U.S. International Trade Commission

Trade Facilitation in the East African Community: Recent Developments and Potential Benefits

Investigation No. 332-530
Publication No. 4335
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U.S. International Trade Commission

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ACRONYMS

AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
ASEAN	Association of Southeast Asian Nations
ASYCUDA++	Automated SYstem for CUstoms Data
ATIA	African Trade Insurance Agency
CET	common external tariff
COMESA	Common Market for Eastern and Southern Africa
COMPETE	Competitiveness and Trade Expansion Program
DFID	Department for International Development (United Kingdom)
EAC	East African Community
EALA	East African Legislative Assembly
EPA	economic partnership agreement
e-SWS	electronic single window system
GDP	gross domestic product
HGV	heavy-goods vehicle
JICA	Japan International Cooperation Agency
KFW	German Development Bank
kph	kilometers per hour
Lappset	Lamu Port South Sudan Ethiopia Transport Corridor
OECD	Organisation for Economic Co-operation and Development
OSBP	one-stop border post
RADDEx	Revenue Authorities Digital Data Exchange
RVR	Rift Valley Railway

ACRONYMS—*cont.*

SADC	South African Development Community
SPS	sanitary and phytosanitary standards
TAZARA	Tanzania-Zambia Railways
TBT	technical barriers to trade
TEU	twenty-foot equivalent unit
TRL	Tanzania Railways Limited
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development

GLOSSARY

ASYCUDA: An electronic customs data interchange system (short for Automated SYstem for CUstoms Data) developed by UNCTAD, which covers most foreign trade procedures and can be configured to suit the national characteristics of individual customs regimes. Within the EAC, Burundi, Rwanda, Tanzania, and Uganda use ASYCUDA in at least one customs office or border crossing.

Central Corridor: East African transport corridor originating at the Port of Dar es Salaam, Tanzania, and transiting through Tanzania to Rwanda, Burundi, and Uganda in the EAC. The main nodes of the corridor include the Port of Dar es Salaam, road network, rail and ferry infrastructure, and border crossings at Kobero/Kabanga (Tanzania-Burundi), Rusumo (Tanzania-Rwanda), and Mutukula (Tanzania-Uganda).

Common market: Stage of economic integration among countries, characterized by the free movement of factors of production (e.g., labor and capital) between member states in addition to the presence of common external tariffs and free movement of goods.

Customs union: Stage of economic integration among countries, characterized by a common external tariff (CET) and duty-free/quota-free movement of goods between member states.

Dwell time: The number of days that cargo spends at the port site awaiting shipment.

East African Community: A regional intergovernmental organization composed of Burundi, Kenya, Rwanda, Tanzania, and Uganda, founded as a vehicle toward increased economic, political, social, and cultural integration among member nations.

Electronic data interchange systems: Electronic platforms for filing, transferring, processing, and exchanging customs information, including quantities and values of products classified by tariff code.

Electronic single window system: Electronic platform through which importing or exporting parties may submit all required trade documentation, including customs data, sanitary and phytosanitary certificates, and quality inspection certificates.

Northern Corridor: East African transport corridor originating at the Port of Mombasa, Kenya, and transiting through Kenya to Uganda, Rwanda, and Burundi in the EAC. The main nodes of the corridor include the Port of Mombasa, road network, rail and ferry infrastructure, and border crossings at Malaba (Kenya-Uganda), Gatuna-Katuna (Uganda-Rwanda), and Akyaru-Kinyaru Haut (Rwanda-Burundi).

One-stop border post: A border post between two countries characterized by a single inspection on one side of the border that clears a load according to the customs rules of both the country that it is leaving and the one that it is entering.

GLOSSARY—*cont.*

RADDEx: Revenue Authorities Digital Data Exchange, a software platform designed to relay customs declaration data, in or from the point of initial lodging through all affected transit points to the final destination, including across country borders, effectively integrating customs data between countries. Although RADDEx was initially designed as an electronic communication between the Kenyan and Ugandan revenue authorities, all countries in the EAC currently operate RADDEx at some level. However, the system operates on a bilateral basis and not at the regional level. The development of RADDEx 2.0, a regionwide platform, is currently underway.

Risk-based customs inspections: Customs inspection framework characterized by the physical inspection of cargo in proportion to the potential risk it poses, based on previously assessed risk profiles. This framework results in fewer overall inspections and leads to faster cargo processing times.

Simba: Kenya's electronic customs data interchange system, introduced in 2005.

TEU: A twenty-foot equivalent unit, an approximate measure defining the capacity of the standard intermodal container.

Transit cargo: Cargo with a final destination in a country other than the original port of disembarkation, i.e., cargo unloaded at the Port of Mombasa bound for Kigali, Rwanda, that must first cross Kenya and Uganda.

Executive Summary

Overview

Modern business practices, such as just-in-time delivery systems and global supply chains, underscore the importance of timely, predictable delivery. Trade facilitation—encompassing both simplified customs procedures and upgrades to transportation infrastructure—enhances countries' ability to compete in international markets by reducing shipping delays and risk, and lowering the cost of trading.

Trade is growing rapidly among the countries of the East African Community (EAC)—Burundi, Kenya, Rwanda, Tanzania, and Uganda–expanding the volumes of goods crossing their borders. Members of the EAC, together with other African countries, have recognized the importance of improving these aspects of trade. This report outlines recent efforts by EAC countries to improve trade facilitation measures. It also describes the potential benefits to EAC countries of improved trade facilitation, based on a review of empirical studies and the experiences of other developing countries.

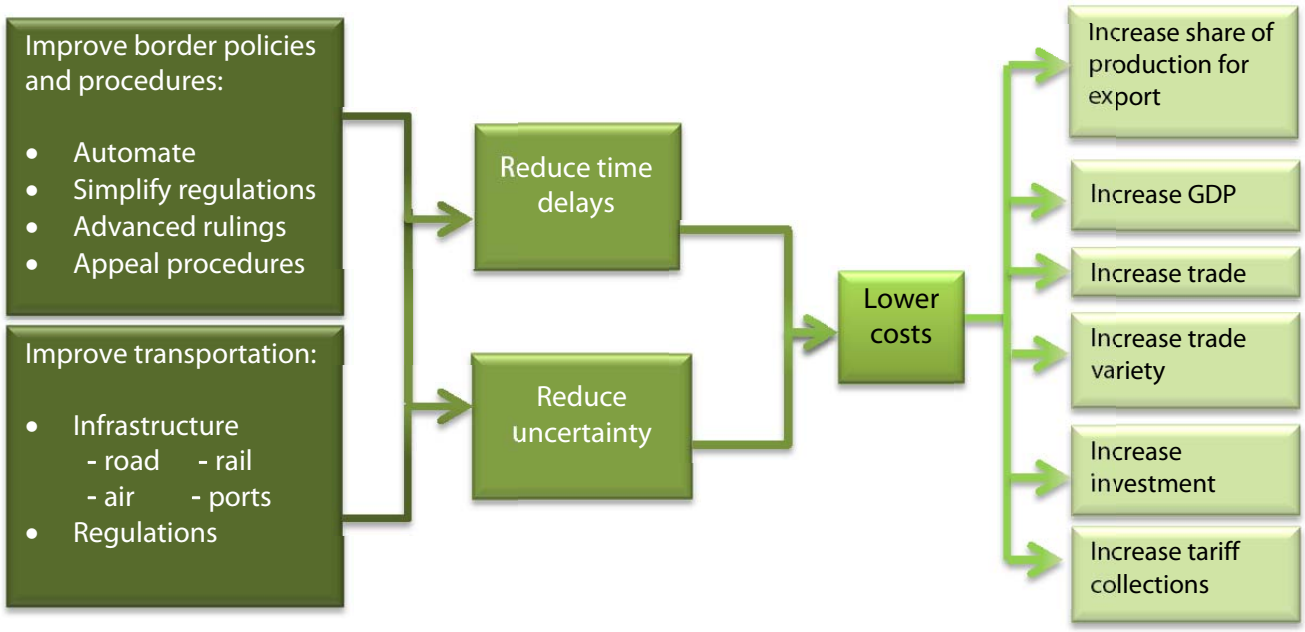
Trade Facilitation Benefits

"Trade facilitation" includes many of the policies, procedures, and conditions that shippers encounter when moving goods along the supply chain. Broadly, these elements fall into two categories: (1) **border policies and procedures** related to customs, such as documentation and inspection requirements, and (2) the **transport of goods** to their final destination before or after they clear the border, involving such factors as infrastructure conditions, the prevalence of roadblocks and weighbridges (truck scales), and transportation regulations and standards. Improving efficiency and predictability throughout this system reduces delays and uncertainty, thereby lowering costs for both importers and exporters. Lower trading costs can lead to a whole host of positive outcomes, including expanded trade and investment, improved tariff collections, more trade diversification, and economic growth (fig. ES.1). The benefits of trade facilitation are greatest when countries make improvements in more than one area at the same time—for example, undertaking customs administration reforms at the same time that they are upgrading transportation infrastructure.

Cutting delays throughout the supply chain lowers trading costs and can boost exports, imports, and investment

Researchers examining the impact on trade of time delays, regardless of their cause, found that they had a wide variety of effects. One study found that, on average, an added day of delay for any reason reduced trade by at least 1 percent. On the other hand, reducing delay by one day was equivalent to a country reducing the distance to its trading partners by about 70 kilometers. Another study found that a lengthy export process makes developing countries

FIGURE ES.1 Potential benefits of trade facilitation



Source: Commission staff.

less likely to enter markets for goods that are sensitive to delays, such as perishable products (e.g., agricultural produce), products produced in global supply chains (e.g., electronics), and products where demand changes rapidly (e.g., women's fashion clothing). The lack of quick delivery in African countries has weakened their competitiveness in these markets. Other research showed that shortening long, costly border procedures promotes economic development; a survey of member companies of the European Round Table of Industrialists found that 80 percent of member companies would consider new investment in developing countries if substantial improvements were made in this area.

Shorter and more predictable transport times can cut costs, raise profits, and allow product diversification

Research indicates that when dealers in a given product cannot be sure when the next shipment will arrive, they must often spend more to keep extra supplies of the product in stock. This problem erodes the profits of businesses all over sub-Saharan Africa. Variability in transport times also discourages African businesses from exporting goods that are sensitive to delays, such as fresh horticultural products. For example, a study found that a truck transporting goods from Ghana's northern border to the Gulf of Guinea normally completes the journey in 2–4 days, but there is a 10–20 percent chance that it will take over a week—certainly long enough for unrefrigerated fruits and vegetables to degrade. Another study reported that when it comes to

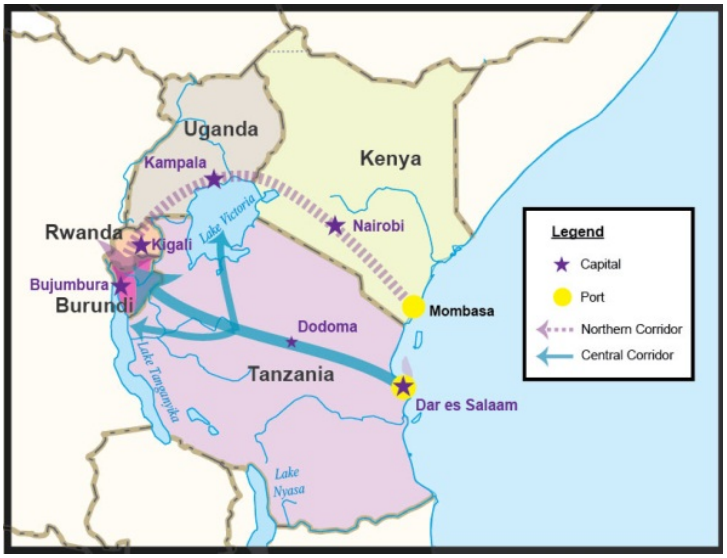
reducing transport costs, buyers and vendors gain the most from having more predictable delivery times.

Reforming trade regulations and customs operations can significantly lower trade costs and increase trade

Researchers have also studied the relationships between customs policy reforms, patterns of bilateral trade, and trade costs. Two improvements generated the largest benefits: (1) streamlining import/export procedures, including the introduction of electronic single window systems, pre-arrival processing, fewer physical inspections, and post-clearance audits, and (2) advance rulings. The research suggested that these two measures could potentially reduce traders' costs by 5.4 percent and 3.7 percent, respectively. The same study also found that moving to electronic customs data interchange systems had the potential to decrease trade costs by 2.7 percent. For example, research suggests that if Tanzania improved the time to clear customs to levels encountered in Zambia, the average Tanzanian firm would increase its share of production for export by over 4 percentage points, potentially stimulating economic growth.

Upgrading transportation infrastructure, including ports, railways, roads, and air transport, is crucial for increasing trade

FIGURE ES.2 EAC Northern and Central trading corridors



Source: Commission staff.

A number of improvements for ports, railways, and roads are already planned for the Northern and Central Corridors in the EAC (fig. ES.2). One 2011 study found that these improvements would reduce average freight costs by $40.25 per ton in the Northern Corridor and by $24.90 per ton in the Central Corridor. As a result, the study estimated that EAC trade would increase on average by 15 percent overall, with a gain of 25 percent in the Central Corridor. Other studies found that improvements in port efficiency likewise have the potential to significantly increase a country's exports and imports. Similar gains can be expected when countries liberalize their air transport markets.

Transportation regulations and policy play key roles in shaping the efficiency of the entire transport system

Certain transportation regulations, such as the effective use of weighbridges to help prevent vehicle overloading, make roads safer and lower highway maintenance costs. However, overuse of such measures can hinder trade, while unauthorized roadblocks and passage fees drive up total transport costs. One study estimated that roadblocks in West Africa, which can occur every 30 kilometers, raised transport costs by 10 percent; for goods transported between Lomé, Togo, and Ouagadougou, Burkina Faso, 57 percent of the fees paid were avoidable costs composed of unnecessary public procedures, private services, and speed payments.

EAC Trade Facilitation Activities

The countries of the EAC vary in their level of development, degree of integration into world markets, and success at establishing effective institutions. As a result, each member country faces unique challenges in improving its trade environment. Furthermore, EAC members have had varying levels of success in applying global best practices in trade facilitation, for both border procedures and transportation infrastructure. A comparison of the EAC countries with Benin, the best-performing low-income country worldwide, and Singapore, the highest-rated country in the World Bank's Logistics Performance Index, gives some indication of how these countries' trading regimes compare with global best practices (table ES.1). For example, all EAC countries score below Benin in timeliness of deliveries, and no country in the region came close to Benin's average in efficiency of customs procedures in 2012.

TABLE ES.1 Comparative trade facilitation indicators

	EAC					Top low-income country[b]	Best practices country
	Burundi	Kenya	Rwanda	Tanzania	Uganda[a]	Benin	Singapore
Logistics performance index scores on a scale from 1 (worst) to 5 (best)							
Aggregate score	1.61	2.43	2.27	2.65	2.82*	2.85	4.13
Efficiency of customs procedures	1.67	2.08	2.19	2.17	2.84*	2.59	4.10
Percentage of cargo inspected	60%	25%	[c]	[c]	75%	11%	1%
Infrastructure quality	1.68	2.16	1.88	2.41	2.35*	2.57	4.15
Ease of shipping internationally	1.57	2.69	2.27	2.91	3.02*	2.44	3.99
Timeliness of deliveries	1.67	2.88	2.76	2.97	3.52*	3.74	4.39
Trading across borders indicators							
Documents needed to import	10	7	8	6	9	8	4
Documents needed to export	9	8	8	6	7	7	4
Days needed to import	54	24	31	24	34	32	4
Days needed to export	35	26	29	18	37	30	5

Source: World Bank, "Logistics Performance Index," 2010, 2012; World Bank, "Doing Business," 2012.

[a]Starred "Logistics Performance" data for Uganda are from the 2010 report. All other data are from the 2012 version.

[b]Benin was the highest-ranked low-income country in the 2012 Logistics Performance Index. It was ranked ninth among low income countries for Doing Business' *Trading Across Borders* rankings in 2012.

[c]Not available.

Required trade documents and inspections are numerous and unpredictable, but targeted for harmonization

Compared to global best practices, the EAC countries require large numbers of trade documents and inspections. Moreover, variation in required documents reflects the differing import procedures and inspection requirements among EAC members. Inspection issues include repeat inspections of products already certified by accredited laboratories, inspections of products originating within the EAC and bearing the certification mark issued by a national standards bureau, and non-standardized testing procedures across countries. The World Bank reported that clearance times in East Africa were seven times less predictable than for any other region of the world. An imported container in Uganda not requiring inspection can be cleared in 4 days, but an inspected container requires 10 days on average.

EAC member states are aware that non-harmonized trade documentation and duplicative goods inspections are hampering trade, causing overall delays and increasing the unpredictability of goods' delivery times. In the EAC Secretariat's August 2011 quarterly review of nontariff barriers in the EAC, both documentation and inspections were targeted for harmonization by the end of 2012.

EAC is making progress toward risk-based inspection regimes

Inspecting all incoming cargo may improve safety, but it is costly and slow. As an alternative, countries can employ risk-based customs inspection procedures, whereby customs administrations and border control agencies develop cargo risk profiles that direct them to inspect only riskier cargo physically. Together with electronic scanners, risk-based inspections are widely used globally to balance caution and efficiency in trade. However, not all EAC countries fully embrace risk-based procedures. Ugandan businesses report that an average of 75 percent of import shipments are physically inspected, compared with a 25 percent shipment inspection rate for neighboring Kenya and a 7 percent physical inspection rate in the United States. Both Rwanda and Tanzania have improved risk management of import cargo inspections in recent years.

All EAC members are moving toward electronic customs data interchange systems and harmonized customs information sharing

Electronic systems benefit importers and exporters by substantially reducing wait times at border crossings. However, because electronic customs data interchange systems are not yet in place at all EAC ports and border crossings, paper customs forms are often still required. In 2005, Kenya began introducing its Simba system, moving customs data collection to an electronic format. The remaining countries of the EAC have all since adopted the ASYCUDA++ electronic data collection system in at least one port or border crossing. The EAC also intends to set up one-stop border posts at all border crossings within the Community and is currently collaborating with the U.S. Agency for

International Development (USAID) in developing a new regional platform–– RADDEx 2.0––that will harmonize customs information sharing among the region's members. One estimate suggested that computerizing and centralizing all customs procedures within one agency would save the region's economies more than $30 billion per year.

Infrastructure improvements have had difficulty keeping pace with rising traffic and trade flows

FIGURE ES.3 Road congestion near Mombasa, Kenya

Source: Commission staff.

Poor transportation infrastructure and low capacity lead to high average transit times and costs for the EAC—a situation worsened by the fact that three out of five of the region's member countries are landlocked. However, the overall condition of the region's ports, roads, and border crossing system ranks in the middle when compared to other African regions (fig. ES.3). For example, goods shipped from the port to market by road travel at an estimated speed of 8 km per hour (kph) throughout East Africa, compared to 12 kph in Southern Africa and 6 kph in West Africa.

Transport on the Northern and Central Corridors

In the EAC, most goods are transported on one of two main travel routes, the Northern or the Central Corridors. Upgrading trade facilitation along these corridors is essential to increasing the volume and profitability of EAC countries' trade.

The Northern Corridor is the major conduit of EAC trade

In 2009, it was estimated that the Northern Corridor carried 75 percent of the EAC's trade volume. This route serves Kenya, Uganda, Rwanda, and Burundi in the EAC, but also carries goods bound for Ethiopia, South Sudan, and the eastern Democratic Republic of the Congo. Four primary factors affect the efficiency of trade flows along the Northern Corridor: the Port of Mombasa, the road network, the rail system, and border crossing facilities.

The Port of Mombasa suffers from significant clearance bottlenecks, but is slated for upgrades

The Port of Mombasa is the origin of the Northern Corridor, and demand for its services runs well above capacity. In 2009, ships waited an average 2.3 days before coming into the port, and containerized vessels spent 3.1 days on average at berth. To alleviate port congestion, some containers are now

transferred to privately run container depots located inland for storage and clearance. In addition, rail links in and around the port are generally in disrepair, and less than 4 percent of cargo entering through Mombasa leaves the port by rail, leading to road congestion.

Funding has been secured for a new container terminal at the Port of Mombasa with an annual capacity of 450,000 twenty-foot equivalent units. Other supporting upgrades are envisioned, including dredging the channel and extending rail access to the new terminal. Road upgrades around the port are also planned. In addition, a new, higher-capacity port is under construction to the north at Lamu which will relieve some congestion at Mombasa, but Lamu's orientation toward South Sudan and Ethiopia will do little to enhance integration and trade efficiency of the current EAC.

Northern Corridor roads are in "good" to "fair" condition, but administrative problems raise shippers' costs

A 2010 inventory of the Northern Corridor's roads conducted by the engineering firm Aurecon rated about half of them as delivering at least an "acceptable" level of service (i.e., moderate average speeds and ability to overtake slower traffic). Nearly the entire corridor stretching from Mombasa to Bujumbura is paved. Logistics efficiency on road segments from Mombasa to Nairobi, Kampala, and Kigali was rated "good" (i.e., time, cost, and reliability is efficient and competitive according to global standards), while the final segment to Bujumbura rated as only "fair." The prevalence of weighbridges and roadblocks increases overall transport time and costs.

Costs for rail transport in the Northern Corridor are lower than those for road, but rail is much more unpredictable

Rail transport costs along the route are estimated at $0.05 per ton-km, compared with $0.07-0.09 per ton-km for road transport. Despite the cost advantage, estimates are that less than 4 percent of Northern Corridor traffic moves by rail due to the delays, breakdowns, and service disruptions that make rail transport more unpredictable than roadways. Rail cargo volumes in Kenya fell nearly 25 percent between 2005 and 2010. Several factors contributed to this performance decline, including deregulation of regional road systems (which improved competition by lowering freight rates for road transport), poor management, underinvestment in infrastructure, and a flawed rail concession process. The restructuring of Rift Valley Railways led to some improvement in rail service between 2010 and 2011, however.

The Central Corridor carries just one quarter of EAC traffic, but is the main trading route for Tanzania, Burundi, and Rwanda

FIGURE ES.4 Transport of goods in Tanzania

Source: Commission staff.

The Central Corridor originates at the Port of Dar es Salaam, Tanzania. This port handles only about half as much cargo as Mombasa, but like Mombasa is capable of handling containerized cargo, general cargo, dry bulk, and liquid bulk goods. It is used increasingly for transit cargo (cargo with a final destination other than Tanzania) along both the Central Corridor and the Southern Corridor, which runs through southwestern Tanzania to Malawi and Zambia (fig. ES.4). Like Mombasa, combined cargo and container traffic exceed the port's capacity; container traffic at Dar es Salaam has reached 140 percent of capacity. Improvements are underway to increase the port's capacity, particularly given growing import demand from dependent landlocked economies. Plans for a new terminal are being finalized, financed by China's Exim Bank.

Most Central Corridor roads are paved and rated as "sound," while underinvestment and unreliable service has depressed rail traffic

In the last decade, around 500 km of the Central Corridor's total 3,026 km of roads were rehabilitated and more than 500 additional km were paved; as a result, 86 percent of Central Corridor roads are now paved overall. Nearly the entire corridor through Tanzania was rated by Aurecon Engineering as "sound" (acceptable riding quality based on pavement roughness) in 2010, but portions of the route through Rwanda and Burundi need to be either paved or thoroughly rehabilitated, particularly the road segment through Burundi to Bujumbura, which was rated "poor" (i.e., time, cost, and reliability is inefficient and uncompetitive according to global standards).

Rail transportation along the Central Corridor is run by Tanzania Railways Limited (TRL). In the past five years, TRL traffic has fallen 30 percent from previous levels. The decline can be partially explained by a lack of investment in new infrastructure, leading to unreliable service that has driven customers to use road transport instead of rail. In 2009, only 6 percent of Central Corridor traffic moved by rail. EAC countries are motivated to improve rail service along the Central Corridor, but improvements may be delayed by the lack of a long-term business plan for the newly state-owned TRL.

Air freight in East Africa currently moves a small share of trade, but it is expected to grow as the region's economies expand

Some of the region's highest-value exports (e.g., cut flowers, fish, and miscellaneous horticultural products) are highly perishable and require air transport to remain salable. Nonetheless, EAC air freight volumes are comparatively low. One reason for this is the current state of East African airport infrastructure. Although there are 378 airports in the region, less than 10 percent have paved runways. Kenya accounts for the largest share of the EAC's air freight cargo volume—74 percent in 2010. This is largely due to the well-developed facilities found in Nairobi's Jomo Kenyatta International Airport, which is a major regional air hub. The major regional airline, Kenya Airways, is investing millions of dollars in air freighters to better serve EAC markets.

Highlights of Present Conditions and Recent Developments in EAC Trade Facilitation

Highlights of the present conditions and recent developments of trade facilitation with regard to border policies and procedures in the EAC, by country, are presented in table ES.2. Highlights of the present conditions and recent developments of trade facilitation with regard to transport corridors and infrastructure in the EAC, by country, are presented in table ES.3.

TABLE ES.2 Highlights of developments of EAC border policies

	Burundi	Kenya	Rwanda	Tanzania	Uganda	Regional
Internal tariff reduction						Accomplished
Common external tariff						Accomplished
Trade documentation, procedures, and processes						
Documentation and inspection requirements	10 documents needed to import, 9 to export	7 documents needed to import, 8 to export	8 documents needed to import, 8 to export	6 documents needed to import, 6 to export	9 documents needed to import, 7 to export	
Risk-based inspection systems	50% of imported shipments inspected.	Uses risk-based inspections, but inspection rate is high; 25% of imported shipments inspected in 2011.	Improved risk management approaches.	Improved risk management approaches.	Inspected 75% of imported shipments in 2011, but is implementing expedited clearances for compliant traders.	
Adoption of electronic customs data interchange systems	Using ASYCUDA++ at Bujumbura customs, port, and airport.	Using Simba system since 2005.	Using ASYCUDA++ at multiple border crossings.	Using ASYCUDA++ at Dar es Salaam port, airport, and multiple border crossings.	Using ASYCUDA++ at Kampala customs center and multiple border crossings.	
Joint one-stop border post (OSBP) operations	Feasibility studies underway for 2 crossings.	OSBP at Malaba crossing with Uganda is nearing completion.	Improvements underway at multiple crossings.	Improvements underway at multiple crossings.	OSBP at Malaba nearing completion, improvements underway at other crossings as well.	EAC has pledged to set up OSBPs at all border crossings. JBCs have been established to streamline border management processes and coordinate all stakeholder activities.
Harmonized customs information sharing system	Rolling out RADDEx.	Uses RADDEx bilaterally with Tanzania, Rwanda, and Uganda.	Uses RADDEx bilaterally with Kenya and Uganda.	Uses RADDEx bilaterally with Kenya and Uganda.	Uses RADDEx bilaterally with Kenya, Rwanda, and Tanzania.	RADDEx 2.0 servers installed in most countries. Pilot launch set for July/August 2012.
Other trade facilitation barriers						Pervasiveness of weighbridges on Northern and Central Corridors hinders movement of goods.

Source: Compiled by Commission staff.

TABLE ES.3 Highlights of developments of EAC transport corridors and infrastructure

	Burundi	Kenya	Rwanda	Tanzania	Uganda
Northern Corridor	2% of export traffic, 6% of import traffic	Almost exclusively uses this corridor	35% of export traffic, 43% of import traffic	Negligible use of this corridor	98% of export traffic, 99% of import traffic
Port of Mombasa		Single clearance window in use, but overall operations hampered by small container yard, complex clearance procedures, and high physical inspection rate. A port expansion is being funded.			
Road infrastructure	Paved corridor roads in fair condition, but weighbridges and informal payments are problematic.	Paved corridor roads in good condition, but weighbridges and informal payments are problematic.	Paved corridor roads in good condition, some rehabilitation on main road, weighbridges and informal payments persist.		Paved corridor roads in good condition, but weighbridges and informal payments are problematic.
Railways/ferries		Underused due to unpredictability of service. RVR capital revitalization project is underway. Freight volumes increased in 2011. Kenyan ferry out of Kisumu has returned to service.			Underutilized due to unpredictability of service. RVR capital revitalization project underway. Freight volumes increased in 2011. Ferries returning to service.
Border crossings	African Development Bank (AfDB) is conducting a feasibility study for OSBP upgrades at Akinyaru-Kinyaru Haut (border with Rwanda).	Malaba rail OSBP crossing (to Uganda) is operational, and Malaba road crossing upgrades are underway. Crossing times have been significantly reduced.	Gatuna crossing (to Uganda) has been upgraded to 24-hr operations; processing times have greatly improved there after implementation of RADDEx. AfDB is conducting feasibility studies for OSBP at Akinyaru-Kinyaru Haut (border with Burundi).		Malaba rail OSBP crossing (to Kenya) is operational, and Malaba road crossing upgrades are underway. Crossing times have been significantly reduced. Gatuna crossing (to Rwanda) has been upgraded to 24-hr operations and OSBP is being introduced there.

TABLE ES.3—*cont.* Highlights of developments of EAC transport corridors and infrastructure

	Burundi	Kenya	Rwanda	Tanzania	Uganda
Central Corridor	98% of export traffic, 94% of import traffic	Negligible use of this corridor.	65% of export traffic, 57% of import traffic	Uses this corridor almost exclusively.	2% of export traffic, 1% of import traffic
Port of Dar es Salaam				Overall port efficiency is poor, with inadequate storage capacity and substantial congestion. New container terminal is under construction and is expected to greatly raise port's capacity.	
Road infrastructure	Corridor roads are in poor condition through Burundi, but funding for improvements has been secured. Informal payments increase transport costs.		Central Corridor roads are paved and in mostly sound condition. Informal payments increase transport costs.	Major road rehabilitation over last decade, and most Tanzania segments are rated sound. Informal payments increase transport costs.	
Railways/ferries	Links to Tanzania's rail line through Lake Tanganyika ferry. Port of Bujumbura is equipped with lift-on/lift-off capabilities. Possibility of new rail line through Rwanda.		No rail or ferry links, but AfDB has approved a $5.1 billion rail extension from Isaka, Tanzania, through Kigali and onward to Burundi.	Only 6% of Central Corridor traffic moves by rail. TRL reorganization is underway after failure of concession. Lake ports need major rehabilitation, but rail could be competitive if improvements are made.	Linked to Central Corridor via Lake Victoria rail/ferry system, but no working cargo equipment at Port Bell.
Border crossings	TradeMark East Africa (TMEA) is financing a feasibility study for implementation of an OSBP at Kobero/Kabanga (border with Tanzania).		At Rusumo crossing (to Tanzania), terrain makes improvements a challenge. JICA is funding a new bridge and the establishment of an OSBP.	JICA is funding a new bridge and OSBP implementation at Rusumo (border with Rwanda), while TMEA is funding new infrastructure for an OSBP at Mutukula (border with Uganda). TMEA is financing an OSBP feasibility study for Kobero/Kabanga (border with Burundi).	TMEA is funding new OSBP infrastructure at Mutukula (border with Tanzania).
Air Transport	Less than 5,000mt of air cargo in 2010.	Major regional air hub. Kenya Airways is investing millions of dollars in air freighters. About 250,000mt of air cargo in 2010.	Less than 7,000mt of air cargo in 2010. Plans for a new, larger airport outside of Kigali at Bugesera.	Less than 30,000 mt of air cargo in 2010.	Around 50,000mt of air cargo in 2010.

Source: Compiled by Commission staff.

EAST AFRICAN COMMUNITY

BURUNDI, KENYA, RWANDA, TANZANIA, AND UGANDA

CHAPTER 1
Introduction

The Goal of This Report

This report has two chief aims:

- to summarize recent developments in **trade facilitation** (defined below) in the East African Community (EAC).

- to identify the potential benefits of trade facilitation to the EAC countries (Burundi, Kenya, Rwanda, Tanzania, and Uganda), based on empirical studies and the experiences of other developing countries.

The report was requested by the United States Trade Representative (USTR), who asked that it do the following:

Describe present conditions and recent developments related to the movement of goods to and from the EAC countries.

- This description should cover the policies enforced at the borders and the procedures for enforcing them, along with transport infrastructure.

- As far as possible, it should note elements mentioned in U.S. trade facilitation agreements, as well as in the chapters on trade facilitation in U.S. free trade agreements.

- The description should focus on conditions in individual EAC countries as well as in the EAC region as a whole.

Summarize findings from the empirical literature on the benefits of overall improvements in trade facilitation.

For example, benefits might involve expanding import and export volumes, diversifying exports, and encouraging economic development. This summary should include highlights of any notable findings specific to the EAC countries.

Discuss relevant sector-specific case studies that illustrate the benefits of trade facilitation.

The case studies should focus on developing countries within and outside sub-Saharan Africa, and should particularly target industries where EAC countries have significant African Growth and Opportunity Act (AGOA) exports.[1]

How This Report Defines "Trade Facilitation"

For this report, the USTR defined trade facilitation to mean:

> The simplification of customs procedures affecting the movement of goods across borders, as well as improvements to transport infrastructure.

Particular customs procedures include trade documentation and inspection requirements, electronic customs data interchange systems, and border post operations.[2]

The Approach Used in This Report

The report relies mainly on a review of existing literature to achieve its aims. It uses studies based on recent data and with findings specific to the EAC, where possible. In some cases, however, only studies that use somewhat older data or present findings on other country groups were available.

Interested parties were also invited to submit written statements concerning this investigation,[3] as the short timeframe of the study precluded holding a public hearing. More information was gathered through interviews with U.S. government sources and with industry and academic experts.

How This Report Is Organized

Chapter 2 describes the present conditions and recent developments in the movement of goods to and from the countries of the EAC, including policies enforced at the border, the procedures for enforcing them, and transport

[1] Appendix A contains USTR's request letter, and appendix B contains the *Federal Register* notice concerning the institution of this investigation.

[2] The World Trade Organization and the OECD both define trade facilitation as the "simplification of trade procedures," understood as the "activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade." Wider definitions, such as those used by UNCTAD or APEC, may include customs, transport and transit issues, banking and insurance, business practices, and telecommunications. OECD, "Trade Facilitation Indicators: The Impact on Trade Costs," TAD/TC/WP(2010)5/REV2, May 4, 2011.

[3] Appendix C summarizes the single written statement received in this investigation.

infrastructure. The information in this chapter reflects conditions in individual EAC countries, including individual country profiles, as well as the EAC region as a whole. Chapter 3 summarizes the findings from the empirical literature on the benefits of broad improvements in trade facilitation, including findings specific to the EAC countries. To illustrate the benefits of trade facilitation, short case studies from developing countries within and outside sub-Saharan Africa appear in both chapters.

CHAPTER 2
Present Conditions and Recent Developments in EAC Trade Facilitation

Overview

The countries of the East African Community (EAC) vary in their level of development, degree of integration into world markets, and success at establishing effective institutions (table 2.1). As a result, each member country faces unique challenges in improving its trade environment.

TABLE 2.1 EAC country development indicators

	Burundi	Kenya	Rwanda	Tanzania	Uganda	EAC
Population, 2010 (in millions)	8.4	40.5	10.6	44.8	33.4	137.8
GDP per capita, 2010 (in current US$)	192	795	530	524	509	576
Total imports, 2009 (in million $)	345	10,202	1,112	6,531	4,247	22,437
Total exports, 2009 (in million $)	113	4,463	261	2,982	1,568	9,387
Share of total EAC imports, 2009	2%	45%	5%	29%	19%	[a]
Share of total EAC exports, 2009	1%	48%	3%	32%	17%	[a]
CPIA public sector management and institutions average, 2010[b]	2.6	3.3	3.7	3.3	3.2	[a]
Strength of legal rights, 2011[c]	3	10	8	8	7	[a]

Source: World Bank, "World Development Indicators" database (accessed June 6, 2012); GTIS, GTA database (accessed May 3, 2012).

[a]Not available.

[b]The Country Policy and Institutional Assessment (CPIA) index covers property rights, rule-based governance, quality of budgetary and financial management, efficiency of revenue mobilization, quality of public administration, and transparency, accountability, and corruption in the public sector. The scores range from 1 (low) to 6 (high).

[c]This index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The index ranges from 0 to 10, with higher scores indicating that these countries' laws are better designed to expand access to credit.

Furthermore, EAC members have had varying levels of success at adopting global best practices to facilitate trade, in terms of both border procedures and transportation infrastructure. EAC country scores on indicators from the World Bank's Logistics Performance Index illustrate current conditions in several categories. Comparisons of the EAC countries with Benin, the best-performing low-income country, and Singapore, the highest-rated country, give some indication of how these countries' trading regimes compare with global best practices (table 2.2). All EAC countries score below Benin in logistics timeliness, and no country in the region came close to Benin's average in efficiency of customs procedures in the World Bank's 2012 report.[1] Nonetheless, progress toward more efficient trade is being made on both the policy and infrastructure fronts in all EAC countries.

[1] The data included for Uganda are from the World Bank's 2010 "Logistics Performance Index."

TABLE 2.2 Comparative trade facilitation indicators

	EAC					Top low income country[b]	Best practices country
	Burundi	Kenya	Rwanda	Tanzania	Uganda[a]	Benin	Singapore
Logistics performance index scores on a scale from 1 (worst) to 5 (best)							
Aggregate score	1.61	2.43	2.27	2.65	2.82*	2.85	4.13
Efficiency of customs procedures	1.67	2.08	2.19	2.17	2.84*	2.59	4.10
Percentage of cargo inspected	60%	25%	([c])	([c])	75%	11%	1%
Infrastructure quality	1.68	2.16	1.88	2.41	2.35*	2.57	4.15
Ease of shipping internationally	1.57	2.69	2.27	2.91	3.02*	2.44	3.99
Timeliness of deliveries	1.67	2.88	2.76	2.97	3.52*	3.74	4.39
Trading across borders indicators							
Documents needed to import	10	7	8	6	9	8	4
Documents needed to export	9	8	8	6	7	7	4
Days needed to import	54	24	31	24	34	32	4
Days needed to export	35	26	29	18	37	30	5

Source: World Bank, "Logistics Performance Index," 2010, 2012; World Bank, "Doing Business," 2012.

[a]Starred "Logistics Performance" data for Uganda are from the World Bank's 2010 report. All other data are from the 2012 version.

[b]Benin was the highest-ranked low income country in the 2012 Logistics Performance Index. It was ranked ninth among low income countries for Doing Business' *Trading Across Borders* rankings in 2012.

[c]Not available.

Trade facilitation reforms can be classified into various categories, but in reality there are synergies in these reforms. For example, simplified customs documentation helps to speed processing times at border crossings, even if no other reforms are made. And while some improvements may appear to be country-specific, they could have far-reaching positive effects for several EAC members. For instance, although the Port of Mombasa is in Kenya, improvements in trade facilitation there benefit all countries whose goods transit through the port.

This chapter describes the current trade facilitation environment of the EAC. It first explores trends in the region's border policies and procedures, including the introduction of electronic customs data interchange systems, the harmonization of trade documentation and inspections, and the gradual implementation of one-stop border posts (OSBPs) at all EAC crossings. It then looks at the condition of the region's transport infrastructure, including ports, roads, railways, and border crossings. Improvements in both broad areas of trade facilitation––border policies and infrastructure––can lessen average import and export times and help reduce uncertainty in goods delivery, cutting trading costs and likely increasing trade and economic growth. The close of the chapter presents EAC country profiles––snapshots of trade facilitation indicators by country.

EAC Regional Border Policies and Procedures

Both the EAC Customs Union and its successor, the EAC Common Market, have begun to reduce trade barriers, allowing freer movement of goods between

member countries. (See appendix D for more background on the progression of EAC integration from a customs union to a common market.) Among the Customs Union's goals were the elimination of all internal tariffs; the establishment of a Common External Tariff (CET); adoption of common trade documentation standards, procedures, and processes; a harmonized system of customs information sharing among EAC members; and a commitment to fully eliminate other nontariff barriers.[2] The next section examines the EAC's progress toward meeting each of these goals.

Internal Tariff Reduction and External Tariff Harmonization

Internal tariff reductions for EAC members proceeded as scheduled, with all internal tariffs eliminated by January 2010.[3] The EAC also successfully launched a CET beginning in January 2005. This CET sets three tariff bands: 0 percent for raw materials, 10 percent for intermediate goods, and 25 percent for consumer goods.[4] Some products designated as "sensitive" (including certain milk products, rice, sugar, and certain woven fabrics) are subject to duties above the maximum level of 25 percent.[5] A recent study by the United Nations Conference on Trade and Development (UNCTAD) concluded that the countries of the EAC have made important progress toward a customs union, and that tariff rates in general are not a major obstacle to intra-African trade.[6]

Common Trade Documentation, Procedures, and Processes

Adoption of common trade documentation standards and procedures is a key goal of EAC integration. At present, documents and procedures still vary widely among the region's members, particularly with regard to cargo inspections. The individual countries are in the process of adopting several reforms that should streamline customs processes throughout the EAC, including making full use of risk-based inspections, adopting electronic data interchange systems, linking trade agencies through an electronic single window system (e-SWS), and setting up joint OBSP operations.

Documentation and Inspection Requirements

Compared to global best practices, the EAC countries require large numbers of trade documents and inspections. Moreover, requirements vary significantly among countries, raising transaction costs and lengthening import/export processing times (box 2.1). For example, according to the World Bank's *Doing Business 2012*, 6 documents are required to import a container of goods into Tanzania, while Burundi requires 10 (see table 2.2).[7] UNCTAD cites several factors as delaying imports and hindering trade in the region. These include

[2] EAC Customs Union, "Sector Overview," n.d. (accessed April 23, 2012).

[3] Dobronov and Farole, "An Economic Integration Zone for the EAC," February 2012, 2.

[4] Mugisa, Onyango, and Mugoya, *An Evaluation of the Implementation and Impact*, March 2009, 8.

[5] EAC Customs Union, "EAC Customs Union Common External Tariffs––2007," n.d. (accessed April 23, 2012).

[6] UNCTAD, *Trade Liberalization, Investment & Economic Integration*, 2011, 24.

[7] By comparison, the United States requires 5 documents to import the average container; Singapore, only 4. World Bank & IFC, *Doing Business 2012*, October 2011, 135. For more information on the *Doing Business* survey methodology, see http://www.doingbusiness.org/methodology/trading-across-borders.

procedures for classifying and valuing imports, arbitrary documentation requirements, differing sanitary and phytosanitary product standards between countries, and other technical barriers to trade (TBT).[8] Specific TBTs noted include repeat inspections of products already certified by accredited labs; inspections of products originating within the EAC and bearing the certification mark issued by a national standards bureau; and non-standardized testing procedures across countries.[9]

BOX 2.1 Competitiveness of EAC coffee exports

Given their latitude, average altitude, and typical agronomic conditions, the countries of the EAC are well-suited to the production of coffee. Coffee is a major export of all EAC countries, with each ranking among the world's top 25 exporters of unroasted caffeinated coffee. However, high transportation costs and lengthy transit times (including the processing of imports and exports at border crossings and ports) reduce the competitiveness of the region's producers compared with other major exporters. Export costs per container from the EAC averaged nearly $2,500 in 2011, compared to just $580 out of Vietnam––another major exporter. In the same vein, EAC container exporters needed an average of 29 days to obtain export documentation, transport the product to port, clear customs, and load the container onto a ship, compared to less than half that time for South American competitors in Brazil and Colombia. Aside from just raising costs, longer transport times undermine coffee beans' quality, further damaging EAC coffee's competitiveness on the world market.

Sources: ICO, "Bean to Cup," n.d. (accessed May 21, 2012); GTIS, GTA database (accessed May 21, 2012); World Bank & IFC, *Doing Business 2012*, October 2011; USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 6-3.

Multiple inspection procedures generate duplicative paperwork and lead to widely fluctuating cargo clearance times in the region. The World Bank reports that customs clearance times in East Africa are seven times less predictable than for any other region of the world.[10] In 2011, a container imported into Uganda that did not require inspection could be cleared in 4 days, but import clearance for an inspected container required 10 days on average.[11]

While improvements made by individual countries in their inspection systems should cut trading costs, these savings are not likely to be fully realized until inspection certificates are mutually recognized across all member countries. EAC member states are aware that non-harmonized trade documentation and duplicative goods inspections are hampering trade, causing overall delays, and increasing the unpredictability of goods' delivery times. In the EAC Secretariat's March 2012 quarterly review on the status of nontariff barriers in the EAC, both documentation and inspections were targeted for harmonization in 2012.[12] The EAC is also considering eventually forming an EAC Single Customs Authority.[13]

Risk-Based Inspection Systems

Another source of divergence in inspection and clearance times among EAC countries is the degree to which they rely on risk-based customs inspections. Inspecting all incoming cargo may improve import safety and ensure that customs declarations are accurate, but it is costly, significantly slows trade, and leads to greater variance in processing times. As an alternative, countries can

[8] UNCTAD, *Trade Liberalization, Investment & Economic Integration*, 2011, 24.

[9] Ibid.

[10] World Bank, "Logistics Performance Index: Southern and Eastern Africa," February 2010, 8.

[11] Clearance times are not reported for Rwanda and Tanzania in this index, so maximum clearance times may be greater still. World Bank, *Connecting to Compete*, 2012, 49.

[12] EAC Secretariat, "Status of Elimination of Non-Tariff Barriers," March 2012, 15, 16.

[13] EALA, "President Kibaki Opens EALA Sitting," April 17, 2012.

employ risk-based customs inspection procedures, whereby customs administrations and border control agencies develop cargo risk profiles that direct them to physically inspect cargo in proportion to the potential risk it poses.[14] This means inspecting fewer units of cargo, leading to faster average processing times and more predictable goods delivery. Risk-based inspections, together with electronic scanners, are widely employed in high-income countries to balance caution and efficiency in trade.[15]

In the EAC, not all countries use risk-based inspections; where they do exist, the frequency of physical inspections remains high.[16] Ugandan businesses report that, on average, 75 percent of import shipments are physically inspected, compared with a 25 percent average shipment inspection rate for neighboring Kenya.[17] Both may be contrasted with a 7 percent physical inspection rate in the United States.[18]

The region is progressing toward greater use of risk-based inspection management systems. Rwanda and Tanzania have both improved their risk management approaches to import cargo inspections in recent years.[19] Additionally, the Japanese International Cooperation Agency (JICA) has provided risk-management systems training in the region, and Uganda is in the process of implementing expedited clearances for compliant traders in accordance with this training.[20]

Adoption of Electronic Customs Data Interchange Systems

Electronic customs data interchange systems save businesses and governments time and money.

Electronic customs data interchange systems are electronic platforms for filing, transferring, processing, and exchanging customs information––in particular, information about the quantities and values of traded products, classified by tariff code.[21] Electronic customs data interchange systems save businesses and governments time and money by shortening cargo processing times and, typically, by reducing the number of officials needed to process cargo. Countries using these systems have documented numerous other benefits as well. Electronic systems have been shown to reduce corruption in other developing countries' customs processes by reducing opportunities for human intervention.[22] Electronic systems also increase customs revenue, both from the higher amount of goods processed by speedier

[14] Risk-based inspection systems are prevalent in high-income countries to speed customs clearance, given the large volumes of imported goods, while still ensuring border security. See also World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[15] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[16] Ibid.
[17] World Bank, *Connecting to Compete*, 2012, 48–49.
[18] World Bank, *Connecting to Compete*, 2012, 49.
[19] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[20] Nathan Associates, *Corridor Diagnostic Study*, vol. 1, April 2011, table ES-5.
[21] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 62.
[22] Industry official, interview by USITC staff, Accra, Ghana, October 27, 2008.

electronic systems and from improved enforcement of tariff and duty payment collections.[23]

The countries of the EAC have all made progress toward establishing electronic customs data interchange systems. In 2005, Kenya began introducing its Simba system, moving customs data collection to the electronic format.[24] The remaining countries of the EAC have all since adopted the ASYCUDA++ data collection system in at least one port or border crossing.[25] However, because electronic customs data interchange systems are not yet in place at all ports and border crossings, paper submissions are often still required.[26] Furthermore, an electronic customs data interchange system requires a reliable supply of electricity in order to be operational, and power outages are still common throughout the region.[27]

Linking Trade Agencies via Electronic Single Window Systems

Many of the world's countries have taken the idea of an electronic customs data interchange system one step further, integrating the submission of all trade documentation (including customs data, phytosanitary certificates, and quality inspection certifications) into one electronic platform called an electronic single window system (e-SWS). If such a system were adopted by EAC members, importers would benefit from being able to interact with a single interface to submit their trade documents. Trade information would be distributed from this single interface to the relevant regulatory agencies.[28] This movement toward e-SWS could substantially reduce wait times at all border crossings throughout the EAC and could also reduce trade costs. One estimate suggested that computerizing and centralizing all customs procedures within one agency would save the region's economies more than $30 billion per year.[29]

Several countries in the region are moving towards the adoption of e-SWS systems. Rwanda is in the process of rolling out an e-SWS.[30] The World Bank is funding the development of a national e-SWS in Kenya, which will be housed in the Ministry of Finance to allow more coordination of all border control agencies in that country.[31] Customs operations at the Port of Mombasa are already organized into a one-stop center, but under the new initiative, these processes will be fully automated (fig. 2.1).[32] Kenya hopes to eventually implement the system at the Port of Mombasa, Nairobi's Jomo Kenyatta International Airport, and all land border crossings. In addition, the Ugandan

[23] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 60.
[24] World Bank & IFC, *Doing Business in the East African Community*, 2011, 30.
[25] ASYCUDA is short for "Automated System for Customs Data." Developed by UNCTAD, the system covers most foreign trade procedures and can be configured to suit the national characteristics of individual customs regimes. See UNCTAD, *Asycuda World Report*, 2008.
[26] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[27] World Bank, "World Development Indicators" database (accessed May 14, 2012).
[28] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[29] USAID representative, personal communication with USITC staff, May 30, 2012.
[30] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[31] Nathan Associates, *Corridor Diagnostic Study*, vol. 1, April 2011, table ES-5.
[32] USAID representative, personal communication with USITC staff, May 31, 2012; KPA, *Kenya Ports Authority Handbook*, 2012, 57.

FIGURE 2.1 A crane loading containers at the Port of Mombasa, Kenya

Source: Commission staff.

Ministry of Trade is working toward initiating a feasibility study on implementing an e-SWS in that country.[33]

These individual domestic single window systems could be adapted for future use in implementing EAC-wide customs documentation and procedures.[34] Single window systems have been or are in the process of being adopted in other regional communities (e.g., ASEAN and the European Union), so templates exist to assist the EAC in this process. The United States Agency for International Development (USAID) Competitiveness and Trade Expansion Program (COMPETE) is one initiative supporting regional and country-level e-SWS adoption activities. At the regional level, the EAC has formally adopted the e-SWS as a priority activity and has formed a working group to facilitate and coordinate development of a regional e-SWS.[35]

Joint One-Stop Border Post Operations (OSBPs)

An OSBP is characterized by a single inspection on one side of the border that clears a load according to the customs rules of both the country that it is leaving and the one that it is entering. While such operations do not solve all border bottlenecks, they significantly reduce transit times, in some cases by up to 50 percent.[36] If OSBPs are to be adopted, documentation and inspection procedures need to be harmonized. The EAC has pledged to set up OSBPs at all border crossings within the Community, and joint border committees (JBCs) have been established at key border posts to streamline border management processes and coordinate activities of all stakeholders.[37] In every country of the EAC, new OSBPs are either in the planning stages, under construction, or already partly operational. The partial implementation of an OSBP at the Malaba border crossing between Kenya and Uganda has reduced clearance times to seven hours, down from the one to two days reported in 2008.[38] (Operations at Malaba and all border crossings within the EAC are discussed later in this chapter.)

Harmonized Customs Information Sharing System

While individual EAC countries have made progress in setting up electronic customs data interchange systems, these systems are not yet completely regionally integrated, which is vital to building fully functioning OSBPs.[39] The

[33] USAID representative, personal communication with USITC staff, May 30, 2012.
[34] World Bank & IFC, *Doing Business in the East African Community*, April 2012, 63.
[35] USAID representative, personal communication with USITC staff, May 30, 2012.
[36] Nathan Associates, *Corridor Diagnostic Study*, vol. 1, April 2011, 84.
[37] EAC Secretariat, "Sectoral Council Clears Bill for One Stop Border Posts," February 24, 2012; USAID representative, personal communication with USITC staff, May 30, 2012.
[38] World Bank, *Implementation Status and Results*, September 2011, 5; Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 11.
[39] USAID, *Competitiveness and Trade Expansion*, January 15, 2010, 19.

integration of Kenya's and Uganda's electronic customs data collection systems through the Revenue Authorities Digital Data Exchange (RADDEx) system has been underway for several years, covering an estimated 95 percent of transit goods in 2009.[40] Rwanda also operates RADDEx on a bilateral basis with both Kenya and Uganda.[41] Tanzania operates RADDEx bilaterally with Kenya and Uganda, and the system is being rolled out in Burundi.[42] However, the bilateral operation of RADDEx requires extensive country-to-country development and maintenance for each bilateral connection, and may result in differing levels of data harmonization across countries.[43]

A regional customs data information sharing system would eliminate the need to maintain multiple country-to-country systems and also streamline the data that is captured by the electronic system. The EAC is currently collaborating with USAID in developing a regional platform (RADDEx 2.0) that will allow harmonized customs information sharing among all of the region's members.[44] A central exchange server has been installed at the EAC Secretariat, and country servers have been installed in Kenya, Rwanda, Tanzania, and Uganda, with installation for Burundi's Revenue Authority set for June 2012. The RADDEx 2.0 pilot launch is set for July/August 2012.[45]

Other Trade Facilitation Barriers

EAC members are proactive in identifying barriers to further trade facilitation and working together to eliminate them.[46] The members have agreed to adopt a new protocol by August 2012 intended to reduce and prevent nontariff barriers.[47] Examples of such barriers are described below.

Unsynchronized Border Office Hours

Office hours at border crossings in the EAC often differ on opposite sides of country borders, hindering trade. In 2008, the Kenyan government announced that the Port of Mombasa and various border posts would begin operating 24 hours a day in order to reduce congestion.[48] Before, several posts had been open for only eight hours a day. However, without comparable adjustments at customs offices on the other side of the border, the full benefits of longer service hours cannot be realized. While all EAC nations recognize the potential gains of extending customs working hours, other factors may prevent them from doing so. For example, some border stations do not have reliable access to electricity, so 24-hour operation is not feasible.[49]

[40] Yasui, "Case Studies on Systematic Exchange of Commercial Information," February 2011, 26.
[41] Yasui, "Case Studies on Systematic Exchange of Commercial Information," February 2011, 23.
[42] EAC Secretariat, "Status of Elimination of Non-Tariff Barriers," March 2012, 22.
[43] Yasui, "Case Studies on Systematic Exchange of Commercial Information," February 2011, 27.
[44] USAID representative, personal communication with USITC staff, May 30, 2012.
[45] Ibid.
[46] EAC Secretariat, "Status of Elimination of Non-Tariff Barriers," March 2012, 3.
[47] *AllAfrica,* "East Africa: EAC to Adopt NTB Protocol by August," April 18, 2012.
[48] USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 3-11.
[49] EAC Secretariat, "Status of Elimination of Non-Tariff Barriers," August 2011, 13.

Transportation Regulations and Standards

The governing body of the EAC adopted regulations in 2008 that were specifically intended to harmonize transportation regulations and standards (including maximum axle mass loads, gross vehicle mass limits, tolerance factors for overloads, and a ban on quadrem axles [50]). Harmonizing transportation regulations and standards enhances safety and reduces wear and tear on roadways, facilitating the free flow of goods. For example, setting standard vehicle loads is important because the bulk of goods move throughout the EAC by truck, and differing standards lead to bottlenecks at border crossings.[51] However, legal maximum gross weights still vary widely among member countries, with Kenya allowing a maximum vehicle weight of 48 metric tons (mt), Burundi and Rwanda allowing a weight of 53 mt, and Tanzania and Uganda permitting loads of 56 mt.[52] In February 2012, the EAC Ministers endorsed a new vehicle load control bill that set a uniform, community-wide load limit of 56 tons per vehicle.[53] However, the legislation will not take effect until it is approved by the East African Legislative Assembly (EALA). Despite the passage of new load limit legislation, enforcement of these new rules may be problematic, as discussed below.

Roadblocks, Weighbridges, and Informal Fees

Weighbridges (truck scales) at certain points along the route from the port to the cargo's final destination are necessary to ensure that vehicle weights comply with posted regulations. However, in the EAC, roadblocks and weighbridges have proliferated to the point that they significantly slow intra-EAC trade. Moreover, their effectiveness at enforcing load limit regulations is questionable.[54] Two separate issues with respect to trade facilitation can be identified:

- The overall high number of stops slows down goods transport and increases the uncertainty of delivery times.

- The reality of informal payments to speed inspections at weighbridges, whether or not a vehicle is overweight, provides a perverse incentive to not comply with weight regulations.[55] In turn, overloaded vehicles wear down roads faster and increase the demand for road maintenance funds.

With respect to the first problem, weighbridges are numerous on main EAC roads. One 2011 report cited nine weigh stations in Tanzania, nine in Kenya, and four in Uganda, all of which were mandatory for all commercial vehicles

[50] A quadrem axle is a vehicle load configuration in which the rear, non-steering axle is composed of four individual axles. They have been banned because they are particularly damaging to roads. For more information, see Pinard, "Overload Control Practices," April 2010, 14.

[51] Nathan Associates, *Corridor Diagnostic Study*, vol. 1, April 2011, 81.

[52] *AllAfrica*, "East Africa: EAC Concurs on Load Limit," February 21, 2012.

[53] Ibid.

[54] Teravaninthorn and Raballand, *Transport Prices and Costs in Africa*, 2009, 57.

[55] Arvis et al., *Cost of Being Landlocked*, 2010, 65.

regardless of origin or destination.[56] All of these stops add up to large delays in transit time. A 2010 World Bank report stated that a trucker traveling west from Mombasa or Dar es Salaam could expect to encounter 19 roadblocks and 4.4 weigh stations per trip, resulting in an average 12-hour delay.[57] The East African Business Council (EABC) estimates that roadblock and weighbridge delays cost businesses a total of 126,749 working days per year.[58]

Weighbridges also cost businesses money in the form of informal fees to speed vehicle inspections, even for compliant vehicles. In 2008, the EABC estimated that businesses paid $7.9 million in informal payments to officials in order to facilitate inspections.[59] On the Northern Corridor through Kenya (discussed below), informal border stops are estimated to raise transport costs by as much as $900 per twenty-foot equivalent unit (TEU).[60] Although EAC member countries recognize the pervasiveness of informal payments along the main transport corridors, efforts to eliminate them are ongoing.[61] Reducing informal payments may be hindered by opposition from stakeholders in the trucking industry to any sort of political action. These stakeholders have a vested interest in continuing to operate above the maximum legal load weight because it enables them to carry more cargo per shipment. This leads to higher profits per operator, but faster degradation of roads.[62]

FIGURE 2.2 A factory in Kenya produces apparel, an important EAC export

Source: Commission staff.

Transport Corridors and Infrastructure in the EAC

Adequate infrastructure is essential to the movement of goods within and between countries, and contributes to a nation's overall economic growth (fig. 2.2).[63] In the EAC, deteriorating and low-capacity infrastructure leads to transport delays that raise the overall cost of trade and hinder economic activity. Furthermore, the uncertainty surrounding regional land transport can also be a significant deterrent to investment and economic activity.[64]

In Eastern Africa, traffic and trade flows have expanded in recent years, and infrastructure improvements have had difficulty keeping pace with

[56] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 149.

[57] The distance from Mombasa, Kenya, to Kigali, Rwanda, is approximately 1,660 km, while the distance from Dar es Salaam, Tanzania, to Kigali, Rwanda, is approximately 1,440 km. Given the average 19 roadblocks and 4.4 weigh stations, truck drivers in the EAC are stopped on average once every 60–70 km. See Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 11.

[58] World Bank & IFC, *Doing Business in the East African Community*, 2011, 30.

[59] Ibid.

[60] One TEU is an approximate measure of the capacity of the standard intermodal container. See also Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 146.

[61] EAC Secretariat, "Status of Elimination of Non-Tariff Barriers," March 2012, 25.

[62] Teravaninthorn and Raballand, *Transport Prices and Costs in Africa*, 2009, 6, 44.

[63] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 2.

[64] Christ and Ferrantino, "Land Transport for Export," 2011, 1751.

the increased demand.[65] The overall condition of the region's ports, roads, and border crossing systems ranks in the middle when compared to other African regions. As an example, goods travel by road from the port to their terminal market at an average velocity of 8 kilometers per hour (kph) throughout East Africa, compared to 12 kph in Southern Africa and 6 kph in West Africa.[66]

BOX 2.2 Textile exports from the EAC

In 2011, a full 90 percent of EAC exports to the United States under the AGOA trade preference import program were articles of apparel and clothing accessories (HTS chapters 61 and 62). Yet there are indications that further growth of the region's textile industry is being hampered by uncertainty in processing times at EAC ports. In 2008, Kenyan apparel firms noted that congestion at Mombasa's port hindered their ability to receive raw materials and other inputs needed to maintain production schedules and then to deliver finished products to customers on time. One manufacturer reported that uncertain delivery times motivated that firm to hold higher levels of raw material inventory in order to hedge against delayed shipments. In 2009, Tanzanian apparel firms reported that congestion at the port of Dar es Salaam caused delays in imports of fabric, thread, and trim needed to produce garments for export.

In most cases, manufacturers bear the costs of delays in receiving inputs and in shipping out finished products. In both instances, a reduction in uncertainty of port processing times would help free up firm resources to make other investments and help grow their business. Moreover, retailers in the textile industry are demanding increasingly tight lead times, and uncertainty in port processing times deters global apparel firms from making investments in countries that use those ports.

Sources: USITC/USDOC DataWeb (accessed June 1, 2012); USITC, *Sub-Saharan Africa: Effects of Infrastructure*, April 2009, 6-32; USITC, *Sub-Saharan African Textile and Apparel Inputs*, May 2009, 3-14, 4-15, 4-63, 4-70.

High average transit times and costs for the EAC are partly due to the fact that of the EAC's five member countries, three (Burundi, Rwanda, and Uganda) are landlocked. For this reason, the bulk of trade for those countries must pass through the ports of Mombasa, Kenya, or Dar es Salaam, Tanzania. Conditions along the transit corridors originating at these ports (the Northern and Central Corridors, respectively) largely determine the region's overall trade capacity.

Transit times along both routes are lengthy and unpredictable. While average transit time from Mombasa to Kigali on the Northern Corridor was estimated at 25 days in 2005, the standard deviation was 10.5 days.[67] Freight operators on the Central Corridor reported that although a trip from Dar es Salaam to Kampala, Uganda, usually takes 8 days (implying a round trip of less than 20 days), sometimes this same round trip can take up to 45 days.[68] The long transit times drive up costs, while their unpredictability hinders businesses from adequately estimating expenses. Thus, infrastructure improvements that both shorten transit times and reduce uncertainty could greatly improve the regional business climate.

In the EAC, both inland transport (including road, rail, and border crossings) and ports are sources of uncertainty in trade. Poor conditions on certain stretches of EAC roads lead to truck breakdowns, and, as noted earlier, delays due to weighbridges and roadblocks contribute to unpredictable arrival times for trucks at the port. Similarly, frequent train derailments make it difficult to estimate train arrival times at ports. In both scenarios, late arrival may cause

[65] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 10.
[66] Ibid.
[67] Christ and Ferrantino, "Land Transport for Export," 2011, 1751.
[68] Arvis et al., *Cost of Being Landlocked*, 2010, 46.

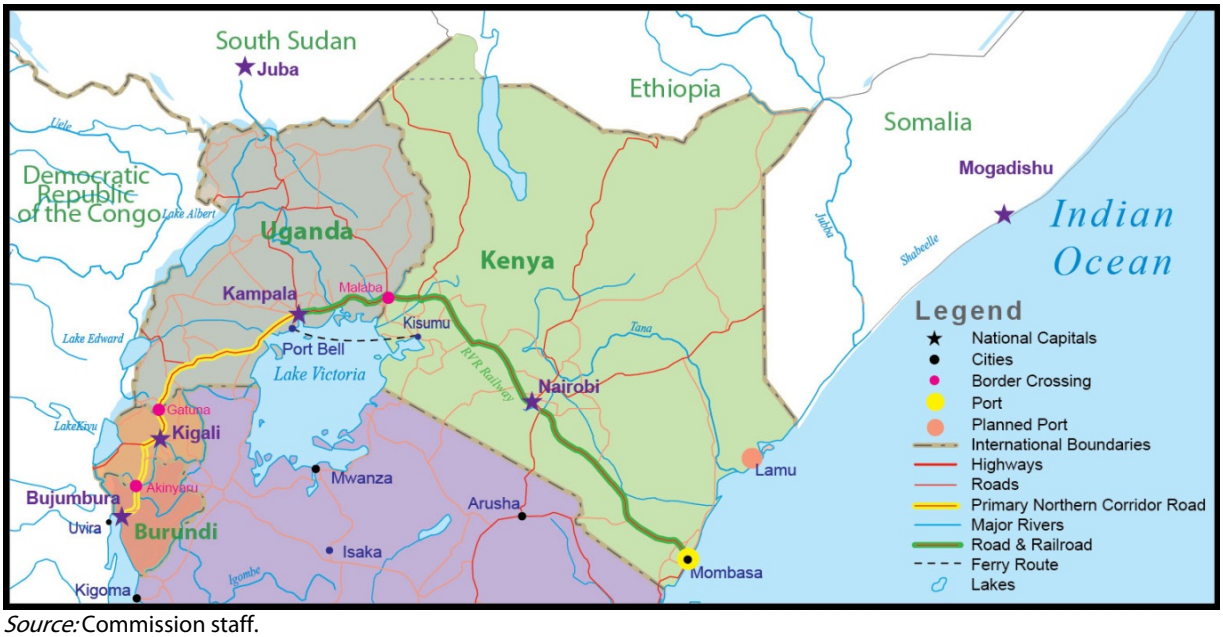
cargo to miss the ship entirely.[69] Ports themselves contribute to uncertainty when congestion-related delays hold up the delivery of inputs that EAC businesses need to maintain production schedules (box 2.2).[70]

Air freight is an alternative to overland transport that is sometimes used for certain high-value perishable products. However, this option is used comparatively infrequently in the region because of its high cost. Detailed descriptions of transportation infrastructure conditions for the Northern Corridor, Central Corridor, and air freight follow.

Northern Corridor

The Northern Corridor begins at the Port of Mombasa, Kenya, and is East Africa's principal trading route. In 2009, it was estimated that the Northern Corridor carried 75 percent of the region's traffic tonnage.[71] This route serves Kenya, Uganda, Rwanda, and Burundi in the EAC, but goods bound for Ethiopia, South Sudan, and the eastern Democratic Republic of Congo also use this pathway. While many factors affect the efficiency of trade flows along the Northern Corridor, this section of the report will give particular attention to current conditions and the potential for improvement in four areas: the Port of Mombasa, road infrastructure, rail infrastructure, and border crossing facilities (fig. 2.3).

FIGURE 2.3 EAC Northern Corridor



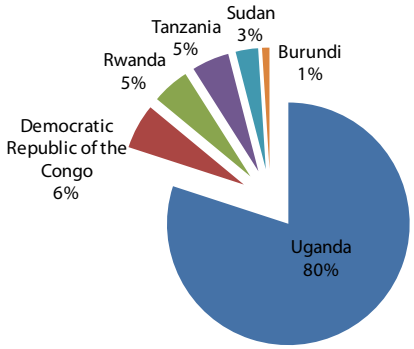
Source: Commission staff.

[69] USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 2-8.
[70] USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 6-32.
[71] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 63.

Port of Mombasa

The Port of Mombasa, Kenya, is the largest in East Africa, handling a mixture of containerized cargo, general cargo, dry bulk, and liquid bulk goods. Imports account for 87 percent of traffic through the port, with transit cargo (cargo with a final destination outside of Kenya) estimated at 28 percent of the port's total imports.[72] In 2009, the bulk of transit cargo through Mombasa was destined for Uganda (fig. 2.4).[73]

FIGURE 2.4 Mombasa transit cargo, by country, 2009



Source: Nathan Associates CDS Action Plan Volume 1 Main Report, 8.

In 2011, the port handled about 770,000 TEUs, despite the fact that its original design envisioned handling only 250,000 TEUs.[74] These added trade volumes have been accompanied by few port capacity improvements. In 2009, ships waited an average of 2.3 days before coming into port, and containerized vessels spent 3.1 days on average at berth.[75] A small container yard, complex clearance procedures, and an overreliance on physical container inspections (rather than risk-based inspections) caused clearance bottlenecks at the port and increased average dwell time (the number of days that cargo spends at the port site).[76]

The introduction of an automated terminal operating system tracking container movements and marine operations in 2008 helped to reduce container dwell time.[77] In addition, to alleviate port congestion, some containers are transferred to privately run inland container depots for storage and clearance. These transfers, combined with the automated tracking system, helped to reduce average container dwell time at the port from 11.3 days in 2007 to 5.9 days in 2009. However, dwell time differs between domestic and transit cargo. While domestic cargo averages just 3.7 days at port, containers then typically wait an additional 11 days at the offsite depot.[78] Transit cargo destined for other EAC countries is not transferred to offsite container depots because Kenyan government procedures mandate that they be cleared at the port site instead, resulting in an average dwell time of 7.5 days for this type of cargo.[79]

Rail links in and around the port are generally in disrepair. Less than 4 percent of cargo entering through Mombasa leaves the port by rail.[80] Underreliance on rail intermodal links has led to higher truck traffic congestion, with insufficient corresponding upgrades of local roads.

[72] World Bank, *Running on One Engine*, June 2010, 16–17.
[73] World Bank, *Running on One Engine*, June 2010, 17.
[74] KPA, *Kenya Ports Authority Handbook*, 2012, 18.
[75] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 26.
[76] World Bank, *Running on One Engine*, June 2010, 19–20.
[77] KPA, *Kenya Ports Authority Handbook*, 2012, 57.
[78] World Bank, *Running on One Engine*, June 2010, 19.
[79] World Bank, *Running on One Engine*, June 2010, 20.
[80] KPA, *Kenya Ports Authority Handbook*, 2012, 37.

Given the increasing trade volumes moving through the port, along with forecasts for future growth, the Kenya Ports Authority has planned a number of improvements, many of which are already underway.[81] The Japanese International Cooperation Agency (JICA) is providing funding for a new container terminal at the port, with a capacity of 450,000 TEUs. Additional supporting upgrades are also envisioned, including dredging the channel and extending rail access to the new terminal.[82] As of September 2011, a Japanese firm had been contracted for construction of the new terminal.[83]In June 2012, JICA and Kenya signed an additional agreement for road upgrades around the Port of Mombasa.[84]

The Kenya Ports Authority has planned a number of improvements, many of which are already underway.

Additionally, the Government of Kenya has begun construction on a new, higher-capacity port north of Mombasa at Lamu as part of a new "Lamu-Southern Sudan-Ethiopia Transport Corridor" (Lapsset).[85] Initial funding for the project is being provided by the governments of Ethiopia, Kenya, and South Sudan, but additional investment is being solicited. The African Development Bank (AfDB) is funding an environmental impact assessment and detailed engineering designs of the priority sections of the corridor.[86] This port is intended to handle trade transiting to and from South Sudan and Ethiopia, as well as some domestic cargo currently entering through Mombasa. Given its location and orientation, however, the future port will do little to enhance the integration and trade efficiency of the current EAC.[87]

Road Infrastructure

From Kenya outward to Uganda, Rwanda, and Burundi, Northern Corridor roads are mostly in good condition, and nearly the entire corridor stretching 1,898 km from Mombasa to Bujumbura is paved.[88] A 2010 inventory of the Corridor's roads conducted by Aurecon Engineering for the East African Transport Strategy and Regional Road Sector Development Program rated about half of them as delivering at least an "acceptable" level of service (i.e., moderate average speeds and ability to overtake slower traffic).[89] The same inventory rated logistics efficiency on road segments from Mombasa to Nairobi, Kampala, and Kigali as "good" (i.e., time, cost, and reliability is efficient and competitive according to global standards), while the final segment to Bujumbura was rated as only "fair."[90] Although the overall conditions are mostly "good," capacity is limited, as nearly the entire route (92 percent) is composed

[81] Samatar, "Kenya Ports Authority," September 29, 2011, 18–26, 33–49.
[82] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, table ES-4.
[83] Samatar, "Kenya Ports Authority," September 29, 2011, 45.
[84] JICA, "Signing of a Japanese ODA Loan Agreement," June 4, 2012.
[85] *BBC News Africa,* "Lamu Port Project Launched," March 2, 2012.
[86] AfDB, "Lamu Port Corridor Studies," June 1, 2012.
[87] World Bank, *Running on One Engine*, June 2010, 36.
[88] Nathan Associates, *C. Corridor Diagnostic Audit*, April 2011, 29.
[89] Ibid.
[90] Nathan Associates, *C. Corridor Diagnostic Audit*. April 2011, 84.

FIGURE 2.5 Trucks hauling products, Kenya

Source: Commission staff.

of single-lane highways (figure 2.5).[91] Terrain is a factor that complicates road-building along this corridor and slows goods transit––roughly 91 percent of the route is considered hilly and uneven, nearly 7 percent considered level, and the remainder considered mountainous.[92] Even though road conditions were rated as "acceptable," the prevalence of weighbridges and roadblocks (discussed in the previous section) increases overall transport time and costs.[93]

Railways and Inland Waterways

Since 2006, the Northern Corridor railway network has been run by Rift Valley Railways (RVR) under a private concession granted by the governments of Kenya and Uganda.[94] The rail system extends from Mombasa through Nairobi to the Ugandan border at Malaba, where it continues onward to Kampala. From Mombasa to Malaba, the tracks are in fair to good condition, although spot rehabilitation is necessary. Conditions along the 250 km from Malaba to Kampala are rated as "poor" to "fair," with substantial rehabilitation underway.[95] Despite the institution of speed restrictions at various segments along the route due to track conditions, nearly 20 derailments per month are reported.[96] Additionally, the system uses one meter gauge track, which is considered too narrow for the reliable movement of loaded containers.[97]

In conjunction with the rail system, a network of rail wagon-ferries previously operated on Lake Victoria. As the quality of rail service declined over the past few decades, however, ferry service decreased as well. Of the five wagon-ferry vessels constructed in the period from 1964 through 1979, only two remain operational today (one in Kenya and one in Tanzania).[98] With the Kenyan ferry in operation, RVR has been successful at reviving service between Kisumu, Kenya, and Port Bell, Uganda, providing another transport option for cargo moving into Uganda.[99] Rehabilitation of two Ugandan ships was underway in September 2011, with one expected to return to service soon.[100]

Rail transport costs along the route are estimated at $0.05 per ton-km versus $0.07-$0.09 per ton-km for road transport.[101] Despite the cost advantage, less

[91] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 12.
[92] Ibid.
[93] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 11.
[94] Pozzo di Borgo, "Africa Railway Concessions," March 2011, 4.
[95] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 14.
[96] Giersing, "CDS: Railway Revitalization Strategy," January 24–25, 2011, 5.
[97] KPA, *Kenya Ports Authority Handbook*, 2012, 36.
[98] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 39.
[99] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 79.
[100] COMESA-EAC-SADC Tripartite, "Kenya-Uganda Railway," September 2011, 7.
[101] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, v, 15.

than 4 percent of Northern Corridor traffic moves by rail due to the delays, breakdowns, and service disruptions that make rail transport even more unpredictable than roadways.[102] Rail cargo volumes in Kenya fell nearly 25 percent from 2005 to 2010.[103] A variety of factors contributed to this performance decline, including deregulation of regional road systems (which increased price competition among trucking companies and led to lower freight rates for road transport), poor management, underinvestment in needed infrastructure, and a flawed rail concession process.[104]

In 2010, RVR underwent restructuring after the original concessionaire failed to improve rail service on the system.[105] An Egyptian private equity firm is now the majority shareholder, and a new management agreement was signed with a Brazilian railway operating firm.[106] From 2010 to 2011, performance on the line improved: freight volumes increased an estimated 7 percent, while accidents fell by an estimated 30 percent.[107] A revitalization project is underway to improve reliability, with hopes that further railway capacity improvements will follow.[108] The AfDB has pledged $40 million to a capital reinvestment project for RVR.[109] Kenya Ports Authority reports that the track between Mombasa and Malaba is scheduled to be replaced by standard gauge track by 2017, which should make it much easier to ship containers over rail.[110]

Border Crossings

Border crossings have traditionally been one of the major chokepoints along the Northern Corridor, due largely to uncoordinated and complicated customs procedures. Recent reforms in procedures (specifically, the EAC-wide effort to establish OSBPs at all crossings) and general upgrades have helped improve processing times and reduce wait time uncertainty, but these initiatives and their implementation status vary by crossing. In both the Northern and Central Corridors, most goods imported to Rwanda or Burundi are not cleared at border posts, but instead must be escorted to Kigali or Bujumbura, respectively, for clearance. This results in additional time and costs for goods being cleared to enter either of those two countries.

[102] KPA, *Kenya Ports Authority Handbook*, 2012, 37; Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 15.

[103] EAC Secretariat, *East African Community Facts and Figures*, October 2011, 52.

[104] The process of concessioning state-owned railroads to private operators throughout sub-Saharan Africa was generally considered flawed. The process was lengthy, the agreements were weak, and concessionaires often did not have the appropriate skills and resources needed. In many cases, both governments and private operators underestimated the necessity of long-term infrastructure improvements to maintain a profitable level of service, leading to accusations of noncompliance from both sides. See TradeMark, "Revamping the Regional Railway," January 2011, 2-3; Pozzo di Borgo, "Africa Railway Concessions," March 2011, 8–9; Giersing, "CDS: Railway Revitalization Strategy," January 24–25, 2011, 4.

[105] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, A-25.

[106] Giersing, "CDS: Railway Revitalization Strategy," January 24–25, 2011, 14.

[107] COMESA-EAC-SADC Tripartite, "Kenya-Uganda Railway," September 2011, 3.

[108] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, table ES-4.

[109] SID, *State of East Africa,* April 2012, 51.

[110] KPA, *Kenya Ports Authority Handbook*, 2012, 37.

There are three main border crossing points between EAC member countries along the Northern Corridor: the Malaba border post between Kenya and Uganda, Gatuna/Katuna between Uganda and Rwanda, and Akinyaru-Kinyaru Haut between Rwanda and Burundi.

Malaba

Malaba is a border post for both road and rail transit between Kenya and Uganda. A USAID-funded rail OSBP is already operational at this crossing, and the World Bank is working toward upgrading the road crossing to a full-scale OSBP. Traffic is estimated at 200 heavy goods vehicles (HGVs) per direction per day, the highest volume at any crossing in the EAC.[111] Insufficient parking for waiting trucks is a major constraint, and a new two-lane bridge is also needed to improve traffic flow.[112] On the other hand, the implementation of the RADDEx harmonized customs information sharing system has greatly facilitated processing times at this crossing.[113] In 2005, the World Bank estimated average total border processing time at 45 hours. By April 2011, crossing times were reduced to 7 hours, with an additional 3-hour decrease in crossing time targeted by September 2014 (ostensibly after a new bridge is completed).[114]

Gatuna/Katuna

The Gatuna/Katuna border post between Uganda and Rwanda sees average traffic of 90 HGVs per direction per day.[115] Physical inspection import clearances for Rwanda are not conducted at the crossing at present. Instead, vehicles are escorted 80 km to Kigali to be cleared. In contrast, vehicles bound for Uganda can be cleared at this location. This crossing has been recently upgraded to round-the-clock operations, and an OSBP is being introduced. RADDEx has also helped improve processing times at this crossing. The Rwandan Revenue Authority reports that entry procedures can be completed in 30 minutes or less if no cargo inspection is needed.[116] Crossing times for Rwanda-bound trucks averaged 3.19 hours in January 2012, while Uganda-bound truck crossing times averaged 2.17 hours. As at Malaba, there is insufficient parking at Gatuna/Katuna.[117]

Akinyaru-Kinyaru Haut

This crossing from Rwanda to Burundi has average daily traffic of 57 HGVs per direction.[118] With the completion of several road improvement projects on the Central Corridor from Tanzania, traffic at this crossing fell slightly in 2011. The

[111] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 138.

[112] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 11; Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 83.

[113] Yasui, "Case Studies on Systematic Exchange of Commercial Information," February 2011, 27.

[114] World Bank, *Implementation Status and Results*, September 2011, 5.

[115] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 138.

[116] Yasui, "Case Studies on Systematic Exchange of Commercial Information," February 2011, 28.

[117] Transport Logistic Consultants, "Malaba, Busia & Gatuna Choke Monitoring," March 12, 2012, 17, 19.

[118] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 138.

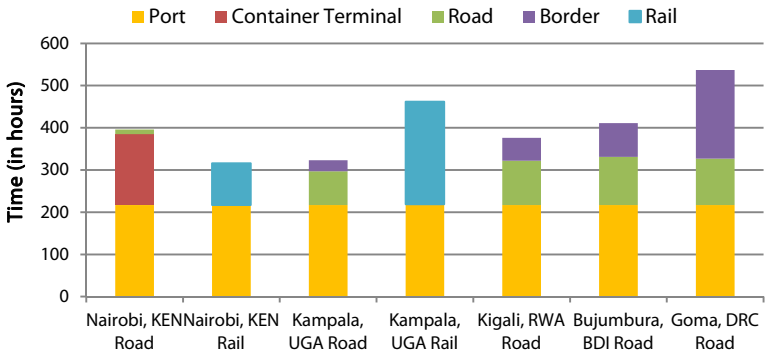
AfDB is currently conducting a feasibility study for border infrastructure upgrades here.[119]

Northern Corridor Efficiency

Improvements are underway at multiple nodes of the Northern Corridor to resolve the inefficiencies described above, including clearance delays at the Port of Mombasa, excessive roadblocks and weighbridges, and uncoordinated border crossings.

Overall corridor efficiency varies by mode and by destination market. According to a 2010 World Bank study, for goods bound for the Kenyan domestic market to be transported by road, the biggest bottlenecks were the Port of Mombasa and offsite container terminals. For goods destined for Uganda and Rwanda by road, the biggest bottleneck was import processing at Mombasa by the Kenyan Ports Authority (fig. 2.6).[120]

FIGURE 2.6 Northern corridor import transport times, by segment, 2010



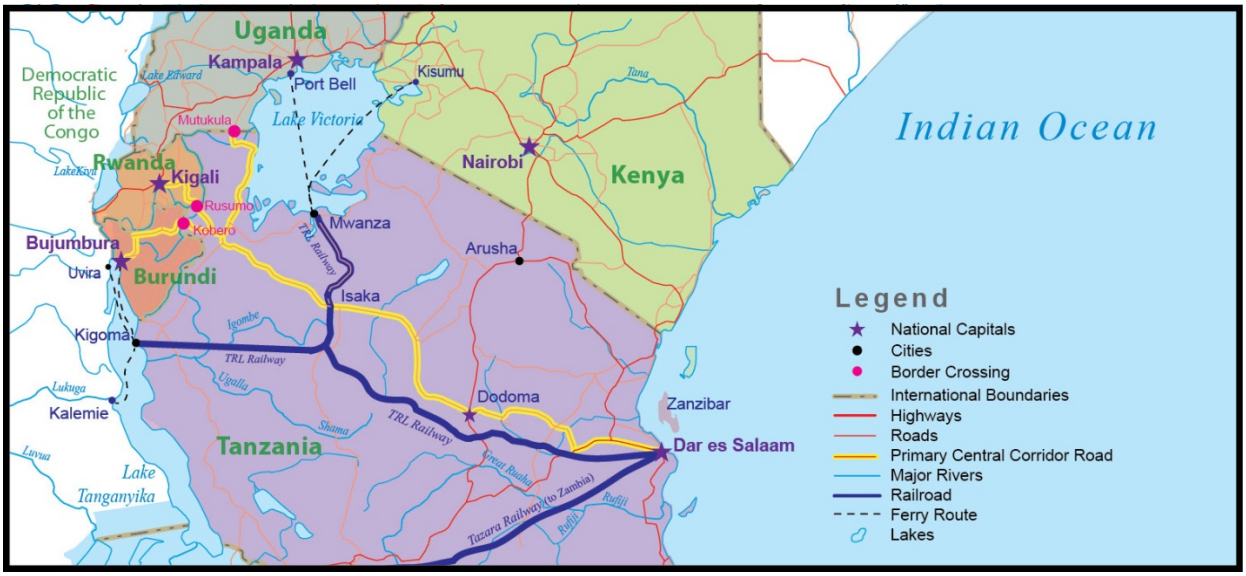
Source: Nathan Associates, *CDS Volume 1*, April 2011, 24–25.

Central Corridor

Although the Central Corridor—originating at the Port of Dar es Salaam, Tanzania—carries just one quarter of the EAC's total estimated traffic volume, it is the main trading pathway for Tanzania, Burundi, and Rwanda.[121] This corridor is also used for goods flowing to the eastern Democratic Republic of the Congo (DRC), and goods destined for Zambia and Malawi transit over part of this route before branching off to the southwest on the Southern Corridor (fig. 2.7). A discussion of the principal nodes of the Central Corridor, beginning with the Port of Dar es Salaam, follows.

[119] USAID representative, personal communication with USITC staff, May 30, 2012.
[120] World Bank, *Running on One Engine*, June 2010, 21.
[121] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 63.

FIGURE 2.7 EAC Central Corridor

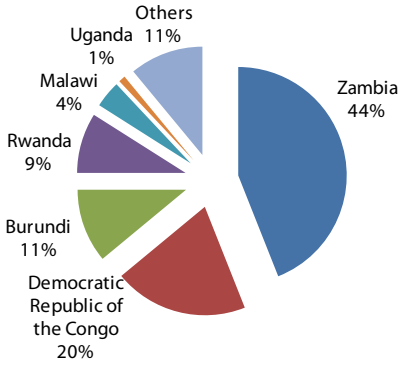


Source: Commission staff.

Port of Dar es Salaam

The Port of Dar es Salaam handles only about half as much cargo as Mombasa, but it is likewise capable of handling containerized cargo, general cargo, dry bulk, and liquid bulk goods. The port processes primarily imports, which accounted for 82 percent of total port traffic in 2009.[122] This port is also increasingly used for transit cargo along both the Central Corridor and the Southern Corrido through southwestern Tanzania to Malawi and Zambia. Transit cargo (cargo with a final destination outside of Tanzania) accounts for about 35 percent of the port's total throughput, with most transit traffic destined for countries outside of the EAC (fig. 2.8).[123]

FIGURE 2.8 Dar es Salaam transit cargo, by country, 2009



Source: Nathan Associates, *CDS Volume 1*, April 2011, 33.

Total traffic at the Port of Dar es Salaam totaled more than 9 million tons in 2010, with container traffic reaching 410,000 TEUs.[124] Container traffic has grown at a rate of more than 12 percent annually since 2000.[125] Like Mombasa, combined cargo and container traffic exceed the port's designed capacity; container traffic at Dar es Salaam has reached 140 percent of capacity. Port performance indicators have suffered in the face of this growth, primarily due to capacity constraints and increased port congestion.[126] UNCTAD notes

[122] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 33.
[123] COMESA-EAC-SADC Tripartite, "Tanzania Ports Authority," September 2011, 4.
[124] COMESA-EAC-SADC Tripartite, "Tanzania Ports Authority," September 2011, 4, 5.
[125] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 31.
[126] Shkaratan, "Tanzania's Infrastructure," February 2012, 14.

that container dwell time reportedly increased from 11 days in 2010 to 19 days in 2011, while the World Bank estimated average container dwell time at 14 days in August of 2011.[127] In order to alleviate port congestion, as in Mombasa, inland container depots have been constructed.[128]

Two railway systems have links to the port—Tanzania-Zambia Railways (TAZARA), which serves primarily Zambia and points south, and Tanzania Railways Limited (TRL), which serves western Tanzania and has linkages to landlocked Burundi and Uganda through rail-ferry intermodal systems. Both rail access to the port and service around it are reportedly poor.[129]

Improvements are underway to increase the port's capacity, particularly given growing import demand from nearby landlocked economies. Plans for a new container terminal at Dar es Salaam are being finalized, and $500 million in financing from China's Exim Bank has been secured.[130] Dredging and deepening of the port's channel is planned as well. The expansion is expected to raise the port's capacity by 600,000 TEUs. The Tanzania Ports Authority also has preliminary plans to construct a new port north of Dar es Salaam at Ras Mbegani in order to accommodate anticipated growth in container trade.[131]

Road Infrastructure

The Central Corridor currently has 3,026 km of roads. In the last decade, around 500 km of the corridor's roads were rehabilitated and more than 500 additional km were paved.[132] Through these efforts, 86 percent of the corridor's roads are now paved.[133] Nearly the entire corridor through Tanzania was rated "sound" (acceptable riding quality based on pavement roughness) by the engineering firm Aurecon, but portions of the route through Rwanda and Burundi need to be either paved or thoroughly rehabilitated.[134] The road segment through Burundi to Bujumbura in particular was rated as "poor" (i.e., time, cost, and reliability is inefficient and uncompetitive according to global standards).[135] However, 150 km of roads through Burundi is slated to be paved soon, with an undisclosed source of funding already secured.[136] As with the Northern Corridor, virtually the entire network (98 percent) is composed of single-lane highways.[137]

Informal stops and payments are reportedly not as pervasive on the Central Corridor as on the Northern Corridor, but they do raise trading costs along the route. Transporters on the Central Corridor report informal payments of about

[127] UNCTAD, *Review of Maritime Transport 2011*, November 2011, 93; World Bank, *Implementation Status and Results*, September 2011, 4.
[128] COMESA-EAC-SADC Tripartite, "Tanzania Ports Authority," September 2011, 10.
[129] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 34.
[130] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, table ES-4.
[131] COMESA-EAC-SADC Tripartite, "Tanzania Ports Authority," September 2011, 10, 14.
[132] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 130.
[133] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 36.
[134] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 37, 128.
[135] Nathan Associates, *C. Corridor Diagnostic Audit*, April 2011, 84.
[136] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, table ES-4.
[137] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 36.

$50–$100 per truck, whereas informal payments are reportedly as high as $900 per truck on the Northern Corridor.[138]

Railways and Inland Waterways

Rail transportation along the Central Corridor is run by Tanzania Railways Limited (TRL).[139] The company had been operated under a concession between RITES of India and the Government of Tanzania since 2007, but the concession was canceled in 2011 due to labor conflicts and financial distress brought about by falling traffic flows.[140]

The TRL system is composed of 2,600 km of one meter gauge track capable of supporting 15 ton/axle loads. Speed restrictions of 13–50 km/hr are in place on many sections of the track due to their poor condition.[141] Given these speed restrictions, train turnaround is estimated at about 18 days from Dar es Salaam to Mwanza or Kigoma, instead of the scheduled 10 days.[142]

In the past five years, TRL traffic has declined, falling 30 percent from previous levels. This decline can be partially explained by a lack of investment in new infrastructure, leading to unreliable service that has driven customers to use road transport instead of rail.[143] In 2009, only 6 percent of Central Corridor traffic moved by rail.[144]

Rail transport via the TRL does not technically connect the Port of Dar es Salaam to any other country in the EAC. Instead, cargo is distributed through an integrated rail/ferry system, traveling on rail through Tanzania to the port of Kigoma on Lake Tanganyika (connecting to Bujumbura, Burundi, and to Kalemie and Uvira, DRC) or to the port of Mwanza on Lake Victoria (connecting to Kisumu, Kenya, and Port Bell, Uganda).[145] The merchant fleet operating on Lake Victoria is reportedly more modern than that of Lake Tanganyika, but public rail and port intermodal facilities are outdated. There is no working cargo equipment at Kisumu or Port Bell, such that containers are handled only if they come in on a rail wagon.[146] The rail/ferry network on Lake Victoria is reportedly in such a state of disrepair that most cargo is transported by road around the lake.[147] In contrast, the ports of Lake Tanganyika are reportedly comparatively

[138] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, A-85.

[139] TRL was established under a joint concession of the former Tanzania Railways Corporation with the RITES company of India and the Tanzanian government's Rail Assets Holding Company (RAHCO). With the cancellation of the concession in 2011, ownership of the rail line has reverted to the government. Operations are at an interim stage at present, with management decisions made through RAHCO, while TRL is responsible for operating costs. For more information on the current state of ownership of the rail line, see Phipps, *SADC Railways Revitalization*, August 2011, 5–7; COMESA-EAC-SADC Tripartite, "Project Information Memorandum," September 28–29, 2011, 1.

[140] Shkaratan, "Tanzania's Infrastructure," February 2012, 18.

[141] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 37.

[142] Train turnaround is defined as overall cycle time for a run plus any additional dwell time for crew changes. See also Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 37–38.

[143] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 121.

[144] Nathan Associates, *C. Corridor Diagnostic Audit*, April 2011, 34.

[145] COMESA-EAC-SADC Tripartite, "Tanzania Ports Authority," September 2011, 17, 20.

[146] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 38, 40.

[147] COMESA-EAC-SADC Tripartite, "Tanzania Ports Authority," September 2011, 17.

well developed, with the port in Bujumbura, Burundi, even capable of handling lift-on/lift-off containers.[148]

While lake transport has the potential to be an efficient, cost-effective Central Corridor transport segment, outdated ports, insufficient port equipment, and an aged fleet of ferries hinder lake transport operations. A road/rail logistics comparison best illustrates this situation. In 2010, the average container entering through the port of Dar es Salaam took 432 hours by road to arrive at Bujumbura at a cost of $5,663. Container transport by rail/lake, in contrast, was 38 percent cheaper, but required 524 hours of travel time––21 percent longer than transport by road.[149]

FIGURE 2.9 Ships outside the Port of Dar es Salaam

Source: Commission staff.

The major difference in delivery time can be explained by poor rail infrastructure at the Port of Dar es Salaam, as well as poor intermodal transfer infrastructure at the rail/lake port (fig. 2.9). [150] These multimodal routes were more frequently used in the past, and rehabilitating the rail system could make them more cost competitive in the future.[151]

EAC countries are motivated to improve rail service along the Central Corridor, but improvements may be delayed by the lack of a long-term business plan for the newly state-owned TRL.[152] The Government of Tanzania is currently working toward reorganizing TRL management and rewriting an investment plan to support track repair and upgrades, with partial funding from the World Bank.[153] Not all rail improvements on the Central Corridor will be halted by the reorganization of TRL. The AfDB recently approved a $5.1 billion rail extension from Isaka, Tanzania, through Kigali, Rwanda, and onward to Burundi.[154] In addition, some lake ports on the corridor (including Kigoma and Bujumbura on Lake Tanganyika and Mwanza on Lake Victoria) are now being dredged to restore them to the depths originally designed, funded by the Tanzanian Ports Authority with some assistance from Belgium.[155] Recent facility upgrades and

[148] All other ports in the network were not designed with container traffic in mind and are only equipped for rail cars to be rolled-on/rolled-off (RORO) rather than lifted-on/lifted-off (LOLO) by crane. At the Port of Bujumbura, containers can be lifted-on/lifted-off ships, much as they can at larger ports like Mombasa. At the rest of the lake ports of the EAC, containers must be on rail wagons in order to be transported. Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 39.

[149] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 48.

[150] Nathan Associates, *C. Corridor Diagnostic Audit*. April 2011, 71–72.

[151] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 30.

[152] COMESA-EAC-SADC Tripartite, "Project Information Memorandum," September 28–29, 2011, 1.

[153] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, table ES-4.

[154] The project is being coordinated through each country's respective transport agencies. See also, Railways Africa, "Rwanda Railway 'Evaluation' to Begin," March 6, 2012.

[155] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, table ES-4.

infrastructure investments have also improved operations at the lake port of Bujumbura.[156]

Border Crossings

Border crossings on the Central Corridor are responsible for significant delays and uncertainty in the process of moving goods from the ports to final consumers throughout the EAC. Hallmarks of the crossings on this route include poor infrastructure, uncoordinated customs procedures, and congestion.[157] EAC member countries have committed to adding an OSBP at each crossing on the route; crossing times are expected to improve once these new procedures are fully in place.[158] There are three main border crossing points along the Central Corridor: Kobero/Kabanga border post between Tanzania and Burundi, Rusumo between Tanzania and Rwanda, and Mutukula between Tanzania and Uganda. The following sections will discuss them in detail.

Kobero/Kabanga

Kobero/Kabanga is the primary Central Corridor crossing into Burundi. This crossing handles an average 50 HGVs per direction per day. Burundian authorities do not conduct clearances at this border. Rather, documents are collected at the border, but goods are then moved more than 200 km to Bujumbura for clearance. Burundi has recently established a national revenue authority, and new border clearance procedures implemented by this office are expected to reduce clearance times.[159] A feasibility study for an OSBP here is underway, financed by TradeMark East Africa (a multi-donor development assistance organization for the region), and supporting infrastructure design has been completed.[160]

Rusumo

The Rusumo border post between Tanzania and Rwanda handles an average 100 HGVs per direction per day.[161] Infrastructure is a major constraint at this crossing, with the terrain and the river making expansion projects a challenge.[162] The existing bridge is only one lane, and is not built to withstand the maximum allowable vehicle weights in use on the route.[163] As on Rwanda's Northern Corridor crossing, import clearances are not conducted here, but in Kigali nearly 150 km away. JICA is funding upgrades for this location, including the construction of a new two-lane bridge. An OSBP feasibility study and a preliminary infrastructure design have already been completed.[164] After the

[156] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 39.
[157] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 40.
[158] USAID representative, personal communication with USITC staff, May 30, 2012.
[159] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 138.
[160] USAID representative, personal communication with USITC staff, May 30, 2012.
[161] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 138.
[162] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 83.
[163] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 41.
[164] USAID representative, personal communication with USITC staff, May 30, 2012.

completion of the OSBP, Rwandan authorities will be able to clear vehicles here instead of escorting them to Kigali.[165]

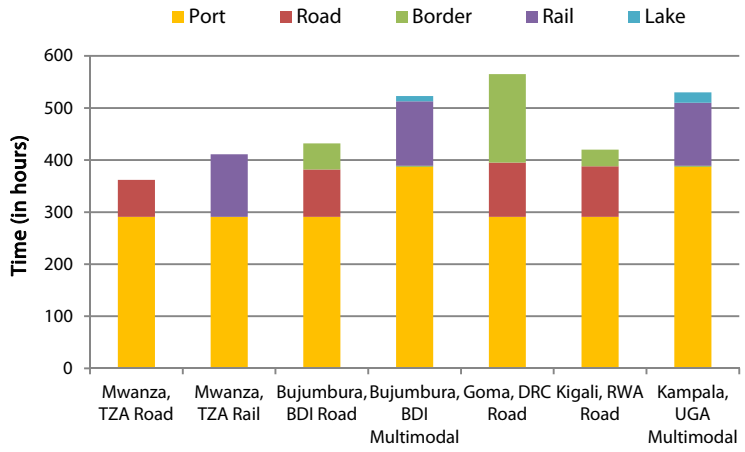
Mutukula

The Mutukula crossing between Tanzania and Uganda has the lightest reported vehicle traffic of any post on the Central Corridor at an estimated 20 HGVs per direction per day.[166] Total crossing time was estimated at seven hours in April 2011—only two hours shy of the targeted five-hour crossing time hoped for by 2014.[167] The World Bank-funded feasibility study on the establishment of an OSBP here has been completed, and TradeMark East Africa will be funding construction of core infrastructure at this location.[168]

Central Corridor Efficiency

As with the Northern Corridor, investments in improved infrastructure are underway at virtually every node of the Central Corridor, designed to improve transit efficiency and facilitate trade. These improvements include upgrading facilities at the Port of Dar es Salaam, paving certain Central Corridor road segments, improving border post coordination, and constructing a new rail link from Isaka, Tanzania, through Kigali, Rwanda, and onward to Burundi.

FIGURE 2.10 Central corridor import transport times by segment, 2010



Source: Nathan Associates, *CDS Volume 1,* April 2011, 48, 50.

A 2011 diagnostic analysis of the Central Corridor conducted by Nathan Associates found that for every destination on the Central Corridor, clearance through the Port of Dar es Salaam accounted for more than half of a typical container's transit time (fig. 2.10).[169]

Air Freight

Each country in the EAC has the option of avoiding transport via the Northern and Central Corridors by using air freight. At present, this option is not widely used because it is expensive (box 2.3).[170] While 335,000 tons of air cargo was

[165] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 83.
[166] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 139.
[167] World Bank, *Implementation Status and Results*, September 2011, 5.
[168] USAID representative, personal communication with USITC staff, May 30, 2012.
[169] Nathan Associates, *Corridor Diagnostic Study,* vol. 1, April 2011, 48, 50.
[170] World Bank & AFD, *Africa's Infrastructure*, 2010, 259.

BOX 2.3 Transportation options for EAC horticulture exports

Horticultural products, including fruits, vegetables, and cut flowers, are a promising export sector for EAC countries. These goods are high in value, with growing demand, and all EAC countries possess natural endowments (including a location on the equator that allows year-round production) that make them ideal producers of certain products.

However, the condition of the region's transport infrastructure has hindered this sector's growth. In many cases, unpredictable clearance times at EAC ports and poor regional roads make sea freight transport infeasible because perishable products deteriorate before reaching the ship. Air freight is faster and more predictable, but is expensive, requires specialized airport storage systems, and may be hobbled by a lack of air routes to potential markets. Nonetheless, for the highest-value horticultural products, air freight can be considered as an alternative to sea freight.

Kenya, the EAC's largest exporter of horticultural products, has the most advanced cold chain system, allowing producers in that country to use both air and sea freight to ship their products. Kenyan shippers pay 40 percent more to ship by air, but air freight logistics average just 24 hours versus up to 120 hours for sea freight. However, rising air freight rates and a lack of direct flights to certain markets have motivated shippers to explore sea freight as an alternative for various products, including sugar snap peas, sweet corn, and broccoli. If future investments in road and port infrastructure reduce transport times and make sea freight more competitive, the prospects for Kenyan horticultural products in world markets would be greatly improved.

In contrast to Kenya, Rwanda has not yet invested in the cold chain infrastructure vital to increasing exports of horticultural crops. Since the country's sole cold storage facility is located at the Kigali airport, perishable goods must be transported out of Rwanda by air. The Rwandan government is promoting the development of the horticulture industry to diversify the country's exports, but it recognizes that lack of refrigerated transport and high air freight costs are significant constraints. More cooling facilities for fruits and vegetables are planned, but until they are built––or until transport and processing times improve on overland shipments to Mombasa or Dar es Salaam––the growth of horticultural exports will be limited.

Sources: GHI, "Kenya Position Paper," June 22, 2010; J.E. Austin Assoc., "Study on Marketing," July 22, 2009; World Bank, *Seeds for Higher Growth*, April 2011; RHODA, "Horticulture Policy," n.d. (accessed May 22, 2012); Munyaneza, "Rwanda: Horticultural Earnings," January 12, 2012.

transported in the EAC by air freight in 2010, more than 21 million tons of goods were moved via the Northern Corridor alone.[171]

The World Bank reports that total Kenyan air freight levels reached 257.7 million ton-km in 2010, with Ugandan freight measured at 32.2 million, Tanzanian at 2.3 million, and no figures reported for Rwanda or Burundi.[172] EAC air cargo transport accounted for 12 percent of total sub-Saharan African air freight in 2010.[173] Because air freight is most often used for high-value, highly-perishable products like cut flowers, the majority of this air freight is bound for the higher-income regions purchasing those products, such as the EU and Middle East. The EU alone accounted for two-thirds of total African air cargo in 2011.[174] Throughout sub-Saharan Africa, intercontinental traffic dominates the air transport sector due to greater competition among airlines along those routes that reduce per km transport costs. However, domestic and intra-African international traffic have been on an upward trend since the late 1990's.[175]

In 2011, two World Bank researchers released a global Air Connectivity Index, calculating the importance of each country as a node within the worldwide air transport system.[176] Given the small percentage of total EAC trade moving by air, nations of the EAC ranked in the bottom third of all countries and territories evaluated.[177]

[171] EAC Secretariat, *East African Community Facts and Figures*, October 2011, 51; Nathan Associates, *Corridor Diagnostic Study*, vol. 1, April 2011, 63.
[172] World Bank, World Development Indicators database (accessed May 2, 2012).
[173] Ibid.
[174] Ranganathan and Foster, "East Africa's Infrastructure," September 2011, 33.
[175] Bofinger, "An Unsteady Course," July 2009, 1.
[176] Arvis and Shepherd, "Air Connectivity Index," June 2011, 5.
[177] Arvis and Shepherd, "Air Connectivity Index," June 2011, 43–45.

One reason for the comparatively low air freight volumes is the current state of East African airport infrastructure. Although there are 378 airports in the region, less than 10 percent of these have paved runways.[178] Kenya accounts for the largest share of the EAC's air freight cargo volume (74 percent in 2010).[179] This is largely due to Nairobi's Kenyatta International Airport, which is a major regional air hub.[180]

While air freight in East Africa is a small component of trade, it is expected to grow as the region's economies expand. Some of the region's highest-value exports (cut flowers, fish, and miscellaneous horticultural products) are highly perishable and must transit by air freight to ensure product integrity. Major regional airline Kenya Airways is investing millions of dollars in air freighters to better serve these markets.[181] Multiple firms offer cold storage capabilities at Kenyatta International Airport, and principal airports in Rwanda, Tanzania, and Uganda also have some cold storage capacity.[182] Burundi's Bujumbura airport has only extremely limited cold storage capability.[183]

[178] SID, *State of East Africa,* April 2012, 53.

[179] EAC Secretariat, *East African Community Facts and Figures*, October 2011, 51.

[180] World Bank & AFD, *Africa's Infrastructure*, 2010, 265.

[181] Kamau, "East Africa: Airlines Cashing In," February 28, 2011.

[182] GHI, "Kenya Position Paper," June 22, 2010, 1–2; A-Z World Airports Kigali Int'l Airport Website, http://www.azworldairports.com/airports/a2367kgl.cfm (accessed May 16, 2012); Swissport Tanzania Limited Website, http://www.swissport.co.tz/Cargo_Handling.htm (accessed May 16, 2012) ; GHI, "Uganda Position Paper," June 22, 2010, 2.

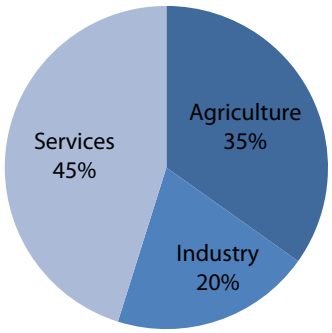
[183] Webber, *Enabling an Inclusive Private Sector in Burundi*, May 2006, 11.

Burundi

OVERVIEW

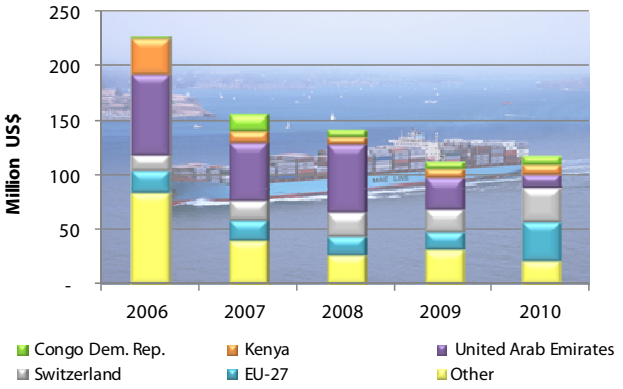
- Smallest economy in the EAC, with an estimated GDP of $1.6 billion in 2010 (WB)
- Lowest GDP per capita in the EAC, at approximately $192 in 2010 (WB)
- Population estimated at 8.4 million in 2010 (WB)
- Workforce depends heavily upon agriculture; a bad crop year has widespread repercussions for labor (WB)
- Energy shortages hurt manufacturing sector growth (EIU)
- World Bank ranks Burundi 169th out of 183 economies for ease of doing business (WB)
- Primary imports are cement, medicines, and passenger vehicles (GTIS)
- Primary exports are unroasted coffee, unwrought gold, and black tea (GTIS)
- The World Economic Forum identified the most problematic factors for doing business as corruption, limited access to financing, policy instability, inflation, and high tax rates (WEF)

Economic Activity (% GDP by sector)



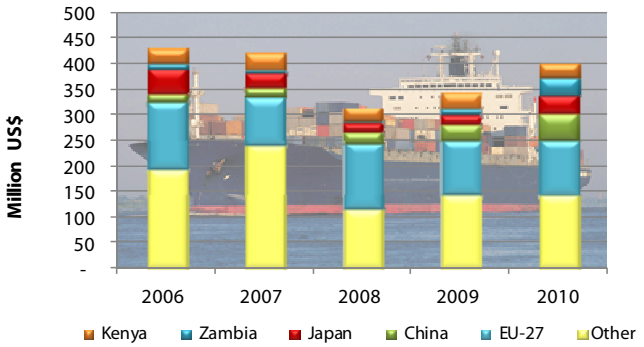
Source: World Bank, World Development Indicators Database, 2005.

Total exports, by destination, 2006–10



Source: GTIS, GTA database (accessed May 3 and 10, 2012).

Total imports, by source, 2006–10



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

EASE OF TRADING ACROSS BORDERS

	2005	2008	2011
Documents needed to import (number)	10	10	10
Time needed to import (days)	71	71	54
Cost to import (US$ per container)	4,035	4,035	4,855
Documents needed to export (number)	9	9	9
Time needed to export (days)	47	47	35
Cost to export (US$ per container)	2,347	2,347	2,965
Trading across borders rank (out of 183)	([a])	([a])	174

Source: World Bank, "Doing Business" Databank, 2012.

[a]Not available.

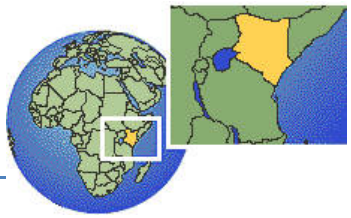
DEVELOPMENT INDICATORS

Burden of customs procedures, 2011[a]	2.9
Informal payments to public officials (% of firms), 2006	56
Mobile cellular subscriptions (per 100 people), 2010	13.7
Telephone lines (per 100 people), 2010	0.4
Fixed broadband Internet subscribers (per 100 people), 2010	0.002
Internet users (per 100 people), 2010	2.1
Power outages in firms in a typical month (number), 2006	12.0
Value lost due to electrical outages (% of sales), 2006	11

Source: World Bank, World Development Indicators Database (accessed May 10 and 14, 2012); World Economic Forum.

[a]WEF scale (1=extremely inefficient to 7=extremely efficient).

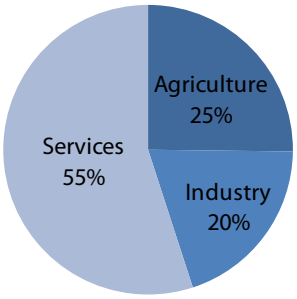
Kenya



OVERVIEW

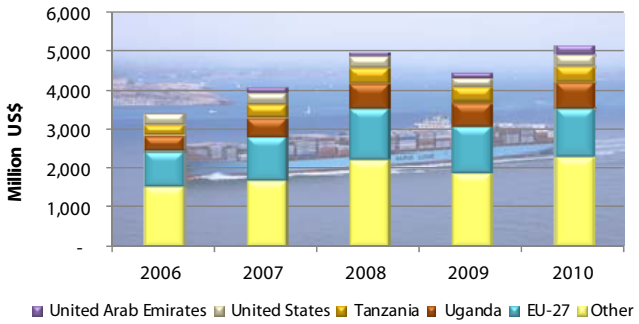
- Largest economy in the EAC; GDP was estimated at $32.2 billion in 2010 (WB)
- Per capita GDP was $795 in 2010, EAC's highest (WB)
- Population estimated at 40.5 million in 2010 (WB)
- Supplies nearly half of all EAC exports (GTIS)
- Tourism and telecommunications industries are growing (EIU)
- World Bank ranks Kenya 109th out of 183 economies for ease of doing business (WB)
- Primary imports are fuel oil (not crude), airplanes, palm oil, and wheat (GTIS)
- Primary exports are black tea, fresh cut roses, oil, vegetables, and cut flowers (GTIS)
- The World Economic Forum identified the most problematic factors for doing business as corruption, limited access to financing, inadequate supply of infrastructure, crime and theft, and high tax rates (WEF)

Economic Activity (% GDP by sector)



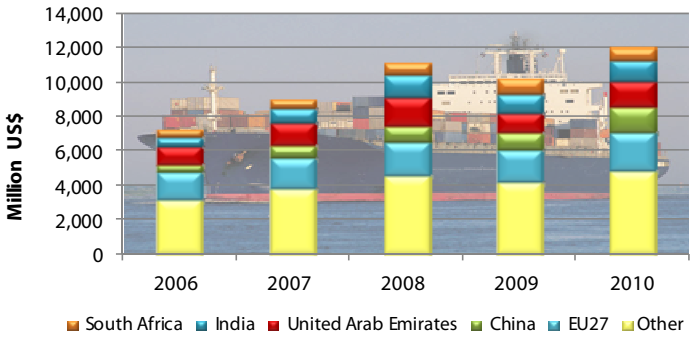
Source: World Bank, World Development Indicators Database, 2010.

Total exports, by destination, 2006–10



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

Total imports, by source, 2006–10



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

EASE OF TRADING ACROSS BORDERS

	2005	2008	2011
Documents needed to import (number)	12	7	7
Time needed to import (days)	62	26	24
Cost to import (US$ per container)	2,325	2,190	2,190
Documents needed to export (number)	7	8	8
Time needed to export (days)	45	29	26
Cost to export (US$ per container)	1,980	2,055	2,055
Trading across borders rank (out of 183)	(a)	(a)	141

Source: World Bank, "Doing Business" Databank, 2012.

[a]Not available.

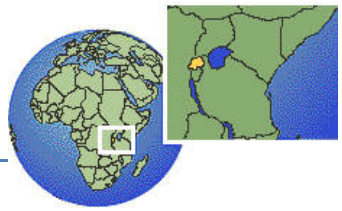
DEVELOPMENT INDICATORS

Burden of customs procedures, 2011[a]	3.3
Informal payments to public officials (% of firms), 2007	79
Container port traffic (TEU: 20 foot equivalent units), 2010	696,000
Liner shipping connectivity index (maximum value in 2004 = 100), 2011	12.0
Quality of port infrastructure, 2011[a]	3.8
Road density (km of road per 100 sq km of land), 2009	11.0
Roads, paved (% of total roads), 2009	14
Roads, total network (km), 2009	61,945
Mobile cellular subscriptions (per 100 people), 2010	61.6
Telephone lines (per 100 people)	0.9
Fixed broadband Internet subscribers (per 100 people), 2010	0.01
Internet users (per 100 people), 2010	25.9
Power outages in firms in a typical month (number), 2007	6.9
Value lost due to electrical outages (% of sales), 2007	6

Source: World Bank, World Development Indicators Database (accessed May 10 and 14, 2012); World Economic Forum.

[a]WEF scale (1=extremely inefficient to 7=extremely efficient).

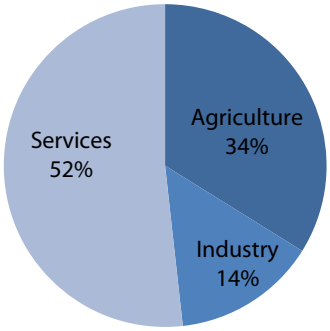
Rwanda



OVERVIEW

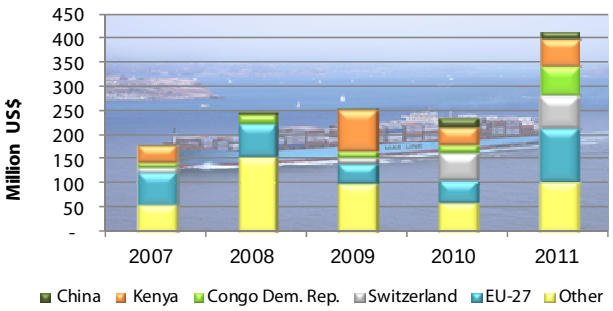
- Second smallest economy in the EAC with an estimated GDP of $5.6 billion in 2010 (WB)
- Per capita GDP was $530 in 2010 (WB)
- Population estimated at 10.6 million in 2010 (WB)
- Rwanda is the highest-ranked economy for doing business in the EAC and is the world's 2nd most improved economy for doing business from 2005 to 2011 (WB)
- Government wants to diversify foreign exchange sources by increasing exports of horticultural products (RHODA)
- World Bank ranks Rwanda 45th out of 183 economies for ease of doing business (WB)
- Primary imports are fuel oil (not crude), vaccines, and coaxial cables/conductors (GTIS)
- Primary exports are tin, coffee, and tea (GTIS)
- The World Economic Forum identified the most problematic factors for doing business as limited access to financing, inadequately educated workforce, high tax rates, inadequate supply of infrastructure, and complex tax regulations (WEF)

Economic Activity (% GDP by sector)



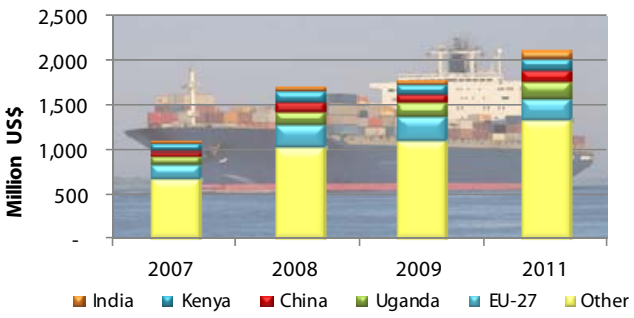
Source: World Bank, World Development Indicators Database, 2009.

Total exports, by destination, 2007–11



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

Total imports, by source, 2007–11[a]



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

[a]Data not available for 2010

EASE OF TRADING ACROSS BORDERS

	2005	2008	2011
Documents needed to import (number)	20	10	8
Time needed to import (days)	95	42	31
Cost to import (US$ per container)	4,000	4,990	4,990
Documents needed to export (number)	14	9	8
Time needed to export (days)	60	42	29
Cost to export (US$ per container)	3,840	3,275	3,275
Trading across borders rank (out of 183)	([a])	([a])	155

Source: World Bank, "Doing Business" Databank, 2012.

[a]Not available.

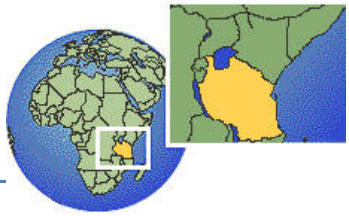
DEVELOPMENT INDICATORS

Burden of customs procedures, 2011[a]	5.3
Informal payments to public officials (% of firms), 2006	20
Mobile cellular subscriptions (per 100 people), 2010	33.4
Telephone lines (per 100 people), 2010	0.4
Fixed broadband Internet subscribers (per 100 people), 2010	0.02
Internet users (per 100 people), 2010	13.0
Power outages in firms in a typical month (number), 2006	13.6
Value lost due to electrical outages (% of sales), 2006	9

Source: World Bank, World Development Indicators Database (accessed May 10 and 14, 2012); World Economic Forum.

[a]WEF scale (1=extremely inefficient to 7=extremely efficient).

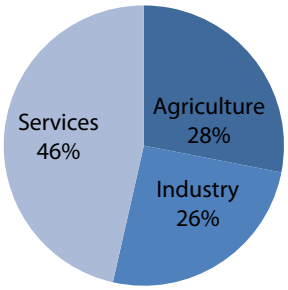
Tanzania



OVERVIEW

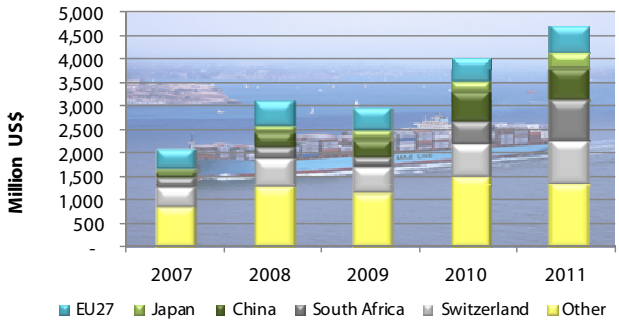
- GDP estimated at $22.9 billion in 2010 (WB)
- Per capita GDP was $524 in 2010 (WB)
- Population estimated at 44.8 million in 2010 (WB), most populous in EAC
- The underdeveloped state of the national electricity grid constrains growth (EIU)
- Mineral exports are projected to grow; construction and telecommunications industries are expanding (EIU)
- World Bank ranks Tanzania 127th out of 183 economies for ease of doing business (WB)
- Primary imports are fuel oil (not crude), wheat, flat hot-rolled iron, and polyethylene (GTIS)
- Primary exports are unwrought gold, semi-manufactured gold, precious metal ores, manganese ores, and unroasted coffee (GTIS)
- The World Economic Forum identified the most problematic factors for doing business as limited access to financing, corruption, high tax rates, inadequate supply of infrastructure, and inflation (WEF)

Economic Activity (% GDP by sector)



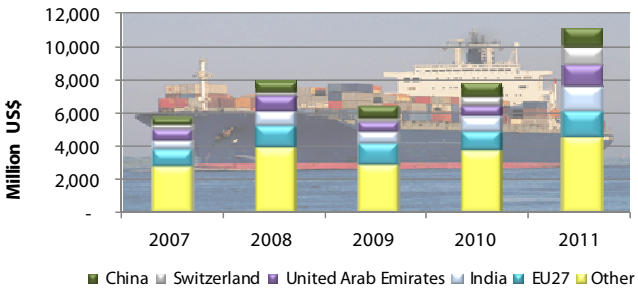
Source: World Bank, World Development Indicators Database, 2010.

Total exports, by destination, 2007–11



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

Total imports, by source, 2007–11



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

EASE OF TRADING ACROSS BORDERS	2005	2008	2011
Documents needed to import (number)	13	7	6
Time needed to import (days)	51	31	24
Cost to import (US$ per container)	917	1,475	1,430
Documents needed to export (number)	8	6	6
Time needed to export (days)	30	24	18
Cost to export (US$ per container)	822	1,262	1,255
Trading across borders rank (out of 183)	(a)	(a)	92

Source: World Bank, "Doing Business" Databank, 2012.

[a]Not available.

DEVELOPMENT INDICATORS	
Burden of customs procedures, 2011[a]	3.6
Informal payments to public officials (% of firms), 2006	49
Container port traffic (TEU: 20 foot equivalent units), 2010	426,847
Liner shipping connectivity index (maximum value in 2004 = 100), 2011	11.5
Quality of port infrastructure, 2011[a]	3.3
Road density (km of road per 100 sq. km of land area), 2009	11.0
Roads, paved (% of total roads), 2009	7
Roads, total network (km), 2009	103,706
Mobile cellular subscriptions (per 100 people), 2010	46.8
Telephone lines (per 100 people), 2010	0.4
Fixed broadband Internet subscribers (per 100 people), 2010	0.01
Internet users (per 100 people), 2010	11.0
Power outages in firms in a typical month (number), 2006	12.0
Value lost due to electrical outages (% of sales), 2006	10

Source: World Bank, World Development Indicators Database (accessed May 10 and 14, 2012); World Economic Forum.

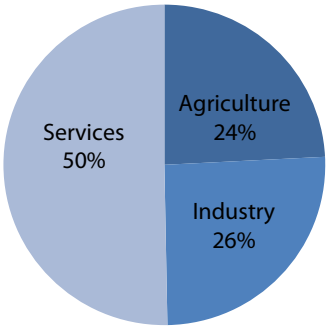
[a]WEF scale (1=extremely inefficient to 7=extremely efficient).

Uganda

OVERVIEW

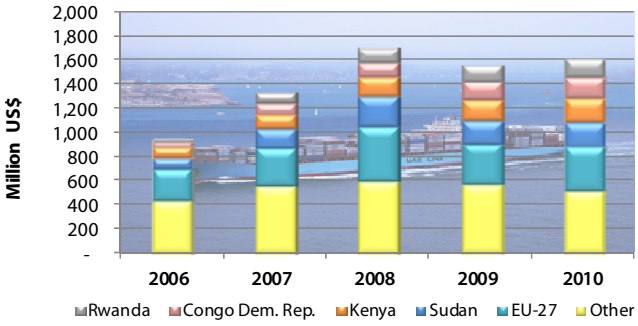
- GDP estimated at $17.0 billion in 2010 (WB)
- Per capita GDP was $509 in 2010 (WB)
- Population estimated at 33.4 million in 2010 (WB)
- Economy has underdeveloped transport and energy infrastructure (EIU)
- Growing industries include construction, transport, telecom, finance, and crude oil (from newly-discovered reserves in Bunyoro region) (EIU)
- World Bank ranks Uganda 123rd out of 183 economies for ease of doing business (WB)
- Primary imports are fuel oil (not crude), passenger vehicles, and medicines (GTIS)
- Primary exports are unroasted coffee, fish fillets, and wireless phones (GTIS)
- The World Economic Forum identified the most problematic factors for doing business as corruption, limited access to financing, inflation, high tax rates, and inadequate supply of infrastructure (WEF)

Economic Activity (% GDP by sector)



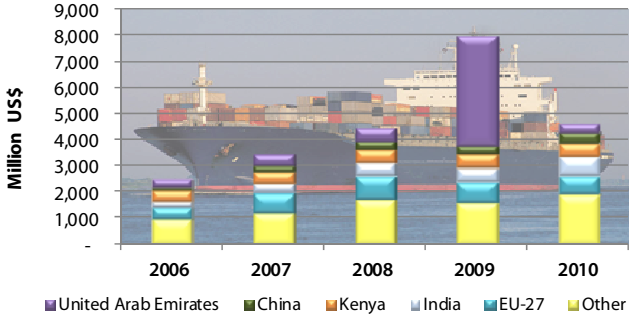
Source: World Bank, World Development Indicators Database 2010.

Total exports, by destination, 2006–10



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

Total imports, by source, 2006–10



Source: GTIS, GTA database (accessed May 3 and 14, 2012).

EASE OF TRADING ACROSS BORDERS	2005	2008	2011
Documents needed to import (number)	19	9	9
Time needed to import (days)	67	37	34
Cost to import (US$ per container)	2,945	3,290	3,015
Documents needed to export (number)	12	7	7
Time needed to export (days)	42	39	37
Cost to export (US$ per container)	1,050	3,090	2,880
Trading across borders rank (out of 183)	[a]	[a]	158

Source: World Bank, "Doing Business" Databank, 2012.

[a]Not available.

DEVELOPMENT INDICATORS	
Burden of customs procedures, 2011[a]	4.4
Informal payments to public officials (% of firms), 2006	52
Mobile cellular subscriptions (per 100 people), 2010	38.4
Telephone lines (per 100 people), 2010	1.0
Fixed broadband Internet subscribers (per 100 people), 2010	0.2
Internet users (per 100 people), 2010	12.5
Power outages in firms in a typical month (number), 2006	11.0
Value lost due to electrical outages (% of sales), 2006	10

Source: World Bank, World Development Indicators Database (accessed May 10 and 14, 2012); World Economic Forum.

[a]WEF scale (1=extremely inefficient to 7=extremely efficient).

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CHAPTER 3
Potential Benefits of Trade Facilitation to the EAC

Overview

Trade is growing rapidly among the countries of the East African Community (EAC)—Burundi, Kenya, Rwanda, Tanzania, and Uganda—expanding the volumes of goods crossing their borders. Modern business practices, such as just-in-time delivery systems and global supply chains, underscore the importance of timely, predictable delivery.[1] Improvements in and global supply chains trade facilitation—the simplification of customs procedures and improvements to transport infrastructure—in ways like those described in chapter 2, enhance EAC countries' abilities to compete in international markets.[2] Decreasing the time and cost required to transport goods from the production site to the final user has the potential to increase the volume and variety of traded goods which, in turn, can fuel new economic growth.

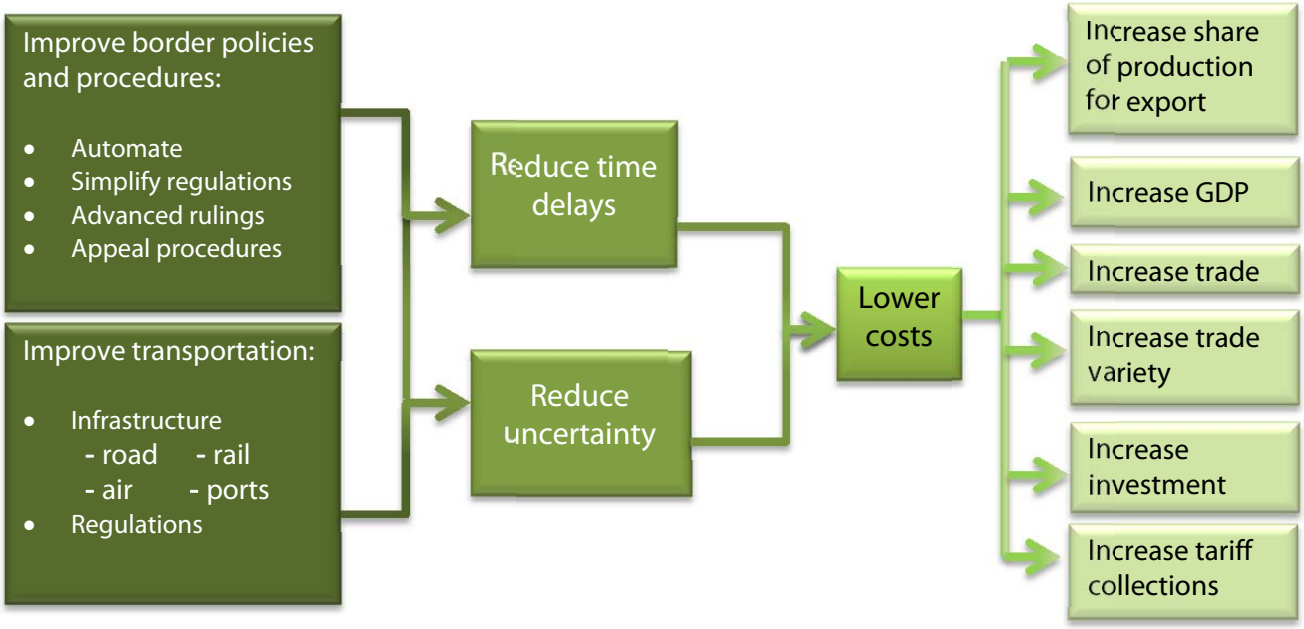
This chapter reviews a selection of studies prepared by academics, development agencies, international organizations, and consulting firms about the costs of poor trade facilitation and the benefits of improvement. Some studies specifically focus on trade facilitation in the EAC; others cover trade facilitation issues worldwide that are applicable to the EAC. To the extent possible, studies based on recent data were selected.

The various aspects of trade facilitation include policies, procedures, and conditions shippers encounter along the supply chain. Broadly, these aspects can be divided into two types: border policies and procedures related to customs, such as documentation and inspection requirements, and those related to the transport of goods to the final destination before or after clearing the border, including the condition of roads, railways, ports, and inland waterways; the prevalence of roadblocks and weighbridges; and transportation regulations and standards (fig. 3.1).

Efficiency and predictability throughout this system reduce time delays and the risks related to uncertainty, thereby lowering costs to both importers and exporters. Lower trading costs can result in a whole host of positive outcomes, including expanded trade and investment, improved tariff collections, and increased trade variety.[3] The benefits are greatest when improvements in

[1] OECD, "The Costs and Benefits of Trade Facilitation," October 2005, 2.
[2] Moise et al., "Trade Facilitation Indicators," 2011, 5–6.
[3] Engman, "The Economic Impact of Trade Facilitation," 2009, 107.

FIGURE 3.1 Benefits from improving trade facilitation



Source: Commission staff.

multiple areas are pursued at the same time, such as when customs administration reforms accompany physical infrastructure upgrades.[4]

This chapter divides the empirical literature into two broad categories. The first category examines the ways that inadequate trade facilitation causes delays and uncertainty that raise the costs of trading. These studies estimate how these costs affect firm behavior, trade volumes, the types of products traded, and both domestic and foreign investment. The second category of literature looks into the potential benefits of trade facilitation improvements. To illustrate the benefits of trade facilitation, short case studies from countries within and outside sub-Saharan Africa appear in text boxes.

The Costs of Delays and Uncertainty

The Costs of Delays

As described in chapter 2, trading delays are caused by many factors, such as complicated customs procedures and poor transportation infrastructure. The various delays between the initiating site and terminal market increase the total transport cost that the shipper must pay. Several studies have estimated the effects of higher costs associated with time delays on trade, investment, and income.

[4] Arvis et al., "The Cost of Being Landlocked," June 2007, 59–60.

Economists have quantified the costs of trade delays in terms of "tariff equivalents," because the delays have effects like those of tariffs. One study converted delays reported in the World Bank's *Doing Business* data into tariff equivalents.[5] Separate calculations were made for exports and imports because countries tend to export and import different products. Products whose value would diminish if not shipped quickly are referred to as time sensitive. The time-sensitive category includes perishable products (e.g., agricultural produce), products produced in global supply chains (e.g., electronics), and products for which demand changes rapidly (e.g., women's fashion clothing). Other products, such as many commodity products, ores, and crude oil, do not lose their value as a result of delays and are not considered time sensitive. Countries that mainly export non-perishable products have low per-day costs of delay for their exports, while countries that export and import a variety of products (many of which are likely time sensitive) have higher per-day costs of delay.

Per-day delay costs for imports are roughly similar for EAC countries for which data are available. Landlocked EAC countries (Burundi, Rwanda, and Uganda) had long delays in inland transport for both exports and imports (table 3.1). For imports, Burundi and Tanzania had longer port delays (10 days) than other EAC countries (6 days). The total days of delay were high for all EAC countries, especially for those that are landlocked. On the other hand, the research shows that exports from Rwanda and Burundi were not very sensitive to delays, as their per-day delay costs for exports were 0.2 percent and 0.5 percent, respectively (table 3.1), likely because their primary exports are less-perishable products like coffee and tea, and non-perishable products like metals.

TABLE 3.1 Per-day delay costs and days of delay in trade, by country

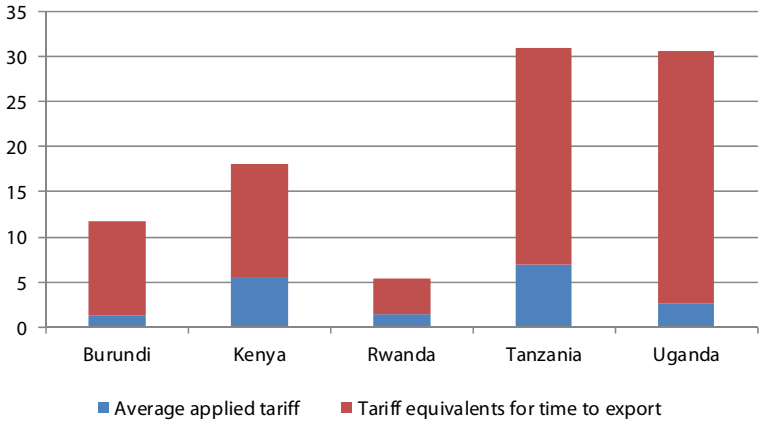
Country	Per-day delay costs as share of total value (%)	Days of delay in trade			
		Inland transport	Customs	Port	Total
		Imports			
Burundi	[a]	25	5	10	40
Kenya	0.8	4	3	6	13
Rwanda	0.9	13	3	6	22
Tanzania	0.9	1	5	10	16
Uganda	1.1	13	5	6	24
		Exports			
Burundi	0.5	13	4	4	21
Kenya	0.9	4	4	6	14
Rwanda	0.2	10	4	6	20
Tanzania	2.4	2	4	4	10
Uganda	1.0	18	4	6	28

Source: Per-day delay costs are from Hummels et al., "Calculating Tariff Equivalents for Time in Trade," March 2007. USITC updated days in trade using the World Bank's "Doing Business 2012" database (accessed June 1, 2012).

[a]Per-day delay costs are not available for imports to Burundi.

[5] Hummels et al., "Calculating Tariff Equivalents for Time in Trade," March 2007, 5-7. The World Bank's "Doing Business Project" reports the number of days required for document preparation, customs clearance, processing and handling through ports, and inland transportation. Hummels et al. used the times in all of these procedures except document preparation because they believe that documents could be prepared and approved while the other steps were being completed.

FIGURE 3.2 Exports: Tariff equivalents for time in trade vs. average applied tariffs

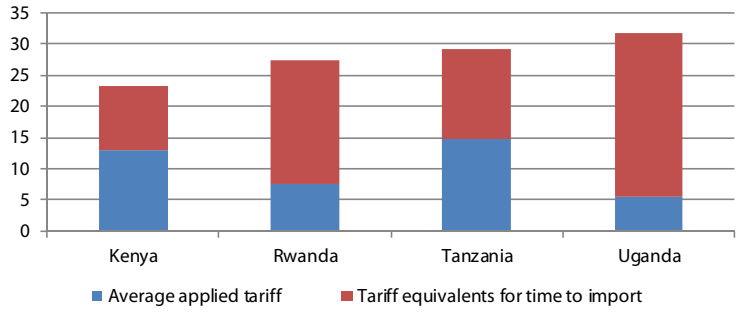


Source: Staff used "Doing Business 2012" data to update the calculations in Hummels et al. "Calculating Tariff Equivalents for Trade," 2007, table A-2.

Tariff equivalents of delays, calculated as the product of the per-day delay costs and number of days of delay, can be compared to the applied tariffs faced by importers and exporters. Figure 3.2 shows the tariff equivalents of delays for exports together with average applied trade-weighted tariffs faced by EAC countries. The tariff equivalents of delays are higher than the average applied tariff for all EAC countries. These high tariff equivalents of delays, plus the applied tariffs faced by exporters, reduce the competitiveness of exports from the EAC in international markets.[6]

By reducing time delays for exported products from East Africa, the tariff equivalent of delays would fall, thereby improving EAC competitiveness in world markets. For example, researchers estimated that time lost to delays for Rwandan coffee growers relative to their Colombian counterparts was equivalent to a 36 percent tariff being levied on Rwandan coffee in its export markets.[7]

FIGURE 3.3 Imports: Tariff equivalents for time in trade vs. average applied tariffs



Source: Staff used "Doing Business 2012" data to update the calculations in Hummels et al. "Calculating Tariff Equivalents for Trade," 2007, table A-1.

Note: No information is available pertaining to per day delay costs for imports into Burundi.

Figure 3.3 shows the tariff equivalents of delays and average applied tariffs for EAC country imports. The long waiting times in inland transport and customs again contribute to tariff equivalents of delays being high relative to tariffs, especially for landlocked Rwanda and Uganda.

Together the tariff equivalents of delay and applied tariffs make imported goods more expensive, including imports used as inputs in advanced manufactured products that involve multiple steps of production at different locations, such as

[6] Hummels et al., "Calculating Tariff Equivalents for Time in Trade," March 2007, 9–10.
[7] USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 2-7.

electronics and automobiles.[8] In turn, this makes EAC countries less competitive in exports of these downstream products.

Other researchers have estimated how time delays directly affect trade. For example, researchers examined the effects of delays on the volume of trade using World Bank data on the number of days required for standard cargo to move from the factory gate to the ship in 126 countries.[9] They estimated that on average an additional day of delay for any reason reduced trade by at least 1 percent, and a one-day reduction in delay was equivalent to a country reducing the distance to its trading partners by approximately 70 kilometers. For sub-Saharan Africa, 48 days were needed on average to transport a container from the factory gate to a ship. An important conclusion from this work was that reducing export times likely would have a significant positive effect on exports.[10]

Another study confirmed that, as mentioned above, long times to export make developing countries more likely to export lower volumes and less likely to enter markets for goods that are sensitive to delays.[11] Based on export data from 190 countries to Australia, Japan, and the United Kingdom between 1996 and 2004, researchers found that quick delivery is becoming a factor in a broader range of sectors. A fast delivery turnaround has become important in fashion clothing, particularly girls' and women's clothing, and consumer electronics. Researchers also found that quick delivery was important for exports of primary and intermediate products, which serve as inputs for products higher up the value chain. The lack of quick delivery in African countries has weakened their competitiveness in these markets. The study also noted that if countries reduce avoidable transport delays and corruption, the logistical disadvantages of being located far from principal markets can, to a certain extent, diminish.

Other research showed that improvements in trade facilitation, such as faster and more reliable delivery times, spur investment that, in turn, promotes economic development. For example, a survey found that 20 percent of member companies of the European Round Table of Industrialists had passed up or abandoned investment opportunities in developing countries because of lengthy and costly procedures for transporting goods between developing and developed countries. The survey also found that 80 percent of member companies would consider new investment in developing countries if substantial improvements were made in trade facilitation.[12]

[8] Christ and Ferrantino, "Land Transport for Export," 2011, 1751, 1757.

[9] Djankov et al., "Trading on Time," May 2006, 21. The authors used an econometric model (a gravity model) and presented results for total exports and by broad sector.

[10] Djankov et al., "Trading on Time," May 2006, 17.

[11] Nordas et al., "Logistics and Time as a Trade Barrier," May 2006, 4.

[12] Engman, "The Economic Impact of Trade Facilitation," 2009, 106.

The Costs of Uncertainty

Improvements in trade facilitation are important not only to reduce time delays, but also to make trading less risky for firms. The need to manage risk imposes additional costs on trading. For example, firms facing uncertain arrival times for key inputs may be forced to maintain large inventories of key items at extra cost. A firm may choose to transport goods by road instead of by rail because road transport is more reliable, though it is also more expensive. Because buyers often will not pay for goods until they receive them, uncertain shipment times can make sellers' cash flows unpredictable and limit the types of arrangements that a business is able to enter. Box 3.1 presents an example of one program that helps businesses handle risk linked to uncertain payment times in the EAC.

One study reported that the largest potential gains in reducing transport costs come from enhancing predictability. [13] Using data from logistics firms operating along the Northern Corridor in 2005, the study reported that an average container required 25 days to move overland from the port of Mombasa through Kenya and Uganda to Rwanda, but that there was a 5 percent chance that it could take more than 40 days. The study then estimated that if trade facilitation improvements reduced this variability, purchasers of these imports could hold smaller inventories. If the trip uncertainty could be reduced to a 5 percent chance that the total transit time would exceed 24 days (instead of 40 days), then producers could reduce inventory levels by 45 to 50 percent, realizing a considerable cost saving.[14]

BOX 3.1 Trade insurance in the EAC

Besides the variable times required to transport goods and to clear customs in the EAC, uncertainty also affects the way that imports and exports are financed. African importers are frequently required to pay for goods before they are shipped or to arrange letters of credit that require 100 percent cash collateral, which means that working capital is tied up for the entire import period. African exporters face this problem in reverse, especially when entering new markets where buyers may be unwilling to pay until they have the goods. An exporter expanding into new markets may be forced to ship with the risky expectation that payment will follow receipt of the goods.

Trade credit insurance offered by the African Trade Insurance Agency (ATIA), which was created under the World Bank's Trade Facilitation Project, offers solutions for these situations. For example, a Kenyan coffee exporter recently purchased credit risk insurance from ATIA against the risk of non-payment or late payment from his buyer. This insurance enabled the exporter to sell green coffee to specialty roasters at better and more stable prices than he would have received selling at auctions. All member states of the EAC are also members of the ATIA.

In addition to trade credit insurance, the ATIA offers political risk insurance, which encourages foreign direct investment by insuring against expropriation, transfer restrictions, war, civil unrest, and embargoes. A recent evaluation rated ATIA's impact on regional trade and risk perception as "good," while its rating on objectives were either "excellent" or "satisfactory." Exporters reported that the default risk of foreign purchasers is a real concern and that ATIA's credit risk insurance had enabled them to export to new markets. Lack of public awareness and understanding of the products offered were concerns.

Sources: Africa Trade Insurance Agency, *Annual Report and Accounts 2010*, n.d., 13–15, 27; International Financial Consulting, "Africa Trade Insurance," March 2011, 3–5.

[13] Arvis et al., "The Cost of Being Landlocked," June 2007, 55. This study was based primarily on audits of various World Bank projects.

[14] Arvis et al., "The Cost of Being Landlocked," June 2007, 54.

Increased risk and highly variable transport times affect potential profitability of businesses in sub-Saharan Africa by discouraging the production of any good that is sensitive to delays.

Increased risk and highly variable transport times affect potential profitability of businesses in sub-Saharan Africa by discouraging the production of any good that is sensitive to delays. A United States International Trade Commission (USITC) study found that a truck transporting goods from Ghana's northern border to the Gulf of Guinea normally completes the journey in 2–4 days, but there is a 10–20 percent chance that it will take over a week—certainly long enough for unrefrigerated fruits and vegetables to degrade.[15] However, this same study found that delays are also costly for goods that are customarily viewed as more durable and thus less time sensitive. For example, 20 to 80 percent of the hides and skins that arrive at leather factories in Ethiopia are rejected, partly due to damage that occurred during lengthy land transport.[16]

Another study reported that, as mentioned earlier, the uncertainty of delivery times reduces African countries' ability to diversify production and invest in new industries that require timely product turnaround.[17] The study found that this uncertainty makes African countries more likely to export minerals and high-value agricultural products that are less time sensitive. Ad-hoc administrative hurdles, unpredictable road and rail conditions, and corruption were all found to contribute to a high level of uncertainty in land transport.[18]

The Potential Benefits of Trade Facilitation Improvements

Economy-wide benefits from trade facilitation

Economic research points to significant economy-wide benefits of trade facilitation. For example, researchers estimated that if sub-Saharan Africa reduced the time required to export by 50 percent and other countries made no improvements, sub-Saharan African GDP would increase by 2.2 percent.[19] Reducing the time required to import by 50 percent would increase sub-Saharan African GDP by 4.2 percent. However, if all countries halved their time to export and to import, the GDP of sub-Saharan countries was estimated to increase by only 1.1 and 2.9 percent, respectively. This finding shows that the economic benefits of faster delivery increase for countries that take the lead in improving the speed of delivery, because they gain a competitive advantage over other countries. Conversely, the research shows that if other regions improve delivery times but sub-Saharan Africa does not, then its global competitiveness would suffer. As improvements in trade facilitation take place around the world,

[15] USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 3-2.
[16] USITC, *Sub-Saharan Africa: Effects of Infrastructure,* April 2009, 2-8.
[17] Christ and Ferrantino, "Land Transport for Export," 2011, 1749.
[18] Christ and Ferrantino, "Land Transport for Export," 2011, 1751.
[19] Minor and Tsigas, "Impacts of Better Trade Facilitation in Developing Countries," May 2008, 12–13. The authors used the previously discussed tariff equivalents of delays from Hummels in an economic model to estimate these effects.

the EAC risks falling behind if it does not take actions, such as regulatory reforms and transportation infrastructure upgrades, that reduce time in transit.

This study also found that reducing delays in trading times would increase sub-Saharan Africa's competitiveness in products where timely shipments are important, promoting export diversification. It showed that a 50 percent reduction in time required to export would increase the region's shares of manufactured products—particularly apparel, footwear, furniture, and leather products—in its total exports by between 7 and 26 percent, while the share of products not sensitive to delays, such as natural resources, would decline.[20] This finding suggests that reducing delays can assist a country in diversifying its exports, which could foster economic growth.

Border Policies and Procedures

BOX 3.2 Global best practices: Korea's UNI-PASS

The Republic of Korea's UNI-PASS is one example of how an electronic single window system (e-SWS) can be used to facilitate trade. Implementation of the single window facet of UNI-PASS was completed in December 2009, offering access to the administrative services of all trade-related government agencies through a single portal. Today, UNI-PASS is the fastest electronic clearance system among the 177 member countries of the World Customs Organization. The system reduced Korea's import clearance times from an average of two days in the early 1990s to 1.5 hours today, while export clearances fell from one day to just 1.5 minutes. These improved processing times in both imports and exports have enhanced the country's trade competitiveness. In addition, the implementation of UNI-PASS has increased customs revenues and improved the transparency of customs procedures; customs rulings and documentation are all available to the public. The improved logistical flow of goods thanks to the simplified documentation and procedures of UNI-PASS have led to an estimated savings of $3.8 billion annually in logistics costs.

Sources: KCS, "Single Window Case," July 2010; KCS, "About UNI-PASS," n.d.; CUPIA, "UNI-PASS," 2010; KCS, "UNI-PASS: Powered by Information," November 8, 2007, 33.

Researchers have shown that improvements in many areas related to border policies and procedures reduce the costs of trading and thereby stimulate increases in exports and imports. A study by the OECD examined the 12 main policy areas under discussion in the WTO's Doha Round negotiations.[21] These areas are (1) publication and availability of information, (2) prior publication and consultation, (3) advance rulings (binding, written decisions issued by a national customs authority to an applicant before an import or export transaction takes place, which provide the treatment to be accorded to a particular good regarding such aspects as tariff classification, valuation, eligibility for preferences, entry procedures, restrictions, and country of origin marking),[22] (4) appeal procedures, (5) other measures to enhance impartiality, non-discrimination, and transparency, (6) disciplines on fees and charges involving importing and exporting, (7) release and clearance of goods, (8) consularization (requiring that goods intended for export first be submitted to the consul of the importing

[20] Minor and Tsigas, "Impacts of Better Trade Facilitation in Developing Countries," May 2008, 17.

[21] Moise et al., "Trade Facilitation Indicators," 2011; WTO Negotiating Group on Trade Facilitation, *WTO Draft Consolidated Negotiating Text*, April 2011.

[22] This definition is drawn from United Nations Conference on Trade and Development, UNCTAD Trade and Transport Facilitation Technical Note No. 22, October 31, 2006, http://r0.unctad.org/ttl/technical-notes/TN22_Advance_Rlings.pdf (accessed July 5, 2012).

country to obtain consular invoices or other documentation), (9) border agency cooperation, (10) measures to streamline import/export formalities and procedures (including the introduction of electronic single window systems (box 3.2), pre-arrival processing, physical inspections, and post-clearance audits), (11) freedom of transit, and (12) customs cooperation.[23]

The OECD study used statistical analysis to examine the relationship between the above policy areas, patterns of bilateral trade, and trade costs. Of the 12 areas, the 2 that generated the largest benefits from improvements were (1) measures to streamline import/export formalities and procedures and (2) advance rulings. According to the study, these two areas have the potential to reduce costs by 5.4 percent and 3.7 percent, respectively.[24] If countries were to make improvements in all 12 trade policy areas, trade costs could fall by nearly 10 percent. The OECD category "measures to streamline import/export formalities and procedures" includes many of the reforms discussed in chapter 2 of this report and was the category shown to offer the greatest economy-wide benefits from trade facilitation improvements. Electronic single-window systems (e-SWS) were one component of this category. Moreover, the presence of e-SWS played a leading role in this category, suggesting that the implementation of e-SWS alone could lead to significant trade cost reductions.[25] The prevalence of physical inspections of cargo was another component of this category, with the implication that lower rates of physical inspections lead to lower trade costs.

BOX 3.3 Electronic customs data interchange systems in Morocco and Mozambique

Certain developing countries that have invested in electronic customs data interchange systems experienced faster clearance times and increased revenue collections. One study found that in Morocco, switching to an electronic customs system helped reduce the average customs clearance time from 18–20 days in 1996 to 1–2 hours by 2003. Mozambique implemented comprehensive customs reforms beginning in 1997; improvements included automation, training, and changes in rules and procedures. A study showed that reforms in Mozambique enabled that country to capture 58 percent more customs revenue and increase imports by 4 percent within the first two years of implementation. Clearance times in the main ports of entry shrank as well. In Maputo, Mozambique, 80 percent of imports entering by road and 62 percent of imports by sea cleared customs within 24 hours as a result of these reforms.

Sources: Engman, "The Economic Impact of Trade Facilitation." 2009. 101.

The same study also found that moving to electronic customs data interchange systems, such as the Simba and ASYCUDA++ systems in the EAC, has the potential to decrease trade costs by 2.7 percent in OECD countries.[26] Benefits of these systems include increased efficiency in processing goods through customs, improved documentation, and the ability to set up systems to tackle fraud and smuggling. Benefits from the adoption of these systems have also been observed in many developing nations (box 3.3).

Last, the researchers in the OECD study found that greater external cooperation between border agencies could reduce trade costs by 1.2 percent. [27] Through its commitment to establish one-stop border

[23] For these main policy areas, trade facilitation indicators were developed based on questionnaires received from OECD governments and public sources. See Moise et al., "Trade Facilitation Indicators," 2011. This study is based on data only from OECD countries.

[24] Moise et al., "Trade Facilitation Indicators," 2011, 5–6.

[25] Moise et al., "Trade Facilitation Indicators," 2011, 12.

[26] Ibid.

[27] Moise et al., "Trade Facilitation Indicators," 2011, 55.

posts throughout the Community, the EAC is already working toward this objective.

This OECD research on the benefits of certain trade facilitation measures is being extended to non-OECD countries.[28] In the meantime, a number of studies have focused in particular on gains that are likely to accrue to EAC members due to improved customs performance. Using firm-level data from the World Bank's Investment Climate Surveys in 2002–03, researchers developed an index of restrictiveness based primarily on reported times to clear customs in eight African countries. Combining this restrictiveness index with production and trade data, researchers found that if Tanzania (the second most restrictive country on the index) were to lower its customs restrictions and delays to the same level as Zambia (the second least restrictive country), the average Tanzanian firm would increase the share of its production that it exports by over 4 percentage points, potentially boosting economic growth.[29]

Uganda provides an example from within the EAC of the potential benefits of customs operations reform. Uganda implemented a comprehensive trade liberalization and customs modernization program in the 1990s, including changes to its tariff schedule, more responsive customs legislation, establishment of an independent revenue agency to improve tariff collection, and simplification of customs regulations. As a result of these reforms, the Ugandan Revenue Authority increased its collections from 7.7 percent to 13.0 percent of GDP over the 10-year period ending in 2002.[30] While the elimination of internal EAC tariffs and the establishment of a CET for the EAC (discussed in chapter 2) have implications for government revenues, tariff collections remain an important revenue source in EAC countries.[31]

Transportation Infrastructure

As noted earlier, adequate transportation infrastructure (roads, bridges, port facilities including cranes, etc.), coupled with regulations that promote open trade, make it possible for products to be delivered on time at low costs. Improvements in the transportation system or in the associated policy environment can reduce uncertainty and lower costs. Several studies have examined the link between transportation infrastructure problems and the costs from delays and uncertainty, as well as trade volumes and diversification.

Chapter 2 described the current state of East Africa's two principal transport corridors: the Northern and Central Corridors. A study found that freight costs per kilometer along these corridors are 50 percent higher than in the United States and Europe, and freight costs can be as high as 75 percent of the value of exports for landlocked countries.[32] A number of improvements for ports,

[28] Moise et al., "Trade Facilitation Indicators," 2011, 2.

[29] Clarke, "Beyond Tariffs and Quotas," June 2005, 4.

[30] Engman, "The Economic Impact of Trade Facilitation," 2009, 102. He cited an earlier 2004 study from De Wulf.

[31] Brenton, Hoppe, and von Uexkull, "Evaluating the Effects of Trade Policy Options," November 2007, 2.

[32] Nathan Associates, *Corridor Diagnostic Study, vol. 1*, April 2011, 1.

railways, and roads are already planned for these corridors; the improvements are expected to reduce average freight costs by $40.25 per ton (27 percent) in the Northern Corridor and by $24.90 per ton (32 percent) in the Central Corridor.[33] As a result, trade is expected to increase on average by 15 percent due to corridor improvements, with the larger increase occurring in the Central Corridor, where the expected gain is 25 percent.[34]

Roads

As noted in chapter 2, roads are the most frequently used mode of transport in the EAC. The consensus in the literature is that improvements in Africa's road network would significantly improve the volume and variety of trade in the region.[35] Inefficiencies in the movement of African goods from the production site to the port favor exports of non-perishable products and hinder countries' ability to diversify. High transportation costs also keep African countries from attracting manufacturing industries for assembly operations.

Poor road conditions contribute to the high cost of trucking transport by reducing fuel efficiency, damaging vehicles, reducing the life of tires, and forcing slower operating speeds.[36] A study based on a large trucking survey found that transport prices in sub-Saharan Africa were higher than in South Asia or Brazil per ton-km.[37]

FIGURE 3.4 Freight rail in Kenya

Source: Commission staff.

Rail

Investments in rail transport have also been shown to provide various economic benefits (fig 3.4). In a historical analysis of the introduction of railways into India, one researcher found that railroads lowered the cost of trading, reduced inter-regional price gaps, and increased overall trade volumes.[38] Moreover, researchers found that because railroads expanded trade, they also led to increased incomes and economic welfare.[39] Railroads have been found to provide other economic benefits as well. In one study of factors leading to greater foreign investment in China, researchers found that the length of a province's rail network had the largest positive effect on investment of all infrastructure variables examined.[40] The researchers found that doubling the length of a province's rail network increased foreign

[33] Nathan Associates, *Corridor Diagnostic Study, vol. 1*, April 2011, 163.

[34] Nathan Associates, *B. Trade and Traffic Forecast,* April 2011, 48. The forecasts are based on a proprietary model developed by Nathan Associates with USAID funding. The model incorporates GDP growth and other factors.

[35] Buys et al. report that road travel is so difficult in Africa that different regions are effectively isolated from each other. Buys et al., "Road Network Upgrading and Overland Travel," December 2006, 1.

[36] Teravaninthorn and Raballand, *Transport Prices and Costs in Africa*, 2009, 79.

[37] Teravaninthorn and Raballand, *Transport Prices and Costs in Africa*, 2009, 14.

[38] Donaldson, "Railroads of the Raj," October 2010, 32.

[39] Donaldson, "Railroads of the Raj," October 2010, 32–33.

[40] Amiti and Javorcik, "Trade Costs and Location of Foreign Firms," March 2005, 13.

investment by 32 percent. Additionally, the presence of dependable, functioning freight rail services helped keep transport prices down along major corridors by fostering competition between road and rail transport, benefiting all transport users.[41]

BOX 3.4 Port efficiency for major coffee producers

Colombia and Guatemala are both major producers of coffee—a top export for every country in the EAC. Principal ports in these coffee-producing countries can provide a useful snapshot of how port efficiency can make a country more competitive in the global market.

In 2003, two researchers compared the ports of Cartegena, Colombia, and Santo Tomás de Castilla, Guatemala. They found large cost differences; a ship at Santo Tomás would experience nearly 30 percent higher costs than one using the port of Cartegena. The main factor affecting costs was the long storage times imposed on shippers in Santo Tomás, which amounted to about $94 more per container than in Cartegena. In sum, a ship calling on Santo Tomás incurred a penalty of $2,721 over one making a similar call on Cartegena.

This difference in port cost directly affected the delivered price for the final customer. Even if Guatemala could produce coffee for a lower price, Colombia could deliver it for less. The authors concluded that various reforms were needed to improve the situation at Santo Tomás, including equipment modernization and labor practices suited to the change in equipment.

Sources: Londoño-Kent and Kent, "A Tale of Two Ports," December 2003.

The benefits of using rail freight are more than purely economic. Because rail can transport heavy goods more efficiently over long distances, fewer energy resources are expended, and there are fewer environmental side effects when compared to road freight. Freight rail has been found to emit 75–85 percent less greenhouse gas than trucks per unit of output.[42] Moreover, these greater transport efficiencies are captured by manufacturers and transferred to consumers. When more freight travels by rail, roads are less congested, reducing traffic accidents and lowering demand for spending on road maintenance.[43]

Ports

Efficient port operation is critical to improving the movement of goods in and out of countries. Inefficient ports raise trading costs and weaken the export competitiveness of firms in international markets (box 3.4). Researchers constructed an index of port efficiency based on data on the quality of a country's port infrastructure as reported in the World Economic Forum's *Global Competitiveness Report 2001–2002.*[44] They estimated that a 10 percent increase in this index for exporting countries could lead to an average rise of 9.2 percent in exports, and that a similar increase in this index for importing countries would lead to a 3.1 percent increase in imports.

Another study constructed an index of port efficiency based on data for 1995–2000 from the Global Competitiveness Report. The authors constructed a second measure of efficiency as well, based on the number of large ports in a country, relative to its size.[45] The study reported that countries' rankings on

[41] Teravaninthorn and Raballand, *Transport Prices and Costs in Africa*, 2009, 38.

[42] Bullock, "Off Track," November 2009, 20.

[43] Bullock, "Off Track," November 2009, 18.

[44] Wilson et al., "Assessing the Benefits of Trade Facilitation," 2005, 860. The authors used an econometric model (a gravity model) using data on manufacturing trade among 75 countries in 2000–2001.

[45] Clark et al., "Port Efficiency, Maritime Transport Costs and Bilateral Trade," March 2004, 11. The actual second measure is the logarithm of the square of the number of ports in a country with a capacity to handle at least 50 tons per day divided by the product of the country's surface area and population.

port efficiency were similar for both indices. Most important, improvements in port efficiency from the 25th to the 75th percentile in either index could reduce shipping costs by more than 12 percent, roughly equivalent to reducing ocean shipping distance by 5,000 miles.[46]

Adequate infrastructure, such as berthing facilities, wharves, and cranes, was the main determinant of efficient port operations in the aforementioned study, but other factors also played a role. One study showed that lower levels of organized crime were associated with greater port efficiency. This research also found that some level of port regulations improved efficiency, but excessive regulation undermined it (fig. 3.5).[47] Examples of regulations having a positive effect were those setting up transparent procedures and responsibilities for port operations and another requiring that a standard shipping note (a document that provides details of the contents of a shipment) accompany deliveries of all non-hazardous goods in transit. Non-transparent and frequently changed procedures were cited as examples of excessive regulations. Unexpected delays due to cargo inspections, for example, may substantially increase port costs and reduce exporter competitiveness.[48]

FIGURE 3.5 Ship entering the Port of Mombasa

Source: Commission staff.

Air

Air transport presently accounts for a small share of EAC trade, but it is vitally important for shipments of high-value perishable goods, such as cut flowers (see chapter 2). One study found that although the cost of air transport remains higher than ocean transport, the cost differential between the two modes of transport fell 40 percent between 1990 and 2004.[49] While there is little literature on the relationship between trade facilitation and air transportation, one recent study examined the link between liberalization of air transport markets and air connectivity, defined as the importance of a country as a node in the global air transport system.[50] A country is more connected if the cost of moving goods to other countries is low, and if the variation in costs is low. The

[46] Clark et al., "Port Efficiency, Maritime Transport Costs and Bilateral Trade," March 2004, 23. This study uses data on U.S. imports from all countries carried by ocean liners between 1995 and 2000 from U.S. Import Waterborne Databank. Although the data are somewhat old, the main results used more than 300,000 observations.

[47] Clark et al., "Port Efficiency, Maritime Transport Costs and Bilateral Trade," March 2004, 24.

[48] Clark et al., "Port Efficiency, Maritime Transport Costs and Bilateral Trade," March 2004, 17.

[49] Harrigan, "Airplanes and Comparative Advantage," October 2005, 3.

[50] Arvis and Shepherd, "Air Connectivity Index," June 2011, 5. The authors estimated an index of connectivity among 211 countries using statistical analysis. Another study found that "open-skies" agreements between countries are associated with more routes offered between countries and a 7.9 percent increase in bilateral air passenger traffic. Cristea and Hummels, "Estimating the Gains from Liberalizing Services Trade," September 2011, 11, 27–28.

study considered two measures of liberalization for a given country: (1) whether it has signed bilateral air services agreements, and (2) where it ranks on the WTO air liberalization index. The study found air transport liberalization to be linked to air connectivity, and that high air connectivity is linked to greater trade.

Weighbridges, Roadblocks, and the Enforcement of Transportation Regulations

In addition to transportation infrastructure, transportation regulations play a key role in determining the efficiency of the entire transportation system.[51] As discussed in chapter 2, weighbridges are necessary to ensure that vehicles comply with posted weight regulations. However, throughout sub-Saharan Africa, the proliferation of weighbridges hinders trade more than it facilitates it. Numerous studies throughout sub-Saharan Africa have documented how roadblocks and weighbridges tend to add costs to trade without achieving their main aim of enforcing weight limit standards. In one study, roadblocks in West Africa, which can occur every 30 kilometers, were found to increase costs by 10 percent.[52] Additionally, a study of goods transport between Lome, Togo, and Ouagadougou, Burkina Faso, found that 57 percent of the fees paid in transport were avoidable costs composed of unnecessary public procedures, private services, and speed payments.[53] Taking an example from within the EAC, at the first weighbridge inland from Mombasa on the Northern Corridor, the wait is often one day, and truckers reportedly must pay an informal fee to officials to go through it.[54]

[51] Arvis et al., "The Cost of Being Landlocked," June 2007, 55.
[52] Arvis et al., "The Cost of Being Landlocked," June 2007, 34.
[53] Arvis et al., "The Cost of Being Landlocked," June 2007, 37.
[54] Arvis et al., "The Cost of Being Landlocked," June 2007, 34-35.

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APPENDIX A
Request Letter

EXECUTIVE OFFICE OF THE PRESIDENT
THE UNITED STATES TRADE REPRESENTATIVE
WASHINGTON, D.C. 20508

March 27, 2012

The Honorable Deanna Tanner Okun
Chairman
U.S. International Trade Commission
500 E Street, SW
Washington, DC 20436

Dear Chairman Okun:

The United States has long striven to promote greater trade and investment between the United States and sub-Saharan Africa through preference programs like the African Growth and Opportunity Act (AGOA), Trade and Investment Framework Agreements, Bilateral Investment Treaties, and trade capacity building assistance. Recently, the United States and the East African Community (EAC) began preliminary discussions on a potential new trade and investment partnership that aims to support regional integration and greater U.S.-EAC trade and investment. I believe that one of the initial steps under this initiative which could have the most immediate benefit to U.S.-EAC, regional, and multilateral trade would be engagement with the EAC on customs clearance and other practices at the border (i.e., trade facilitation).

Pursuant to authority delegated by the President to the United States Trade Representative under Section 332(g) of the Tariff Act of 1930, I request that the Commission prepare a summary of recent developments relating to trade facilitation in the EAC. I also request a description of the potential benefits of trade facilitation to the EAC countries, based on empirical studies and the experiences of other developing countries. For the purposes of this report, trade facilitation means the simplification of customs procedures affecting the movement of goods across borders, as well as improvements to transport infrastructure.

The information in the report should be based principally on a review of the literature. The report should include, to the extent the literature permits:

- a description of the present conditions and recent developments relating to the movement of goods to and from the countries of the EAC, including policies enforced at the border and procedures for their enforcement, as well as transport infrastructure. To the extent feasible, the report should address elements referenced in U.S. trade facilitation agreements, such as those between the United States and the Philippines, the United States and Uruguay, and trade facilitation chapters in U.S. free trade agreements. The description should focus on conditions in individual EAC countries as well as the EAC region as a whole;

- a summary of findings from the empirical literature on the benefits of overall trade facilitation improvements, such as effects on import and export volumes, export diversification, and economic development, including highlights of any notable findings specific to the EAC countries; and

- relevant sectoral case studies (particularly for industries where EAC countries have significant AGOA exports) from developing countries within and outside sub-Saharan Africa that illustrate the benefits of trade facilitation.

The Commission is requested to deliver the report no later than July 2, 2012.

I anticipate that the Commission's report will be made available to the public in its entirety. Therefore, the report should not contain any confidential business information.

The Commission's assistance in this matter is greatly appreciated.

Sincerely,

Ambassador Ron Kirk

APPENDIX B
Federal Register Notice

may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.* Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on September 27, 2011, based on a complaint filed by Technical Properties Limited, LLC (''TPL'') of Cupertino, California. 76 FR 59737–38. The complaint alleges a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain digital photo frames and image display devices and components thereof by reason of infringement of certain claims of U.S. Patent Nos. 6,976,623; 7,162,549; 7,295,443; and 7,522,424. The complaint further alleges the existence of a domestic industry. The Commission's notice of investigation named twenty respondents including Aiptek. The Office of Unfair Import Investigations was not named as a party to this investigation. The complaint and notice of investigation were served on Aiptek on September 22, 2011. Aiptek failed to respond to the complaint and notice of investigation.

On November 18, 2011, the presiding administrative law judge (''ALJ'') issued an order to Aiptek to show cause why it should not be held in default. *See* ALJ's Order No. 13 (November 18, 2011). Aiptek failed to respond to the show cause order. The ALJ issued an initial determination (''ID'') on December 22, 2011, finding Aiptek in default, pursuant to 19 CFR 210.13 and 210.16, because respondent did not respond to the complaint, notice of investigation, and the ALJ's order to show cause. On January 9, 2012, the Commission issued notice of its determination not to review the ID finding Aiptek in default.

On March 8, 2012, complainant TPL filed a declaration requesting immediate relief against the defaulting respondent Aiptek pursuant to Commission rule 210.16(c)(1), 19 CFR 210.16(c)(1). Its declaration included proposed remedial orders for the Commission's consideration.

Section 337(g)(1) (19 U.S.C. 1337(g)(1)) and Commission Rule 210.16(c)(1) (19 CFR 210.16(c)(1)) authorize the Commission to order immediate limited relief against a respondent found in default, unless after consideration of the public interest factors, it finds that such relief should not issue. The Commission may (1) issue an order that could result in the exclusion of the subject articles from entry into the United States, and/or (2) issue one or more cease and desist orders that could result in the respondent being required to cease and desist from engaging in unfair acts in the importation and sale of such articles. Accordingly, the Commission is interested in receiving written submissions that address the form of remedy, if any, that should be ordered. If a party seeks exclusion of an article from entry into the United States for purposes other than entry for consumption, the party should so indicate and provide information establishing that activities involving other types of entry are either adversely affecting it or likely to do so. For background, *see In the Matter of Certain Devices for Connecting Computers via Telephone Lines,* Inv. No. 337–TA–360, USITC Pub. No. 2843 (December 1994) (Commission Opinion).

If the Commission contemplates some form of remedy, it must consider the effects of that remedy upon the public interest. The factors the Commission will consider include the effect that an exclusion order and/or cease and desist order would have on (1) the public health and welfare, (2) competitive conditions in the U.S. economy, (3) U.S. production of articles that are like or directly competitive with those that are subject to investigation, and (4) U.S. consumers. The Commission is therefore interested in receiving written submissions that address the aforementioned public interest factors in the context of this investigation.

When the Commission orders some form of remedy, the U.S. Trade Representative, as delegated by the President, has 60 days to approve or disapprove the Commission's action. *See* section 337(j), 19 U.S.C. 1337(j) and the Presidential Memorandum of July 21, 2005. 70 FR 43251 (July 26, 2005). During this period, the subject articles would be entitled to enter the United States under bond, in an amount determined by the Commission. The Commission is therefore interested in receiving submissions concerning the amount of the bond that should be imposed if a remedy is ordered.

Written Submissions: The parties to the investigation, interested government agencies, and any other interested parties are encouraged to file written submissions on the issues of remedy, the public interest, and bonding. Complainant is requested to state the dates that the patents at issue expire and the HTSUS numbers under which the accused products are imported. The written submissions must be filed no later than close of business on April 23, 2012. Reply submissions must be filed no later than the close of business on April 30, 2012. No further submissions on these issues will be permitted unless otherwise ordered by the Commission.

Persons filing written submissions must do so in accordance with Commission rule 210.4(f), 19 CFR 210.4(f) which requires electronic filing. The original document and 8 true copies thereof must also be filed on or before the deadlines stated above with the Office of the Secretary. Any person desiring to submit a document (or portion thereof) to the Commission in confidence must request confidential treatment unless the information has already been granted such treatment during the proceedings. All such requests should be directed to the Secretary of the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* 19 CFR 210.6. Documents for which confidential treatment by the Commission is sought will be treated accordingly. All nonconfidential written submissions will be available for public inspection at the Office of the Secretary.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in sections 210.16(c)(1) and 210.50 of the Commission's Rules of Practice and Procedure (19 CFR 210.16(c)(1) and 210.50).

Issued: April 9, 2012.

By order of the Commission.

James R. Holbein,

Secretary to the Commission.

[FR Doc. 2012–8849 Filed 4–11–12; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 332–530]

Trade Facilitation in the East African Community: Recent Developments and Potential Benefits, Institution of Investigation and Request for Written Statements

AGENCY: United States International Trade Commission.

ACTION: Institution of investigation and request for written statements.

SUMMARY: Following receipt of a request on March 28, 2012, from the United States Trade Representative (USTR) under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)), the U.S. International Trade Commission

(Commission) instituted investigation No. 332–530, *Trade Facilitation in the East African Community: Recent Developments and Potential Benefits.*

DATES:

May 10, 2012: Deadline for filing written submissions.

July 2, 2012: Transmittal of Commission report to the USTR.

ADDRESSES: All Commission offices, including the Commission's hearing rooms, are located in the United States International Trade Commission Building, 500 E Street SW., Washington, DC. All written submissions should be addressed to the Secretary, United States International Trade Commission, 500 E Street SW., Washington, DC 20436. The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov/edis3-internal/app.*

FOR FURTHER INFORMATION CONTACT: Falan Yinug (202–205–2160 or *falan.yinug@usitc.gov*) for information specific to this investigation. For information on the legal aspects of this investigation, contact William Gearhart of the Commission's Office of the General Counsel (202–205–3091 or *william.gearhart@usitc.gov*). The media should contact Margaret O'Laughlin, Office of External Relations (202–205–1819 or *margaret.olaughlin@usitc.gov*). Hearing-impaired individuals may obtain information on this matter by contacting the Commission's TDD terminal at 202–205–1810. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000.

Background: As requested by the USTR, the Commission will conduct an investigation and prepare a report that summarizes recent developments relating to trade facilitation in the East African Community (EAC). The report will also describe the potential benefits of trade facilitation in the EAC countries, based on empirical studies and the experiences of other developing countries. As requested, the information in the report will be based principally on a review of the literature, and, to the extent the literature permits, include the following:

- A description of the present conditions and recent developments relating to the movement of goods to and from the countries of the EAC, including policies enforced at the border and procedures for their enforcement, as well as transport infrastructure. To the extent feasible, the report will address elements referenced in U.S. trade facilitation agreements, such as those between the United States and the Philippines, the United States and Uruguay, and trade facilitation chapters in U.S. free trade agreements. The description will focus on conditions in individual EAC countries as well as the EAC region as a whole.
- A summary of findings from the empirical literature on the benefits of overall trade facilitation improvements, such as effects on import and export volumes, export diversification, and economic development, including highlights of any notable findings specific to the EAC countries.
- Relevant sectoral case studies (particularly for industries where EAC countries have significant AGOA exports) from developing countries within and outside sub-Saharan Africa that illustrate the benefits of trade facilitation.

The USTR asked that the Commission provide its report no later than July 2, 2012.

Written Submissions: Because of the short time frame requested by the USTR, the Commission will not hold a public hearing in connection with this investigation. However, interested parties are invited to file written submissions concerning this investigation. All written submissions should be addressed to the Secretary, and should be received no later than 5:15 p.m., May 10, 2012. All written submissions must conform to the provisions of section 201.8 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.8). Section 201.8 and the Commission's Handbook on Filing Procedures require that interested parties file documents electronically on or before the filing deadline and submit eight (8) true paper copies by 12 noon eastern time on the next business day. In the event that confidential treatment of a document is requested, interested parties must file, at the same time as the eight paper copies, at least four (4) additional true paper copies in which the confidential information must be deleted (see the following paragraph for further information regarding confidential business information). Persons with questions regarding electronic filing should contact the Secretary (202–205–2595).

Any submissions that contain confidential business information (CBI) must also conform to the requirements of section 201.6 of the Commission's *Rules of Practice and Procedure* (19 CFR 201.6). Section 201.6 of the rules requires that the cover of the document and the individual pages be clearly marked as to whether they are the ''confidential'' or ''non-confidential'' version, and that the confidential business information be clearly identified by means of brackets. All written submissions, except for confidential business information, will be made available for inspection by interested parties.

In his request letter the USTR said that he anticipates that the Commission's report will be made available to the public in its entirety, and asked that the Commission not include any confidential business information in the report it sends him. Accordingly, any confidential business information received by the Commission in this investigation and used in preparing this report will not be included in the report that the Commission sends to the USTR and will not be published in a manner that would reveal the operations of the firm supplying the information.

By order of the Commission.

Issued: April 9, 2012.

James R. Holbein,

Secretary to the Commission.

[FR Doc. 2012–8850 Filed 4–11–12; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–778]

Certain Equipment for Communications Networks, Including Switches, Routers, Gateways, Bridges, Wireless Access Points, Cable Modems, IP Phones and Products Containing Same; Determination Not To Review an Initial Determination; Termination of Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined not to review the presiding administrative law judge's (''ALJ'') initial determination (''ID'') (Order No. 47) granting a joint motion to terminate the investigation in its entirety based on a settlement agreement. The investigation is hereby terminated.

FOR FURTHER INFORMATION CONTACT: Megan M. Valentine, Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436, telephone (202) 708–2301. Copies of non-confidential

APPENDIX C
Position of Interested Parties

Position of Interested Parties

In the Commission's institution notice for this investigation, interested parties were invited to file written submissions. This appendix summarizes the views expressed to the Commission and reflects the principal points made by a particular party. The views expressed in the summarized materials should be considered to be those of the submitting parties and not the Commissioners or Commission staff. In preparing this summary, Commission staff did not undertake to confirm the accuracy of, or otherwise correct, the information summarized. For the full text of the written submissions, see entries associated with investigation 332-530 at the Commission's Electronic Docket Information System (http://edis.usitc.gov/).

Universal Leaf Tobacco Company, Inc.

In a written statement, Universal Leaf Tobacco Company, Inc. (ULT), a multinational tobacco company headquartered in Richmond, Virginia, stated that efforts to improve trade facilitation in the East African Community (EAC) would benefit commerce between the United States and the EAC and would strengthen the African Growth and Opportunity Act (AGOA).[1] ULT stated it has affiliates in two EAC countries, Uganda and Tanzania, as well as five other African countries. These affiliates conduct administrative, sourcing, and processing activities for tobacco, which is grown on small family farms.

In its statement, ULT listed many challenges to doing business in Africa which directly and indirectly relate to trade. Among these, ULT noted that poor infrastructure is by far the main challenge. ULT emphasized that poorly integrated and inefficient systems delay international shipments, reduce revenues for all parties, and reduce African competitiveness. It also stated that difficulties and excessive time spent on customs procedures when moving products between African countries are especially costly for products destined for export. However, ULT noted that some of these problems have been partly alleviated by the development of customs unions, such as the Common Market for Eastern and Southern Africa (COMESA), which is trying to streamline customs laws and regulations of member countries.[2] It also noted that further efforts to remove formal and informal barriers and make customs regulations in the EAC more predictable and rules-based would make trading and investing in the region more attractive.

In addition, ULT asserted that tobacco could be a major AGOA export to the United States if the U.S. tariff-rate quota (TRQ) system for tobacco were changed. ULT stated that U.S. imports of African tobacco, including from the EAC, enter under the "others" category of the TRQ, which covers only 2 percent of the total TRQ volume. According to ULT, the TRQ allocations were made in the mid-1990s and no longer reflect current trade patterns. ULT stated that a number of countries with individual allocations ship little or no tobacco to the United States, which has helped keep the TRQ fill rate averaging about

[1] Universal Leaf Tobacco Company, Inc., written submission to the USITC, May 10, 2012.
[2] COMESA includes all EAC members except Tanzania.

58 percent for the past decade. ULT asserted that tobacco under AGOA should be exempt from the TRQ, and that this change would benefit the United States because (1) U.S. and African tobacco are different types and therefore do not compete; (2) the expiration of U.S. government support to tobacco farmers renders the primary reason for having a comprehensive TRQ moot; and (3) applying the TRQ to AGOA beneficiaries conflicts with U.S. policies to help African countries improve economic growth through exports. ULT added that exempting African tobacco from the TRQ would not lead to increased smoking or cigarette production, but it would shift U.S. tobacco imports from other countries, such as Brazil, to Africa.

APPENDIX D
Background: East African Community

Background: East African Community

The East African Community (EAC) is a regional intergovernmental organization established for the purpose of increasing economic, political, social and cultural integration among the region's member countries. The EAC aims to achieve greater integration by promoting competitiveness, value added production, trade, and investment.[1] The current agreement forming the union was signed by Kenya, Tanzania, and Uganda in 1999, with Burundi and Rwanda joining in 2007. Somalia and South Sudan have also applied for membership, and their applications are pending.

Kenya, Tanzania, and Uganda have a much longer history of cooperation and integration under various arrangements than do the other two members of the EAC. Kenya and Uganda formed a customs union in 1917, and these two were united with the Tanganyika Territory (which would later become part of Tanzania) in 1948 with the establishment of the East African High Commission.[2] Under this arrangement, the three territories established a customs union, set up a common external tariff, shared a single currency and postage, and addressed mutual concerns regarding transportation, communication, research, and education. After independence, the organization was replaced by the East African Common Services Organisation from 1961 to 1967, and later by the first manifestation of the EAC from 1967 to 1977.[3] Disagreements between the countries regarding representation and their divergent economic systems led to the original EAC's collapse.

In the late 1990s, the countries decided that greater economic cooperation was in their best interest, and the EAC was revived. In 2005, the EAC Customs Union was established between member countries, and the regional common market protocol came into effect in 2010.[4] The region is currently undertaking steps toward the establishment of a monetary union.[5] Ultimately, countries of the region hope to consolidate their political and economic power together to form a larger, more geopolitically significant bloc as the Political Federation of the East African States.[6] While many details of this federation have yet to be solidified, the EAC Treaty mandates that at the very least the countries adopt common foreign and security policies.[7]

EAC member countries have not limited their economic cooperation efforts to the EAC alone. In 2007, EAC members signed an interim economic partnership agreement (EPA) with the European Union (EU). The agreement called upon the

[1] EAC, "About EAC," n.d. (accessed April 23, 2012).
[2] Ibid.
[3] Ibid.
[4] In general, a customs union is characterized by a common external tariff and duty-free/quota-free movement of goods between member states. A common market takes the customs union one step further by also allowing for free factor movement (e.g., labor and capital) between member states. See EAC, "About EAC," (accessed April 23, 2012); EAC Customs Union, "What It Is," n.d. (accessed May 14, 2012).
[5] EAC Secretariat, "Monetary Union Negotiating Team," January 11, 2012.
[6] EAC, "About EAC," n.d. (accessed April 23, 2012).
[7] EAC Secretariat, *Report of the Team of Experts*, October 2011, 27.

parties to lay the groundwork for negotiations on trade facilitation.[8] And in addition to being members of the EAC, all of the EAC countries are members of other regional economic communities. Burundi, Kenya, Rwanda, and Uganda are all current members of the Common Market for Eastern and Southern Africa (COMESA),[9] while Tanzania is a member of the South African Development Community (SADC).[10] To harmonize these overlapping free trade areas and promote greater African economic integration, the EAC, COMESA, and SADC have entered into a so-called "Tripartite" organization. The group was established in 2005, with its first summit held in Uganda in October of 2008.[11] At that event, the idea of consolidating the groups into a single free trade area was floated.[12] At the second Tripartite Summit held in June 2011 in Johannesburg, South Africa, a declaration was signed launching negotiations for a new "Grand Free Trade Area" among the three blocs.[13]

Aside from the ongoing free trade area negotiations, the Tripartite has been active in seeking greater cooperation in areas of trade facilitation and infrastructure development.[14] Various donor agencies—the German Development Bank (KfW), the Japan International Cooperation Agency (JICA), the United Kingdom Department for International Development (DFID), and the United States Agency for International Development (USAID)—are funding numerous Tripartite trade facilitation projects, including upgrading roads, establishing one-stop border posts, and performing transport corridor diagnostics.[15] DFID has been tasked with coordinating all donor work for the Tripartite Task Force.

Because of the EAC's involvement in Tripartite negotiations, any trade facilitation reforms undertaken by one of its sister organizations (be it COMESA or SADC) is likely to bring about trade facilitation improvements within the EAC. While all of these endeavors are important, the discussion in this report is geared specifically toward EAC improvements and reforms.

[8] The agreement calls upon the parties to lay the groundwork for negotiations on trade facilitation. Those negotiations were not completed at the time this report was published. European Commission, "EAC Economic Partnership Agreement," May 14, 2012.

[9] COMESA members are Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Seychelles, Madagascar, Malawi, Mauritius, Rwanda, Sudan, Swaziland, Uganda, Zambia, and Zimbabwe.

[10] SADC members are Angola, Botswana, Democratic Republic of the Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

[11] COMESA-EAC-SADC Tripartite, "About: Background," n.d. (accessed June 5, 2012).

[12] EAC, "About EAC," n.d. (accessed April 23, 2012).

[13] COMESA-EAC-SADC Tripartite, "Declaration Launching the Negotiations," June 12, 2011.

[14] COMESA-EAC-SADC Tripartite, "Home," n.d. (accessed June 5, 2012).

[15] COMESA-EAC-SADC Tripartite, "Donor Matrix," n.d. (accessed June 5, 2012).

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