southern African Customs Union (SACU), and the West African Economic and Monetary Union (UEMOA).

To further expedite the process of economic and political integration in the continent, the members of OAU decided in 1999 to establish the African Union which was officially launched at the Durban Summit of 2002. The aim of the AU is to evolve the OAU and the AEC into one unified institution. In this context, the AU sees the various existing and future RECs in Africa as the building blocks for the AEC. The AEC treaty calls for its gradual formation through the integration, harmonization and coordination of the various RECs' activities. This process is expected to be completed by 2028 (Jakobeit et al, 2005).

### **3. Regionalism in East Africa**

It has long been recognized by governments in the East African region that regional cooperation and integration can yield significant economic and political benefits. Indeed, efforts for economic cooperation in the region have deep historic roots. They date as far back as the end of the 19<sup>th</sup> century with the construction of the Uganda Railway from the coastal town of Mombasa to Kisumu on the shores of Lake Victoria. Various forms of administrative integration were undertaken during the colonial times (when Kenya, Uganda, and Tanzania were under British rule). These included the establishment of the East Africa Court of Appeal in 1909 and the East African Currency Board in 1920. Over the years, the areas of economic cooperation were expanded to include: a customs union between Kenya and Uganda in 1917—the then Tanganyika joined in 1927; the East African High Commission which was formed in 1948 and lasted until the independence of Tanzania in 1962; the East African Common Services Organization (1961-1967); and the East African Community (EAC) in 1967 (Mullei, 2005; Mauri, 2007; Lumumba, 2009).<sup>3</sup>

Ten years after its establishment, the EAC collapsed in 1977. Its dissolution is widely attributed to three main factors: (i) perceptions of an inequitable distribution of costs and benefits among the member states and significant inter-territorial imbalances in trade; (ii) lack of sustained political will and ideological differences among the partner states which were taking divergent paths in terms of political architecture;<sup>4</sup> and (iii) strained political communication exacerbated by Idi Amin's 1971

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<sup>3</sup> After World War II, East Africa saw a significant proliferation of common services institutions. These included the East African Industrial Research Organization, the East African Airways Corporation, the Directorate of Civil Aviation, the East African Customs and Excise Department, the East African Tobacco Company, the University of East Africa, and the East African Railways and Harbours (Kamanga, 2001).

<sup>4</sup> As Nyerere put it aptly: "The only reason why the Community broke up was the lack of political will to deal in a spirit of unity and in awareness of our interdependence with the inevitable difficulties of international cooperation between poor countries. I think we have now learnt this basic lesson" (Umbricht, 1988).

military coup in Uganda.<sup>5</sup> The EAC also faced significant constitutional impediments (Kamanga, 2001; Katembo, 2008).

Following the dissolution of the EAC in 1977 and after much bickering over assets and liabilities, the member states negotiated a Mediation Agreement, which they signed in 1984. Thus despite the intense mutual acrimony that followed the collapse of the Community in 1977, Kenya, Tanzania, and Uganda were still able to: “agree to disagree.” As part of the Mediation Agreement, the member states committed to explore and identify further areas of future cooperation.<sup>6</sup> In the face of increasing challenges due to globalization and changing political and economic circumstances (especially Uganda’s economic liberalization and the replacement of Tanzania’s socialism with more pragmatic liberal policies), the countries of the region felt the need for greater cooperation—to boost the economic clout of the region and facilitate socioeconomic development). In November 1993, the heads of state of Uganda, Kenya and Tanzania signed the Agreement for the Establishment of a Permanent Tripartite Commission for Cooperation—a coordinating body with decision-making powers comprised of Ministers responsible for agreed areas of cooperation. The Tripartite Commission was given the express directive to reactivate and deepen regional cooperation.

The treaty establishing the EAC, comprising Kenya, Tanzania and Uganda, was signed in November 1999 and acquired the force of law in July 2000. Rwanda and Burundi joined the EAC in 2004. Given the past experience, the Treaty adopted a more cautious approach to regional integration. It envisaged a gradual, multi-stage process of integration that included a Customs Union, Common Market, Monetary Union, and finally Political Federation. The launching of each of these different stages was to be governed by a specific treaty—a Protocol to be adopted at an appropriate time. The East African Customs union was launched in January 2005 and the Common Market came into force in July 2010. There are ongoing negotiations about the establishment of the East African Monetary union and Political Federation (Mogeni, 2011).

#### **4. Nexus between regionalization, infrastructure and connectivity**

Africa has substantial human and natural resources. The forces of globalization could potentially have a major transformational impact on the region’s role in the world economy. However, the continent has been rather slow to exploit the opportunities offered by globalization. And it still plays a relatively minor role in global economic activity. Africa’s potential remains largely

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<sup>5</sup> The three partners appeared to part ideological ways soon after the formation of the EAC in 1967. Tanzania adopted the Arusha Declaration, which put the country on a socialist path that emphasized self-reliance and shunned foreign investment. Uganda chose the Common Man’s Charter which effectively created an ideological axis with Tanzania. Despite Kenya’s socialist rhetoric, the country opted for a liberal economy and sought foreign investment. Foreign investors focused on Kenya because of its favorable investment climate and better infrastructure. Old disparities combined with new policies exacerbated the cross-country income differences and thus undermined the stability of the EAC.

<sup>6</sup> This is referred to as the “Umbricht Clause” in honor of Ambassador Victor Umbricht who played a very instrumental role in bringing the parties together to sign the Mediation Agreement.

untapped in part due to insufficient region-wide connectivity. Vast parts of the continent and a huge number of communities remain economically as well as geographically isolated.

One of Africa's greatest assets is its enormous cultural and physical diversity. However, without good connectivity diversity can lead to conflict and disparity rather than to economic prosperity. Efficient, fast, reliable, reasonably priced, and seamless infrastructure connections are indispensable for the effective exploitation of natural resource and production complementarities and the free flow of goods and services across the entire region. Thus they are crucial for improving the region's productivity and trade competitiveness. Unfortunately, most African countries have inadequate infrastructure characterized by low service quality, high prices (twice as expensive as elsewhere), and missing regional links. Africa's road density—an indicator of connectivity within countries—is substantially lower than in other developing regions: 204 kilometers of road per 1,000 square kilometers with only one-quarter paved, compared to a global average of 944 kilometers per 1,000 square kilometers, with more than one-half paved. Similarly, the spatial density of the continent's rail networks is low and 13 countries have no operating railway at all. Moreover, most of Africa's major ports suffer from significant capacity constraints and low operating efficiencies. And only one-fifth of the continent's population has access to electricity as compared to one-half in South Asia and more than four-fifths in Latin America. More than 30 African countries are experiencing power shortages and regular interruptions in service, and the cost of generating electricity is exceptionally high and rising (Foster and Briceno-Garmendia, 2010).

The resumption of economic growth in recent years has exerted significant pressure on the existing networks and is rapidly unmasking deficiencies in such important sectors as transportation, energy, and telecommunications. Due to their substantial deficiencies, the region's infrastructure networks constitute major bottlenecks to economic growth and they will further undermine the international competitiveness of many of its member states.

#### **4.1 The importance of infrastructure**

It is widely recognized that the efficient functioning of the infrastructure sectors is vital to sustained economic growth and international competitiveness. These sectors provide services that are critical inputs in manufacturing, transportation, and commerce, and are important contributors to household welfare. They also provide services that are essential to boosting economic activity and increasing competition through the expansion of product lines and geographic spheres of distribution. Therefore, inadequate or poorly performing infrastructure can be a serious burden on the economy—it can undermine national competitiveness, cause economic stagnation and seriously undermine the evolution of competitive markets (Kessides, 1996; Calderon and Serven, 2004; Straub, 2008).

Transportation is essential to a modern economy and a smoothly functioning society. Enormous changes in the world economy—including the dramatic increase in international flows of goods and services (globalization)—demand efficient transportation services. Indeed, a number of studies suggest that productivity increases in transportation are the most important determinant of structural

changes in the world economy (ECMT, 2003). The competition generated by globalization has increasingly led users to demand faster, more reliable, more flexible transportation services. Thus increased demand, structural economic change, and new industrial logistics have placed enormous pressure on transportation systems. National growth and international competitiveness are partly determined by how domestic transportation systems respond to these challenges. For example, in the 1970s and 1980s national inventories of raw materials for manufacturing were two to three times larger (relative to GDP) in developing and transition economies than in the United States—in large part because of weak transportation services. Large inventories undermined these countries' competitiveness (Guasch and Kogan, 2003).

Electricity is an essential input to the production of almost all goods and services and is thus vital to the public interest. In addition, reliable electricity systems have become more important because businesses and households rely on electronic devices to perform an enormous range of tasks, both basic and advanced. Thus adequate, reliable, competitively priced electricity is essential for modernization, domestic growth, and international competitiveness.

Information has become a means for firms to perceive and seize new opportunities and new markets, and to satisfy new needs. Information is vital to corporate survival and critical to an economy's viability. Indeed, a large number of commercial activities—such as banking and international finance, tourism and travel, publishing, commodity exchange, and to a large extent all export-oriented manufacturing—as well as such sectors and functions as education, health care, transportation, and land management, are becoming critically dependent on global information and efficient electronic exchange. In a global information economy characterized by intense competition for new markets, telecommunications is rapidly becoming a vital component of national economic policy. Consequently, the quality of a nation's information infrastructure is increasingly viewed by many as an important determinant of its success in improving its balance of trade and overall economic performance. In fact, in the last decade, telecommunications policy in many countries has been formulated in the context of far-reaching global strategies. A liberalized telecommunications regime was intended to support and augment the role of specific cities as international financial centers; stimulate the development of electronic publishing and promote points of access to cities for international networks; attract commercial traffic destined for specific regions; and encourage the location of financial services business.

## **4.2 Infrastructure, economic integration, and globalization**

An important reciprocal relationship exists between infrastructure and economic integration.

Cross-border infrastructure facilitates physical connectivity which is essential for enhanced regional cooperation and economic integration. Indeed, the key driving forces behind the recent wave of globalization are lower barriers to trade and investment, and lower transportation and communication costs. Major efficiency improvements in transportation and the application of modern information and communication technologies have facilitated the geographic division of production processes. A much larger number of geographically dispersed production units can

participate, contributing to the value added chain according to their comparative advantage. Thus the opportunities of individual economies to participate in international production networks have been broadened considerably (Kuroda, 2006; ESCAP, 2007).

The development of regional markets, in turn, creates interdependencies that increase the demand for infrastructure. After all, infrastructure networks are the conduits for these flows. Transportation infrastructure is at the heart of regional integration. Traded goods flow through roads, railways, inland waterways, ports and airports, as do people seeking to take advantage of attractive services or job opportunities in other nations. Therefore, an efficient and integrated transport system facilitates trade and factor mobility. An integrated communications system also can spur the growth of trade as well as reduce costs by enhancing the accessibility and affordability of information, facilitating long-distance transactions, and linking the region with the rest of the world. Not surprisingly, limited development of transport, communications, and energy networks is one of the most frequently cited obstacles to cross-border trade and investment and ultimately to connectivity in many regions of the world (AfDB, 2006).

Whereas infrastructure has long been recognized as having a crucial role in facilitating economic integration, some ancillary propositions are not widely recognized. First, greater welfare gains can be realized through deeper forms of regional integration that entail harmonization of legal, regulatory, and institutional frameworks. Second, reforms that reduce cross-border transaction costs and improve the performance of “backbone” infrastructure services are arguably more important for the creation of an open, unified regional economic space than trade policy reforms narrowly defined. Third, all economies benefit from the more rational use of resources that arises from coordination of regional infrastructure development.

For these reasons the framework for regional economic integration in several parts of the world includes coordination of policies in core infrastructure industries such as transport, telecommunications, and electricity. Infrastructure development is included in many regional treaties to provide the framework for aligning sector policies, designing regional master plans, developing a portfolio of synergistic projects, harmonizing regulatory regimes and investment codes, and mobilizing investment resources. Increasingly, nations are moving away from integration strategies that are based solely on formal trade agreements and towards strategies that include at least some integration of infrastructure policies (Moreira, 2007).

### **4.3 Economic benefits of regional infrastructure**

A large number of studies have uncovered strong empirical evidence on the important economic benefits of infrastructure in general. In contrast, the impact of regional infrastructure—i.e., the additional economic benefits of connecting national infrastructure networks and regionalizing infrastructure reform—has not been as extensively analyzed and is less clearly understood. Regional infrastructure is explained more fully in Box 1.

### **Box 1 What is regional infrastructure?**

In one sense, nearly all infrastructure is national—or indeed local—in that it is situated in a single country. Among the exceptions are bridges and tunnels that connect two countries, along with power lines, pipeline, and fiber optic cables that may span several countries. But many national infrastructure projects have a wider regional dimension: they may be planned and coordinated with several countries, connect to existing regional networks, or have spillover effects on neighboring countries.

Regional infrastructure ranges from simple projects that involve two countries, such as building a road link or bridge across a boundary river, to complex ones that involve several countries such as gas pipelines in which many countries cooperate and coordinate to create networks for common benefit. Soft infrastructure also has a regional dimension, since cross-border trade and movement often require, or at least benefit from following common rules, standards, and procedures. For instance, rail connections are smoother if countries use the same rail gauge, and customs procedures are simpler and faster if countries harmonize their rules and standards.

Regional infrastructure projects are defined as:

- projects that involve physical construction works and/or coordinated policies and procedures spanning two or more neighboring countries; and
- national infrastructure projects that have a significant cross-border impact:
  - their planning and implementation involve cooperation or coordination with one or more countries;
  - they aim to stimulate significant amounts of regional trade and income; and
  - they are designed to connect to the network of a neighboring or third country.

*Source:* ADB (2009).

Connective infrastructure (roads, transportation services, telecommunications, and smooth border arrangements) facilitates regional factor mobility and trade in intermediate inputs. It can effectively reduce the economic distance between locations—the time and cost of trading between them—and thus expand and link sites of production, markets and cities. The distance between people, cities, and production sites is shorter because of high-speed and high capacity modes of transportation, the emergence of pipeline transportation and fiber-optic communications. By enhancing connectivity, regional infrastructure (especially in the form of transport and communication corridors) can facilitate the exploitation of economies of scale and scope, make possible greater specialization in production, and allow for more efficient division of labor.

#### *4.3.1 Economies of scale*

In an increasingly globalized world with strong competitive pressures, it is vital for firms to reach minimum scale of efficiency in production. Under increased global contestability, the pressures of international competition reduce considerably the scope for inefficiency in production; i.e., they render any inefficient organization of a national industry increasingly unsustainable. The incumbent national firms must operate in an efficient manner because any unnecessary costs, like any excess

profit, would simply invite entry and lead to their displacement by global competitors who can supply the same output at lower cost. Thus the incumbent national firms must minimize costs.

Physical isolation implies that producers are confined to small markets for their goods and services. Moreover, they would be constrained to using only the inputs available in their geographic location. By enhancing connectivity, regional infrastructure effectively increases market size and consequently the ability of national firms to exploit economies of scale, draw from a larger and more specialized pool of workers, and have greater access to the right kind of raw materials and equipment. Thus the effective expansion of market areas can lead to substantial gains in efficiency through the exploitation of economies of scale and scope, and increased competition.

#### *4.3.2 Network externalities*

Many infrastructure services that are important for economic development, connectivity and trade expansion exhibit network externalities. A service is subject to a network externality when the value of the service to an individual is greater when a larger number of other people also use that service. Infrastructure networks exhibiting service externalities include telecommunications and transportation (Economides, 1996).

The most important benefits of regional infrastructure derive from network externalities. The integration of network industries (e.g., telecommunications, electricity, transport) can generate significant economies of scale and scope. Moreover, integration can give rise to network effects: it increases the size of the network and thus expands the number of economic agents that interact with each other or the range of complementary products and services that are available to its members.

Network externalities give rise to significant opportunities for smaller economies and landlocked countries. Regional cooperation and integration in a given network increase the effective size of the network in terms of its user base and market size. Thus, by integrating with larger or better geographically located neighboring countries, small and landlocked countries could offer foreign investors the benefits of a larger network and market. In general, the benefits of regional integration are mutual for all participating countries—the value of the networks of even the larger and better located countries will increase as their networks are connected with those in hinterlands and neighboring smaller countries. There is strong evidence that network externalities are prevalent in the infrastructures of developing countries (Hurlin, 2006).

#### *4.3.3 Economic corridors*

The benefits of regional infrastructure are frequently realized through the creation of cross-border economic corridors—improved connections among centers of economic activity that reduce the cost of moving and trading along them. Such corridors encourage trade, investment, and other economic activities and thus can promote economic development and growth (Ishida, 2009).

The development of economic corridors involves systematic and coordinated planning. It also frequently entails policy and institutional changes. In effect, they extend the scope for regional

cooperation beyond the provision of collective infrastructure projects to seek to promote economic activities around them and to improve soft infrastructure.

## **5. Prospects for effective regional integration in East Africa**

Although the states of Eastern Africa have signed on to numerous regional agreements, like in the rest of Africa, they have failed to deliver on implementation. In many instances, regional agreements became better known for their impressive declarations, lofty goals, and lengthy protocols rather than for their effective implementation of announced policies or their true economic impacts. Such failure has been attributed to a variety of historic, political and economic factors—including a wide range of “soft” and “hard” infrastructure constraints.

In the past, the East African countries lacked the objective economic preconditions for regional unity. They had neither a strong shared interest in a single market, as in the European Union, nor large investment resources from one of the member states, as in the North American Free Trade Agreement. The economic limitations to integration in East Africa were more akin to Central Asia than to Europe, Asia or North America (Bohr, 2004).

The argument related to the absence of strong drivers for regional integration is supported by the commonly accepted view that the East African market is not large by itself to support a significant degree of intraregional trade specialization. Despite the recent resumption of growth, poverty levels in the region remain very high and the overall level of effective demand is low. There is also little manufacturing activity in the area and thus the scope for complementarity across the region’s economies is rather limited.

On the political side, the post-independence efforts by East African states to forge national identities and substantiate their sovereignty have been largely successful. However, some old rivalries and problems of border demarcation among the states of the region do remain. These residual problems could point to continuing tensions between nation-building and region-building. Moreover, the absence of domestic constituency supporting regionalism implies the lack of sufficient political legitimacy and a weak mandate to ensure enforcement of commitments by the member states. These states have different motivations for supporting regionalization and therefore different levels of commitment. Such ideological variance has a fragmentation influence on the EAC because different members have varying conceptions as to how the goals of the Community are to be achieved.

The historical legacy is quite clear. In the past, the political and economic conditions made it difficult to define the sustainable content of regionalism in East Africa. It is important to reiterate that the region lacked the objective (economic) drivers for regionalization as well as the subjective ones (a domestic political elite promoting regionalism). The largely failed efforts at regional integration in the past attest to those limitations.

The current situation is arguable more favorable and the EAC stands a better chance of success than its predecessor. There is a growing commitment towards integration and the region is now enjoying

relative political stability.<sup>7</sup> The Community's administrative organs and institutions have been established and have gained considerable experience in planning, coordinating and monitoring the processes required for further integration. The strengths and opportunities for East African integration include:

- Abundant regional natural resources. The region is rich in natural resources. Lake Victoria is the second largest fresh water lake in the world. It has significant ecological, economic and social importance. Moreover, the region is rich in primary energy sources, including geothermal, hydro, gas, and coal. Integration can yield significant benefits by exploiting complementarities and comparative advantages in primary energy endowments and thus facilitating more efficient utilization of existing energy resources and giving access to lower-cost supplies.
- Growing private sector. In the past, the absence of mature business constituency for regionalization was a major impediment to integration. This barrier is being slowly eliminated. While the private sector is still at a nascent stage in many countries of the region, its role is growing and it can now play a much more important role in facilitating the regional integration process. Moreover, the private sector can play an important role in the development of regional infrastructure.

## **5.1 Regional infrastructure bottlenecks**

Years of extraordinarily weak operating performance due to organizational deficiencies, revenue inadequacy and underinvestment have led to deficient and in some cases effectively de-capitalized regional infrastructure networks. Regional connectivity is being hampered by: (i) ports characterized by high levels of berth and yard congestion, lack of customs clearance coordination, and consequently excessive dwell times; (ii) rail systems with incompatible gauges of track, poor service reliability (especially at transfer and locomotive exchange points), and very low operating efficiency; (iii) regional roads a large portion of which have gravel surface and whose condition suffers from inadequate/deferred maintenance, overloading, and inefficient management; (iv) transport corridors that are suffering from serious delays due to informal stops and checkpoints, some of which are imposed to collect payments for the police, transit authorities, and local communities; (v) border crossings that are characterized by antiquated infrastructure, inadequate coordination, and congestion; (vi) a regional energy deficit; and (vii) poor access to information and communications technology (ICT).

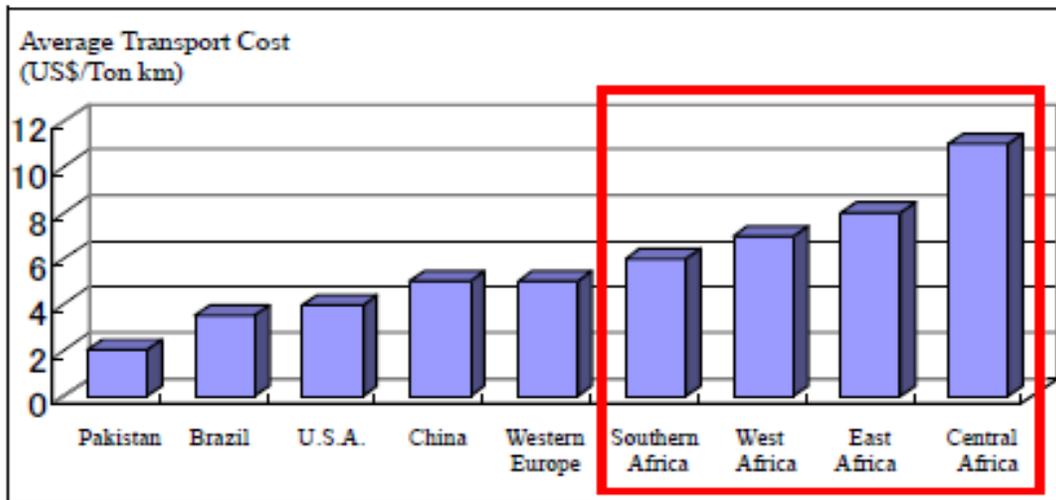
The deficiencies in East Africa's cross-border transport infrastructure have significant implications for the region's competitiveness. Freight costs per km are estimated to be 60 to 70 percent higher than in the United States and Europe and 30 percent higher than in Southern Africa (figure 1). For the landlocked countries, transport costs can be as high as 75 percent of the value of exports. These

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<sup>7</sup> Although it should be noted that the region's periodic lapses into domestic and multi-country conflict generate negative investor perceptions.

higher transport costs are estimated to reduce economic growth by one percent annually, especially in landlocked countries of the region--Burundi, Rwanda and Uganda (Nathan Associates, 2011a).

**Figure 1 Comparison of average transport costs**



Source: Compiled from Teravaninthorn and Raballand (2008).

### 5.1.1 Seaports

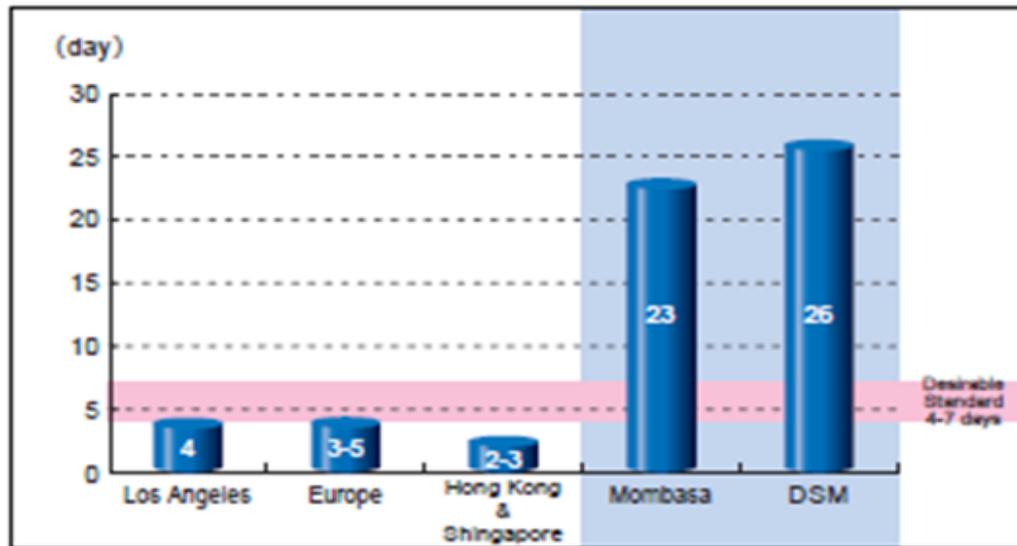
The two main international ports of the region—Mombasa in Kenya and Dar es Salaam in Tanzania—suffer from significant congestion and berthing delays in large part caused by their inadequate container terminal capacities. The analysis of all the different transport alternatives among selected origins and destinations for exports and imports along the Northern and Central Corridors show consistently that most of the transit delays occur at the ports of Mombasa and Dar es Salaam--the average vessel dwell times at these ports are considerably above those of well-functioning ports around the world (figure 2).<sup>8</sup>

In the port of Mombasa, the recent introduction of progressively larger container vessels and rapid growth in container freight volumes driven by the growth of the regional economy and trade, have run against several serious bottlenecks: insufficient water depths to accommodate vessels in excess of 30,000 deadweight tonnage (DWT); and a storage yard width not compatible with the volume of container cargo handled, which causes delays in processing procedures. Until recently, average cargo dwell time at the port amounted to over 20 days, a consequence of severe congestion at the container terminal due to increases in cargo volumes. Similarly, the port of Dar es Salaam is heavily congested because of the rapid growth in freight volume--in particular of containerized freight. In 2008, average container cargo dwell time at the port was 26 days, while that of transit

<sup>8</sup> The Northern Corridor connects the Port of Mombasa to markets in Kenya, Uganda, Rwanda and Burundi as well as southern Sudan, eastern DRC, and parts of Northern Tanzania. The Central Corridor originates from the Port of Dar es Salaam and provides access to/from the landlocked countries of Burundi, Rwanda, and Uganda.

container cargo was 35 days. In particular, cross-border cargo, especially bound for Zambia and DRC, requires a longer time for clearance, and the problem is compounded by delays in the dispatch of cargo on backhaul truck services, which results in increased cargo dwell time at the port (ADF, 2006; Ntumulumba, 2010).

**Figure 2 Waiting time at major ports in East Africa**



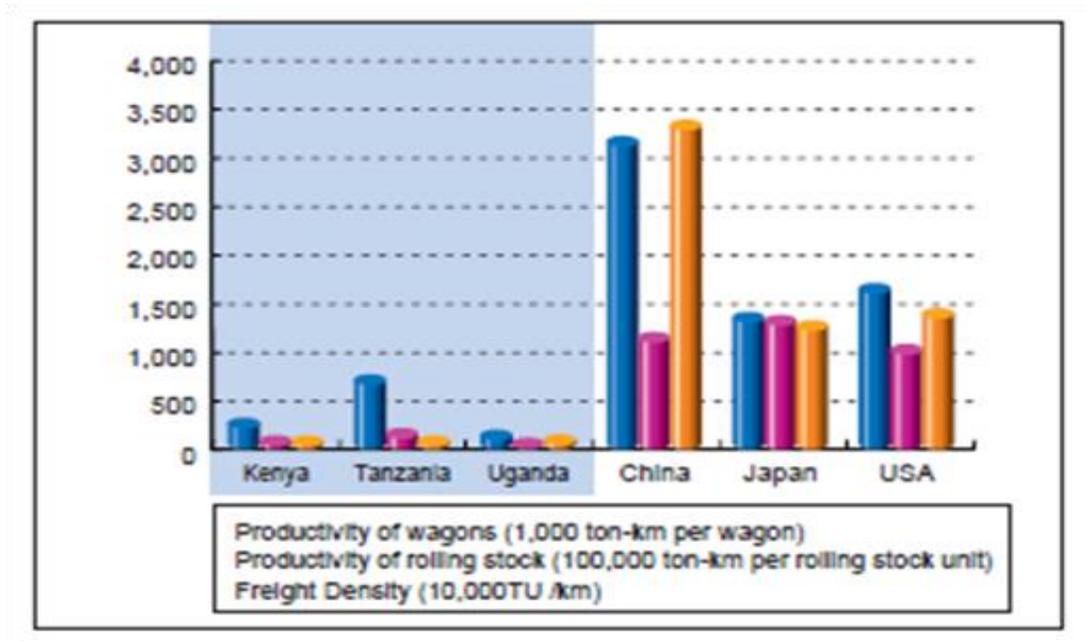
Source: JICA (2010).

### 5.1.2 Rail network

The regional rail systems are operating at well below their original design capacities and are characterized by low transport productivity (figure 3). They are currently facing major capacity constraints because of poor track condition, and low locomotive and wagon availability. For example, in the Northern Corridor, the theoretical design capacity of the Tanzania-Zambia railway is 5 million tons per annum (mtpa), but the current throughput is about 0.5 mtpa. Similarly, in the Central Corridor, the condition of the rolling stock--109 locomotives and 1,670 wagons--is uncertain because of operating cash flow problems and the lack of proper maintenance. Operating speed restrictions of between 13 km/hr and 50 km/hr are imposed on many sections of the track because of its structure and poor condition. Train turnaround time between Dar es Salaam and Mwanza or Kigoma is typically 18 days, rather than the scheduled 10 days, with the consequent increase in operating costs. Thus the poor condition of the track has led to imposition of speed restrictions and unpredictable transit times in many sections of the regional network, and has also resulted in large number of derailments—about 20 per month on the Northern Corridor alone (Nathan Associates, 2011b).

There is a need for substantial investment in the repair and upgrading of the region’s rail track, rolling stock and other equipment. Without significant new working capital to facilitate these types of investment, the rail systems will not be able to handle more traffic.

**Figure 3 Productivity of rail transport in East Africa**



Source: JICA (2010).

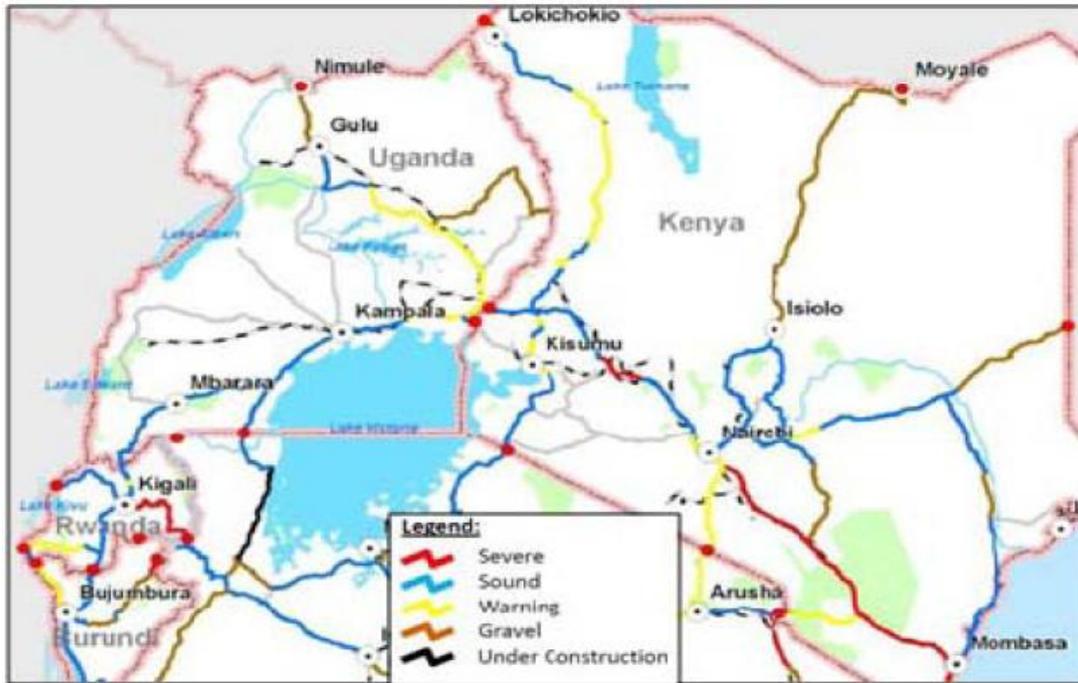
### 5.1.3 Roads

As in other Sub-Saharan African sub-regions, the majority of the trunk roads in East Africa were developed during the colonial era. Not only were roads designed under moderate to low quality standards in the first place, but overloading of trucks has been causing serious harm to their condition and capacity. Moreover, road conditions in many sections have worsened due to the lack of appropriate maintenance and ineffective management. Thus, at least until recently, the entire region was affected by higher costs enshrined in unsafe and damage-inflicting road infrastructure.

In recent years, most sections of the Northern and Central Corridors across Kenya, Uganda, and Tanzania have been rehabilitated or reconstructed with assistance from the World Bank, the EU, AfDB, and other development partners. As a consequence of this assistance, road conditions in the region have improved significantly. Still, according to an assessment carried out in 2010, 45 percent of the road capacity in the Northern Corridor was rated poor and received a Level of Service (LOS) grade E or F—the grades range from A (best operating conditions permitting free flow of traffic with high average speeds) to F (worst operating performance)—(figure 4). Also, a high percentage of highways remains unpaved—over 3,500 km of regional roads have gravel surface. In fact, of all the sub-regions of the African continent, East Africa has the second-lowest proportion of paved roads (figure 5). And there have been persistent problems in maintaining pavements due to

capacity problems of road bureaus and the private companies undertaking road repair projects (Nathan Associates, 2011a).

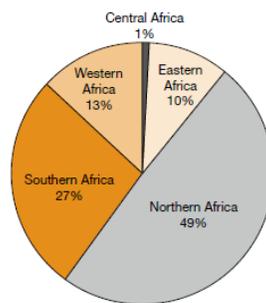
**Figure 4 Condition of Northern Corridor roads**



Source: Aurecon (2010).

The regional road network is in need of several categories of improvement: upgrading of road capacity--especially those segments with LOS grades of E or F; rehabilitation of paved roads whose overall condition has deteriorated beyond the point where preventive and routine maintenance can uphold the pavement at a functional level; upgrading to paved standards of large parts of the network that contain gravel roads; and filling the missing links.

**Figure 5 Share of paved roads in Africa, by subregion**



Source: UN (2009).

#### *5.1.4 ICT (Information and Communication Technology) constraints*

Encouraging progress has been made in expanding coverage in the area of information and communication technology due to revolutionary technical change as well as the increased role of the private sector. However, Africa is still far behind other regions of the world in terms of access to ICT. A key inhibiting factor to the development of broadband connectivity in the region has been the lack of sufficiently-developed ICT backbone networks. While the mobile infrastructure has witnessed considerable expansion in recent years, there are still very significant gaps in the regional ICT backbone infrastructure. Several recent studies suggest that the economic impacts of broadband are substantial and robust. Broadband can play a significant role in transforming a country's economy and improving its regional or global integration and competitiveness. In the context of an increasingly information-based economy, weakly developed broadband inhibits connectivity and integration in a very fundamental way (Gillwald and Stork, 2009)..

#### *5.1.5 Transit and border procedures*

Intra-regional trade in Eastern Africa is inhibited not only by the poor quality of physical infrastructure, but also by regulatory and administrative hurdles that inflate the costs of, and cause long delays for, freight movements along the region's transport corridors. Indeed, a key reason for East Africa's poor competitiveness and trade performance is the high cost of trade incurred in transporting and moving goods across borders. Customs inefficiency, corruption, roadblocks and weighbridges are often being cited as key barriers to business development in the region (Mwijagye, 2009).

Trucks are forced to go through weighbridges, either mobile or grounded, to ensure their compliance with regional axle load and gross vehicle weight standards. The lack of proper equipment and design problems in weighbridges causes congestion and delays. Most often, trucks are stuck in long lines. Weighbridges should normally require 3 minutes for transit. According to the East African Business Council survey, however, trucks on average spend 92 minutes and some weighbridges actually require up to five hours. There are also frequent unwarranted roadblocks and checkpoints. Inspections are notorious for their lack of procedural transparency. Officials regularly deviate from the commonly-agreed inspection procedures and drivers are subjected to administrative harassment and outright extortion.

The key problems that plague border crossings have been extensively documented and include: excessive documentary requirements and anachronistic official procedures; insufficient use of ICT systems; questionable due process--lack of transparency, predictability and consistency in customs activities and determinations; unclear demarcation of responsibilities and lack of efficient cooperation among customs and other governmental agencies.

Customs authorities and procedures in East Africa, like those in other parts of the continent, are opaque and unpredictable. Firms have to spend considerable time searching for information and frequently have to pay bribes, penalties, and fees for administrative or judicial appeals. All of these

expenditures represent extra costs of doing business that put especially the small firms of the region at a competitive disadvantage vis-à-vis their international counterparts.

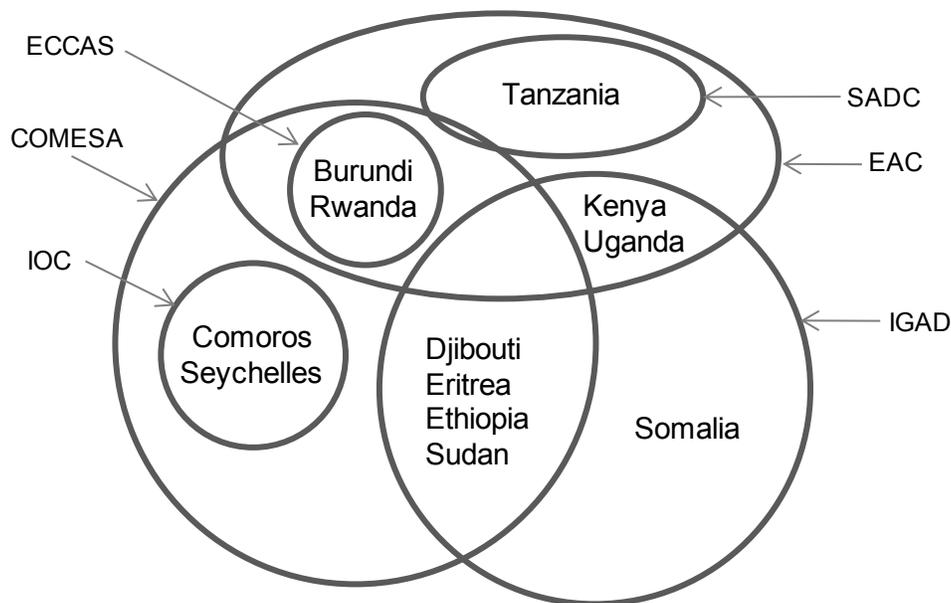
## 5.2 Ineffective institutional architecture and weak capacity

East Africa has an extensive architecture of regional political and technical bodies. So there is no shortage of regional institutions. However, they are of limited effectiveness because of overlapping memberships, weak technical capacity, and limited enforcement powers.

### 5.2.1 Incompatibilities of multiple memberships

As discussed earlier, almost all countries in the region are members of the eight regional economic communities (RECs) recognized by the African Union and each of the countries belongs to at least two RECs (figure 6). Although these RECs have different structures, at least in principle they all share the common objectives of reducing trade barriers among the member states, promoting cooperation in all fields of human endeavor, coordinating and harmonizing policies, and creating a larger unified economic space. Yet, the complex patchwork resulting from the multiplicity and overlapping memberships has led to significant problems: wasteful duplication of efforts and resources, increased transaction costs and costly competition for resources; conflicting goals, policies, operational mandates and jurisdictions; legal uncertainties in cases, for example, where more than one trade agreement applies to two countries; fragmented economic spaces and approaches to regional integration; and reduced ability for the RECs to pursue coherent and effective integration strategies (AfDB, 2010).

**Figure 6 Overlapping membership in the institutional arrangements**



Source: AfDB (2010).

### *5.2.2 Weak capacity*

The RECs responsibilities do not match their financial and human resources. Indeed, at the REC level, there exists very limited capacity to assist the member states in the design and implementation of technically and economically complex regional programs and projects. There have been several recruiting exercises within the EAC to realign their human resources with the expanding volume of activities under the Community. Still, the tasks and responsibilities of the regional administrative organs and institutions have been expanding at a much more rapid pace relative to the recruitment of additional personnel. One of the main reasons for this divergence between institutional responsibilities and human resources has been the lack of adequate funding from the member states. In fact almost a third of the EAC secretariat budget is covered by donor funds (Kibua and Tostensen, 2005). Heavy reliance on donor funding frequently gives rise to a large number of expatriate advisors and seconded staff whose presence can be helpful in many respects. However, a heavy expatriate presence can also lead to the Community's loss of control over its own agenda.

There exists strong political support for regional integration at national level. However, there has also been a countervailing reluctance on the part of the member states to cede sovereignty on important areas of economic policy. Thus a major challenge remains to translate national commitments into action. Moreover, the consistency between national and regional strategies has not been worked out. The lack of effective supranational authorities to enforce commonly agreed decisions reinforces the above problems. Sanctions are rarely imposed on the member states that are in breach of regional agreements.

### *5.2.3 Lack of policy harmonization*

Cross-border infrastructure is effective in promoting intra-regional trade only when it is supported with harmonized regulatory frameworks and administrative procedures. In the East African region such frameworks and procedures have not been adequately harmonized.

Road connectivity across the region, for example, is being hampered by the continued lack of harmonized regulations relating to vehicle dimensions, axle load limits, road transit charges, highway codes, and adoption of common definitions of classes of roads and a route numbering system. Similarly, rail connectivity is being impeded by incompatible gauges of track and the failure to integrate technical standards of national rail systems—common policies and standards for the construction and maintenance of railway facilities and other areas of technical harmonization. Inland waterway and lake shipping have not realized their full potential because of the lack of harmonized regulations relating to ship registration as well as safety standards—periodic ship surveys, safe manning requirements, and provision of aids to navigation and radio communication.

## **6. Regionalization to remove critical infrastructure bottlenecks**

Upgrading of regional “backbone” infrastructure and the removal of non-tariff (regulatory and administrative) barriers to trade are among the key priorities identified by the EAC. Meeting these challenges will require:

- reforming the organizational architecture of the region’s infrastructure so as to improve its performance through greater reliance on forces of competition and exploitation of important economies of scale and scope;
- striking an appropriate balance between the functions of government (in their redefined and refocused manner) and the private sector in a complementary way, and attracting large-scale foreign private investment;
- improving regional institutional capacity and harmonizing regulatory frameworks and administrative procedures.

Regionalizing regulatory reform has the potential to reduce the vulnerability of national regulatory systems to political and industry capture—a frequent problem in East Africa. It can also help countries in the region overcome their constrained regulatory capacity through the pooling and efficient allocation of scarce regional resources and technical expertise. And can effectively create an institutional mechanism that imposes restraints on arbitrary administrative intervention at the national level, and thus give potential investors the needed assurance that the value they add to infrastructure will not be expropriated

### **6.1 Cross-border infrastructure and the role of regional institutions**

Both economic integration and technological progress have caused the natural market areas of infrastructure industries to expand, frequently transcending national borders, which in East Africa reflect historical colonial empires rather than common cultures and markets. Transportation, electricity, and telecommunications operate more efficiently if their networks are organized according to the patterns of transactions, and trade liberalization has made these patterns increasingly transnational. Moreover, adjacent networks frequently can minimize costs by sharing capacity to take advantage of differences in the time-pattern of usage of infrastructure services. Therefore, infrastructure networks designed for the national market are becoming inadequate with growing integration.

Infrastructure networks exhibit significant economies of scale and scope. Such economies could be more fully exploited if the market boundaries of these industries were expanded beyond national borders. Moreover, in the face of global financial instability and retrenchment many multinational utilities are rationalizing their operations and are exiting from countries with small infrastructure markets that are non-core to their global activities. Countries in East Africa may be below this threshold size for attracting the interest of foreign utilities and other investors. The region’s

infrastructure as a whole, on the other hand, may easily overcome the size disadvantage of its national industries. Therefore, due to its regional character, cross-border infrastructure may yield investment benefits that go beyond exploiting economies of scale and scope in production. Every strategy for addressing the issue of infrastructure bottlenecks should consider the region as one and seek to facilitate investments on regional rather than national basis.

One of the defining characteristics of cross-border infrastructure is that it transcends geographic/political boundaries. Its effects spill over beyond the boundaries of the country where the infrastructure components are built--and hence beyond the domestic political constituency of the corresponding national government. Moreover, benefits from better connectivity through cross-border infrastructure tend to be indirect and long term, whereas costs tend to be incurred immediately and up front. And these benefits are often asymmetric across countries, making it difficult to agree on the appropriate distribution of costs. These can raise doubts over resource allocation, especially for high-profile projects. Consequently, there is a natural tendency for individual governments to under-invest in cross-border infrastructure. Because cross-border infrastructure typically extends over a number of countries, it also gives rise to potentially important coordination problems. Clearly, a connection built or improved by one country up to its border will be of little use if the project does not continue on the other side of the border. In fact, it is not uncommon, while travelling across the region, to come across “missing links” in major cross-border roads. Such coordination problems are exacerbated when the project has asymmetric country effects (Puga, 2008).

Taken together, the above factors—the inadequacy of infrastructure networks that were designed for national markets in the face of growing integration, the potential under-investment due to spillovers, and the risk of coordination failures—suggest an important role for regional institutions in the governance of cross-border infrastructure. The role of supranational institutions will be especially crucial when the distribution of the financial burdens caused by the requisite investment on each side of the border differs substantially from the distribution of expected benefits. Regional institutions can analyze economic and financial feasibility, and the distributional consequences of cross-border infrastructure projects, in a neutral manner. Thus, they could facilitate regional agreements and compensation schemes-- a task which is mostly beyond the scope and ability of national institutions.

## **6.2 Regionalizing regulation to mitigate the representation bias**

Regulation is a coercive policy instrument that can be used effectively to provide benefits to specific groups. All regulatory policy decisions are to a large extent conflictual—they are the outcome of competition among organized interest group seeking to maximize own private gains. But this competition does not generally produce socially efficient outcomes due to representation bias: that is, some groups (e.g. large producers) are very well organized and have significant resources at their disposal while other groups have few or no resources to devote to influencing regulatory policy.

Representation bias can lead to the common problem of regulatory capture because regulated firms are generally much better organized and able to manipulate the political process than are their customers and suppliers. This happens in two main ways. First, producers may work through elected officials to have laws passed and decrees issued that correct what they perceive to be a pressing problem. Sometimes the problem is alleged destructive competition. Or it may reflect producers' desire to avoid splitting the market through new entry. Second, even when elected officials have only the public interest at heart in passing regulatory laws, and regulatory agencies are established for "public interest" purposes, they subsequently can become the tools of the industry they regulate. This happens because the regulated enterprise has superior technical knowledge upon which regulatory agency staffs come to depend and because regulated firms can use their political influence to have friendly regulators appointed.

An important advantage of regionalizing regulatory reform is that it can be used to elevate the domestic political debate about regulation from narrow domestic issues to matters of regional economic cooperation and integration. From a political perspective, making regulatory reform a regional issue is highly desirable. A common political barrier to domestic regulatory reform is that if reform is perceived as a domestic matter and debated one issue at a time, well-organized special interests are more likely to have the political power to block it. If the reform debate, on the other hand, is elevated to a matter of regional policy that encompasses numerous reform issues, broader attention and participation from all interests is more likely, thereby reducing the ability of a single group to block reform.

### **6.3 Regionalizing regulation to enhance policy credibility and commitment**

Services delivered by infrastructure industries are economically and politically important. Because of their importance and ubiquitous consumption, the prices of infrastructure services typically are scrutinized by interest groups and even the general public, and so receive considerable political attention. These characteristics can motivate governments to behave opportunistically vis-à-vis privatized utilities. A large portion of infrastructure costs are fixed and sunk—i.e., once the investment is made the assets cannot be redeployed elsewhere. Thus, utilities are vulnerable to administrative expropriation of their sunk investments.

Given the public sector's constrained fiscal space in East Africa, the private sector will have to play an increasingly important complementary role in providing the substantial resources needed for improving regional connectivity through national and cross-border infrastructure investment. However, private utilities and investors that are vulnerable to administrative intervention in East Africa can be expected to demand high risk premia and to under-invest in infrastructure unless the region's governments are able to make a credible commitment not to expropriate sunk investments. Owing to their long histories of arbitrary administrative intervention and political instability, these governments have a very limited capacity to make such credible commitments.

Regionalization of regulation creates institutions whose policies and decisions can be changed only by mutual agreement among several nations. Consequently, political change or government

opportunism in one country is insufficient to cause a radical change in regulatory governance unless the government is willing to sacrifice all of the other benefits that arise from regional economic cooperation. Thus, regionalization of regulation could enhance the ability of the governments in East Africa to credibly commit to a stable regulatory process.

#### **6.4 Regionalization to overcome technical capacity constraints**

Effective regulation in infrastructure sectors requires professional staffs that are expert in the relevant economic, accounting, engineering and legal principles and familiar with good regulatory practice elsewhere. These types of specialized skills are also needed in the regulated firms. Therefore, the question arises whether the countries in the East African region have a sufficient supply of specialists to staff their regulatory agencies, run their utilities, and provide for policy capacity within the relevant sectoral ministries.

A pragmatic response to limited national regulatory capacity in East Africa could be to increase regional policy and regulatory coordination and cooperation—and ultimately to create regional regulatory institutions. By pooling resources among nations, regional regulatory authorities can alleviate some of the problems that arise from the scarcity of technical and economic expertise at the national level. Moreover, regulatory agencies can have high fixed costs relative to market size. The creation of regional regulatory authorities can spread these fixed costs of regulation among the larger population of the EAC.

### **7. Summary**

African leaders have long recognized the potential role of regional cooperation and integration in overcoming the fundamental development constraints that have plagued their economies. However, the past record of regionalization initiatives in the continent has been rather disappointing. The collapse of the EAC had an especially chilling effect on regionalism in East Africa. Two of the most frequently cited causes for this lack of progress in regional integration are ineffective domestic policies and deficient infrastructure that have hampered regional connectivity, inhibited the cross-border flow of goods and services, and impeded the integration of the continent with the global economy.

In recent years, a new wave of regionalization initiatives has emerged in the African continent. The resurrection of the EAC is a clear testament of the rekindled interest in regional economic coordination, cooperation, and integration. All these renewed efforts have been inspired by the success of integration experiments in other parts of the world and the increasing risks of the continent's further marginalization under the relenting pressures of globalization. There are high expectations that the pooling of fragmented national markets will spur intra-regional trade and permit the exploitation of economies of scale, while the regionalization of regulatory and other important elements of public policy will facilitate structural reforms that are indispensable preconditions for successful integration.

Effective policy measures and safeguards to alleviate both physical and soft infrastructure bottlenecks could ensure that the revived regional integration arrangements do not face the pitfalls that led to the failure of past initiatives. Regional integration of regulation, combined with regionalization of infrastructure networks, could advance domestic regulatory reform, enhance policy credibility, facilitate increased infrastructure investment on a regional basis, and boost regional connectivity. Thus, infrastructure regionalization could make a significant contribution to the success and sustainability of Africa's new wave of regionalism.

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