TRANSPORT INFRASTRUCTURE AND LOGISTICS: THE STRATEGIC LEVERS OF TRADE AND COMPETITIVENESS

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Introduction

- In globalized world the development of transport and the improvement of logistics performance are crucial issues for countries seeking to become economically more competitive ,

- Good infrastructure helps to facilitate trade flows and is therefore an additional guarantee of success in international trade,

- The North African countries and particularly the Maghreb countries have to deal with the challenge of developing transport and logistics sectors performance in order to be more competitive in the market place especially for export of agriculture products to the EU market.

I. An overview of infrastructure and logistics performance in the Maghreb countries

The importance of transport infrastructure in the growth of trade relations in the Maghreb countries is obvious. A simple increase of **10%** in transport costs can reduce the volume of trade by **20%** or give rise to cost inflation. Having efficient ports facilitates foreign trade and reduces shipping costs.

1. Ports and port systems/throughput

The Maghreb countries have a vast maritime façade, **but their trade network is largely based on European ports**, although the port of Tanger-Med in **Morocco is gradually capturing** some of the Maghreb trade from Asian and Atlantic sources . Maghreb ports are still entrenched in a somewhat inefficient maritime logistics chain, and therefore lag behind Tanger-Med .

Two categories of ports are at opposite:

The first-generation ports trapped in urban enclaves, many enlarged and redeveloped at the end of the 19th century. or at the beginning of the 20th century (Tripoli / Lybia, Rhades Tunisia , Alger Algeria,……):

- Poor handling equipment (only conventional cranes are used),
- No suitable infrastructure for container ships over a certain size (draft less than 10 meters). only small ships can dock in these ports.

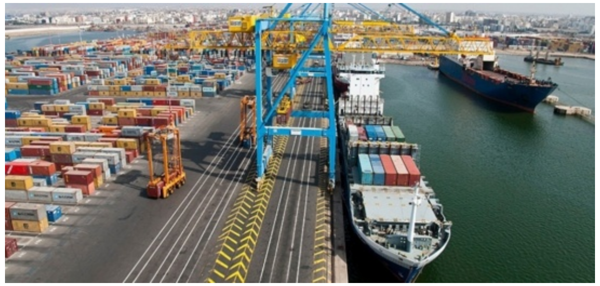
- The great majority still handle large quantities of conventional goods, i.e. not containerized.
- The specialization of terminals has not yet been completed and the boundaries of designated areas for different types of traffic are still not clearly defined.
- Traffic in terminals is still poorly organized, with no zones reserved for trailers or containers.

Emergence of the third or fourth-generation ports, so-called global ports (logistics hubs). Tanger-Med in Morocco and in the future the hubs of Djen Djen (Algéria) & Enfidha (Tunisia) which may provide more efficient. services

Tanger-Med has:

- good quality infrastructure (draft up to 16 meters for **18 000** TEUs container carriers
- International port operators APM Maersk, CMA-CGM, Eurogate,…)
- modern and efficient equipment in the container terminals.
- access networks to the hinterland and computerized management of terminals.
- customs controls warehouses are limited to terminals that handle conventional goods.

- Between these two extremes some ports **like Casablanca /Morocco and Bejaia /Algeria,** are modernizing their facilities to provide better quality services and Increase their logistics performances.



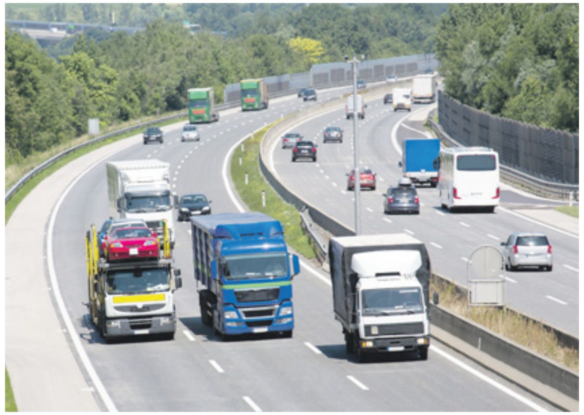
The efficiency of port throughput is related not only to the quality of facilities and equipment but it’s determined by a lot of other factors concerning the port management and administrative controls and checks:

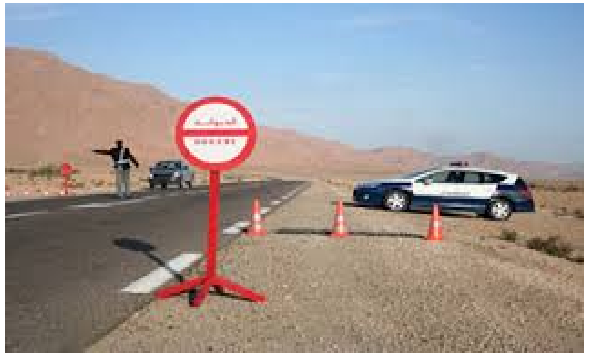
- Physical customs checks,
- Phytosanitary checks ;
- container inspections,
- road or rail access,
- and work organization.

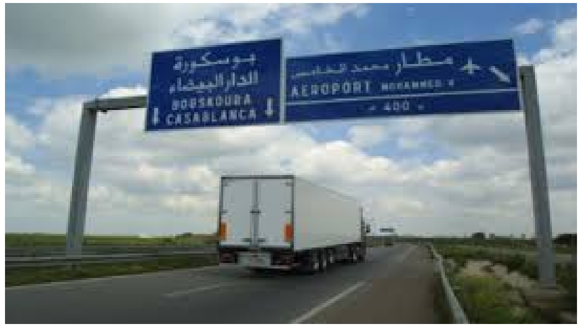
Many progress have been done recently in Morocco and in Tunisia for dematerializing and facilitating customs and checks procedures but a lot of efforts should be done by all the port actors to move beyond some resistance to change.

2. Roads, motorways and road transport

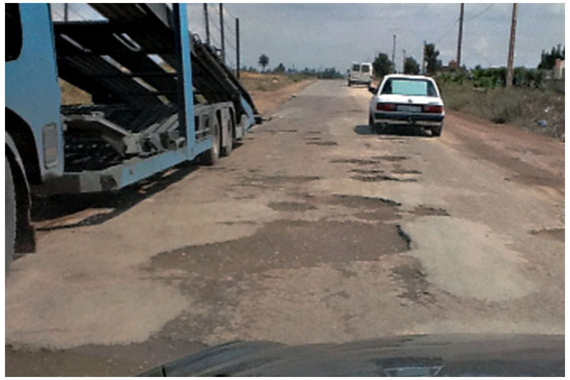
During the last decade, the Maghreb countries have devoted considerable efforts to developing and maintaining their road networks, as well as building new roads to a high standard with major capacity over long distances to facilitate national and international links in Morocco, Algeria and Tunisia. This encourages progress in the logistics of international trade movements (exports and imports). It takes full advantage of road transport, encourages synergies between carriers, greater massing of transport and concentration of stocks in the most suitable logistics sites .





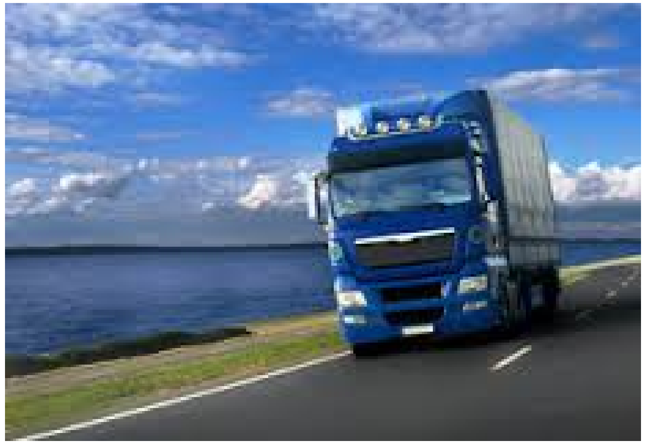


But in most Maghreb countries, **road transport**, especially **national road transport**, is still one of the **weak links in logistics chains** with **flaws** typical of a road sector in transition :



1. Very small unprofessional firms;
2. Fleets that are often of poor quality, with routine problems of stowage, overloading, reliability and motorization;
3. Drivers who are poorly trained ;

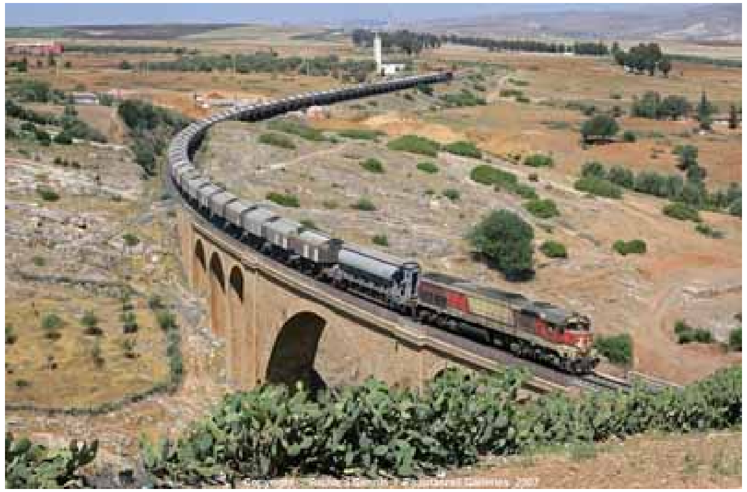
4. Inadequate road checks, especially with regard to axle loads, stowage methods, speed, etc.;
5. Access to the profession is not always properly regulated or controlled which allows the informal sector to survive and on occasions to dominate.

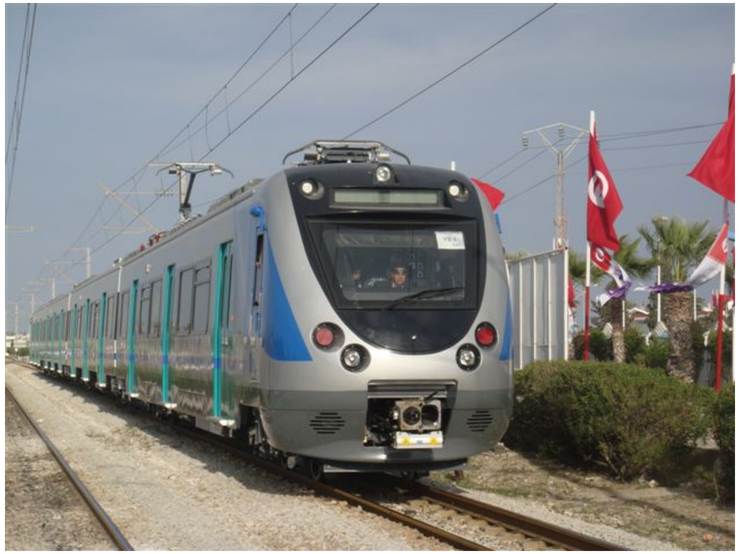


3. Rail transport

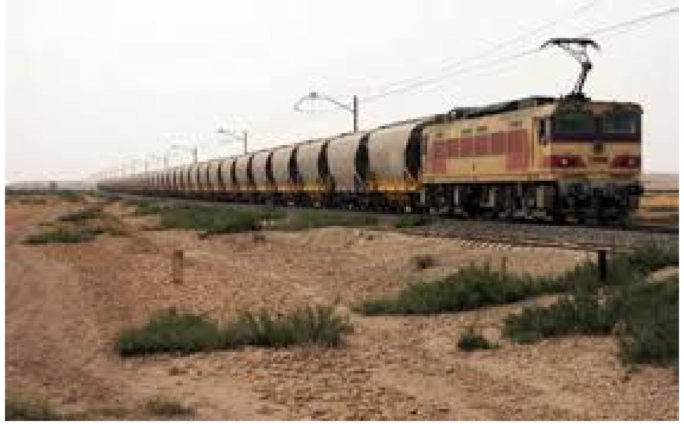
Rail transport is present in four countries: Algeria, Morocco, Tunisia and Mauritania. In Libya, projects in progress were disrupted by the Arab uprisings.

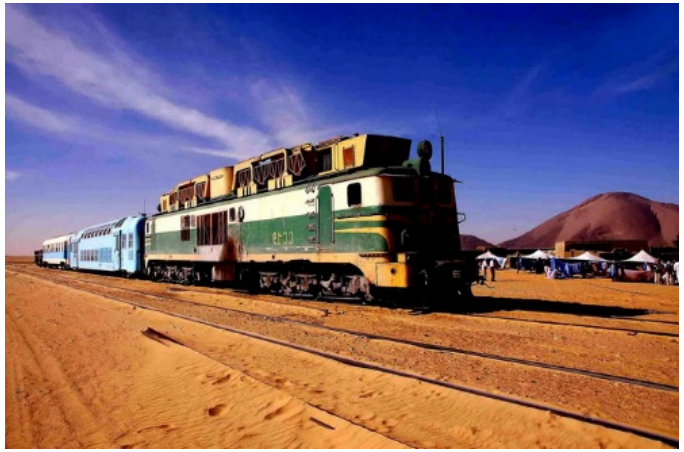
The Maghreb rail network connects three countries, Morocco, Algeria and Tunisia, but does not always provide an international rail freight service for political reasons (closure of land borders between Morocco and Algeria). However, projects are envisaged to link the railways planned in Libya with Egypt and Tunisia.

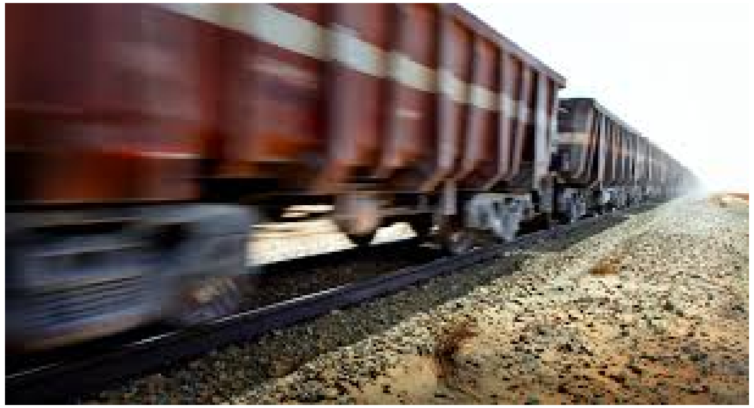




Of a quality ranging from average to poor, most of the Maghreb network is single track. In terms of freight, it essentially provides bulk carriage between the mining areas and the ports of export (chiefly for phosphates and other minerals). However, the importance of rail transport for multimodal trade, particularly in general cargo, has made a modest reappearance in projects due to the influx of containers **(ONCF, MITA, SNCFT, ….)** .

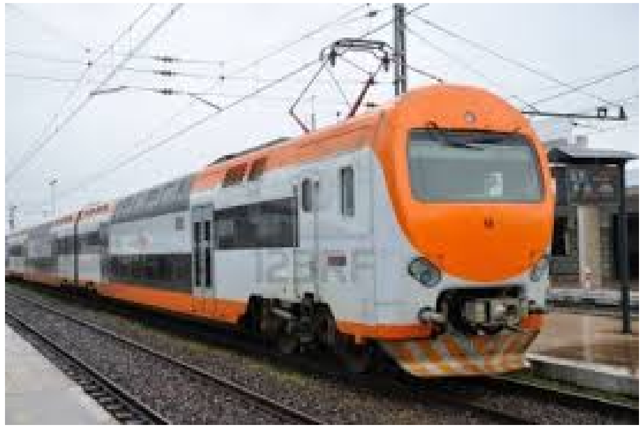


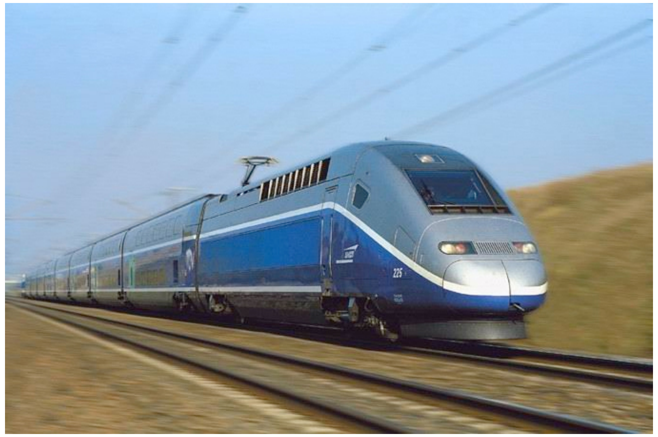




Algeria, for example, has an ambitious programme to build a high-speed network, develop the highlands network and rehabilitate existing networks.

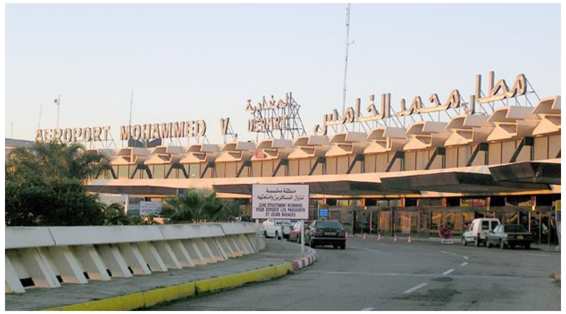
Morocco, for its part, has extended its freight and passenger network towards Nador and the port of Tanger-Med. It has embarked on the creation of high-speed lines (Tangier, Casablanca, and Marrakech) with the creation of multimodal freight logistics platforms.

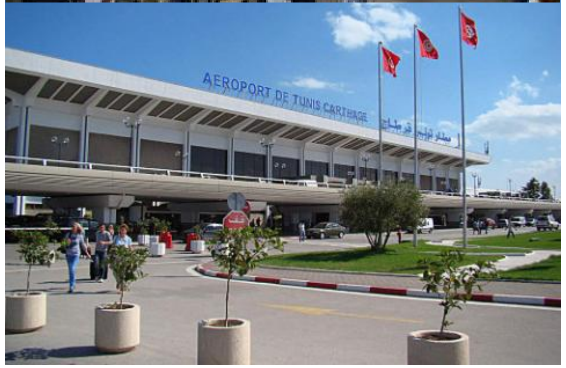




4. Air transport

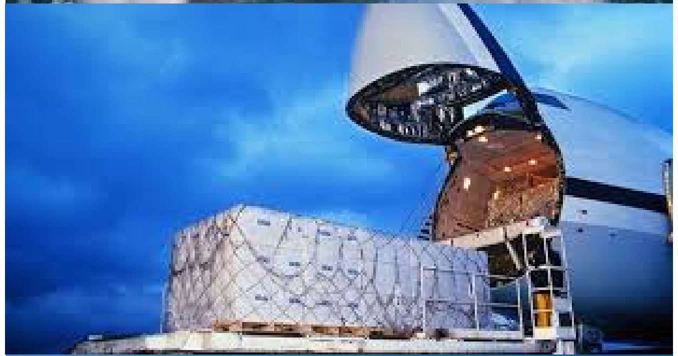
- The Maghreb countries are generally well provided with airports. All the major cities and principal ports are served by an international airport.
- 50 per cent of air freight uses passenger flights and that a strong tourist sector is an essential asset for the air transport sector.
- Development projects are in progress in several countries. **Casablanca airport** has just been provided with an **important freight platform entirely dedicated to major courier operators and value-added freight services**. A new hub airport, likewise dedicated to international freight (DHL, Fedex,UPS….), is planned at Benslimane close to Mohammedia. Other developments are expected at Enfidha in Tunisia.

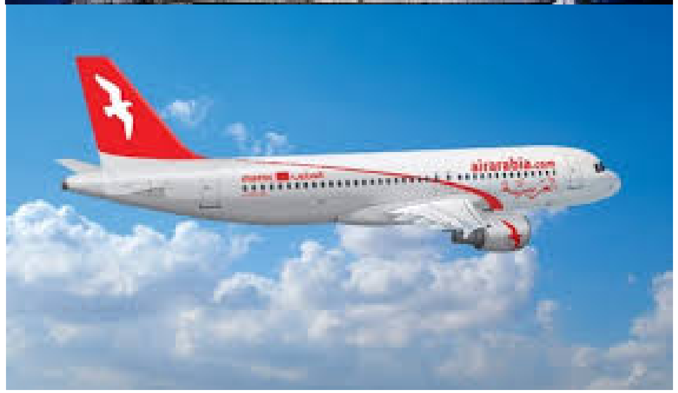




Air transport is today an important vector of trade and its share in the transport of perishable agricultural products continues to grow (Kingdom of Morocco, 2012; ONDA, 2011).

Nevertheless, in trade between the **Maghreb countries**, air freight is **still marginal and underdeveloped**, although freight services are slightly on the rise. Several air freight segments, such as specific fresh products (fish, fruit and vegetables, etc.) are bound to develop in the future.





II. Logistics performance in the Mediterranean countries

At global level, there remains a huge gulf between countries in terms of logistics performance, aggravating the disparities in economic competiveness.

In 2012, no Mediterranean country appeared in the top ten places of the logistics performance index **(LPI)** proposed by the World Bank.

- France ranked 12th
- Tunisia ranked 41st
- Morocco moved up from 94th place in 2007 to 50th in 2011.
- Egypt also moved up from 97th place in 2007 to 57th in 2011.
- Algeria ranked in 125th
- Libya in 137th place of this ranking, out of a total of 155.

The global logistics performance index ranking reflects the perceptions of the logistics quality of each country with regard to the efficiency of customs clearance processes, the quality of trade infrastructure ,…..

Ranking of CIHEAM member countries according to the logistics Performance index (LPI)

CIHEAM member countries	LPI	World rank
France	3.85	12
Spain	3.70	20
Italy	3.67	24
Turkey	3.51	27
Portugal	3.50	28
Tunisia	3.17	41
Malta	3.16	43
Morocco	3.03	50
Egypt	2.98	57
Greece	2.83	69
Albania	2.77	78
Lebanon	2.58	96
Algeria	2.41	125

Source World Bank 2012

CIHEAM

International Centre for Advanced Mediterranean Agronomic Studies

III. The levers to optimize trade

3 main axes to optimize north African trade

- customs
- Thinking in a multimodal manner, pre- and post-shipment
- ICT and supply chain management

Customs

Considering the cumbersome nature of customs clearance documentation countries have committed themselves to bringing their customs systems into line with international agreements and European Community directives in order to reduce these barriers and integrate the WTO agreements and free-trade zones.

A great effort are made to limit the waste of time during the customs operations by:

- Reviewing Physical customs checks and phytosanitary checks procedures
- Preparing and adopting an new and simplified nomenclature witch may be accessible on the internet;
- Electronic declaration made by an approved declarer

Despite some resistance to change, the Maghreb customs have made a significal progress toward a full electronic declaration by developing their own information systems : BADR (Morocco), SIGAD (Algeria) and SINDA (Tunisia).

In Morocco the new port community system PORTNET recently developed is one step forward developing an efficient trade relationships betwen all the logistics actors.

PORTNET

Thinking in a multimodal manner, pre- and post-shipment

In the Maghreb countries, land transport is predominantly road.. To galvanize this sector, the Maghreb authorities have developed institutional and regulatory reforms, including the shift from public regulation to market-based regulation (Morocco in 1999, Algeria in 1987, and Tunisia in 1992). The result is:

- a plethora of operators,
- surplus supply,
- unfair competition,
- problems regarding professional qualifications, and difficulties in financing fleet replacements.
- large difficulties to develop International road transport (TIR) dominated by European operators.

In addition other problems arise from the legal transport systems between the two shores of the Mediterranean. (taxes, insurance,….) Despite its advantages, the International Road Transport (TIR) regime has proved somewhat ineffective in the Maghreb countries. Moroccan and Tunisian companies suffer, to varying degrees, from difficulties in obtaining visas for their drivers and unjustified checks at the borders of European countries .

ICT and supply chain management (SCM)

Information and communication technologies (ICT) are a facilitating factor in international transport. They have engendered new forms of organization and relations (supply chain management (SCM)), creating cross-cutting networks and alliances. With regard to the integration of ICT in Euro-Mediterranean transport and port passage, customs services have been equipped with information and communications systems which can reduce customs clearance times by dematerializing this operation. (BADR system in Morocco and SINDA in Tunisia).

As for the management of ships’ calls into ports, ICT have begun to spread to all activities in order to make them simpler.

Computerized Data Exchange (CDE) is being installed everywhere. The **interoperability of customs and port information systems**, which allows information to circulate between heterogeneous systems is being developed (one-stop shop : Tunisia, Morocco, Spain, France, Italy, etc.). As regards land transport, no community information is planned, either in Europe or the Maghreb. However, several projects involving rail links are being developed in Spain, France, Italy, Tunisia and Morocco. Nevertheless, the development of ICT raises various problems: legal rules applicable to “e-documents”, insufficient consideration given to the real needs of port operators and trade flows, resistance to change, lack of information and, consequently, difficulties in estimating costs.

IV. Looking to the future

In order to improve agricultural logistics chains and agricultural trade flows (within the Maghreb or the Euro-Maghreb zone) and ensure availability, quality and lower costs, it is essential to provide a framework of safety and quality conditions from production to consumption.

In agricultural logistics chains the approach consists in reducing the vulnerability and risks inherent to agricultural activities (risk due to uncertainty, stock management, stabilization of prices in the face of market fluctuations,…..) Cereals markets should be part of a global logistics strategy (supply, transport, storage, transformation). The Moroccan State signed a programme contract with employers (the General Confederation of Moroccan Enterprises, CGEM) to create logistics zones **dedicated to imported cereals and others for domestic cereals**. Likewise, problems regarding the effective control of the cold chain for fruits and vegetables led the Moroccan authorities to set up logistic activity zones for perishable goods (fruits, vegetables and so on) within the framework of the Green Morocco Plan. The same cold chain strategy is followed in Tunisia.

These logistic activity zones, destined for agricultural products, are linked to a multiform and multi-industry economic activity zone, not far from a port and/or production zone. They need a set of specific collective services to create multiple flow platforms for multiple agricultural products:

- Customs, phytosanitary checks and safety measures;
- Access to an information system common to customs, port and airport authorities, economic activity zones, etc.;
- Access to vocational training for basic occupations (forklift drivers, heavy vehicle drivers, drivers, dock supervisons, etc.;
- Presence of a labour pool and a temping market;
- Presence of specialized equipment (handling, packaging, processing, cold chain, etc.;)
- Access to container management services, refrigerated warehouse maintenance and vehicle repair services, restaurants, insurance firms, banks, medical services, etc.

Integration of logistics and infrastructure: the Arab Maghreb Union and the challenge of food security

The integration of the Maghreb economies is the way for these countries to achieve lasting sustainable development (Kingdom of Morocco). They are facing similar agricultural problems, so coordination could be possible and could indeed enable food security and an effective management of the sector . The EU is conscious of the importance of food security in the Maghreb countries and of the strategic role of agro-food trade to the latter. However, this agricultural trade cannot be developed without logistical and infrastructural integration.. The infrastructure projects which are currently under development (roads, motorways, ports, airports, logistic activity zones) send a positive signal of as to the possibility of a gradual future integration of Maghreb logistics chains.

The real drivers of the Maghreb integration will be the integrated productive sectors (industry, the agro-food sector, etc.) which generate multiple physical flows and wealth. Agricultural flows should be built on a basis of complementarity and competitiveness among the Maghreb countries, with an appropriate logistics infrastructure and an institutional framework that ensure food security in the region. A strengthened Euro-Maghreb partnership is a necessary condition for the success of Maghreb integration.

Through direct investment by European industries in agro-food production units within the Maghreb countries, it brings into play economies of scale as well as local economy, thus strengthening sustainable development thanks to this geographical proximity. This partnership should be reinforced by real local logistics that involve effective control over intra-Maghreb and Euro-Maghreb logistics costs. This is only achievable through a proactive policy that is common to all levels of transport and logistics and enables the development of sustainable agro-food logistics.

Conclusion

The Euro-Maghreb logistics chains that are being developed could attract powerful groups, mainly American and Asian ones, provided that they reap benefits from future revenues generated by these agro-food logistics chains . If the network is not taken under control by Euro-Maghreb interests, the western Mediterranean will become subject to non-Mediterranean global firms.

Thank your for your attention

For further information:

«TRANSPORT INFRASTRUCTURE AND LOGISTICS: THE STRATEGIC LEVERS OF TRADE AND COMPETITIVENESS »
By Pr. Mustapha El Khayat in Mediterra Review janary 2014 (CHAPTER 6).