Success Factors for Improving Logistics in a Middle-Income Country
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This note presents the main lessons drawn from an analytical and sector work on trade logistics in Morocco. Public and private counterparts recognized the positive impact of the World Bank’s report to catalyze and accelerate reforms’ pace and to facilitate cooperation between public and private parties involved in logistics reforms. A careful preparation process and a strong buy-in from public and private stakeholders involved in logistics in Morocco made this Economic Sector Work (ESW) successful. To achieve this outcome, the Bank team based efforts on a tailored approach to commission background studies, knowledge dissemination during preparatory work and a detailed action plan in order to create a rapid and positive impact on improving logistics. The Moroccan example also demonstrates that, in a middle-income country, detailed and relevant action plan under a strong political willingness and commitment to reform can achieve rapid and significant results. The World Bank (hereinafter referred to as the Bank) needs to be extremely responsive and provide up-to-date expertise in order to accompany current reforms and public and private initiatives in this field.

Despite this success, some knowledge gaps should still be filled to develop lending activities in trade logistics. The findings, interpretations, and conclusions expressed here are those of the authors and do not necessarily reflect the views of the Board of Executive Directors of the World Bank or the governments they represent.

1. WHY DOES LOGISTICS MATTER FOR TRADE?

Many countries in the world opted for export-oriented growth through trade openness. Developing countries signed and entered a new phase of regional and multilateral preferential agreements to ensure exports’ growth. These agreements are considered important tools to obtain a facilitated market access and thus to be synonymous with growth and employment.

Exports’ growth depends mainly on the competitiveness of the countries’ companies which is affected by price and non-price factors such as macroeconomic policies, labor costs (and productivity), investment climate, infrastructure, public services delivery, innovation capacity, product quality, and increasingly, logistics and transport services.

For a country whose comparative advantage is related to geographical proximity, such as Morocco, logistics becomes a major comparative advantage (or disadvantage). With sound logistics, those countries may be easily integrated in just-in-time production and benefit from outsourcing investment from Europe or from the United States.

Logistics creates value-added in two ways. Supply Chain Management (SCM) allows companies to move up the value chain and thus to increase value-added. Furthermore, modern logistics generates employment thanks to the creation of new services essential to the expansion of national and multinational firms.

2. MOROCCO’S TRADE OPENNESS AND FIRST PHASE OF REFORMS IN LOGISTICS

Morocco made the choice of trade-led growth, since signing an Association Agreement with the European Union (1996)\(^1\) and a Free Trade Agreement (FTA) with the United States (2004).

The Association Agreement with the EU represents an opportunity for sustainable growth and job creation\(^2\). Until now, growth has been heavily dependent on agriculture despite a steady but timid growth of industry and services.

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\(^1\) The agreement, implemented since 2000, stipulates an FTA, after a transition period ending in 2012.

\(^2\) Morocco’s unemployment rate reaches 22% and poverty rate 19% with 43 % of the population living in rural areas (WDI 2004). Industry has steadily accounted for 1/3 of GDP in the last decade.
However, the benefits of the Agreement will be reaped only to the extent that Morocco is as economically “close” to the EU as possible.

Moroccan authorities and stakeholders perceive logistics as a decisive factor to move up the value chain and strengthen competitiveness. They aim at reducing logistics costs of Moroccan economy and therefore promoting expanded trade links between Morocco and its key European partners, and simultaneously encouraging foreign investment. The requirements of Moroccan clients are becoming increasingly demanding. Product cycle (order-delivery) may sometimes be less than one week. Moroccan companies must be able to address new performance requirements. The end of import quotas in textile, starting from January 2005, made this perception even more acute.

Since 1999, the Government of Morocco has undertaken major reforms, which had been long identified, including in the Bank’s assistance, but delayed for many years.

Morocco’s efforts in customs reform have been well documented and are considered as worldwide best practices (Steenlandt 2004). Customs reform resulted in significantly reducing clearance time and creating a customer-oriented mindset.

For road freight, the Moroccan parliament adopted the law 16-99 (which entered into force on March 13th 2003). Like many developing countries, Morocco has had a small modern fleet along with a large “informal sector” consisting of large fleet of small vehicles. The main provisions of this reform were to lift the forwarding monopoly of ONT (Office National des Transports); tariffs liberalization; integration in the formal sector of vehicles of 8 tons and less owners; introduction of qualitative criteria for profession entry.

For ports, the core reform resulted in (i) ending the confusion between regulatory and operational functions, which previously were under a single state entity ODEP (Office D’Exploitation des Ports), and (ii) introducing competition. Following the adoption of the law 16-02 of November, 23rd 2005, ODEP’s regulatory activities were transferred to the Agence Nationale des Ports. Simultaneously, operational activities were left with the transformed ODEP, the SODEP (Société d’Exploitation des Ports). Law 16-02 also provides for opening of commercial activities to private sector operators.

Lastly, the government engaged in very strategic investments in infrastructure, which greatly facilitate the connection to markets. Major ports, production and tourist centers are linked by a network of modern toll roads. The investment in a new deep sea port next to Tangier (“Tanger-Méditerranée”) to be operated by private concessionnaires attracts interest from shipping and port operators as transshipment facility (3 MTEU) on a major East-West route. It will also be a new first class gateway to Morocco.

### 3. Why Did the World Bank Get Involved in Logistics in Morocco?

Despite the fact that the government had pushed for a few years for a series of reforms in trade facilitation and logistics, these reforms have been conducted independently without a comprehensive competitiveness focus.

Moreover, the Moroccan Government, through the Minister of Public Works and Transportation turned to the World Bank and asked for an independent and holistic diagnostic of the Moroccan logistics performance and an assessment of the key measures needed to develop new activities and facilitate the connection with global markets and especially the EU.

The Moroccan Government also wanted to benefit from Bank’s knowledge to help in implementing the already decided complex reforms such as in road transport services or maritime transport. Most significantly, the Minister of Public Works and Transportation relied on the Bank’s involvement in order to build a stronger coalition in favor of trade facilitation measures in the country, which could enable the government to implement those often procrastinated reforms.

Based on these motives, the Moroccan counterparts set three main objectives for the Bank team:

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3 From a business perspective, logistics is the supply chain process that plans, implements, and controls efficiently forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption, in order to meet customers' requirements. Hence, logistics costs depend on not only transport management but also public management of infrastructure, institutional environment, transport services quality, private sector capability to innovate and adopt internationally recognized best practices.
1. Evaluate past and ongoing reforms and propose monitoring schemes.

2. Design a detailed action plan to identify the main bottlenecks of internal and external logistics and therefore to provide a comprehensive roadmap for the modernization of logistic services in the country.

3. Develop awareness, capacity-building and help foster a debate by promoting good practices in supply chain management through workshops.

4. **The World Bank’s Diagnostic and Action Plan**

The Bank team sequenced the field work with three targeted background studies, completed by staff’s fact-finding missions.

**Background studies**

After an exploratory mission and upon the request of the Moroccan authorities, the Bank decided to commission three background studies to fill the main knowledge gaps:

- a report based on supply chain studies in four key sectors;
- a report assessing logistics competence in the Moroccan private sector and the needs in education and training;
- A detailed feasibility study on Electronic Data Interchange (EDI).

The background report on supply chain studies benefited from a tailored focus on producing, in particular, sector-specific data on total logistics costs in textile and agro-business. The report encompasses transport costs and time data comparing Moroccan companies’ access to the EU market with direct competitors from Tunisia, Turkey and some Eastern European countries.

The background study on competencies estimates, based on companies interviews, skills needed at each level of expertise (high school, college and graduate levels) and then compares them to the existing training and curriculum opportunities.

The background study on EDI identifies the main constraints and presents different options to make its use widespread in Casablanca and then in all Moroccan ports. This study was added to the scope of work in the course of the assistance when joint client-Bank investigations showed that this was a central matter in trade facilitation. The consultant was the manager of the Tunis Tradenet who developed this well-recognized experience with the Bank’s financial assistance.

**World Bank’s fact finding missions and validation workshop**

The Bank concluded field work with an extensive fact finding mission in December 2004. Based on the preliminary diagnostic by consultants, two staffs members conducted extensive interviews of public and private entities. In liaison with the client, the Bank focused especially on the road freight, strait crossing, impact of proposed port and shipping reforms, EDI, and the future impact of the construction of Tanger-Méditerranée port.

A draft report was sent in March 2005. The Bank organized a week of thematic seminars in May 2005 to gather comments on the diagnostic and on the proposed action plan. These sessions were attended by all the main stakeholders in logistics and transport in Morocco.

**Main conclusions**

The Bank’s diagnostic underscored the fact that economic operators, exporters and importers are facing serious supply chain challenges despite the reforms. Many issues were more severe than anticipated by the client and a decisive action was needed. Several figures captured the essence of Moroccan position:

- Logistics costs in Morocco are close to 20% of GDP whereas this ratio ranges between 10% and 16% for EU countries (including Central European countries).

- Cost and delays incurred in crossing the Gibraltar strait are equivalent to additional 600-700 kilometers road journey in Spain.

The main identified constraints were:

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4 Most reforms have been carefully designed based on Bank’s previous contributions (among others). Completed or ongoing reforms in rail sector, maritime, road transport and port sectors are the most critical reforms in the sector.

5 Consultants were primarily financed under a French Consultant Trust Fund.

6 Textile and garment industry, automotive parts, fruit and vegetables, retail.

7 The Bank team followed the Council of supply chain management methodology available at http://www.cscmp.org/
• Low quality of the trucking sector and an obsolete truck fleet. Most small operators provide cheap, but very low quality services and preclude the emergence of modern land transport corporations that can properly serve the needs of the most demanding shippers.

• High port charges in Morocco, both container and trucks. Lack of competition in ferry services, as well as Spanish port pricing also contribute to high cost of crossing compared with other straits.

Table 1: Comparison of Terminal Handling and Port Charges (in Euros for a 40-feet container)

<table>
<thead>
<tr>
<th>Port</th>
<th>Charges</th>
<th>Handling charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casablanca</td>
<td>227</td>
<td>132-193</td>
</tr>
<tr>
<td>Le Havre</td>
<td>123</td>
<td>135</td>
</tr>
<tr>
<td>Antwerp</td>
<td>112</td>
<td>90</td>
</tr>
<tr>
<td>Bilbao</td>
<td>90</td>
<td>110</td>
</tr>
<tr>
<td>Barcelona</td>
<td>140</td>
<td>110</td>
</tr>
<tr>
<td>Genoa</td>
<td>132</td>
<td>90</td>
</tr>
<tr>
<td>Istanbul</td>
<td>83</td>
<td>110</td>
</tr>
</tbody>
</table>

• Clearance is cumbersome and time-consuming (15 days in 2004), especially at Casablanca port – the main import gateway. It mainly derives from a problem of coordination since most of the agencies (port, customs) have developed their own modern information systems. A pilot project in 1999, could not lead to the generalization of EDI that would provide a critical real time link between the parties to the trade transaction (consignee, forwarder, bank, customs, ports, other agencies). The EDI study showed that this failure happened because of lack of agreement on common project architecture.

• Vulnerability of trade logistics to illegal activities (drugs, human trafficking) in ports and on access routes for TIR vehicles. This is one of the main concerns of logistics operators and exporters.

• Low investment levels in dedicated facilities and services leading to low quality and inadequate logistics services. Consulting in logistics, distribution centers are almost inexistent.

• Cumbersome implementation of fiscal and customs regimes for logistics services and inputs at a time when Moroccan industry needs to develop a well performing sourcing function as a response to demand and a mutation from sub-contracting to contract manufacturing.

• Lack of skills at the firm level with respect to logistics and supply chain management at the executing and strategic levels.

Key recommendations

At the end of the report, a detailed action plan is presented. It encompasses the most critical internal and external bottlenecks. The action plan proposes short and long-term measures with major public and private stakeholders identified.

The main recommendations of the report are as follows:

• Creating a National Trade Facilitation Committee gathering key ministries, agencies and private sector representatives;

• Developing a sustainable monitoring instrument of logistics performance ("logistics observatory") in order to measure the impact of reforms and to feed the dialogue between public and private stakeholders;

• Improving road freight transport by:
  - Developing systems for quality control of the fleet (based on law 16-99);
  - Supporting the consolidation of road transport companies;
  - Supporting the renewal of fleet;
  - Building awareness of shippers with regard to contracting transport providers (code of conducts).

• Implementing the ports and shipping reforms that will decrease port charges and increase ferry competition for the Ro-Ro traffic:
  - Adopting trade facilitation measures to streamline port clearance processes and implementing a comprehensive system of electronic data interchange or web-based Tradenet;
  - Reducing illegal activities and improving security by investing in port security and in secured areas for trucks in transit;

• Encouraging investments in logistics projects by:

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8 In order to address Moroccan authorities’ request, recommendations applied specifically to textile and garment sector are presented at the end the action plan.  
9 Each of the following recommendations is based on a detailed action plan annexed to the report.  
10 Roll on – Roll off or transport by ferry.  
11 Such a system is supposed to integrate customs, port systems and all parties involved in trade transactions.
Recognizing logistics investment as productive investment in land development;
- Integrating logistics projects into regional development programs;
- Improving fiscal regime of logistics operators through sectoral dialogue.
- Preparing a national logistics training program to expand current curriculum.

5. MOROCCO’S IMPLEMENTATION OF THE ACTION PLAN

The diagnostic was presented at a workshop attended by public and private stakeholders in May 2005.

The Ministry of Public Works and Transport and key participants such as customs not only fully endorsed the Bank’s recommendations but also started to promote without delays several reforms proposed in the action plan.

The Minister of Public Works and Transport adopted several reforms which had been proposed in the action plan in the Ministry’s objectives.

As far as road transport is concerned, public authorities invested in weighbridges and signed agreements with several industry associations (such as representatives of cement factories) to promote enforcement of axle-load legislation.

Casablanca port security has been substantially strengthened. Following the report on trade logistics, an independent security audit was commissioned and subsequent investment in video surveillance system and fences has been carried out. Besides, port authorities moved out from the port undocumented containers.

L’Agence Spéciale Tanger-Méditerranée (TMSA) decided to speed the construction of a new Ro-Ro terminal, which will shorten the crossing distance and create new economic conditions to link Europe.

Thanks to the National Trade Council, port authorities and customs administration, stakeholders decided to generalize the use of EDI from summer 2006, following the recommendations of the Bank report.

Customs and textile industry signed an agreement to facilitate temporary admission regime. A private operator may request enhanced facilitation from the customs administration if this operator fulfills several criteria. Moreover, customs administration allows deferred payment of tariff duties up to six months with interest rates close to market prices. Those were critical ingredient for the industry to adapt well to the post Multi-Fiber Agreement environment.

The institution in charge of vocational training started to develop comprehensive curriculum in logistics in Casablanca, Tanger and Agadir.

Finally, the Ministry of Industry recognized logistics SMEs as eligible for the same assistance benefits as other industries and services.

The final recommendations of the report and the Bank’s update on implementation (April 2006) were presented at a June 2006 conference organized by the Ministry of Public Works and Transport and widely disseminated. That conference gave another opportunity to mobilize local stakeholders towards trade facilitation and logistics cost reductions initiatives.

6. LESSONS LEARNED

Public and private counterparts recognized the positive impact of the Bank’s report to catalyze reforms and to facilitate the cooperation between public and private parties involved towards the development of right solutions.

The study process has played a major role in achieving implementation of proposed recommendations in the report. From the beginning, the steering committee was a very effective knowledge sharing platform.

Draft documents were actively discussed. Bank staff and consultants in charge of background studies contributed to knowledge dissemination through their missions.

World Bank’s counterparts, especially the focal point appointed by the Minister of Public Works were highly committed senior officials who managed a close and professional dialogue with the private sector. It may also explain why the Ministry of Public Works and Transport was able to establish a coalition of interests in logistics.

Moroccan Government’s engagement, capacity and commitment to reforms have obviously been the critical success factors explaining the rapid impact of the report.
Yet two features in the design of the assistance seem to have helped the outcome:

- First, it paid to combine in-depth sector diagnostics (World Bank facilitation methodology) with supply chain studies by products. Increased knowledge and impact largely compensated for increased size of the team and the work complexity.

- Furthermore, at the request of the Minister, the Bank report proposed an action plan much more detailed than usual for a Bank ESW. Each proposal in the matrix was backed up with short documents which contained implementation details such as methodology, participants, schedule and, when possible, budget.

World Bank’s assistance to Morocco did not result in a lending operation partly due to its nature, which did not lend itself to a self-standing loan package.

Meanwhile, based on the action plan, parastatals and Ministries started to implement proposed measures almost immediately and self-financed most of them.

### 7. IMPLICATIONS FOR THE WORLD BANK

Many middle-income countries are actively seeking supply chain improvements as key factors to boost firms’ competitiveness, especially exporters. They are increasingly looking for international expertise and experience which the World Bank is well positioned to provide. Yet lessons learned highlight the challenge of such assignments.

Client’s capacity in the area is typically high and concerns sophisticated. The Bank is likely to be involved in the final stage of major reforms (customs, ports and so on). Hence, Bank’s expertise is required to fine tune implementation of reforms or identify the “not-so–obvious” critical implementation problems or coordination failures.

Such a project needs a strong and broad client engagement involving all stakeholders in public and private sectors. It is easier to build a coalition of stakeholders around operators involved in external trade who are more motivated. Trade facilitation is a strong lever to raise awareness and build support for broader reforms in logistics.

The Moroccan example also demonstrates that the Bank needs to be extremely responsive and flexible to provide timely and up-to-date expertise.

Not two countries are alike, yet there are typical challenges in trade logistics likely to emerge:

- International benchmarking and monitoring country’s logistics performance;
- Training in logistics, and development of SCM culture in firms, especially among SMEs;
- Use of IT and development of EDI;
- The linkage between international and national logistics and the need to promote quality of logistics, road transport and multimodal services;
- Implementing second generation reforms in customs (especially economic regimes applicable to inventories), port management and maritime transport;
- Harnessing supply chain security.

While the Bank can catalyze knowledge sharing in key areas such as customs, port reform, infrastructure or IT, it should fill some knowledge gaps such as:

- Macroeconomic estimates of logistics and contribution to growth and competitiveness;
- Logistics performance measurement;
- Best practices in road freight sector reform.
REFERENCES


www.finances.gov.ma/Rapports/etudes/doctravail/doctravail.htm#.


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Transport Infrastructure Notes and Transport Notes are available on-line at:
http://www.worldbank.org/transport

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