

ENHANCING GROWTH THROUGH REGIONAL AGRICULTURAL INPUT SYSTEMS (ENGRAIS) PROJECT FOR WEST AFRICA



FERTILIZER COST BUILD-UP AND PROCESS MAPS IN WEST AFRICA

PORT OF DAKAR

August 2019 | Dakar – Abidjan – Tema – Lomé







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USAID Cooperative Agreement No. 720624181000001

The Feed the Future Enhancing Growth through Regional Agricultural Input Systems (EnGRAIS) project for West Africa is one of the many assistance programs supported by the American people through the United States Agency for International Development (USAID).

This overview is made possible by the generous support of the American people through Feed the Future, the U.S. Government's Global Hunger and Food Security Initiative. The contents are the responsibility of IFDC and nitidæ, and do not necessarily reflect the views of Feed the Future or the United States Government.

Dakar Port Authority (PAD)





Dakar Port Authority (PAD) is the fourth largest port in West Africa, after Lagos, Abidjan, and Lomé, handling an enormous total volume of goods, which exceeded 18 million tons in 2017 and likely exceeded 19 million tons in 2018 according to initial estimates. Official figures were not available at the time of this study.

The growth of maritime traffic at the PAD over the last 10 years has been very rapid, with an average of nearly 7% per year. Transit traffic via the PAD is also growing rapidly, particularly since 2011, when the Ivorian postelectoral crisis clearly favored the development of transit to Mali via the Dakar Port Authority at the disadvantage of the Port Authority of Abidjan.



¹ Average waiting time during the period from May 2018 to May 2019 for dry bulk, according to <u>www.marinetraffic.com</u>.

Recently, fertilizer imports by the PAD have increased by between 325,000 and 450,000 tons/year, of which an average of one-third is cleared through customs in Dakar and two-thirds is transported directly to Mali.

Strengths of the Dakar Port Authority

The port's location in the northwestern part of the sub-region helps importers to slightly reduce freight costs and maritime transport times from the main fertilizer manufacturers (Morocco, Baltic Sea, and Black Sea).

In addition to these savings on sea freight costs, the existence of a phosphate export-dedicated quay, operated by Indorama, is another advantage of the PAD. Indorama is mainly involved with the Senegalese market, but Malian companies that are

Fertilizer Imports via Dakar Port Authority						
(Source: Senegal Customs + est. Nitidæ; thousands of tons)						
	2016	2017	2018			
Dakar customs clearance	105	121	109			
Hinterland transit	345	209	214			
Total	450	330	323			

Distance to Hinterland Cities (in km)						
Burkina Faso		Mali				
Bobo-Dioulasso	Ouagadougou	Sikasso	Bamako			
1,906	2,238	1,731	1,361			

forging links with Indorama can also benefit, because many bulk carriers of 30,000 tons berth are emptied before being loaded with Senegalese phosphates; thus, shipping and unloading costs can be reduced.

Geographically, the PAD is highly competitive for the Senegalese and Malian markets and, more specifically, Western Mali, the capital Bamako, and Central Mali. Although slightly longer than the Abidjan-Bamako route, the Dakar-Bamako route still has a relatively comparable shipping cost.

Another advantage of the port of Dakar is the availability of a berth largely dedicated to transit to Mali. Because of agreements signed between Mali and Senegal, vessels conducting commercial operations destined for Mali have priority berthing at Berth 32 (#3 on the map). These agreements reduce the waiting time.

Finally, maritime congestion is slightly less in the port of Dakar than in Abidjan, as shown below.



Weaknesses of the Dakar Port Authority

The major weakness of the Dakar Port Authority is the low availability of land and congestion on the surrounding roads. This port is located at the end of the peninsula of Dakar and is surrounded by densely built and populated business and residential areas.

As a result, storage costs in the Dakar port area are significantly higher than in other ports in the sub-region, and the establishment of blending or storage facilities near the port is extremely difficult and uncompetitive. Once goods are unloaded in Dakar, getting them out of the port area quickly is an even more crucial issue than in other ports in the sub-region. The only functional blending unit in Senegal – *Industries Chimiques du*

Senegal (ICS) – is located outside the Dakar metropolitan area; other Senegalese dealers prefer to import compound fertilizers.

Fertilizer Importing Procedures via the PAD

The following diagram summarizes the main steps in the import process. Depending on what the importer chooses, all or only some of these steps may be delegated to the contracted freight forwarder.



his carrier in the port, exit with BAE In person - Negotiated transport cost

(containers), freight forwarder, or land handler delivers to the importer In person - Cost included in services

and pays customs duties at the land border In person - Cost included in freight forwarding service

Notes on the Import Process

- ^{1.} <u>ISRA</u>: The Senegalese Institute for Agricultural Research (*Institut Sénégalais de Recherches Agricoles*) is the authorized agency for approving fertilizers in Senegal, which must be requested if the imported fertilizer has not yet been approved by the West African Fertilizer Control Committee (WAFCC).
- ² <u>Import Card</u>: Issued by the Foreign Trade Department. The one-time application fee is 33,000 FCFA; the annual renewal fee is 18,000 FCFA (<u>http://www.dci-sn.sn/index.php/carte-d-import-export</u>).
- ^{3.} <u>ORBUS</u>: This is an online platform developed by the Senegalese company GAINDE 2000 called the ORBUS 2000 System, which makes it possible to carry out preclearance formalities (Preliminary Import Declaration [DPI]and Transmission of the Certificate of Conformity). Unlike the Single Window system, it is not possible to complete customs formalities that are carried out via another platform (GAINDE).
- ^{4.} If the import contract is an FOB contract, transport and marine insurance is the responsibility of the exporter (supplier); however, if it is a CIF contract, the importer contracts transport and insurance.
- ⁵ Only one <u>control company is authorized</u> by Senegal for conformity assessment before shipment of all products with a value exceeding 3 million FCFA (5,150 USD); this is the Swiss group <u>COTECNA</u>.
- ⁶ <u>COSEC</u>: Senegalese Shippers' Authority, the body in charge of freight regulation and transit at the Dakar Port Authority. Charges vary in terms of currency and amount, depending on the origin and transport mode. Details of the cost of the Cargo Tracking Slip are available at <u>http://www.cosec.sn/index.php/tarification.</u>
- ^{7.} <u>GAINDE</u>: Automated Management of Customs and Economic Information, also called *GAINDE Intégral*. This system was developed by GAINDE 2000 as the ORBUS system. It allows a customs declaration to be made electronically but must be completed with the delivery of paper documents by the forwarder (authorized agent) and payment of customs duties either by the forwarder or via a third payment platform called CORUS, also developed for Customs by the same company.
- ⁸ <u>Freight forwarder</u>: Company representing the importer for all or some of the procedures to be carried out at the port and with customs. Under contracts signed with importers, the freight forwarder can only manage the administrative formalities with the consignee, port authority, and customs or control part of the handling/transport to the importer's warehouse. This is particularly the case during transit to hinterland countries, in which the freight forwarder manages transport at least to the land border of Mali or Burkina Faso and customs clearance at that border.
- ^{9.} <u>Consignee</u>: Company representing the charterer (shipowner) in the port for all the procedures to be carried out in the port. The transfer of product liability between the charterer (carrier) and the importer and the end of the contract of carriage occurs during the exchange of bills of lading (also called BL exchange) between the consignee and the freight forwarder representing the importer.
- ¹⁰ <u>Customs charges</u>: Customs charges are practically homogeneous in ECOWAS space (Common External Tariff) and consist of a Community Levy of 0.5% of the CIF value, a Solidarity Levy of 0.5% of the CIF value, and a Statistical Fee of 1% of the CIF value. Customs duties up to 5% of the CIF value are also levied on preformulated NPKs but not on other types of fertilizers or ingredients. In addition to these ad valorem charges, there is an Extra Work Fee paid to Customs up to 20,000 FCFA per customs declaration. In the specific case of the import of a container, an additional fee called the Inspection Fee is charged for scanning the container (0.75% of the CIF value).
- ¹¹.<u>HAD</u>: Authorized Customs Fees are the fees of the "customs-authorized" freight forwarder for carrying out transit formalities with the Consignor, the International Trade Organization, the Port Authority, and Customs. These costs may vary by freight forwarder, assigned tasks, and the volume processed between 1 and 2 USD/ton and any handling and transport costs if paid by the freight forwarder in advance.
- ¹² Warehouses of Transit: They are managed by the Malian Warehouses of Senegal (EMASE). This structure levies a Transport Activities Coordination Fee of 500 FCFA/ton on the product in transit.
- ¹³.<u>RGF</u>: Road Guarantee Fund, a guarantee fund managed by both the Chambers of Commerce and Industry of the country in which the port is located and the country of destination. It is intended to cover possible theft and damage during transit between the port and the land border. The amount levied is 0.5% of the CIF value of the goods in transit.

Process duration: from the supplier's quotation to the delivery of the goods, between 1 and 2.5 months



Import Charges via the PAD

The following table shows the most common case,² that of a bulk import with in-port packaging. However, for blending near the port city, the product is transported in bulk to the factory, which significantly reduces port fees). Sales prices in Senegal are estimated for the northern part of the country (rice basin of the Senegal River). Sales prices in Mali are estimated for the production areas where the port of Dakar is the most competitive (Kayes, Koulikoro, and Segou regions).

² The data presented are only averages and do not cover all import processes. A comparison matrix produced during the study allows more complex comparisons to be made by port, final market, and import modality. It also gives the minimum and maximum values per step according to the costs specific to each importer, the storage period, the loan interest rate, and the purchase price of the raw material. All values should be considered orders of magnitude that may vary according to the international input market, exchange rates, transport supply and demand in national markets, and supply chain congestion, including unloading at the port.

Values in USD/ton	Simple Product (import Urea, DAP, MAP, etc.)	Complex Product (import NPK formulated at source)	Formulation in Dakar Suburban (import 90% of ingredients)	Formulation in Mali (import 90% of ingredients transit via PAD)
FOB reference price	300	300	260	260
Sea freight (bulk carrier) + insurance	38	38	33	33
CIF reference price	338	338	293	293
Port charges	37	37	25	32
Road transit (Dakar->Mali)				75
Customs clearance	8	22	7	7
Storage and handling costs of the importer	12	12	33	24
Administrative and financial costs of the importer	25	25	32	30
Importer profit	30	30	30	30
Price ex-warehouse importer/blender	450	464	420	489
Transport to the distribution	→SN: 20	→SN: 20	→SN: 20	→Mali Central: 10
area	→Mali: 70	→Mali: 70	→Mali: 70	→Mali South: 15
Administrative and financial costs of the distributor	10	10	10	10
Distributor profit	15	15	15	15
Price from warehouse to distributor production area	Senegal: 495	Senegal: 509	Senegal: 465	Mali Central: 524
	Mali: 545	Mali: 559	Mali: 515	Mali South: 529
Ex-warehouse price	Senegal: 14,350	Senegal: 14,750	Senegal: 13,500	Mali Cental: 15,200
distributor production area in FCFA//bag	Mali: 15,800	Mali: 16,200	Mali: 14,950	Mali South: 15,350

Projects and Development of PAD

1) Rehabilitation of Dakar-Tambacounda-Bamako Railway:

The governments of Senegal and Mali are working jointly to rehabilitate and relaunch the Dakar-Bamako railway. Operation was interrupted at the end of 2015 following the termination of the concession agreement with Transrail Group. Though an investment plan has been submitted to the World Bank in 2019, the reopening date is yet to be set. In addition, the upgrade for the transit of fertilizers to Mali would involve investment in "dump wagons," which has not yet been discussed by the authorities.

2) Integrated Logistics Hub:

Investments are being made in the development of logistics zones near the Dakar Port Authority. Various projects are grouped under the title "Integrated Logistics Hub," which aims to increase container traffic at the port. No major investment is planned in the short term to increase the volume of bulk cargo handled in the port of Dakar.

Recommendations for Importing Fertilizer via PAD General Recommendations

1) <u>Reduce waiting times for fertilizer ships (reduce ship demurrage costs):</u>

Priority should be given to fertilizer carriers, whether transporting to Senegal or Mali (by also allowing fertilizer boats destined for Mali to dock at berths other than those designated, in the event of occupation by another vessel).

2) <u>Support Senegal's ongoing project aimed at improving the fluidity of access to the Dakar Port Authority:</u>

The port must be encouraged to make better use of the distribution platform and give priority to products unloaded from the port, in order to allow more storage space for fertilizers; improve the management and organization of docking in order to improve unloading operations; and establish the Single Window platform.

3) Encourage the Malian and Senegalese customs interconnection program:

This program currently being implemented should help improve the conditions under which trucks cross land borders in terms of time, cost, and administrative simplicity.

Specific Recommendations

1) WAFA should design a port logistics monitoring system:

The West African Fertilizer Association (WAFA) should commission an internal or external analyst to draft a monthly report on the logistics situation using a combination of maritime freight cost data analysis (initially based on Argus data and then gradually extended to freight brokers – a full comparison for West African ports) and data on ship passage time in the port (<u>www.marinetraffic.com</u>). This report would make it possible to anticipate logistics loads and risks for different importers. It could also help importers to better organize group negotiations in the event of a common risk or problem.

2) Encourage Malian operators to negotiate the use of Indorama's mineral terminal:

The phosphate terminal (#5 on the map), managed by Indorama for the export of Senegalese phosphates, remains underused for fertilizer import activities. Its use by fertilizer importers (particularly those from Mali) could reduce unloading costs and sea freight costs, particularly for the import of fertilizers already in bags (break bulk) rather than having to bag on the quay (Bulk In/Bag Out) in the bulk terminal and then transport to Mali.

3) Position with the future port of Bargny-Sendou:

The port of Dakar is already relatively congested in terms of road access and geographically limited in terms of growth, particularly for bulk trade, given that its growth is mainly directed toward increasing container traffic. The construction of a second deep-water port (with a planned 18 meter [m] draft) is in progress in the south of the Dakar urban area. Malian and Senegalese fertilizer importers are interested in positioning themselves at this new port, which will mainly be used to unload bulk carriers, given it integrates bagging on the quay (BiBo) for Handymax or larger vessels; this will allow significant logistical savings and take advantage of the growth in fertilizer demand in West Africa.

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