Sub-Saharan Africa Transport Policy Program
SSATP Working Paper No. 84

Port and Maritime Transport Challenges in West and Central Africa

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FOREWORD

Research on the port and maritime transport sector in West and Central Africa (WCA) are few and far between, so it is with particular pleasure that I introduce this paper, which takes stock of the current situation and places it in the context of global trends.

It is an encouraging sign that GDP and trade growth in the region is reviving. It is also noted with interest that the trading patterns of WCA are dramatically changing, with trade with Europe decreasing and trade with the Far East rapidly rising. At the same time, there are global trends afoot that already are placing demands on WCA ports for more and better infrastructure, increased dredging, and dramatic improvement in port efficiency.

Some ports of the region are responding to these trends by reforming their port sectors, addressing long-overdue port overstaffing and drawing on international expertise by strengthening the role of the private sector in operations. Improved performance of the Nigerian ports is a case in point, where introduction of container terminal concessions led to near elimination of berthing wait in a matter of few months and reduction in associated surcharges by several hundred Euros per TEU[1]. The direct savings to the Nigerian economy on savings on surcharges alone is estimated at US$200 million per annum.

Port reform is always difficult to undertake. Whereas reforms were in the past often needed to improve productivity in an isolated national sense, they are now increasingly inevitable if ports are simply not to be bypassed by technological and global trends.

The paper aims at encouraging discussion at national and regional level among port authorities, governments and other interested parties.

Zaza Manitranja Ramandimbiarison

SSATP Program Manager

[1] Twenty foot equivalent unit

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LIST OF ACRONYMS AND TECHNICAL TERMS

AGPAOC	Association de gestion des ports de l'Afrique de l'ouest et du centre (Port Management Association of West and Central Africa)
CIF	Cost, insurance and freight (INCOTERM, commonly used for import cargo)
ECOWAS	Economic Community of West African States
FCFA	Franc de la Communauté Financière Africaine
FOB	Free on Board (commonly applicable to export cargo)
Gantry Crane	Crane for transferring containers between ship and shore
GRT	Gross Register Ton (measure of the cargo carrying capacity of a ship)
INRETS	Institut national de recherche sur les transports et leur sécurité
ISPS	International Ship and Port Facility Security Code
IT	Information Technology
MOWCA	Maritime Organization of West and Central Africa
NTC	National Transport Regulatory Commission
PMAESA	Port Management Association of Eastern and Southern Africa
PMAWCA	Port Management Association of West and Central Africa
SSA	Sub-Saharan Africa
SSATP	Sub-Saharan Africa Transport Policy Program
TEU	Twenty foot equivalent unit (applies to containers)
UEMOA	Union économique et monétaire ouest-africaine
UNCTAD	United Nations Conference on Trade and Development
UNECA	United Nations Economic Commission for Africa
WCA	West and Central Africa

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The authors remain solely responsible for errors of fact and interpretation.

EXECUTIVE SUMMARY

OBJECTIVE

This Working Paper presents the current trends in maritime transport and port sectors in West and Central Africa (WCA), and proposes several policy recommendations to improve maritime transport and port efficiency in order to enhance economic growth. West and Central African economies, which depend on maritime transport for an overwhelming proportion of their trade, rely on efficient maritime transport and port sectors to be competitive on world markets. It was prepared for the Sub-Saharan Africa Transport Policy Program (SSATP), in the overall context of the World Bank's efforts for trade facilitation in Sub-Saharan Africa[2] as a follow-up to the 1997 Cotonou II meeting of West and Central Africa (WCA) Ministers[3].

WORLD CONTEXT

Global maritime transport has considerably changed in the last decade. Maritime transport is growing at a high pace. Container traffic is the fastest growing segment of maritime transport. Shipping lines have invested in ever growing containerships in order to benefit from economies of scale: the threshold of 10,000 TEUs per vessel was surpassed whereas, ten years ago, the largest vessels contained 4,400 TEUs (Panamax). As a result of increased competition, mergers and takeovers have taken place in the recent years to establish "mega-carriers". This trend of larger ships will increase pressure for better port facilities and for significant improvement in port productivity.

In a global context, WCA maritime transport and port sectors face several long-term trends:

1. Africa gradually reorients trade relations mainly due to the appreciation of the Euro vis-à-vis the US dollar and the growing demand for raw materials from Asia. The share of trade with Europe has diminished whereas trade flows have expanded with the Far East and, to a lesser extent, with the Americas.

2. Ship size, especially for container ships, will probably continue to increase in the region with subsequent demands on port efficiency and port infrastructure.

3. The lifting of the 40-40-20 rule in many WCA countries has led to increased competition, which has ultimately led to decreased transport tariffs. Maritime transport tariffs

[2] The SSATP assists in studying, designing policy recommendations and addressing policy issues of transport and strategy in Sub-Saharan Africa.

[3] The second Round Table on Maritime Transport in West and Central Africa held at Cotonou, Benin, June 3-6, 1997.

should remain stable for the ports able to attract calls of mega-carriers (except if over-supply diminishes, which is unlikely to happen in the short and medium-term).

4. Because of higher port concentration for container traffic, regional feeder services are likely to develop and become a niche for local shipping lines, whereas intercontinental maritime transport will be carried out by mega-carriers or global shipping lines.

5. Facilitated transport between ports and their hinterland is critical to attract increased traffic, which in turn attracts shipping lines to call at a port.

6. A limited number of WCA regional hubs should emerge among the eight-ten largest ports of the region provided that these ports are managed efficiently and traffic reach several million of tons.

7. International commitments on port security and environmental protection must not be neglected in WCA like it may have occurred in the past. The application of measures to enhance security, specifically the International Ship and Port Facility Security Code (ISPS) Code, requires continuing attention.

8. Increased private sector participation in port management, especially in container terminal management is likely to continue.

WCA TRADE AND MARITIME TRANSPORT

Poverty reduction mainly depends on economic growth, of which trade expansion is a linchpin. For the past decades, trade growth has been lacklustre in WCA. Compared to the world average growth rate, the sub-region underperformed. Excluding oil, exports from most WCA countries have declined in the last decade mainly because of downward trends for many commodities and supply constraints.

Nowadays, WCA ports remain largely outside several global trends. These trends, however, can have positive impact on the economies of the region.

At the time when main ports in Asia are served with 8,000 TEU vessels, WCA is the sub-region, where most ports do not receive ships in excess of 2,500 TEU.

However, due to current traffic and port efficiency, shipping lines strategies seem legitimate. Africa accounts for less than one percent of world container traffic. An extra 2,200 TEU vessel service from Europe to a small country in the WCA sub-region would have a 27 percent market share whereas a 5,500 TEU vessel from the Far East to Europe would potentially generate a 3.6 percent market share taking into account market size.

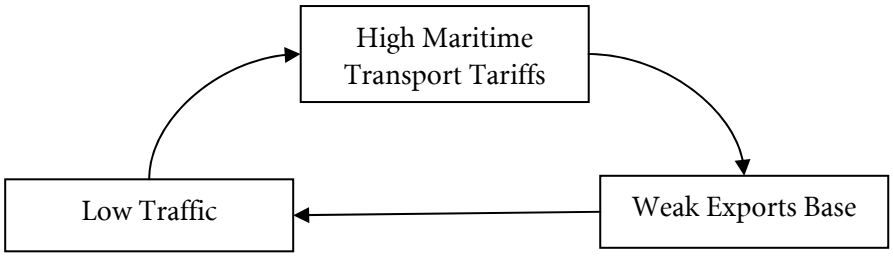
The introduction of very large container vessels has contributed to a widening gap between few large efficient ports, which benefit from the economies of scale of these vessels, and most ports in developing countries, which will increasingly have to rely on feeder services.

Africa's ports have faced a rapid traffic growth in the last five years (more than 12 percent according to Drewry). It is right time to tackle major port reforms since traffic forecasts are expected to grow at a lower pace until 2010 (Drewry, 2005).

PORT EFFICIENCY

Improvement of port management is a prerequisite for further development of the maritime sector in WCA. For shipping lines, port turnaround time in ports has become an increasingly important factor to decide to call in any port of the world. One extra day at a port costs more than US$35,000 to a shipping line for a 2,200 TEU vessel.

Without improved port efficiency and increased exports, many ports of the world will become increasingly marginalized, served by feeders. Shippers will have to bear higher maritime transport tariffs. Without improved port efficiency, several coastal countries in West and Central Africa could become "de facto" landlocked, having to bear approximately the same costs as a landlocked country.



As an example, an importer in Equatorial Guinea or in Burkina Faso pays approximately the same price for the transport of a container from Europe.

Most WCA countries are trapped in a vicious circle where exports from WCA remain weak because of current high maritime transport tariffs[4] (and additional constraints), which induce low traffic and therefore raise tariffs.

As long as traffic will not increase and reach a certain threshold, maritime transport tariffs will remain high, which consequently, put pressure on importers/exporters in WCA, and reduce competitiveness of these economies.

Improved port efficiency and regional integration, enabling a better link between a port and its hinterland, are the only solutions for small ports to ensure increased traffic, which will result in decreasing maritime transport tariffs. Otherwise, these ports will become increasingly marginalized.

[4] High maritime tariffs are relative to commodities value, most WCA countries export.

CHALLENGES

These global developments challenge the countries in West and Central Africa, but also offer an opportunity to implement overdue reforms in maritime transport and port sectors in the sub-region, which are expected to result in lowering transport costs, and ultimately facilitate trade expansion. West African economies should strive to benefit from the high proportion of empty containers exported from the region to diversify their exports base.

Notable strides have been made in Nigeria and in some other WCA countries, but much remains to be done in the region.

Governments, through cooperation between port authorities, shipping lines and donors, should benchmark port efficiency in WCA, so that individual ports and terminals could compare their performance against their neighbors as well as globally.

A NEED TO REFORM

The main objectives of upcoming reforms should be aimed at:

- labor and institutional reform—carrying out cost-benefit analysis of current port management and efficiency in countries facing very high port charges and high maritime transport rates.
- fostering private sector participation both to provide investment for new installations and equipment, and to transfer technical know-how and more efficient terminal management.
- facilitating procedures and controls in ports, such as procedures affecting turnaround time, dwell time and handling costs, otherwise port attractiveness is seriously limited. The introduction of a community-based IT system may help in this regard.
- improving port access to ultimately develop a multimodal transport system. Areas around ports are usually congested, and investing in road infrastructure to improve port access may have a positive impact on city economic activities and port efficiency.
- facilitating transport on the main trade corridors from the port to landlocked countries.
- increasing competition among shipping lines in countries, when informal barriers to market entry or collusion still prevails.
- developing knowledge sharing and collaboration between ports and countries on current port reforms in the region. The Port Management Association of West and Central Africa (PMAWCA) could become a suitable platform for these exchanges.
- reviewing maritime policies in various regions of the world to adopt adequate maritime policies in the WCA region.

INTRODUCTION

This SSATP[5] paper provides a review of maritime transport and port sectors in West and Central Africa in light of worldwide developments in these sectors.

International trade of the WCA countries remains weak, limited to 30 percent of their Gross Domestic Product (GDP). These countries have an aggregate population of 332 million.

New trade patterns are emerging in Sub-Saharan Africa with increasing trade with Asia and Latin America and decreasing trade with Europe.

The importance of efficient transport is acknowledged to increase Sub-Saharan Africa's trade. Efficient transport opens access to new markets and opportunities, and enables the integration of local small and medium enterprises (SME) in international supply chains, thereby fostering export-led economic growth, essential to alleviate poverty on a significant scale.

Shipping industry and port management have substantially changed in the last decade. These changes have started to impact Sub-Saharan Africa and will continue to influence the port and maritime sectors in the region.

Shipping industry has become more capital intensive, technically more demanding and subject to major global regulatory reforms. As a consequence, the number of African shipping lines has been severely reduced.

In response to this decline, WCA governments have started to adopt new maritime policies, which should be adequate to enable the development of port and maritime sectors.

As far as port sector is concerned, the ever increasing size of container vessels forces investments in infrastructure and equipment, with ever more demanding improvements in operational efficiency.

The geographical area covered by this analysis includes 25 significant ports with 21 port administrations in WCA, including the coastal and island states ranging from Mauritania to Angola and the landlocked countries of Mali, Burkina Faso, Niger, Chad and the Central African Republic[6].

The objective of this paper is to 1) provide a comprehensive overview of the port and maritime sectors in the region, and to describe what has been achieved since the Second Round Table on

[5] Since the beginning of the 1990s, the Sub-Saharan Africa Transport Policy Program (SSATP) has assisted SSA in addressing policy issues of port and maritime sectors.

[6] See Appendix 1 on the classification of Sub-Saharan countries.

Maritime Transport in WCA held in Cotonou[7] and 2) to identify prospects and reforms to be undertaken by WCA governments.

Much still remains to be done, especially in regard to shipping policies, the modernization of port management, infrastructure and port institutions. Such measures will increase the leverage that can be exerted by African shippers on ocean freight rates.

[7] The Second Round Table on Maritime Transport in West and Central Africa was held in Cotonou (Benin) from June 3rd to 6th 1997.

1. GLOBAL TRENDS

Maritime transport industry and port management have evolved considerably in the last two decades. Mainly due to transport liberalization and increased competition among shipping lines and between ports, operating costs have been reduced and achieving economies of scale have become vital for shipping lines and some port operators.

In the last decade, after a period of liberalization, concentration has grown in the maritime transport industry as well as for port operators. The barrier at entry is becoming increasingly high in maritime transport since shipping lines have to invest in mega-container vessels, which may now cost more than 100 million US dollars. Containerization rate continues to grow at a high pace.

Maritime transport and port management reflect globalization trends with increasing traffic and economic activities in East Asia, mega-carriers and mega-ships calling at efficient mega-ports. Some parts of the world, which face high maritime transport costs and high port charges are increasingly becoming marginal in world trade. The major consequence for shippers is decrease in transport costs between mega-ports and constant or increasing maritime transport costs for not well-managed ports and those attracting only low traffic volumes.

Global shipping lines utilize hub & spoke systems, calling preferably to mega-ports. For regional shipping lines, difficult choices have to be made: either entering an alliance with a mega-carrier, with a risk of future takeover from the mega-carrier, or finding market niches, which are increasingly difficult to find.

1.1 MARITIMIZATION OF WORLD TRADE AND ITS RATIONALE

World economies are increasingly dependent on efficient maritime transport and port sectors. Since World War II, seaborne trade has increased tremendously. Maritime transport has been growing at a more rapid pace than trade flows.

However, Africa has been lagging behind in terms of maritime transport trends in the last fifteen years (see Table 1 below for details).

Table 1. Trends of seaborne traffic (1990-2003)

	Year	Goods Loaded (in millions of metric tones)	Goods Unloaded (in millions of metric tons)	Total (in millions of metric tons)	Change from 1990 to 2003 (in percentage)
World	1990	4007	4126	8133	
	2000	5872	6249	12121	55.27
	2003	6168	6460	12628	
North Africa	1990	246	126	372	-11.02
	2000	194	134	328	
	2003	197	134	331	
West And Central Africa	1990	186	35	221	9.95
	2000	195	47	241	
	2003	196	47	243	
East Africa	1990	10	25	35	-22.86
	2000	7	25	32	
	2003	8	19	27	

Source: Derived from various reports of the *Review of Maritime Transport*.

1.2 EVER GROWING CONTAINER SHIP SIZE AND THE HUB AND SPOKE SYSTEM

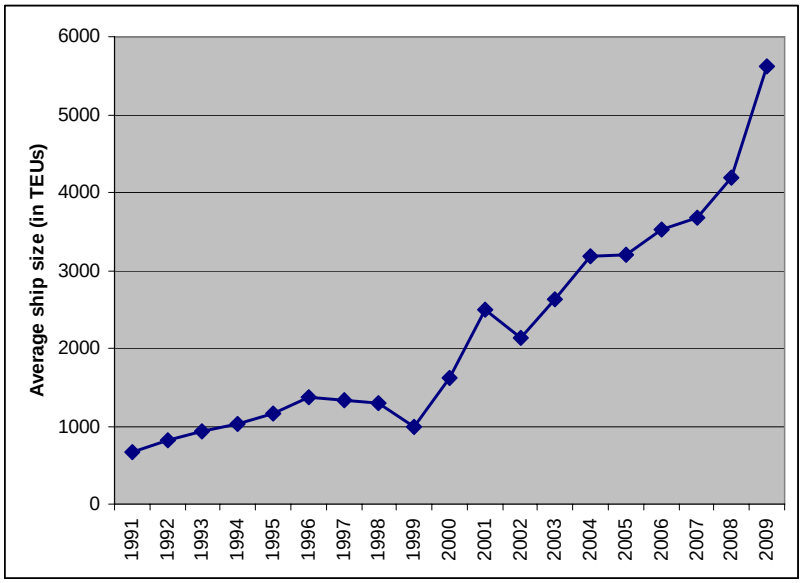
Maritime transport industry and port operators have been striving to reduce operating costs. The impact of the economies of scale in maritime transport (Cullinane and Khanna, 2000) as well as in container handling (Vanelslander, 2006) has been demonstrated empirically.

Shipping line industry seeks for economies of scale, which explains the ever growing container vessels capacity. The tendency for larger container ships has been a long-term trend for several decades (see Table 2 and Figure 1). What are at present the largest ships, used on the high volume routes such as the Trans-Pacific, will be displaced by the new vessels and put to use on the intermediate routes. Thus, the tendency for increasing ship size on WCA routes will be reinforced.

Table 2. Development in containership size

Year	Class/Type	Maximum Capacity in TEUs
1964	1st generation	1,000
1967-1972	2nd generation	1,500
	3rd generation	3,000-4,500
1984	Post-Panamax	4,500
1995/96 onwards	"Super Post-Panamax"	Over 6,000

Figure 1. Trends of average ship size

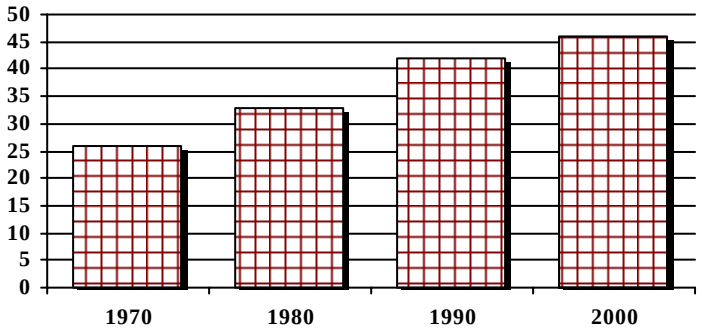


Source: Data from Containerization International Yearbook 2005.
Data based on ships orders for 2006 and beyond.

The market of container terminals operators is becoming increasingly concentrated. The market share of leading global terminal operating groups is steadily increasing and the four largest container terminal operating groups (Hutchinson Port Holdings, PSA Corporation, APM Terminals and P&O Ports) handle close to 40 percent of the world container traffic.

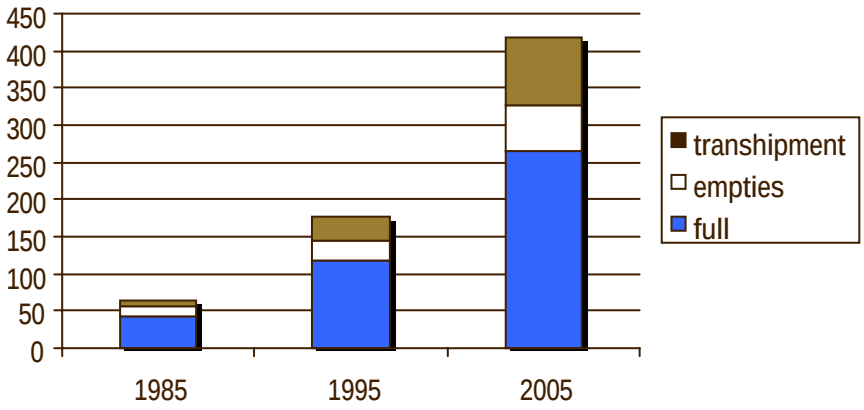
In order to reduce costs, shipping lines prefer transporting containerized goods and call at major ports. As a result, transhipment flows have increased dramatically in recent years (see Figures 2 and 3). Today, almost 50 percent of maritime trade is containerized (in volume).

Figure 2. Share of containerized maritime trade in total maritime trade value (in percentage)



Source: Hoffmann (2005).

Figure 3. World containerized ports throughput (in million TEUs)



Source: Hoffmann (2005).

1.3 IMPACT OF GLOBAL TRENDS ON PORTS AND ECONOMIES

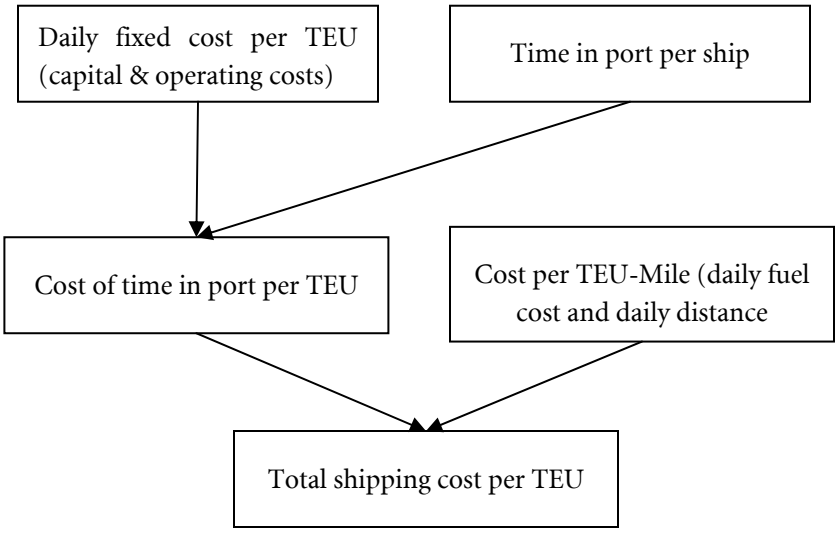
Economies and shippers have to pay cumulatively the poor port efficiency. Indeed, as a result of poor port productivity and efficiency, direct charges, such as public port charges and shipping costs, are high. On top of these direct costs, shippers pay indirect logistics costs related to excessive inventory costs and dwell time, which probably constitutes an even greater cost.

Time in port is a major criterion to choose to call at a port. Poor port efficiency is usually embedded in higher ship turnaround time. When facing this constraint, shipping lines inevitably increase shipping costs charged to the shipper. The shipper will also have to pay higher

costs because the shipping line will limit vessels size in order to diminish fixed costs (see Figure 4 for a breakdown of shipping costs). Sanchez et al. (2003) demonstrated empirically that higher ship turnaround time, congestion time and dwell time induce higher shipping costs, all other things being equal. Clark et al. (2004) also demonstrated the strong correlation between port efficiency, maritime transport costs and trade.

Time in port is not negligible in door-to-door transport. Notteboom (2006) calculated that in East Asia, where ports are more than efficient in WCA, time spent in port already reaches 20 percent of total transport time. In Africa, this ratio may reach more than 80 percent.

Figure 4. Breakdown of shipping costs[8]



Source: Cullinane and Khanna (2000).

[8] Cost of waiting at ports is not necessarily passed to maritime transport tariffs when trade flows are severely imbalanced.

2. INTEGRATION OF WCA MARITIME TRANSPORT AND PORT SECTORS INTO GLOBAL TRENDS

Maritime transport represents 90 percent of the foreign trade volume of WCA countries and from the analysis of the patterns of WCA trade, a broad outline of the challenges facing maritime transport in the region emerges. The over-riding objective of a national maritime policy must be to obtain the most competitive rates for exporters and importers.

2.1 LIMITED SHIPPING SERVICES

Shipping lines face increased costs when calling in WCA due mainly to poor port efficiency[9], low traffic and inadequate or insufficient port equipment.

WCA ports receive calls from about forty container, Ro/Ro and multipurpose vessels. Although the number of vessels docking at West African coasts has grown from 15,000 in the early 1990s to more than 20,000 during the early 2000s, West Africa benefits from limited shipping services. For shipping lines, West and Central Africa remains a niche market.

There are several shipping lines providing regional services, including P&O Nedlloyd, which serves intermediate ports between Abidjan and South Africa, and Ecomarine International shipping company[10], which links ports of the sub-region.

Large ships do not call in West African ports due to a limited traffic, poor facilities and usually a lack of maintenance dredging. Ship size calling in WCA increased in the early 1990s and since then has remained steady. WCA is now the region, where most ports do not receive ships in excess of 2,500 TEU. Most vessels calling in WCA are in the range of 1,000-2,000

[9] See section 4 for a detailed discussion.

[10] A West African feeder service was inaugurated in September 2003 by Togo-based Ecomarine. The initial operation deployed two chartered 318/319 TEU vessels. Ecomarine is targeting regional traffic to feed its new line, aware that trade between West Africa is almost impossible by land because of the poor rail and road systems. "Maritime cabotage is the ideal alternative" explains the company. The Togolese company also expects to carry containers for the main shipping companies serving West Africa. Ecomarine is the first West African company to have announced significant plans for the region since several lines—including Sitram of Côte d'Ivoire, Nigeria's NNSL, Ghanaian Black Star Line, Sotonam from Togo and Camship in Cameroon—declined in the 1990s". Reported in Fairplay 7/31/03.

TEU, with three shipping lines providing ships in excess of 2,000 TEU capacity[11]: Delmas, Mitsui OSK and Maersk Sealand.

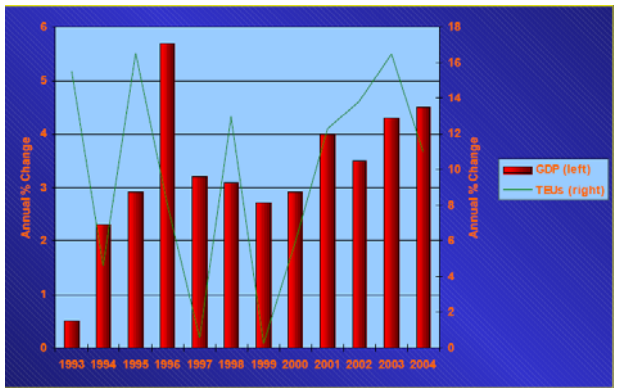
2.2 DESPITE PROGRESS, CONTAINERIZATION RATE REMAINS LOW

Containerization grows rapidly in Africa at the pace of more than 10 percent annually. In recent years, containerized traffic in WCA even grew even faster than world containerized traffic[12]. In Africa, containerization has grown more than three times compared to economic growth (see Figure 5).

However, containerized rate of traffic in WCA remains low and container traffic from or to Africa remains marginal in the world. In 2005, containerized traffic in West and Central Africa accounted for 0.6 percent of world containerized traffic (0.75 percent in 1995)[13]. Africa's container traffic share has ranged from 0.6 percent to 0.85 percent in the last ten years. West Africa's total container traffic does not account for more than 10 percent of Singapore port container throughput.

Containerization remains relatively low in West African ports so that a commodity, which would be shipped in a container from a Far Eastern or from a European port, may still be carried in break-bulk from an African port.

Figure 5. GDP growth and port demand in Sub-Saharan Africa (1993-2004)



Source: Penfold (2005)

[11] Associated with the changing direction of trade are changes in shipping routes. Thus, CMA CGM/China Shipping announced in October 2003 a new expanded service WAX2 between Asia and West Africa, with seven 1,700 TEU ships.

[12] For a breakdown of container traffic by regions, see Appendix 3.

[13] A World Bank study estimated the total container traffic in 1995 at 1 million TEU, this same traffic reached 1.7 million TEU in 2000, an increase of 70 percent in 5 years.

2.3 A MULTITUDE OF PUBLIC-OWNED SMALL PORTS

West and Central Africa lags behind in terms of global trends affecting port sector in the world. Contrary to most regions in the world, port concentration in West and Central Africa[14] is limited. Moreover, contrary to other regions in the world, ports remain predominantly publicly-owned.

In terms of total traffic, the top four ports in the sub-region are in a decreasing order: Lagos, Abidjan, Dakar and Douala. These ports account for almost 30 percent of the total port traffic in WCA. In terms of size and activity the port of Lagos is the most important. Its annual merchandise traffic is in excess of 30 million tons, which is approximately 55 percent of Nigeria's port activity (excluding hydrocarbon exporting terminals) and 25 percent of total ECOWAS member countries port activity.

The ports of Abidjan, Dakar, Douala, Tema, Lomé and Cotonou play a regional role. These ports can not only count on their national hinterland in order to thrive but also on traffic in transit.

Should land transport be facilitated along the corridor Abidjan-Lagos, these ports would be in a situation of direct competition to serve landlocked countries.

Despite the fact that some ports have witnessed rapid increased traffic, such as the Ports of Onne in Nigeria or Lomé in Cameroon, West and Central Africa is characterized by a multitude of small ports: not a single port is ranked in the top 70 ports worldwide.

Port concentration is higher for container traffic. Abidjan, Lagos, Tema and Dakar ports account for more than two thirds of total container traffic in the region (see Table 3).

Port and port handling remains public in most African ports (see Table 4 for details). State's role is predominant, the private sector, including global operators' role, being limited. Contrary to what happens all over the world, except for Lagos, the principal container terminal operating groups are so far marginally not involved in container operations in WCA.

[14] Port traffic varies widely between ports mainly because of differences in port efficiency, economic development of local economies, population size and growth, geographical positions and the quality of the link to the hinterland.

Table 3. Total container traffic in West and Central Africa (in TEUs)

Côte d'Ivoire	Abidjan	**670,000**
Nigeria	Lagos	**650,000**
Ghana	Tema	**342,882**
Senegal	Dakar	**331,191**
Angola	Luanda	**235,411**
Cameroon	Douala	**156,000**
Benin	Cotonou	**97,801**
Guinea	Conakry	**47,000**
Congo, DRC	Matadi	**46,000**
Gambia	Banjul	**44,152**
Togo	Lomé	**42,240**
Gabon	Libreville	**39,000**
Congo, Rep.	Pointe Noire	**30,000**
Sierra Leone	Freetown	**25,000**
Mauritania	Nouadhibou	**21,000**

Source: Port Authorities' websites. Includes traffic in transit. ECSA.

Table 4. World container port handling by ownership in 2004
(in percentage of total throughput)

	Global operators[15] and private operators	**State operators**
Africa	16.1	83.9
World	89.1	20.9

Source: Drewry (2006), p.7.

[15] Most of the global terminal operators are in the private sector and defined as having financial and commercial interests in more than one geographical region. However, there are some, most notably PSA Corporation of Singapore, Dubai Ports Authority (DPA) and HHLA of Hamburg, which are ultimately controlled by the central or local government bodies.

2.4 WCA PORTS ARE COSTLY FOR SHIPPERS AND SHIPPING LINES

Because of numerous constraints, port charges are high for shippers. Shipping lines face congestion costs and poor port productivity and pass theses costs to the shippers. Consequently, African economies, as a whole, bear the costs of congestion and poor port productivity.

Delmas calculated that, in 2004, 146 days were lost on the weekly service Europe-Africa because of congestion, which corresponds to an estimated cost approaching US$5 million, which is passed on to shippers through congestion charges. In 2003, when congestion was extremely high in Nigeria, it was calculated that the average cost of a call at Lagos was twice higher than in Felixstowe (UK).

2.5 SHIPPING LINES STRATEGIES TO COPE WITH CONSTRAINTS IN WCA

Faced with numerous constraints, shipping lines strategies have been focused on conferences, niches' quest and stopping the erosion of tariffs, which decreased in the end of the 1990s.

The agreements between shipping companies, known generically as Conferences, have a long history in West Africa. There have been major changes in comparatively recent years, mainly as a result of requests from the European Union[16].

Changes in the composition of such agreements has resulted from mergers and takeovers in shipping lines industry, including the purchase of OTAL by Delmas, the purchase of Safmarine by Maersk Sealand and finally, the purchase of Delmas by CMA-CGM.

Due to the 1974 Code of Conduct for Liner Conferences [17] and the 40-40-20 rule[18], WCA fleets played a substantial role until 1990. In practice, this rule led to the existence of several shipping companies without ships, selling their country's share of cargo to foreign companies, without accepting any responsibility for the quality or cost of services.

However, containerization growth has required the reconfiguration of national fleets—a challenge impossible to meet for most WCA countries.

UNCTAD then recommended shipping policy reforms based on the following strategies:

- Liberalization with a complex mix to ensure the competitiveness of the sector, and

[16] There are seven agreements (including the Europe West Africa Trade Agreement - EWATA).

[17] The Code of Conduct for Liner Conferences, UN Code on Liner Shipping, Convention adopted in 1974 and in force since 1983.

[18] 40 percent of freight allocated to domestic lines, 40 percent to the foreign trading partner and 20 percent to fleets of any country.

- Regulatory and promotional policies, to ensure a "level playing field" for national operators and the best available conditions for users"[19].

This concurs with the recommendation of Cotonou II to liberalize policies for maritime transport: "Policies and accompanying legislation should be modernized to reflect commercial realities. Key policies and laws should focus on rules of competition and should be harmonized at the regional level".

As a result of this liberalization and the end of the 40-40-20 in several countries, national shipping lines have greatly diminished in size and importance with a few exceptions and are marginal for containerized cargo.

The shipping industry is now dominated by a few companies, the "mega-carriers", organized in global consortia and able to offer lower rates for shippers. WCA countries excluding the Liberian flag now report a total fleet of 4,000 tons for container ships and 288,000 tons for other ships (general cargo, bulk ships and oil tankers), many of which may be out of service. The total of container ships serving WCA ports may amount to 3 million tons Gross Register Ton (GRT).

Until the mid-90s, the Europe-West Africa trade was organized within four conferences[20].

- COWAC (Continent-West Africa Conference) covering trade between North Europe and West Africa
- UKWAL (UK-West Africa Lines) covering trade between the UK and West Africa
- CEWAL (Central-West Africa Lines) covering trade between North Europe and Central Africa)
- MEWAC (Mediterranean-West Africa Conference) covering trade between the Mediterranean and West Africa

In the early 1990s, following a procedure initiated by Maersk, the European Commission investigated the alleged monopolistic practices of the conference lines involved in the region, mainly targeting Delmas. As a result, the shipping company was fined and forced to withdraw from all conferences in 1992, reducing drastically the market share controlled by COWAC and MEWAC.

Competition then intensified in the Europe/West Africa trade, and maritime transport rates registered a sharp decrease. After 1995, maritime transport tariffs remained without a rate setting mechanism for several years.

[19] Presentation by UNCTAD at the Conference: Infrastructure Framework for Trade, Turin 2002.

[20] This section is based on Hartmann (2005) with data from Containerization International and Dyna Liners.

Eventually, the situation stabilized when Maersk took over Safmarine and OT Africa Line joined Delmas under the control of the Bollore Group.

In 2000, a group of carriers involved in the Europe West Africa trade decided to set up a new conference, named Europe West Africa Trade Agreement (EWATA). The main objective of EWATA was to stabilize rates, which would be published. EWATA impact was due to the fact that member lines controlled an estimated 50 percent market share of the Europe/West Africa trade. Delmas and OTAL opted to remain outside the agreement, but mirrored most of the rate increases initiated by EWATA members.

In 2002, new shipping lines entered the Europe-West Africa trade, notably the CSAV group which developed an innovative approach, by adding intermediate calls in West Africa on their joint service between Europe and East Coast of South America (ECSA).

EWATA members and Delmas/OTAL, accused the new entrants to practice predatory pricing and fierce competition. Subsequently, the downward effect on the rates resumed over the next two years.

On September 1, 2003, Delmas and its subsidiary OTAL joined EWATA, bringing the market share of EWATA to an estimated 70 percent to 75 percent of the total Europe West Africa trade. In November 2003, P&O Nedlloyd announced its withdrawal from the Europe West Africa trade, and its intent to focus on the growing Asia West Africa trade.

In August 2004, West-Afrika Linien announced its withdrawal from the Europe-West Africa trade, quoting the inability of EWATA to increase the rates because of a strong competitive pressure from the outsiders, as the main reason for the decision.

Slow traffic growth and limited market entry had lead to excessive capacity over demand for shipping services.

Because of port problems, shipping lines adopted port surcharges, such as congestion surcharge which range from 25 Euros in Dakar to 300 Euros in Tema for a 20' container[21]. Thus, gaps in freight rates between WCA ports do exist, as a consequence of traffic and efficiency differences.

In the last years, shipping lines established tariffs increases for "port congestion" and "rate restoration" within the framework of Conferences.

[21] Data from EWATA website (www.ewata.org), November, 2006.

3. EXPORTS WEAKNESSES – AN EXOGENOUS FACTOR

Freight rates take into account trade imbalance between Southbound and Northbound flows. Freight rates to Abidjan are lower than freight rates to destinations at a shorter distance from Europe because return cargo are loaded in Côte d'Ivoire.

Although there has been some improvement in the trade balance of containers, for many WCA countries the continuing imbalance between imports and containerizable exports resulted in the export of a large number of empty containers and contributed to increases in maritime freight rates in the region. In 2000, trade imbalance reached 57 percent[22].

WCA trade reached US$73 billions in the year 2000, accounting for 1.1 percent of the value of global trade. In terms of volume, WCA trade accounts for 2 percent of world trade. According to UNCTAD, trade grew by 14 percent between 1990 and 2000 whereas world trade increased by 29 percent during the same period.

Although WCA trade with Europe represented more than two third of total WCA total trade, market share of Europe has decreased incrementally since then. Europe and North America remain major trade areas, representing 30 percent of WCA trade value. However, Asia plays an increasingly significant role in the region.

In the last years, this change has been primarily due to trade growth with the countries of the Far East and the impact of Euro appreciation.

This can also be explained by the changing composition of exports from WCA. In 1970, oil was representing 50 percent of exports whereas today it represents more than 85 percent.

Nearly half of WCA imports were from Europe. This represents a decline over previous years. The region only imports six percent of the value of its trade from North America. The ROW (Rest of the World) category—mostly the Far East—represents a growing source of imports for the region (Figures 6 and 7 on trade trends by regions). The rest of the import value, five billion dollars, represents imports from SSA countries, of which 81 percent is intra-regional trade (WCA trade).

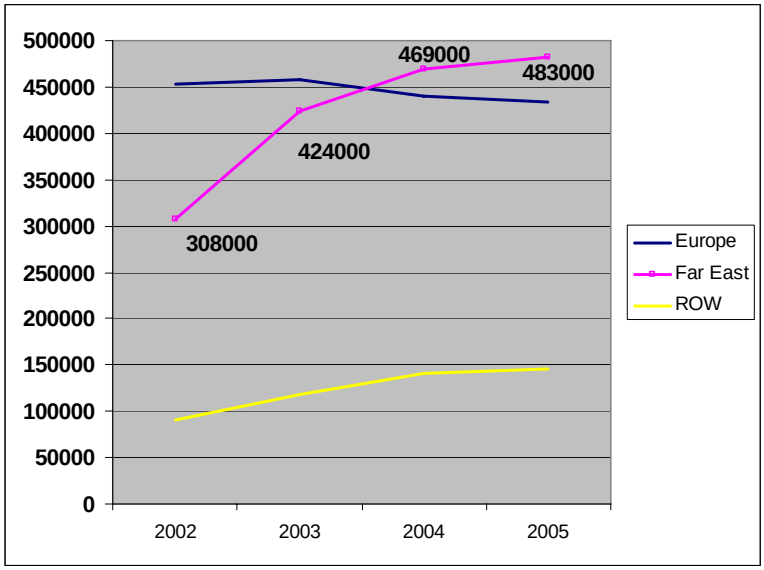
Most West African countries depend heavily on commodity exports. WCA mainly exports sugar, cocoa, coffee, tea, cotton, forest products, iron ore, copper and other minerals. These commodities represent more than 80 percent of the volume of non-oil export freight handled by ports in WCA.

[22] UNCTAD

According to UNCTAD, the twenty-six major ports in West Africa handled a total traffic of 250 million tons of cargo in 2000[23], of which 66 percent were oil exports from the oil producing countries of the region.

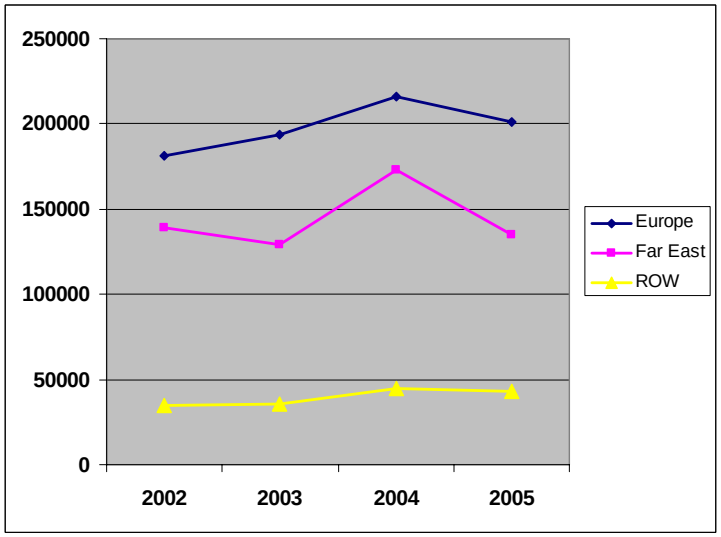
The erosion of export volumes during the last decade was accompanied by a decline in market shares for key exports. For the 30 most significant non-oil exports combined, SSA's average market share declined from 20.8 percent in the 1960s to 9.7 percent in 1990 of world exports of those products.

Figure 6. Recent trends of West Africa's imports



Source: Conte (2005)

Figure 7. Recent trends of West Africa's exports



Source: Conte (2005)

[23] UNCTAD

4. INEFFICIENCY OF PORTS IN WCA

West African ports cannot be isolated from world trends in trade and shipping sectors. West African ports are facing a challenge to receive bigger ships and to provide quick and efficient container handling. Major ocean carriers may be reluctant to call at certain ports due to high turnaround time and poor port efficiency.

Yet, this challenge is also an opportunity as over time, these developments should result in more efficient transport operations, which, if complemented with commensurate efficiency gains on the port landside, can significantly drive costs down.

Ports in the region with substantial hinterland traffic should be the natural competitors to become hub ports. However, decisions on transshipment centers in WCA inevitably will reflect a wide range of additional business considerations by ocean carriers, including the capacity of the ports to handle significantly increased traffic in order to minimize dead time for vessels. This might lead to a situation where medium size ports in the region can also be serious competitors for consideration for development as hubs.

4.1 PORT PHYSICAL CONSTRAINTS IN WCA

There has been ongoing discussion to expand several ports in the sub-region such as in Ghana, Benin, Côte d'Ivoire and Nigeria. However, materialization of such projects has been difficult.

Location constraint for the sustainability of certain ports

Many of the region's ports are embedded in cities, resulting in port and cities congestions. Port access from land transport corridors are usually inadequate, requiring better joint planning between ports and cities[24]. The location of many of the long established ports such as Lagos-Apapa within the urban area makes them difficult for their sustainability in the future[25].

[24] In developed countries, modern terminals are sometimes relocated outside the urban area, liberating land within the city for urban purposes.

[25] Several alternatives have been proposed in Snake and Ogogoro Islands. However, these alternatives would remove the port installation itself from the urban center and pose challenges for port access.

Port-rail connection may also have to be redesigned and requires detailed consideration in each case. Indeed, rail yards may take up a significant area within or adjacent to the port with rail lines representing up to 10 percent of the port estate.

Port capacity usually results from inadequate maintenance

Only Abidjan (3 cranes), Lagos-Apapa, Tema, Dakar and Douala, (2 cranes) are equipped with gantry cranes in container terminals.

In general, equipment maintenance in West African ports has been inadequate over the past years. However, expensive rehabilitation should be only approached after a careful analysis of the future need for current equipment, many of which being technically obsolete and would be better replaced by new facilities.

Maintenance dredging and navigational aids are usually inadequate. Ports in WCA sign on ad-hoc basis dredging contracts. However, there are few long-term contracts for dredging maintenance. Access depths increased for Douala after a dredging contract was signed. However, because of contract implementation problems, the depth of the port remains changing, which is problematic for shipping lines.

Port capacity could become a serious challenge in the future

As ports would be increasingly challenged by intensified traffic, greater ship size and transshipment growth, ports capacity may have to be expanded in the future. Larger ships are more demanding in terms of port installations. The ship to shore gantry cranes need to be sufficiently large to reach all the containers and sufficiently fast in operation for an acceptable ship turnaround time.

We could assume that, in five to ten years, 2,500-4,000 TEU containers vessels will call in West and Central Africa demanding depths up to 14 meters and increased stacking areas.

However, expanding port capacity does not currently appear to be the main priority in WCA. According to Drewry (2006), port capacity in Africa is used at 80 percent capacity. In 2010, the utilization ratio of container terminals should remain constant (79.5 percent) based on traffic forecasts and confirmed investment plans. Consequently, in the short and medium-term, global port capacity in Africa does not seem to be the most important constraint (although it may be an important factor for some ports).

If the containerization rate would increase substantially, capacity could then become a serious challenge in the region.

4.2 PORT ORGANIZATION GREATLY IMPACTS PORT EFFICIENCY

Impact of port efficiency on port productivity and costs

Systematic comparative information is not available on cargo handling performance in many ports of WCA. However, there are clearly important discrepancies: dwell time may vary between a reported average of 7 days in Abidjan and 17 days in Douala[26].

A number of ports have developed off-dock terminals to remove container yards from the immediate vicinity of the port to a less congested area. These terminals have their place, primarily for empty container storage. Inland terminals connected to an efficient rail system may tend to reduce the transit time and permit special arrangements to be made with the shipping companies.

Importance of a legal setting

The institutional framework of a port in WCA has depended primarily on its inheritance of either the French or the British model.

The French model usually placed the ports under an *établissement public*, which is an incorporated government agency. In France, the landlord model prevailed. The agency was in charge of infrastructure, real estate (*domaine*) and marine services. The private sector operated cargo handling and storage and other business related activities under some degree of regulation.

In the British model, port authorities were also incorporated statutory public bodies but usually enjoying a greater degree of autonomy. They usually were service ports. The port agency entered more directly into landside port operations, such as shore handling, storage, or towage.

In both cases, investment in infrastructure and fixed equipment was supported primarily by the port agency, with or without government financial involvement. Over the years, the public institution has tended to grow incorporating in some cases additional functions and services.

There are at present two major trends. The first is to establish the statutory incorporated port agencies as share companies. Shares are at present owned only by Treasuries but the road to equity participation by others is opened. The second is towards the concessioning of specialized terminals to transfer the risks and costs of fixed infrastructure and equipment from the port agency to private operators.

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[26] Issues may rise with cargo, such as imported second-hand vehicles, where excessive delays in clearance have been observed.

The present model envisages the transfer of responsibility for operational matters and, so far as possible, the investment in superstructure and operational infrastructure.

The landlord port concept now prevails in many regions of the world. Terminal containers have been concessioned in Abidjan, Tema, Takoradi, Luanda and Douala, among others, in the last years.

Landlord ports are usually less costly for shippers and shipping lines because in most service ports, the transfer of lucrative cargo handling and storage activities to the private sector will impact negatively on their revenue, necessitating a reshaping of their financial and revenue structure.

4.3 CUMBERSOME PROCEDURES AND POOR LINKS TO THE HINTERLAND REDUCE PORT EFFICIENCY

Lomé's port implemented a program, "Solidarity on the water" aiming to promote transit operations destined to landlocked countries.

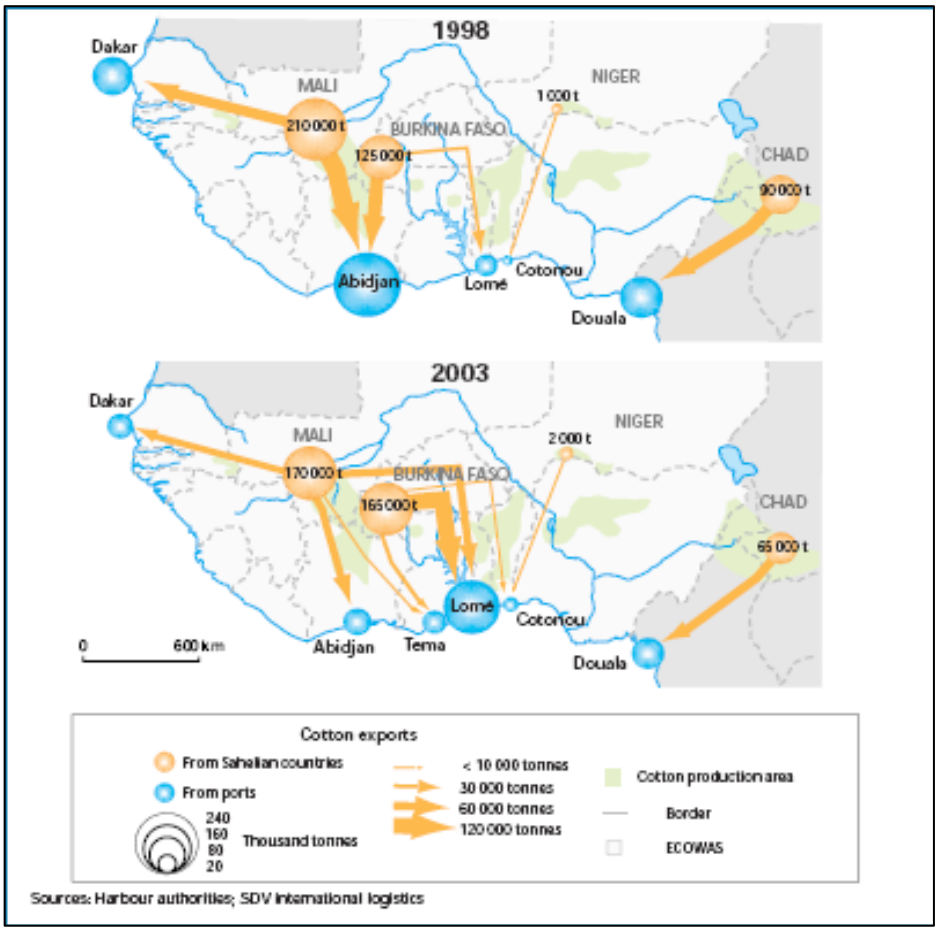
However, a port's competitiveness does not only depend on its infrastructure and services. It also hinges on the quality and fluidity of the land transport networks which serve it (most often being the regional interstate roads). The beneficiaries of this emerging trade competition will be the countries that have, at the same time, efficient ports, good roads without roadblocks, operational rail lines and border posts with the least administrative formalities. The competition between transport corridors could be a triggering mechanism to do away with the numerous road blocks and other obstacles to the fluidity of goods and people's movement.

In addition, there are the traditional "non-infrastructure" and "non-official" barriers at the ports and at border crossings that slow trade movement and increase their costs without adding economic value. The search for efficient ports and shipping has to be complemented by associated measures, which increase transparency and reduce corrupt practices.

The five landlocked countries of West and Central Africa are Burkina Faso, Central African Republic, Chad, Mali and Niger. Their transit traffic registered by WCA ports amounts to three million tons[27], representing a volume of about four percent of all West African port traffic.

[27] It is doubtful if all flows are captured in available statistics, as volume or destination of transit data is sometimes missing or not well reported.

Map 1. Impact of the Ivorian crisis and the growing role of Lomé



Source: ECOWAS Secretariat (2006).

The trade corridors for the landlocked countries are presented in the Appendix 5. Fifteen transit possibilities for the five landlocked countries have been identified. Distances to the ports vary between 1,000 and 2,000 kilometers with an average distance of 1,500 kilometers.

Inland transport costs are relatively high in West African countries, on account of distances and deficiencies in infrastructure. Even for two relatively high value commodities (cocoa and coffee), on the basis of figures provided by the *Institut national de recherche sur les transports et leur sécurité* (INRETS) for the Cotonou II workshop, the land cost accounted between 35 and 41 percent of the total transport cost from origin to port of destination.

None of the landlocked countries depends exclusively on a unique corridor. Each of them has the choice of several corridors leading to two to four different ports. In most cases, any determined transit country can be avoided, albeit with some delay, further distance and likely additional cost.

The use of multiple corridors has been the general practice, both for security reasons and on occasion for political reasons. Thus the dissolution of the Mali Federation in the 1960s encouraged the use of the Abidjan corridor. More recently, events in the Côte d'Ivoire in 2002 have benefited ports in Ghana, Togo and Benin with diverted traffic destined for or coming from Burkina Faso, Mali and Niger. Such interruptions indicate that dependence on a single transit corridor is not a wishful strategy.

4.4 A SUCCESSFUL EXAMPLE OF PORT REFORMS

Most West African ports have many more staff than required for efficient operations and this surplus will increase as container handling improves. This trend cannot be escaped and is the price to be paid for more efficient shipping.

THE NIGERIAN PORT SECTOR has for a long time been globally recognized as one of the least efficient and carrying high cost. It was plagued with unusual degree of centralization, where any major decision had to be approved by the President or the Minister. This led to more inefficiency and lengthy decision-making process.

In 2005, a reform process was initiated, with the adoption of the "Landlord" model, where the public sector is responsible for regulation of the sector and port planning, as well as remaining owner of port land and infrastructure. The private sector would be responsible for marine and terminal operations, superstructure and equipment. The agreed institutional reform included:

- Creation of two Autonomous Port and Harbor Authorities
- Creation of a National Transport Regulatory Commission (NTC)
- Limiting the role of the Government (Ministry of Transport)
- Private operators to perform port operations

Preparation and implementation of the reform followed three main parallel processes:

- Legal and regulatory reform
- Labor reform
- Competitive and transparent transactions to select private operators

To date, a new port bill and a NTC bill have been introduced and are expected to be signed into law in 2007, labor redundancies with severance package undertaken (reducing Nigerian Port Authority staffing from 13,000 to 3,000), and 26 terminal concessions granted.

In 2006 the initial concessions became operational. While the long term benefits will take time to manifest, it is clear that improvement in port operations is already having positive impact. Within a few months of private operation of the Lagos container terminals, productivity has gone up. Chronic delays for berthing space had nearly vanished, leading shipping lines to reduce their congestion surcharge from Euro 525 in March 2006 just before concessioning to Euro 75 in January 2007. Using rough estimates, just the reduction in congestion charges is saving the Nigerian economy about US$200 million annually.

Whilst port productivity and efficiency are essential for the success of the foreign trade of WCA countries, port reforms necessary for their success will in most cases also involve the reorganization of labour, probably with employment downsizes. The best way to tackle this problem of surplus labour depends on the particular circumstances and opportunities of each port, but port reforms are likely to involve retrenchment and compensation. The guarantee of social stability also requires that port labour reforms are accompanied by some positive steps to permit those affected to take up alternative employment[28].

[28] ILO published a handbook on this matter, highlighting successes (and failures) of such programs.

5. PROSPECTS AND POLICY RECOMMENDATIONS

West African ports cannot be isolated from world trends in trade and shipping. So far, most West African ports have not been able to be integrated into global trends. Yet, current challenges may be an opportunity, as these developments should over time result in more efficient port and transport operations, which should significantly decrease transport costs for West African economies.

Current trends should likely be reinforced in the future with a widening gap between large and relatively efficient ports and small ports, which will not attract mega-carriers and consequently suffer from higher maritime transport rates.

Africa's trade reorientation has induced evolving strategies from shipping lines in the region. Jens Norgaard, Safmarine's regional executive for the Americas stated, in 2004, that he sees significant potential for growth between South America and West Africa, particularly for reefer shipments. Consequently, traditional routes may enter a period of change, as shipowners looking for the most efficient combination of ship sizes, ports traffic and efficiency.

Regarding the hub and spoke discussion, a single hub port for West Africa and Central Africa is unlikely[29]. No country has sufficient traffic to become the unique hub in the region. Moreover, shipping companies will be strongly influenced by the need to provide alternative ports in case of emergency or security problems.

However, two or three ports may develop as competing and complementary hubs, depending on the facilities and operating conditions provided.

As additional modern container terminals are provided, a more complex pattern will probably evolve, with different shipping lines selecting principal ports for their services depending on commercial and trade factors as well as port efficiency.

Several West African ports may risk to be increasingly served by transhipment. Some ports will receive the larger ships; others will be served by transshipment in feeder vessels. South African ports should play a major role with an increasing use of transshipment, especially for services from Asia and Australasia. With the rapid development of the South African ports, mainline services from Asia may turn round at Durban, with feeder services to West Africa.

Large ports in the region with substantial hinterland traffic should be the natural competitors to become hub ports.

[29] See the discussion in Pálsson (1998).

However, medium-size ports in the region could also be serious competitors for becoming hubs. Indeed, decisions on transshipment centers in WCA will reflect a wide range of additional business considerations by ocean carriers, including the capacity of the ports to handle significantly increased traffic, draft and infrastructure consideration, productivity to minimize turnaround time and country stability.

The growth of feeder services will provide an opportunity for national ship-owners to enter niche markets in association with major ocean carriers. Regional shipping lines provide a service, which for economic and business strategy does not interest a mega-carrier.

In conclusion, the recently observed development of larger vessels calling WCA and the prospect for even larger vessels being used offers an opportunity for reduction in shipping costs, provided that necessary maritime transport, land transport and port reforms are undertaken.

The main objectives of upcoming reforms for Governments should be aimed at:

- facilitating procedures and controls in ports, such as procedures affecting turnaround time, dwell time and handling costs, otherwise port attractiveness is seriously limited. The introduction of a community-based system may help in this regard.
- facilitating trade and land transport outside the port on the main trade corridors.
- improving port access in view to develop multimodal transport. Areas around ports are usually congested and investing in road infrastructure to improve port access may therefore have a positive impact on city economic activity and port efficiency.
- fostering private sector participation both to provide investment for new installations and equipment, as well as transferring technical know-how and more efficient terminal management.
- increasing competition among shipping lines in countries where informal barriers to market entry still prevails.
- developing knowledge sharing between ports and countries on current port reforms in the region. The Port Management Association of West and Central Africa (PMAWCA) could become a suitable arena for these exchanges of views.
- carrying out cost-benefit analysis of current port management and efficiency in countries facing very high port charges and high maritime transport rates.

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Appendix 1. Geographical classification of African countries

Country	West & C	South	East	Landlocked
Angola	W			
Benin	W			
Botswana		S		L
Burkina Faso	W			L
Burundi			E	L
Cameroon	W			
Cape Verde	W			
Central African Republic	W			L
Chad	W			L
Comoros		S		
Congo Dem Rep	W			
Congo Rep	W			
Côte d'Ivoire	W			
Djibouti			E	
Equatorial Guinea	W			
Eritrea			E	
Ethiopia			E	
Gabon	W			L
Gambia the	W			
Ghana	W			
Guinea	W			
Guinea-Bissau	W			
Kenya			E	
Lesotho		S		L
Liberia	W			
Madagascar		S		
Malawi			E	L
Mali	W			L
Mauritania	W			
Mauritius		S		
Mozambique		S		
Namibia		S		
Nigeria	W			
Niger	W			L
Reunion			E	
Rwanda			E	L
São Tomé & Principe	W			
Senegal	W			
Seychelles		S		
Sierra Leone	W			
Somalia			E	
South Africa		S		
Sudan			E	
Swaziland		S		L
Tanzania			E	
Togo	W			
Uganda			E	L
Zambia			E	L
Zimbabwe		S		L

Appendix 2. Trends of West Africa and World Trade (1970/2000)

		Goods Loaded				Goods unloaded				WCA shares in world exports
	Year	Oil		Dry	Total	Oil		Dry	Total	
		Crude	Products	Cargo	Goods	Crude	Products	Cargo	Goods	
West Africa	1970	60.5	1	61.5	123	3.6	4	14.8	22.4	**4.91%**
	1980	102.6	1.9	66.8	171.3	4.3	5.5	30.8	40.6	**4.63%**
	1990	127.1	3.4	55.2	185.7	4	3.2	27.7	34.9	**4.63%**
	2000	145.4	1.2	21.8	168.4	3.7	4.7	36.5	45	**2.86%**
World Total	1970	1108.9	232.5	1162	2503	1101	297	1130	2529	
	1980	1527.4	343.9	1832	3703	1530	325	1823	3679	
	1990	1287.2	467.6	2253	4007	1315	445	2365	4125	
	2000	1604.9	544	3735	5884	1632	512	4096	6241	

Source: Review of Maritime Transport 2001 and UNCTAD secretariat

Appendix 3. World Container Traffic by Regions
(in million TEUs)

	2001	2002	2003	2004	2005	Average Annual Growth (2001-2005) (in %)
Europe	51	57	60	64	69	**8**
Asia	115	134	152	177	199	**15**
North America	30	33	36	38	41	**8**
Africa				**2**	**2.25**	
Rest of the World	42	41	44	49	52	**5**
Total	238	265	291	329	361	**11**
World annual growth (in %)	**2.4**	**10.4**	60	**12.5**	**10.3**	

Source: Conte (2005)

Appendix 4. West and Central Africa trade value in 2000 (in current US dollars)

Exporters	Importers								
	Western & Central Africa	Southern Africa	Eastern Africa	SSA	EEC	N. America	ROW	World	Share of SSA in World Export
West and Cent. Africa	4,096	410	42	4,548	13,943	13,465	10,498	42,550	11%
Sub-Saharan Africa	5,035	3,198	2,590	10,823	28,194	20,279	23,497	83,287	14%
European Community	14,011	12,056	4,815	30,882	1,416,825	234,016	600,977	2,282,700	1,3%
North America	961	3,540	1,805	6,306	177,495	415,754	448,829	1,047,979	0.6%
Rest of World	6,083	11,350	9,534	26,967	655,077	751,109	1,517,775	2,950,821	0.9%
World	26,090	30,144	18,744	74,978	2,277,591	1,421,158	2,591,078	6,364,786	1,1%

Source: African Development Indicators 2002