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STUDY OF THE MOROCCAN INTERNATIONAL TRANSPORT SECTOR

AND

RECOMMENDATIONS TO REDUCE TRANSPORT COSTS OF HORTICULTURAL EXPORTS

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Abstract

As part of the project "Promotion of Agribusiness in Morocco", which aims at promoting agro-industrial exports, a study of the export transport sector has been initiated, because of its crucial impact on the logistics of exports. The study try to identify the constraints which must be overcome in order to increase exports. These constraints come from infrastructure, regulations, and the strategy of the major operating firms. They result in an increase in costs imposed on exported goods, thus reducing global exports and the competitiveness of the Moroccan products.

The methodology used in the study

The study will analyse the constraints due to the four following factors:

- the imbalance of the exchanges and the seasonality of the activities according to the mode of transport, increase the average fixed costs of the operators.
- infrastructure increases the costs of exporters, for lack of investment and of an efficient administration.
- regulation results in an increase in costs directly through taxes and public services tariffs, and indirectly through its effects on the environment of the carrying firms.
- lastly, firms lead agreement and market domination strategies, which allow them to practice monopoly power in fixing prices.

The transport demand and its implications

Moroccan exchanges are characterised by numerous imbalances which make import logistics expensive. These imbalances are of different kinds. The most important of them are the following ones:

- refrigerated ships which export citrus fruit return empty, in order to cope with export rhythm. In addition, the traffic is highly seasonal.
- concerning the air cargo traffic, imports represent a small share of total freight. Exports concern, for the most part, perishable products. Their seasonality is important, because of winter peaks, increasing the imbalance of the exchanges during that period.
- concerning dry bulk transport, phosphate exports are more important than coal, sulphur and grain imports. Moroccan products are shipped mainly to Asia, while imports come from America for the most. This further increases the imbalance.
- concerning liquid bulk transport, oil imports are not balanced by naphtha exports.
- the export of empty containers shows clearly that per unity there is a excess of imports over exports.
- concerning road traffic, refrigerated lorries are imported empty, and exported full. Concerning the trailers the balance is inverted, which is coherent with the containers traffic.
- concerning the traffic of trailers by RORO vessel, the same thing can be noticed. Empty refrigerated trailers are imported, and empty (ones) are exported.

These imbalances result in an increase in the costs of logistics, as the utilisation rate decreases, and the costs of the services increase. They are at the origin of the increase in the costs of Moroccan logistics.

The transport supply as an answer to the constraints

The constraints resulting from the imbalance of the exchanges explain, at least partly the choices of the operators in the sector, especially in the maritime transport.

On one hand, ship owners want to meet the needs of specialised transports, because they have advantages in terms of knowledge and proximity. This is why they invest in refrigerated ships for the export of citrus fruit and early produce. This explains too the constitution of an export acid fleet by the OCP, and the search of new opportunities in the transport of vegetable oils and chemical products. Ship owners look also for traffic in which their knowledge of the market is an asset. This is why regular lines to Europe by container ships and RORO vessels are being developed. This sector is the one which grows the most rapidly. On the contrary, bulk liquid and dry transport is given up by private and public ship owners. It is because such an activity is not profitable, as the exchange for those products is not balanced, and as, in the world tramping market, the conditions are very favourable to freighters.

Concerning air transport, the development of the cargo supply results for the most part from a strategy of pre-emption of competition on passenger lines.

Supply is mainly foreign in international road transport. This is mainly due to the regulations as it will be detailed.

Infrastructures and the development policy

The Moroccan highway network is appropriately developed, as far as the service of exporting areas is concerned. The railway system, despite its being geographically limited, complements the road transport in meeting the needs of the exporters. Airports, the most important of them being equipped with freight centres, are adapted to the transport of cargo. Moroccan ports are numerous, and situated both on the Atlantic and Mediterranean coasts. They can cope with a traffic increase. In 1994, a container terminal will be implemented in the port of Casablanca; this will catch up with the delay in handling of containers.

For the most part, these infrastructures go back to the colonial era. They have been financed by the state. Since the middle of the 80's, users have been called upon to participate financially in the improvement and the maintenance of the highways. Thus, the motor way network will be financed by toll, the highway sector will be classified in such a way as to make its maintenance supported by communes and provinces. The ONDA has been created to manage airports and provide investments in the sector. It is financed by airport taxes, flight over taxes and taxes on cargo and passengers. In most of harbours, ODEP provides investments and perceives taxes. These Offices, invested with a monopoly in the supply of critical services, have greatly improved the productivity of infrastructures. Unloading and waiting delays in the ports have been reduced. Airports are well managed, thanks to an important increase in users' dues, and a specialisation of infrastructures. Yet, in the long run, this is detrimental to the development of the competition between ports and airports, the only thing which would possibly prevent the abuses originated in the monopoly which has been granted them.

The transport policy in Morocco

The Maritime transport policy

The policy is aimed at developing the national flag, in order to reduce the deficit of the transport balance and to promote exports.

The most important means of this policy has been the promulgation of the "Code des Investissements Maritimes" (Law on Maritime Investments), a maritime law which gives the exclusiveness of chartering to ship owners, the development of the National Company of Navigation, as well as the recourse to bilateral and multilateral agreements on traffic sharing.

Despite the increasing opening of Moroccan economy and the giving up of the import substitution model as a development strategy, a practice which makes intervention principles in this sector void, the inherited methods go on hurting exporters. Thus, on the regular lines, agreements still keep prices at a high level, despite tariff cuts, provoked by the competition of international companies which operate around the world lines.

In the case of the COMANAV, conflicts between the objectives of the State as a share holder and the State as a regulator make this company retain privileged positions on the regular lines in the direction of Marseilles, to the prejudice of the competitiveness of exports. Morocco has not followed the examples of Tunisia and Algeria, which have denounced conference agreements on the regular lines to France, and have profited by important traffic falls. Morocco has still not denounced the bilateral convention with Spain, which makes the crossing of the Straits one of the most expensive and profitable ferry boat lines.

The transport policy of the European Community which opens the competition to firms whatever their nationality, allows the revision of bilateral conventions concerning the connection EEC-Other countries. The negotiation of the partnership and of the free exchange area between Morocco and the EEC should provide the opportunity for the dismantling of oligopolies on the most important lines for the development of exports.

Two other points should be stressed before dealing with air transport. The first one concerns protectionism which characterises the insurance's, and which increases the costs of the operations of Moroccan ship owners. The second one concerns the very favourable status of the seafarers, which has been set up by the new maritime law, and which hurts unduly the ship owners, as is the case in Europe.

The air transport policy

Moroccan air transport policy has two objectives: developing the national capabilities, and promoting tourism and exports.

The RAM has been developed as a national company, on the pattern of national European companies, according to the sovereignty privileges of the Chicago Convention of 1947. Indeed, the recognition of the plain sovereignty of countries on their air space allows them to negotiate the creation of a duopoly, controlling thus supply and tariffs. The Moroccan policy in the field has been directed in that way. The promotion of tourism has not suffered from the high tariffs, as charter companies have been allowed to serve the country. But Moroccan people and other users are at a disadvantage.

In order to promote exports, a particularly favourable tariff scale for the export of traditional goods by air has been elaborated. These "corates", accepted by companies working in pool with the RAM, were justified by the excess of the capacities of passengers planes which carry passengers and cargo. Cargo planes have lately been deployed, when passenger planes have become saturated. This has resulted in a new negotiation of preferential tariffs. They have been revised upward, and a subvention on agricultural products has been granted. It concerns end of season exports, and the new and/or diversification markets, such as Scandinavia or the Canada.

The Ministry of Transport, which was once opposed to the creation of a new company for the transport of goods, is now in favour of such a creation.

The policy of road international transports

The objectives are:

- to develop a national supply of freight capacity,
- to promote exports.

The main tools are the bilateral conventions on traffic sharing, and the multilateral conventions on the transit.

A public company, the COMITRAM, has been created. After its failure, it has been privatised. Thus, bilateral conventions are the sole instrument for the promotion of that kind of transport.

The mechanism of these conventions is a simple one. The bilateral market is estimated according to the number of travels in the two ways, and the travel licences, which support this activity, are partitioned in three. Forty per cent go to Moroccan carriers, forty per cent to the carriers of the country and the remaining part to joint societies, which participate in the transfer of know - how. These principles are to ensure a distribution of the traffic, and the emergence of Moroccan carriers.

In reality these mechanisms have never been operative in the case of Morocco. The Moroccan supply being weak, exporters have soon been compelled to ask the Ministry of Transports to deliver exceptional licences to foreign carriers, after the termination of their quota. In the same way, the co-operation quota, devised in fact for joint ventures, has been diverted from its objective, and distributed to subsidiary of foreign companies in Morocco. To regulate this situation, the number of licences has been greatly increased, when bilateral conventions are revised. Thus, the tool which was devised to promote an international Moroccan transport has become inoperative.

The main reason is the organisation of national transport in Morocco. The freighting monopoly of the ONT, the reservation of collected freight to accepted carriers and its egalitarian distribution have induced a standardisation of the local transport offer.

Because of these factors, the development of the Moroccan international road transport has been limited.

- ITR (International Road Transport) agreements do not allow intra country trade. Vehicles cannot be exploited at full capacity by alternating between international road transport and local transport, especially when the traffic is seasonal.

- As transport is standardised, a transport group, capable of confronting the international market, cannot emerge. This is particularly due to the lack of a good marketing network, as marketing is performed by the ONT.

- The protection offered by the agreements, and the profits it ensures, by the means of regulated tariffs, has not contributed in developing efficient operators.

The protection of the production of vehicles in Morocco (tractors, trailers) has considerably increased equipment costs. In must be noted that refrigerated trailers are exempted from import duty by the Investments Code. Value added tax is not being recoverable, this further increases the operating costs of the carriers.

This whole situation has been detrimental to the development of Moroccan international road transport. Only a few Moroccan firms operate in the sector.

Analysis of the markets and of the strategy of the operators

In the objective of constituting and developing Moroccan transport societies, the government has created public enterprises, to which it has granted a situation of monopoly or quasi-monopoly. Thus, the revenues realised are high, to the prejudice of exporters and of the competitiveness of Moroccan products. Inside and between mode competition has developed of late, which indicates clearly what potential profits can result from a more liberal environment.

The Maritime transport

Since the beginning of the 80's, the international maritime transport has been characterised by a chronic over-capacity, which makes prices fall down. The big ship owners started making productivity investments, and modified their competition practices. The development of EDI, of big capacity container ships, the cutting down of handling time in the ports have greatly reduced the operating costs of the container lines, the only service still developing. The competition conditions have been completely modified by a certain number of factors, namely the renunciation to the oligopolistic character of the maritime conferences, discriminating tariff practices, and the development of the couple around the world lines and feedering lines.

All this has affected the Moroccan market. The decline of freight prices on the world market has resulted in the ship owners giving up the goal of constituting tramping fleets, and turn towards the constitution of regular lines and specialised transport. The installation of great ship owners - Sealand and Maersk - has greatly modified competition conditions on the regular lines. Lastly, concerning citrus fruit and early produce transport, international market conditions have increased the weight of the AFB, a carriers committee, in its negotiations with local operators.

As a result of giving up tramping, and turning to freighting, COMANAV and MARPHOCEAN have sold their bulk carriers. As COMANAV has not yet been restructured, this has increased its overhead costs and reduced its competitiveness.
Resulting from the installation of SEALAND, certain innovations were introduced: container 40', box pricing, and a significant reduction in the cost of the fare to Marseilles. That is due to the very low operating costs on the line Algesiras-Marseilles, the transhipment of its container terminal to Algesiras, and the introduction of the feedering through the CONADE. The commercial war which has followed has compelled the COMANAV to give up its money-loosing lines, to take up feedering with NEDLLOYD to the Middle-East, to make use of its public status in order to protect its pool accord to Marseilles, and to give to DELMAS the management of its line to West Africa. In reaction, the other ship owners have specialised on the lines they already controlled, while cutting down their costs. Thus, the financial situation of the COMANAV has grown worse, costs have been reduced for exporters, and container traffic has been enlarged to new customers.

AFB has been created, to be substituted to the OCE in what concerns the logistic supply to citrus fruit and early produce exporters. This has brought a change in the relations between carriers and exporters. The AFB has played the part of a real carriers committee, and has used the evolution of the price in the world market to control the tariffs. Another major transformation in the citrus-fruit and early product transport is the fact that great capacity refrigerated vessels have become obsolete, and have been replaced by small and medium capacity rapid vessels. This is due to the loss of the Eastern European markets, to the concentration in Western Europe, and to the development of regular lines in the place of conventional ones. The share of exports of regular lines is due to increase, which will further modify the profitability conditions of the ships. This will result in a decline in the share of the COMANAV in that kind of transport, in the growing development of exports of citrus fruits and early produce by sea, and in the control of the logistics by the AFB. Another interesting aspect of the installation in Morocco of ship owners operating lines around the world is the fact that it brings nearer American and Asian markets. This will enable the exports of tomatoes by refrigerated containers to Canada, as well as of citrus-fruit to Southeast Asia.

Air transport of cargo

The evolution of the market is mainly due to the development of the export of perishables during the second half of the 80's. The capacity of the passenger planes being saturated, the RAM has been obliged to increase cargo capacities. As a result, pricing, flight programs and quality of service questions are dealt with differently, because of the constitution of a powerful carriers lobby.

It has soon been evident that tariffs which had been set up were at variance with the development of the capacities, as the traffic is characterised by the imbalance of the cargo transported. After long negotiations the following principles have been adopted:

- Tariff will be calculated on the basis of the average costs of cargo activity, as assimilated to the marginal costs of air transport. The RAM will deal with cargo transport as with an autonomous profit centre, thus greatly reducing its contribution to the overhead expenses of the company. An average deficit, financed by RAM subsidies for the opening of new markets for agricultural products, will be accepted in order to promote exports. Since the end of 1989, a tariff balance has resulted from these principles. Users associations have been constituted. They discuss the proposed flight programs, according to the markets and the flight possibilities. Thus, conflicts between the exporters and the RAM have been resolved.

The tendency is to give the priority to large airports, from where cargo would either be transported by another air-carrier to its final destination or by another transport mode. Thus, in the latest programs of the RAM. There is a daily connection to Paris, Frankfurt, Amsterdam and Marseilles.

The improvement of the quality of the service results from the investments in the freight centres (Nouasser, Agadir and Marrakech), from the development of efficient information system for the reservation and organisation of multi modal service, as well as from the dialogue between exporters and the freight service.

The RAM enjoys a monopoly on cargo connections. Yet, due to strategic considerations, its prices are not excessively high, as compared with competitors tariffs. It is because it wants to retain its monopoly on the transport of passengers to Europe on these very lucrative lines, through the setting up of cargo capacities is what would be more detrimental to its interests. In the short term, the closure of the North America service and the replacement of B 707 by medium range aircraft should reduce the costs as the more money-loosing lines would be closed, and the fleet would be adjusted to its principal markets. In the middle term, competition development induced by European deregulation will also reduce the costs.

International Road transports

Two factors have contributed to modify the environment of international road transport. The first one is the agreement on the transit through Spain. The second one is a consequence of the considerable development in the exchange of diverse and perishable goods during the last years.

This has been favourable to Spanish carriers in the first place, as the demand on refrigerated transport has been high, and in their proximity.

Moroccan carriers have only scarcely benefited by that, because of the above mentioned regulations.

This kind of transport suffers directly from the monopolies and the agreements concluded on the main sea routes that it uses, which result in very costly freights. Yet, as trailer export increases regularly, making the use ratio grow accordingly, prices fall down gradually. The lifting of the a priori inspection on the transfers as transport costs by the Office des Changes also reduces the costs.

Foreign carriers lead strategies which make them control the markets, through the installation of subsidiary companies which profit by the advantages reserved to Moroccan carriers by the bilateral conventions.
Morocco carriers invest only in refrigerated transport as the equipment in that sector are less expensive, and the imbalances in the exchanges of less consequence.

Conclusions and recommendations

The study of the transport sector has identified several hindrances which are detrimental to the promotion of exports and the competitiveness of the Moroccan supply. A certain number of recommendations can be made.

International road transports

Obstacles of two types to the development of this sector have been identified. The first one concerns the regulation of national transport. The second one results from the effects of the protection policy and the fiscal regime on the competitiveness of the Moroccan supply.

The regulation of national transport reduce the possibilities of using the equipment destined to international transport, as it forbids in country transport. Agreements, and the freighting monopoly of the ONT prevent the emergence of a transport group, capable of developing in international. Lastly, this regulation protects approved carriers from competition and reduces their efficiency.

Equipment costs are much higher than the costs supported by competition, as the assembly of vehicles is protected (national prices are 80% higher than international prices). On the other hand, as IRT operators cannot recover value-added tax, their operation costs are increased, to the prejudice of their competitiveness.

Thus, the following recommendations can be formulated:

1. Study how the international road transport market can be liberalised, and suppress barriers between national and international activity.

2. Provide similar competition conditions to local and foreign operators, in what concerns the VAT and the equipment.

3. Revise bilateral conventions in order to distributed the traffic more evenly, after having suppressed the previous constraints.

Apart from the interventions leading to a revision of the regulation, the project aims at transferring the transport of products carried up to now by air to the highway, by implementing experiences on the use of controlled atmosphere transports or of the pre-cooling for the transport of roses.

Air transport of cargo

The monopoly situation of the RAM in the transport supply as well as in the handling of cargo is detrimental to the development of exports.
Two recommendations can be made:

1. The tariffs of the third handling party should be administratively fixed, until the monopoly is broken up.

2. The operating costs of the freight activity of the RAM should be followed up, until the installation of other airlines.

The development of new techniques for the road transport of products carried up to now by air must provoke competition and make the RAM control its profit margins.

Maritime transport

The maritime transport sector is characterised by a situation of weak competition for certain lines, which will be detrimental in the long run.

There recommendations can be made:

1. The conferences which govern the crossing of the Straits, and those which govern the line Casa-Marseilles must be revised, even denounced when new negotiations with the EEC, concerning a free exchange area, will be started.

2. The COMANAV must be restructured in such a way as to give a greater part to competition, and reduce the costs. The roles of the state share holder and the state regulator must be clearly distinguished.

3. National monopoly of the ODEP must be carefully controlled, so as to avoid pricing behaviour detrimental to the development of exports. This can be done in two different ways. One is to put it in competition with Jorf port, to which a greater autonomy would be given. The other is to make the users and the administration control the tariffs and the productivity.

The projectionist policy, concerning the insurance of vessels, which are compelled to resort to Moroccan brokers, and the freighting, restricted to the sole ship owners, must be eliminated.

Moreover, seamen's status must be revised, so as to allow Moroccan ship owners to be competitive. Failing that, a policy of second national flag must be set up.

PART I

The study and the methods

I. The objectives

As part of the study concerning the promotion of Moroccan agro-alimentary exports project, MAP, financed by the USAID, logistics and transport must be dealt with. Indeed, the problems they set have often been said to constitute a hindrance to the conquest of new markets, and even to the preservation of old ones. Thus, a study of this sector has been programmed.

Transport contribute in the promotion of exports in two ways:

- Through its costs and their share in the final value of the product,
- Through the quality of the service it offers.

A. Reduction of transport costs and the promotion of the exports

Both the profitability of the activity, and the possibility of enlarging its market, depend on the share of the transport costs in the final value of the products. Thus, an activity directed towards the internal market can become an exporting activity, through a reduction of logistics costs. It can also help reduce the cost of imported goods, and improve the competitiveness of Moroccan productions. Thus an analysis of the transport costs can contribute directly in an increase of Moroccan exports.

B. Quality of the service and promotion of the exports

The development of the distribution and of industrial production help to reduce time wasted and important stocks, as they lock up capital and increase the risks inherent to marketing. Thus, logistics is getting more and more important, in what concerns the keeping and/or the improvement of the competitiveness of economic operators.

Although the quality of service cannot easily be measured it can be identified immediately. Its parameters are the simplification of procedures, the easiness to realise operations, the rapidity of transit of products, of documents and of information, as well as the care taken to answer exporters' and importers' needs, and to prevent thefts and losses in harbours and airports.

It is evident that the relative weight of these quality indicators varies according to the operators. The most pertinent are those used or considered as being important by the principal managers in the logistics organisation.

Thus, market studies did by European maritime carriers show that:

- Concerning the choice of a carrier, the frequency and the quality of service are almost as important as the price.

- Concerning the choice of a port, the cost of the services comes only in the seventh place. More determinant are the frequency of services, the transport mode that can be used, the equipment of the port, and the services that are offered.

- Among those services, the most important are first, railway and road service to the ports, them the handling of containers and the systems of assistance to the navigation, and so on...

Thus, because of the competition, service and quality factors, along with the prices, ensure the evelopment of commercial activity. That is the reason why this study will analyse as well the progresses and the constraints of the services involved with transports.

II. Method

Usually, the analysis of the transport costs consists simply in pointing out the different costs, through the analysis of a certain number of transport chains, and the evaluation of the differences in comparison with other countries. We will use a more ambitious approach.

The causes of the rise of the costs will be divided in four categories, and for each category, the measures likely to improve competition will be analysed. It is evident that such a general method is difficult to apply in the short time in which the study must be completed. Nevertheless, it will help identifying the reasons which hinder the competitiveness of our exports.

A. Flows and logistics constraints

The first "over-cost" factor is due to the nature of the exchanges between Morocco and the rest of the world. The bulk and the tonnage of Moroccan exports are appreciably more important than those of the imports. Thus, over-costs result from completely or partially empty returns. A finer analysis shows imbalances, due to the seasonality of exports, and imbalances by mode of transport and by type of vessel. The place of destination of the exports, and the origin of the imports contribute too in the creation of imbalance in the use of capacities. Every imbalance results in an under-use of the tonnage, in one way or in the other, thus increasing the costs of the operations of the carriers and the cost of logistics to and from Morocco.

Our first analysis will thus deal with the exchange flows and the constraints on the logistics.

B. Structure of the market and strategy of the operators

The second over-cost factor is due to the structure of the different markets and to the strategy of the operators. The existence of a monopoly power, as well as the presence of trusts and associations, likely to reduce competition, thus increasing costs supported by the carriers and reducing the exchanges, must be identified. In particular, pool agreements, conferences and traffic sharing will be analysed, so as to recognise on which lines and modes tariff gains are possible, if competition is increased. It is evident that importance and regularity of traffic are linked to agreements possibilities. It is difficult to open to competition little used lines.

This study will be completed by an analysis of the strategy of the operators. Indeed, monopolies can lead pre-emption strategies of the competition, by reducing the tariffs to such a level that the installation of a competitor is no longer economically justified. This must be taken into account in the analysis of the markets, in order to fully appreciate the monopoly power.

C. Politics and regulation

The third source of over-costs derive from the policies maintained and the regulations applied to the sector. Generally speaking, government policy affects the sector in several ways. Macro-economic policy affects the global economic activity and the cost of investments through interest and exchange rates, and the budget. However important, the effect of this component of public intervention on the costs will not be studied. Other interventions have a direct repercussion. They comprise, on one hand, taxes and the subsidies, which are direct transfers, and the constraints, which impose indirect transfers. The analysis will deal mainly with these last ones.

D. Infrastructure and service management

Infrastructure can equally be at the origin of over-costs. To have at one's disposal an efficient deep-water harbour allows the reception of big vessels, and thus allows the reduction of the cost of transport. A motor way network reduces traffic time, and thus the cost of transport by lorry. A good and efficient communications network improve information exchanges, thus reducing operating costs. These few examples show the importance of infrastructure in the transport costs, and of logistics in general. Nevertheless, we will study in priority how infrastructures are managed, and if they are used efficiently. Indeed, infrastructure investments have important effects on productivity and the efficiency of logistics, but they need time to be conducted, and are expensive. Through competition and deregulation, productivity and efficiency will be improved more rapidly and at a lesser cost. These reforms will precede new investments, and help appreciate their opportunity.

E. Analysis of the quality of the service

To appraise the quality of services, operators and exporters are interviewed. The chain of operations is analysed, to identify where problems lie. The customs control service is studied in detail, as well as the efforts made by the Administration to reduce the delays, simplify the procedures and the bribing risks.

III. Scope of the study

In the preceding paragraphs, we have exposed the methodology that we intend to follow. We will thus study the following aspects: the modes of transports, the subsidiary services, and the products.

A. Modes of transport

They concern maritime, air and road transport . For every sub-sector, we will study the following factors:

- its importance in the logistics of exports;
- the importance of the constraints associated with public intervention;
- the interest of the export of agro-alimentary products, as far as the mode is concerned.

A brief historical record of the development of the sector will show what has been realised, and what is still to be done.

B. Services

Services related to logistics are numerous. A selection must be made. Due to their importance, the following services have been selected.

- harbour services
- transit services

- services annex to air transport
- freight services.

C. Products

The analysis will make use of the example of two products:

1. Tomatoes, as it is transported by refrigerated van, enables the study of the chain of lorry transport. A comparison of the costs and the advantages of road transport and maritime transport will be made.

2. Cut flowers illustrate the problems of air transport, and the recent competition of the road.

PART II

Logistics constraints and the transport supply

I. The constraints of the Moroccan logistics

According to the methodology presented above, logistics constraints will be analysed, through a survey of the imbalance of the exchanges. The three following aspects will be dealt with:

- the volumes exchanged. For each transport mode,
- the seasonality of the exchanges,
- the geographical distribution of the exchanges.

The Moroccan transport supply will be exposed and explained through the implications of these imbalances. The strategies of the main local societies will be analysed.

II. Analysis of the constraints due to the structure of exports

A. Method

For the purpose of the study, exports and imports have been grouped according to products and to transport mode. Thus the carriers' constraints and the increase in costs can be appreciated. Foreign trade statistics are not structured by mode of transport, but by nature of goods.

Further more, the data do not specify the type of ship. This is very important, because it is impossible to counter balance phosphate exports with crude oil imports.

Goods transported by air are well known. The products exported are luxury perishable vegetable products (roses, mint, green-beans, melon), sea products, and textile and leather products for the restocking. The products imported are urgent spare parts, computer material and similar products.

On the contrary, it is difficult to analyse lorry transport according to our method. Indeed, when the lorry is equipped with a "savoyarde" trailer, it compete directly with the maritime container. Thus, it is difficult to make a classification of the products carried. Fortunately two studies[0] comporting a statistical analysis of the products have been made. In addition, statistics on the empty returns are available.

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[0]. ONT study on international road transport, 1990, TEAM Morocco and ONT study on international road transport, 1982, DATA Concept.

B. The maritime transport

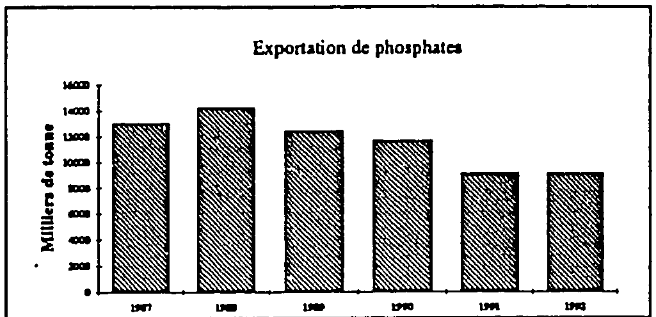
98% of the volume of Moroccan foreign exchanges are transported by sea. Indeed, even road exchanges, to the very marginal exception of those towards Algeria[0], make use of the sea, for a part of the journey.

1. Dry bulk

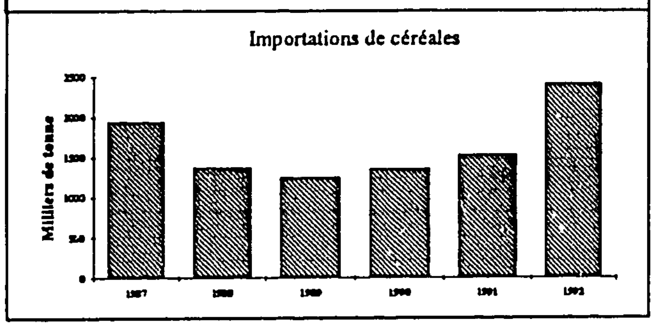
Dry bulk products exported are mainly mineral products, phosphate being the most important. Grain, sulphur and coal are the products which are imported.

a) Phosphate

Phosphate exports range from 10 to 12 million tons. They are mainly done on customers' ships, as the sales are generally FOB. MARPHOCEAN, the maritime subsidiary company of the OCP group, participates to the transports, on its ore bulk carriers.

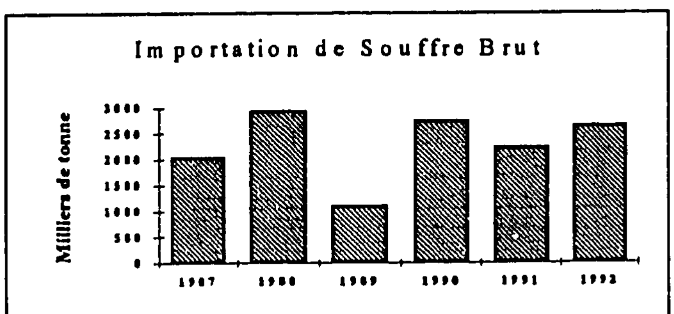


b) Grain



Grain imports, which concern mainly wheat, range from 15 to 25 million quintals. Most of them are carried by the big international carriers (Cargill, Continental, Dreyfus,...) Indeed, the modalities of the ONICL bid to tender, where the great shipping agents tender to supply wheat and freight, are not very favourable to the participation of Moroccan shipping business to this traffic. The national shipping business is involved in the imports carried out in the framework of PL 480.

c) Sulphur



Sulphur imports, which range from one to three million tons per year, are closely linked with phosphoric acid exports. The OCP group has implemented a valorisation policy for the phosphates, which has resulted in a decrease in the exports of phosphate and an increase in the imports of sulphuric acid. The fall in the imports of brimstone in 1989 corresponds to an important fall in the imports of sulphuric acid, resulting from the breach of a supplying contract with India.

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[0]. Algeria has implemented a very expensive highway customary tax for the carriers. Thus, moroccan gas importers prefer maritime transport, even for the delivery to the Oriental.

d) Coal

Since the two oil crises, Morocco has progressively converted its electricity production units and its large industrial units, the cement factories, to coal. Nearly one and a half million tons are regularly imported every year. There too, because of the purchase modalities of the ONE, concerning the cost and the freight, the majority of the exports is not carried by the Moroccan fleet.

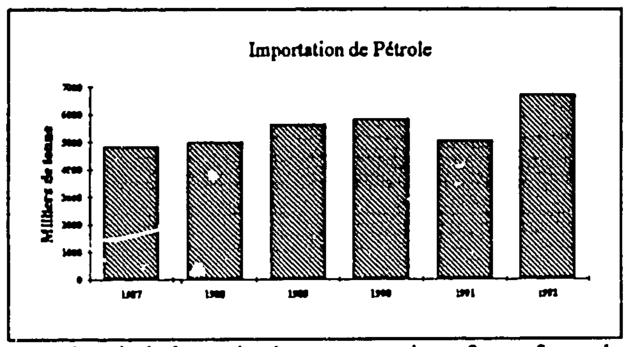
e) Other products

Other products imported in bulk are sugar (280.000 tons/year) and nitrate fertilisers (400.000 tons/years). Dry bulk exports are mineral products (barite, lead, manganese 250.000 tons/year) and fertilisers (500.000 tons/year).

2. Liquid bulk

Concerning dry bulk transport, the imbalance is mainly due to the importance of the phosphates imports while it is the import of crude oil which causes the imbalance that can be noticed in liquid bulk transport.

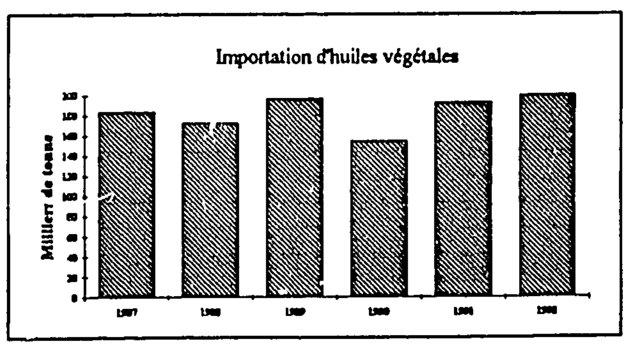
a) Oil



As far as the supply of power is concerned, Morocco depends heavily on imports. It imports about 5 million tons of oil per year. Oil imports are now stabilised at that level, as electricity productions units have been converted to coal. Never the less, because of the economic growth, oil imports are due to increase.

The conversion of production units to coal has created an imbalance in the consumption of transformed petroleum products. The share of fuel oil has been reduced, while that of light products has increased. Thus, in addition to traditional naphtha exports, Morocco exports its seasonal fuel oil excesses. The seasonality is due to agricultural needs. Fuel oil is needed the ploughing and the harvesting seasons, and for the irrigation. As there are no tankers flying the Moroccan flag[0], the suppliers carry out the transport

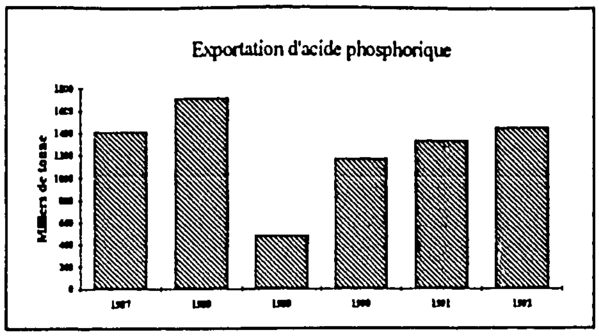
b) Vegetable oils



Morocco regularly imports large quantities of vegetable oil for the local consumption. Although the production of sun flower increases, the imports average 200.000 tons/year. These imports are carried by Moroccan ships.

[0]. to the exception of the coasters of Petro cab.

c. Other noticeable products

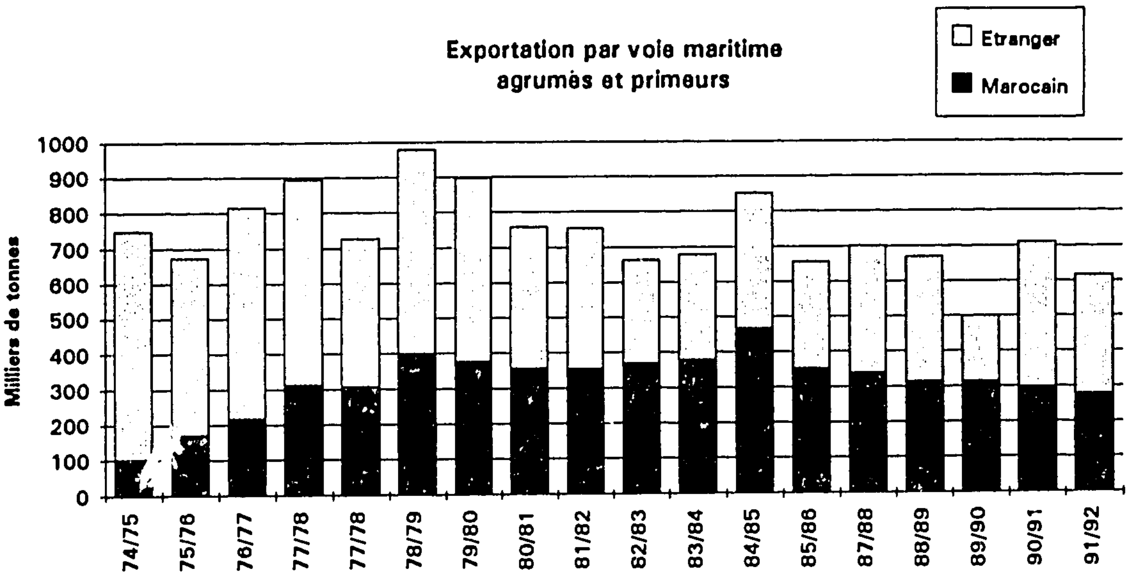


A part from fuel oil, which has already been dealt with, and of which 400.000 tons are exported in liquid bulk, the imbalance of the exports is not compensated.

After having implemented the phosphates local transformation policy, by the means of Maroc Chimie programs, Morocco has become an important exporter of phosphoric acid. To the exception of the year 1989, following the breach of the contract with India, exports range from 1,2 to 1,5 millions tons. They are transported by the ships of MARPHOCEAN, a subsidiary company of the OCP group.

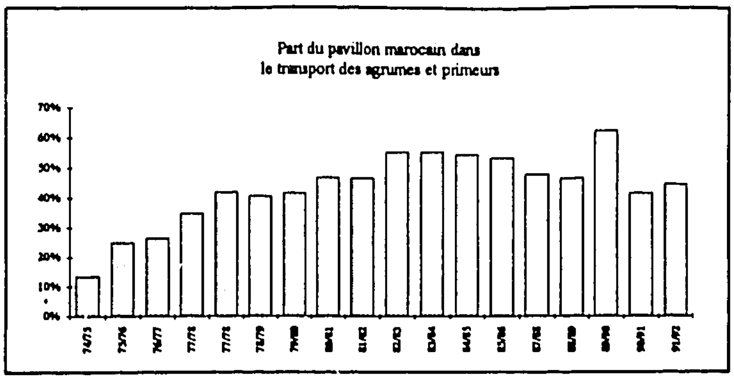
3. Citrus fruit and early produce transport

Morocco has been export in a citrus fruit and early produce for nearly 50 years. The graph below shows the quantities exported during the last 20 years, and gives the share of the national flag.



These exports reached their highest level during the season 78/79 (nearly 1 million tons), and have regularly diminished ever since. Transport is carried out by refrigerated or ventilated ships, chartered from Moroccan or foreign ship owners. The share of the national flag, which increased regularly for several years, is now diminishing. That decline can be explained by the following :

- the State no longer participates in the commercialisation of citrus fruit and early produce;
- the removal of the advantages which had been granted as part of the maritime investment code;
- the ageing of the fleet;
- the changes in the transport needs, as some far away markets have been lost.

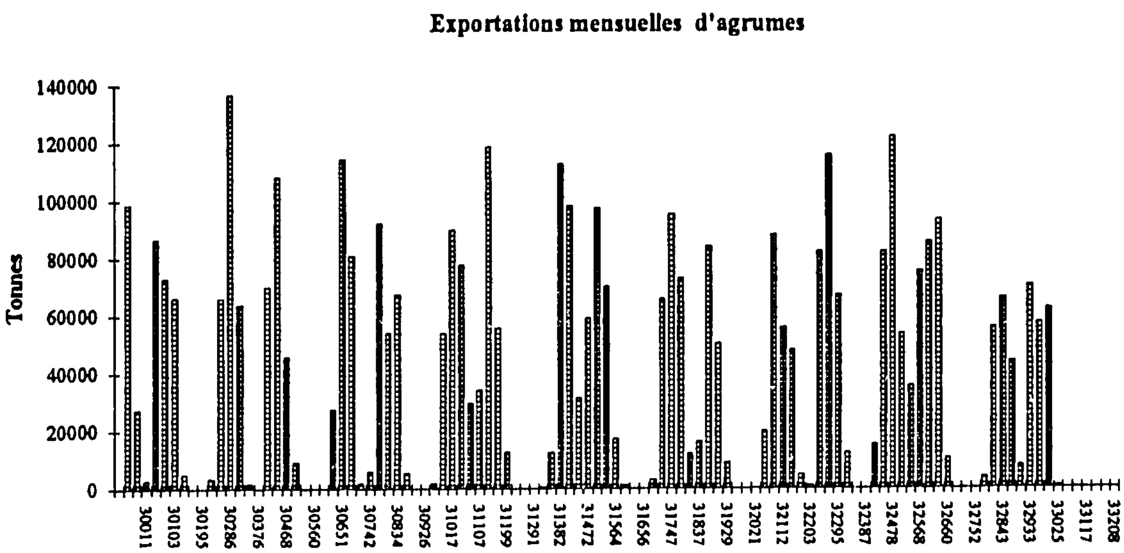


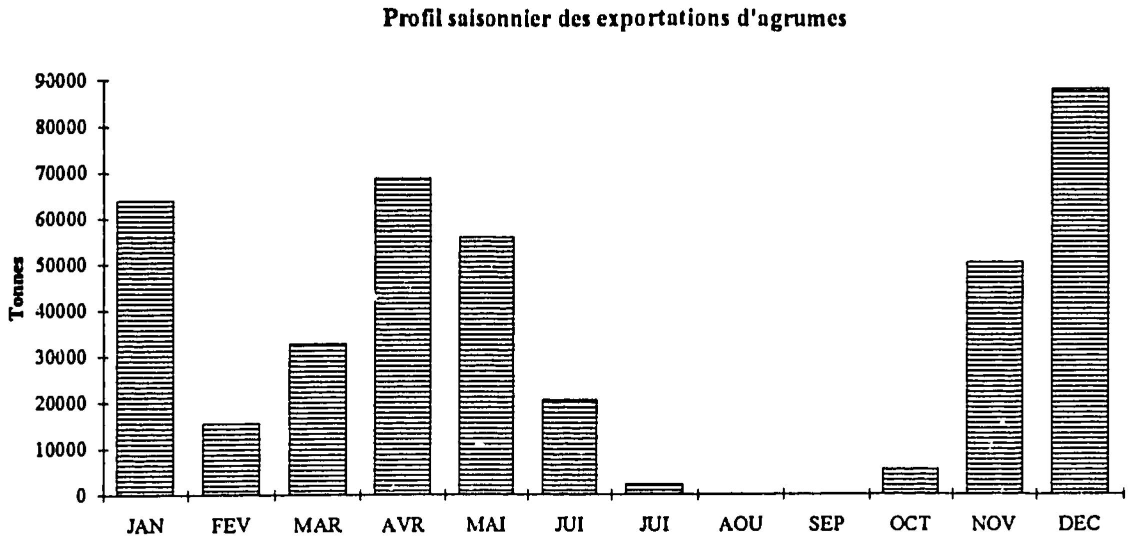
Share of the Moroccan flag in the transport of citrus fruits and early produce

Seasonality of citrus fruit export

The study of the monthly imports of the three kinds of citrus fruit which are most exported (navel orange, tangerines and Maroc Late) clearly shows that the activity is a seasonal one.

Monthly citrus fruits exports





Seasonal character of citrus fruits exports

The seasonal character of exports can be even more clearly shown through the ten years average of monthly exported quantities.

As shown by the graph above, there is an exceptional activity during a few months, January, April, May, November and December. The consequences on transport organisation are as follows:

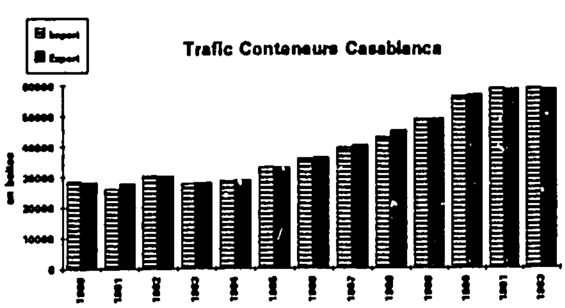
- ships are only used during the export period,
- they return empty, so as to cope with turn-rounds,
- ships are generally not used during the off season.

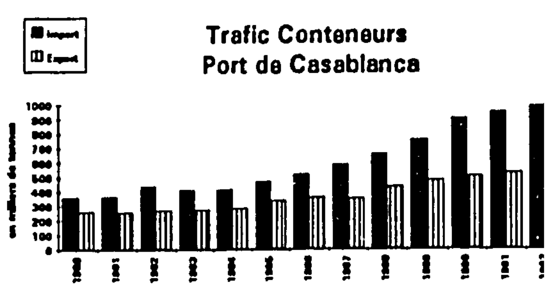
Each one the above-mentioned consequence results in additional costs, which affect the product.

4. The container traffic

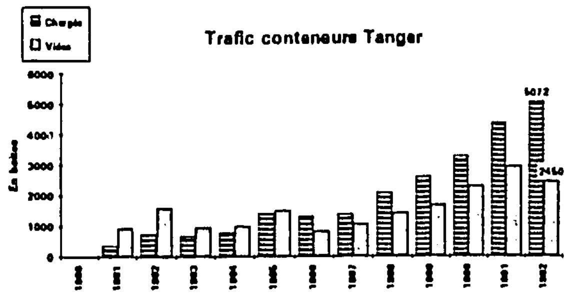
This segment is the one which increases the most rapidly in maritime transport.

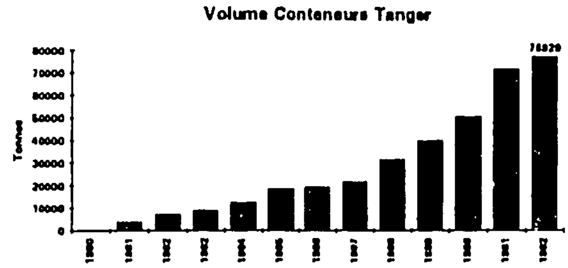
The two following graphs show the development of the container traffic of the port of Casablanca, by number of boxes and by volume of goods. They show a very important increase. The number of handled boxes has progressed from 56.000 in 1980 to 117.000 in 1992, and the goods traffic from 621.000 tons to 1465.000 during the same period.





Concerning the port of Tangiers, the same conclusions can be drawn from the figures, as the two following diagrams clearly show: There was no container traffic in 1980. In 1992, it reached a volume of 76.000 tons, and nearly 7600 boxes were handled. Moreover, the proportion of empty boxes has fallen significantly to less than 30% in 1992, which shows that exporters resort more and more to that transport mode. The liberalisation of Moroccan foreign trade has greatly modified its structure, and has resulted in an increase of the exports of manufactured products.



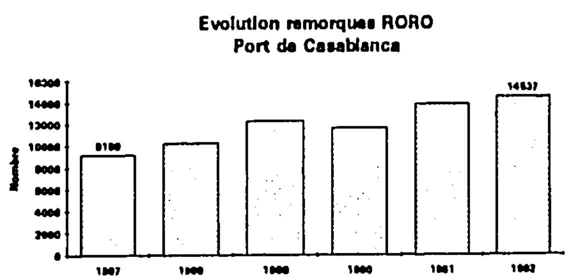


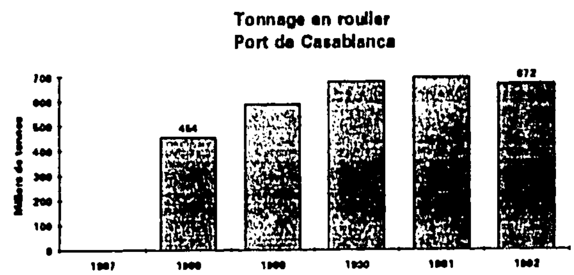
The imbalance of containerised imports and exports compels to the export of empty containers, which affects the profitability of the lines. Thus, even if a regular increase of the fill rate at the export can be noticed at Casablanca and Tangiers, the traffic is still unbalanced to a considerable extent.

5. The carrying traffic

The carrying traffic (International carrying traffic and RORO trailers) has developed concurrently to container traffic during the same period. The following graphs show the development of RORO[0] vessel traffic from the port of Casablanca.

Indeed, the development is important, but still inferior to that of the containers. Yet, tonnage has increased from 450.000 tons 672.000 tons, showing the share of the carriers in containers' transport.

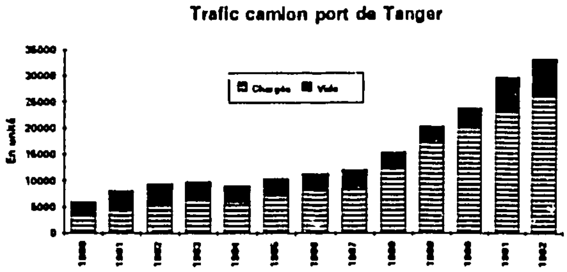


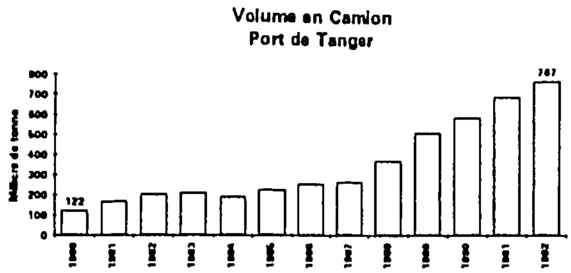


The development is much more evident in the port of Tangiers. The two following graphs show a very important increase of the traffic of full sets, especially from 1989 onwards. From 8077 in 1981, of which 3200 were empty, they increased to 26.500 in 1993, of which 6800 are empty. The proportional reduction of empty traffic is due to several factors. At the beginning of the 80's, empty return traffic concerned mainly "savoyardes"[0]. But the rise of textile confection in Morocco has balanced the traffic. Now, it is early produce traffic, transported in refrigerated trailers, which is at the origin of empty return traffic.

[0]. RORO vessels are specially devised for the transport of trailers. The set is composed of a tractor and a trailor, and of containers on Mafi trailers. Little handling time is needed, which is appreciable, in particular in ports which are not equipped with handling equipement.

[0]. They are tilted and tractor-drawn trailers, as opposed to refrigerated trailers.





As trailer and container transports are similar, they generate the same empty export problems. Thus, in Casablanca and Tangiers, less and less empty trailers are exported.
In what concerns refrigerated trailers, the imbalance is reversed, because of the importance of the exports of fish and early produce and the weakness of the imports using refrigerated trailers.

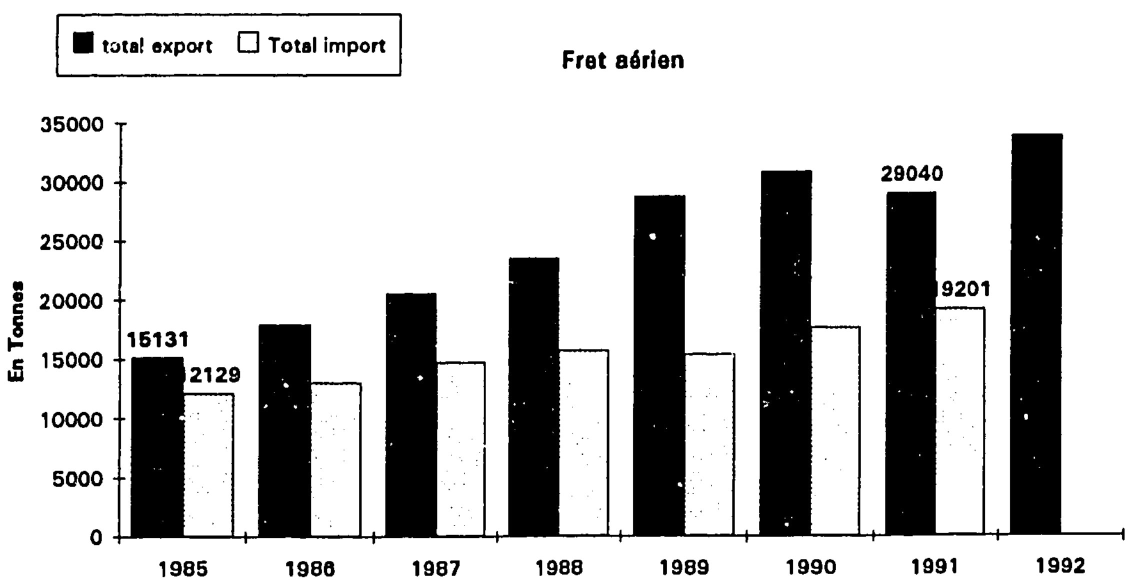
C. The air transport

The development of air freight in Morocco is relatively recent. Regular cargo planes have only lately started being employed. Before 1985, to the exception of some OCE-RAM joint campaigns for the export of extra thin green beans, cargo was transported in the luggage compartment of passenger aircraft.

1. Evolution

Since the beginning of the 80's, and to respond to the demand for air export freight of newly exported perishable products (cut flowers, fresh fish, mint) the RAM has started employing B 707 Planes for the freight traffic.

As the diagram below clearly shows, the development of export freight has been very important, due to the increase of perishable products, while import return freight increases much more slowly. This results in an increasing imbalance of the activity, especially as the density of the exports is much less important than that of the imports.



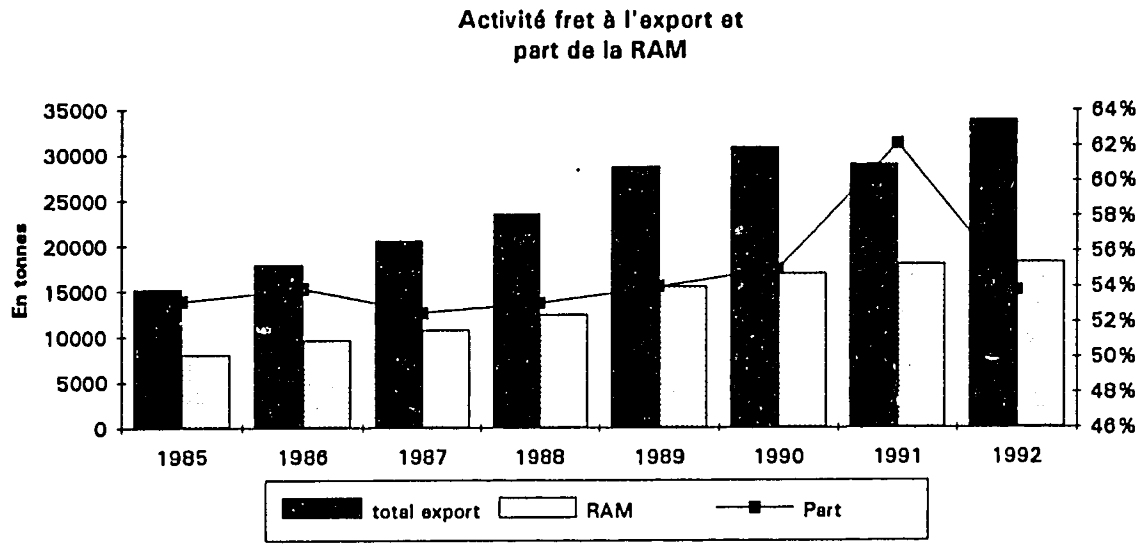
The RAM make more than 54% of the export traffic. This results from several factors:

- Pool agreements, which approximately balance the supply capacity between two national companies, in passengers aircraft.

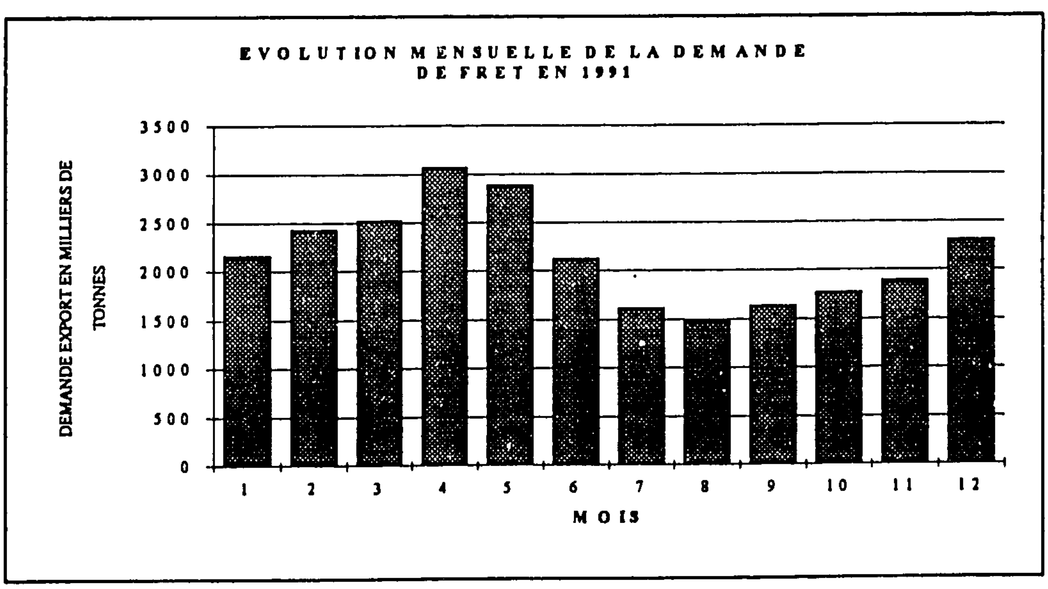
- Its knowledge of the inland market, which allows the RAM to draw export traffic.

- The employment of cargo planes.

The supply being in excess on the return traffic the RAM is less successful there, the capacities available in the luggage compartment of the passenger planes being far more important than the demand.

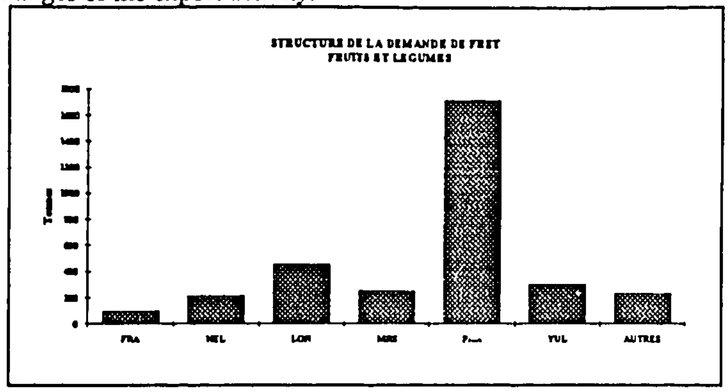


The freight export activity and the share of RAM



2. The seasonality of the exports

The graph above shows the monthly changes of the export activity.

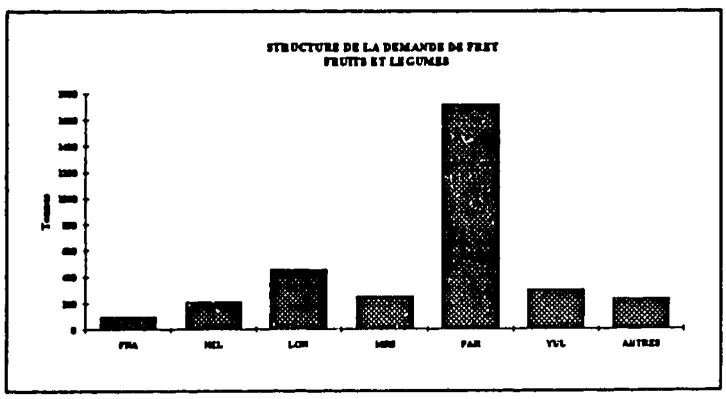


The freight demand is important during the winter months, as that period corresponds to Moroccan comparative advantage in European markets. If exports by passenger planes are excluded, the seasonality of cargo freight activity is much more accentuated. Cargo planes are unemployed during the summer, and have to undertake the winter peaks.

3. Destinations

As shown by a survey of the places of destination of the exports, export trade is mainly directed towards France. There are several other scattered destinations. This results in high service costs, as the volume of cargo for each destination doesn't require a full plane, and has either to be transhipped or forwarded through a costly service. This is the case of vegetables and flowers, as shown by the diagrams.

Structure of the freight demand
Flowers



D. Road transport

International road traffic has been dealt with in the paragraph concerning RORO vessels. As most of the traffic is directed towards the EEC[0], it has to be forwarded by sea, either through the Straits of Gibraltar, or through Casablanca.

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[0]. See note 4.

III. The transport supply

The constraints of the Moroccan logistics concerning the products transported and their seasonality have been analysed in the preceding part. The characteristics of the transport supply will now be highlighted, and it will be explained through its adaptation to the above mentioned constraints.

A. The maritime transport

National and international operators will be dealt with separately. The constraints will be analysed according the segments of the market which are explcited.

1. The National shipping business

An analysis of the structure of Moroccan shipping business shows that a public shipping business, composed of three societies, coexists with a private one.
The three Moroccan societies are;

- The COMANAV, as ship owner operating regular lines, specialised ships and bulk carriers on the freighting market.
- MARPHOCEAN, as subsidiary firm of the OCP group, specialised in the transport of phosphoric acid and of ore. It operators both on behalf of the group and on the international market.
- PETROCAB, a society which operates the coastal traffic of oil products on two little tankers.

The private shipping business is composed of twenty or so private ship owners, who operate generally little fleets. Because of the characteristics of the demand for transport, operators have usually concentrated on regular lines, on specialised transport (particularly citrus fruits and early produce campaign), and ferry boats for the crossing of the Straits of Gibraltar.

The main shipping companies are:

COTRAMA It operates 4 refrigerated ships, of a capacity of 5178, 4307, 4936 and 4300 DWT[0]. It is specialised in the transport of citrus fruits and early produce.

COMARIT it operates a refrigerated vessel of a capacity of 3180 DWT. It is specialised in the transport of citrus fruits and early produce.

NAVIMAR it operates a refrigerated vessel of a capacity of 3180 DWT. It is specialised in the transport of citrus fruits and early produce.

SOFRUMA it operates 2 refrigerated ships of a capacity of 4196 DWT. It is specialised in the transport of citrus fruits and early produce.

UNIMAR it operates 2 refrigerated ships of a capacity of 9000 and 3827 DWT. It is specialised in the transport of citrus fruits and early produce.

GENERALE MARITIME it operate 2 small chemical tankers and a bulk carrier of 50.000 DWT.

SONAMA belonging to the same group, it operates a chemical tanker.

[0]. DWT : Dead Weight Tons.

MAGNAY it operates a general cargo ship.

ATLAS it operates a general cargo ship, used as a container carrier on the regular line Casa-Rouen.

SERVIMAR it operates a general cargo ship.

CCA it operates a general cargo ship.

PENAV it operates a general cargo ship.

CONADE it operates a container carrier and a Roll on Roll off vessel.

a. Regular lines

The Moroccan maritime transport has been characterised during the last years by the development of regular lines, and the emergence of a brisk competition between the operators.

Atlantic sector : Rouen, Bordeaux, Havre, Rotterdam, Hamburg ports.

Mediterranean sector : Marseilles, Port Vendres, Las Spezia ports.

The COMANAV line to West Africa is managed jointly with DELMAS VIELJEUX, the main maritime carrier to West Africa.

Straits sector : Algesiras, Cadiz, Gibraltar.

b. Specialised transport

Because of the structure of the Moroccan exchanges, specialised transports have developed concurrently to phosphoric acid exports (MARPHOCEAN) and to citrus fruit exports (COMANAV, COMARIT, NAVIMAR, SOFRUMA, UNIMAR).

Thus, most private ship owners have specialised in the refrigerated transport of the campaign citrus fruits/early produce.

c. The Moroccan fleet

In 1990, the Moroccan fleet and a carrying capacity of 517.473 dead weight tons (DWT). Its increase, which had been very show since the integration of Morocco to modern economy, and even after political independence, quickened during the 70's, but has been from 1980 onwards far behind needs objectives.
Shortly after independence, the Moroccan fleet comprised eight ships, of a transport capacity of 20.000 DWT. It could thus participate to Moroccan foreign trade by only 1,2 per cent.

Just before the phosphates boom, the Moroccan fleet participated, with 64.000 DWT, to 4 per cent of Moroccan foreign exchanges.

In 1980, the Moroccan fleet benefit by a very quick growth and reached 640.000 DWT, due to the implementation of the five-year plan 1973-1977, which provided for its development and modernisation. Its participation to foreign trade reached 22,4 per cent in 1980, and a maximum rate of 25,5 per cent in 1985 (chartered ships included). But in 1990, the share of Moroccan shipping reaches only 11,38 per cent. This situation varies, according to the different sectors. It reached 78,14% of the export of citrus fruits and early produce in 1990, of which 47% were transported by ships belonging to the exporters and 31,14% by chartered ships.

Moreover, the Moroccan fleet has become specialised, as is shown by its composition.

The Moroccan fleet in 1989.

10 phosphoric acid carriers
7 container carriers
13 reefer vessels
6 RORO vessels
7 general cargo
5 passenger carriers
5 bulk carriers
3 tankers
2 chemical tankers
2 cargo (citrus fruits) and passenger carriers
3 coasting vessels

Only 22 per cent of the assets which compose the Moroccan feet are under 15 years. According to the standards in use, the life span of a shipping asset ranges from 15 to 18 years. Thus 40 per cent of the Moroccan fleet should be replaced progressively.

In conclusion, the Moroccan fleet is presently characterised by its specialisation, but is also insufficient and over aged.

d. Freight and tramping

Moroccan ore and bulk exports are transported by freighting of ships on the international market. Moroccan societies failed in their endeavour to managed their own bulk carriers.

The COMANAV undertook, with 3 ships, grain and sulphur freight to Morocco. As long as grain came from the Gulf of Mexico, and as Mexico provided Morocco with sulphur, the turnaround was profitable. After the decline of the imports from the USA, and the opposition of the big grain carriers, the profitability of the fleet declined. The COMANAV with drew from the direct management of the ships, and had managed by UNITRAMP[0].
Unfortunately, even so, important losses have compelled the COMANAV to withdraw from the traffic. The OCP group made subsequently a second experience, with MARPHOCEAN bulk carriers. The idea was that it was necessary to undertake a part of the transport in order to control the fluctuations of the prices, and their effect on the phosphate exports. After the sea-trade market recession of the 1980, this strategy could no longer be continued. In 1993, the bulk carriers were sold.

After the withdrawal of the national shipping business from the tramping, freighting became the only way to meet the needs of the market.

According to the Moroccan legislation, only ship owners can charter ships to freighting. Thus, all the ship owners installed in Morocco have developed freighting branches.

2. Foreign operators

The law on Marocanisation, which imposes a Moroccan partner for each investment in Morocco, has prevented big shipping companies from installing affiliated firms in Morocco, and made them give their shipping agents the status of partners in order to develop their activity from Morocco.

The development of round the world lines has been made possible by the development of the technology of container carriers.

A container carriers of 4200 TEU[0] allows freight rate inferior to 5 cents/TEU/mile for a 70 per cent use rate, while the freight rate is approximately 14 cents/TEU/Mile for a 1500 TEU container carrier.

[0]. UNITRAMP is a ship management company. It manages vessels of which the store and the crew are payed by the shipowner, and charges a commission on the receipts. INITRAMP is not a charter party ship broker. It has effectively an important fleet at its disposal, thus in creasing the probability of having a ship near every carrying plce.

[0]. Twenty foot equivalent unit. It is the basic unit for expressing the capacity to carry containers.

These very large container carriers impose very short handling times, because the immobilisation cost is higher than 2000 $ per hour.

They must also be operated on very busy routes, as the use rate of the capacities is the determining factor of the cost. Large companies respond to these constraints as follows:

- They select Hub ports, equipped with modern container terminals, which allow quick handling and transhipments of feedering[0] units.

- They operate round the world lines.

- They collect freight by feedering, which allows them not to stop in all the ports, while collecting most of the freight.

The following companies have developed this kind of services: Evergreen (Taiwan), SEALAND (USA), Maersk (Denmark), NEDLLOYD (The Netherlands).
Round the world lines use Gibraltar and Marseilles as West Mediterranean ports. That explains why shipping companies, SEALAND and Maersk in particular, are interested in Morocco.

a. The development of feedering

SEALAND and Maersk having installed private container terminals in the port of Gibraltar, with the possibility of being connected to Asia and American through efficient and relatively inexpensive vessels, started looking for partners who would undertake the feedering of their terminals.
SEALAND was the first company to install in Morocco. In association with the CONADE, it has taken back one of the container carriers of the COMANAV, to operate a regular line to Gibraltar from Casablanca. This feeder line was linked with Marseilles, the main line for Moroccan freight.

New services were offered, which were the following ones:

- containers 40',
- very low price, 40 per cent less expensive than COMANAV lines,
- box pricing.

The success was immediate. Activities such as preserved vegetables which had used conventional[0] cargo up to then turned to containers.

In reaction, Moroccan ship owners reduced their tariffs, and introduced 40 feet services.

As the profitability of these "milk cow" lines according to the classification of the BCG, weakened, the COMANAV reduced its activities to the Middle East, and associated with DELMAS for West Africa.

In 1993 SEALAND reorganised its activity and retired from Morocco. This is due to several factors:

- The management of the container stock became difficult, because of its "milk cow"[0].
- Outstanding payments, due to the exchange control[0].

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[0]. Feedering : freight is collected in small ports, which supply through transhipment, in the hub ports, the big container carriers.

[0]. Conventional cargo : hold services.

[0]. The main problem that face managementof container stock is to prevent repositionning i.e. to bring back empty containers in order to load them. That's what happened, after that the big contracts of the Defence were no longer sufficient to position the number of contaiers of the country.

[0]. Before implementing measures for the convertibility of the dirham, the Office des Changes asked for a preliminary inspection of the port of call accounts, in order to allow the payment of freight rates to foreign carriers.

- Weak profitability of the Moroccan operations.

b. Maersk

Even before the departure of SEALAND, Maersk has installed in Morocco. Maersk is a very big shipping company, which operates a similar service. It took advantage of the new provisions which govern foreign investments to establish itself into a fully owned subsidiary firm. It was first attracted by the possibility of expanding the export of early produce from Agadir.
Agadir is equipped with efficient refrigerated containers[0], and has undertaken the promotion of the exports of fresh tomatoes to Canada. Later, Maersk installed in Casablanca, and offered the same service than SEALAND at the same rate.

B. Air transport

In Morocco, air transport of cargo has developed chiefly as an activity derived from passenger transport. Early produce started being exported by air on a large scale at the end of the 60's and at the beginning of the 70's, but the increase of the price of the kerosene, after the 1973 oil shock, brought them to a standstill. It was not before the end of the second oil shock (1981), coinciding with the first of the adjustments programmes of the Moroccan economy that of cargo air transport was resumed.
From 1983, onwards the exports of perishable products were restarted on a large scale. The products exported were cut flowers and fresh fish. Because of capacity constraints, the RAM developed a cargo activity.

1. The cargo activity

To the exception of the Lufthansa, which run a regular cargo line during 2 years (1988 et 1989), the RAM is the only company which supplies cargo capacities. The development of this kind of service is tributary of air passenger transport.
At first, cargo was transported in the luggage compartments of the B 707. When the demand started exceeding the supply, the B 707 were reserved exclusively to the freight, as they had reached the end of their life span. The activity was then developed on this basis.

Freight rates had to be renewed. The demand in excess concerned only export transport activities, especially for those products the tariffs of which were very low (fresh fish, fruit and vegetables, textile, handicrafts products). These very low tariffs were in force when the use rate of the freight available on passengers planes was very low, and when the RAM striven to develop the exports. The profit rates of the ATAF pool system to Europe and France in particular made of this activity a very marginal one. The RAM has thus been compelled to negotiate with the government a price list increase. As the growth concerned mainly the export of products which are not very profitable in comparison with import tariffs, the activity was loosing money. The carriers reacted vigorously, and the government arbitrated a new tariff.

2. Subsidiary activities

The RAM has developed a whole set of activities subsidiary to cargo air transport, and which are of the utmost importance to the efficiency of the services which are offered:

- handling

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[0]. In cooperation with Agrisous, several successive deliveries were made to the Canada. The object was to test the packing process, the picking time, the optimal ripeness during the campaign 92/93. According to the agreement, the shipping company was to receive freight costs only it the product was commercialized. Subsequently, an ambitious program was set up for the campaign 1993/94.

- freight centres
- storehouses
- refrigerated warehouses.

These services are at the disposal of all the carriers. The RAM has also developed special services, especially in what concerns reservations. A computerised reservation centre collects freight demands almost permanently.

C. Road transport

Road transport is the poor man of the development policy of an international transport sector in Morocco. Apart from some small refrigerated transport and trailer traction societies, the Moroccan private sector is absent.

1. Foreign operators

France and Spain are the two countries with are responsible for the majority of the activity in this sector. The Spanish participation has greatly increased since agreements on the transit of agricultural products through the road were signed. Furthermore, the development of tomato exports has had a direct effect on the activity of Spanish carriers, as the number of refrigerated trailers is important, and as the main destination is Perpignan.

On the contrary, French carriers prefer to go through Marseilles, and usually send trailers alone. They are taken charge of by Moroccan firms in Casablanca, and French firms in Marseilles.

2. National operators

To the exception of some small firms which have been created as subsidiary companies of the multinational transport firms, the share of Moroccan firms concerns mainly the traction of trailers transported by RORO ships[0]. The reasons for that situation will be dealt with later on.

[0]. ROLL on ROLL OFF vessels : especially equipped ships for the unshipment of trailers and containers carried on special Mafi trailers. Particularly useful in ports which are not well equipped with handling machines.

PART III

The infrastructure

In Morocco, the development of the infrastructures is carried out mainly by the Ministry of Publics. Works, with the help of "Offices" which are entrusted with certain activities. The ministry is responsible for the planning in co-ordination with the different parties.

The different transport infrastructures, the roads, ports and airports will be described in this part. In a second part, the institutions in charge of the definition and the application of the transport policies will be presented, and the policies implemented will be dealt with.

I. The ports

Presently, the Moroccan harbour infrastructure is relatively developed. Out of the 28 Moroccan ports, 11 are of an international size. A global traffic of 30 million tons is shipped with the help of modern equipment (1990 figures).

A. Characteristics of the ports

Ports	Docks ha	Platforms ha	Wharves ml	Piers ml	Warehouse m^2
Nador	132	135	3.614	2.630	9.300
Tanger	68	33	2.365	1.823	28.259
Kénitra	25	5,7	1.534	3.740	27.000
Mohammédia	759	37,5	820	2.800	12.900
Casablanca	300	125	6.207	4.500	152.500
Jorf Lasfar	150	115	2.160	4.500	8.400
Safi	43	42	2.390	2.217	10.000
Agadir	95	137	3.782	5.361	18.720
Tantan	30	74	835	2.655	4.287
Laâyoune	8	3	150	2.374	640
Dakhla	1	3	490	0	400
Total	1.661	705,2	24.332	32.449	272.406

B. Harbour equipment

The following table summarises the handling equipment set up by the ODEP (31.12.1990).

Ports	Cranes	Elevators	Tractors	Loaders	Conveyors	Trailers
Nador	12	39	6	7	3	73
Tanger	16	21	12	1	0	107
Kénitra	19	21	16	6	0	33
Mohammédia	1	4	2	2	2	4
Casablanca	77	137	106	3	1	1.129
Jorf Lasfar	8	5	11	1	0	80
Safi	17	9	19	10	6	87
Agadir	31	43	30	9	5	170
P. Sahariens	6	7	4	2	2	21
Total	187	286	206	41	19	1.704

C. Activities of the Moroccan ports

The following table shows the activities of the different Moroccan ports for the year 1988. It emphasises the importance of the port of Casablanca, as well as the specialisation of the Moroccan ports.

Safi and Jorf Lasfar : Phosphates ports
Mohamedia : Oil port

The other are more general, and depend on the region.

Distribution of the traffic according to the ports.

Ports	*Liquid bulk*	*Ores*	*Grains*	*Dry Bulk*	*Others*	***Total***
Casablanca	1 558	10 305	998	361	3 502	16 724
Mohammedia	4 865			17	10	4 892
Safi	1 656	3 147	193	638	196	5 830
Jorf Lasfar	1 834	1 747	127	1 184	41	4 933
Tanger	90		176		499	765
Nador	56	426	204		491	1 177
Agadir	312	225	221	26	510	1 294
Kenitra	82	47		7	276	412
Ports sahariens	184	144		18	34	380
Total	10 637	16 041	1 919	2 251	5 559	36 407

Casablanca

Casablanca, which has always been and by far, the most important Moroccan port, dispatches more than 47 per cent of the national maritime traffic, nearly 15 million tons per year. If forwards nearly the same quantity of fruit and vegetables. 42,5 per cent of the total exports of these food products for the campaign 1991-1992 have been forwarded from Casablanca, either by means of refrigerated reefer, or RORO vessels.

Because of the important development of containerised traffic and of the present saturation of the installations, a new container terminal is now being constructed in the port of Casablanca. This new terminal, which will be operational at the end of 1994, is designed to receive 135.000 containers equalling 20 feet. It will comprise a 40 ha embanked surface, 2 mooring berths at 12 m hydro and a Ro/Ro bridge. It will be equipped with 2 container cranes, 4 handling trolleys and 15 transferring elements.

Agadir

The port of Agadir is at present one of the most important Moroccan ports. Situated in the bottom of a bay, in one of the natural berths that the Moroccan south offers to ships looking for a shelter, on the rich Souss-Massa plain near the mining districts of the Haut-Atlas, the port of Agadir faces one of most abundant fish regions in the world. Partially pulled down by an earthquake in February 1960, the port of Agadir has since been greatly developed. In 1981, as traffic had increased, it became necessary to build a new port.
At present, the port of Agadir is equipped with 3.000 meters of jetty, 1.100 meters of wharves for a draught of 10,5 m, and 300 meters of wharves for a draught of 15 m for the 60.000 ton grain carriers, as well as with a Ro/Ro post, and more than 68 hectares of equipped earth platforms.

First port of the south, and fifth port of the country, the port of Agadir has dispatched nearly 5 per cent of the global Moroccan traffic, and has forwarded 42 per cent of the citrus fruits and early produce sent by sea.

Tangiers

At the end of the nineteenth century, the only shelter Tangiers offered to boats was a sandy beach enclosed by two jetties. In 1913, a little port was constructed, to protect boats and small ships. On June *2nd*, 1923, a Dahir of the Government granted the Society of the Port of Tangiers the exclusive right to build, maintain and exploit the port of Tangiers. The port has since become the first passenger port of the country. The port was bought back in 1965, and is now exploited by the ODEP on behalf of the Moroccan government.

In addition to being a passenger port, Tangiers has specialised in the transit of RORO ships to Europe, the cargo which is 57 per cent early produce.

II. The highways

The Moroccan highway system more than 58.000 long. Half of it is covered. Between the towns of Agadir, Casablanca, Rabat, Fès, Taza, Oujda, along the Atlantic Ocean to the north, and from Agadir to Dakhla, the network is dense and well kept.
In the Oriental Plateau, and in the southern and Saharan regions, main roads join important towns.

III. The Railway Network

The main tracks are 1893 km long. Electrified lines are 974 km long, of which 246 km are double tracks. The main axis Marrakech, Casablanca-Oujda has a length of 925 km. Five branch lines join smaller towns:

- Benguérir, Safi and Benguérir, Sidi Azzouz.
- Sidi El Aidi, Oued Zem, Sidi Ghazouani, Beni Eder.
- Nouasser, Jorf Lasfar.
- Sidi Kacem, Tangiers.
- Beni Oukil, Bouarfa, Guerfouda, Hassiblal.

The southern region (Agadir, Ouarzazate, Taroudant, Errachidia) and the Saharan provinces are not serviced.

99 railway stations are serviced, and there are 150 stops.

Extension projects are as follows:

- Taourirt, Beni-Ansar (Nador).
- Marrakech, Laayoune.

The ONCF, a public enterprise, exploits the network in a situation of monopoly. Its main activity is the transport of phosphates.

In 1989, the ONCF owned 244 locomotives and goods wagons as shown below:

	Number	Capacity (in tons)
Phosphates tremmie Wagons	1209	78128
Wagons for diverse goods	7144	277543
Privately owned wagons	263	12160
Service wagons	1092	36894
Total	9708	399725

IV. Airports

There are 15 airports open to traffic, of which three are open to international traffic.

Airport/surface/runway/critical plane/parking place

Airport	Surface Ha	Runway lxL	Critical plane	Parking m²	Terminal Capacity
Casablanca	1700	3720 x 45	B 747	250 000 m²	3 000 000
Agadir	338	2910 x 45	B 747	44 900 m²	800 000
Marrakech	568	3100 x45	B 747	44 960 m²	250 000
Tanger	400	3500 x45	B 707	44 900 m²	450 000
Rabat	1500	3500 x45	B 747	48 000 m²	200 000
Oujda	444	3000 x45	B 727	23 000 m²	200 000
Laâyoune	1500	2700 X45	B 747	40 000 m²	600 000
Fès	323	3200 x45	B 747	27 650 m²	120 000
Al Hoceima	80	3200 x45	B 727	8 775 m²	120 000
Ouarzazate	145	3000 x45	B 727	18 000 m²	100 000
Dakhla	250	3000 x45	B 727	18 900 m²	100 000
Tetouan	82	1700 x45	B 737	11 500 m²	50 000
Errachidia	130	3000 x30	F 27	19 500 m²	
Tan Tan	527	3000 x30	C 130	17 840 m²	
Smara	500	2100 x30	F 27		
Ifrane	213	2100 x30	F 27		
Nador	178	1200 x30	F 27		
Guelmim	496	3000 x45	F 27		
Casablanca	136	1720 x50	B737		

The traffic of the airports stresses the importance of the three first ones.

Airport	Passengers 000	%	Freight	%
Mohammed V	2003	45,7	39643	84
Agadir	737	16,8	2370	5
Marrakech	684	15,6	1636	3
Tanger	434	9,9	1135	2
Rabat-Salé	132	3,0	1187	3

V. Policies and management

The orientations of the infrastructure policy will be briefly analysed in this part. All the objectives and problems with not be dealt with. Nevertheless the present discussions on the modalities of the financing of the services, and of the management of the constructive works and of the infrastructures shed light on the problems of the transports.

A. The highway

In Morocco, roads equipment and maintenance expenses have always been supported by the general budget of the state. Since a few years, in accordance with the decentralisation process, secondary roads are classified communal roads and theoretically supported by the communal budget. According to the national motor way plan, the maintenance expense will be financed by toll.

The main extension axes of the highway network were identified when the National Highway Scheme was developed.

The following sections will be developed:

Rabat-Larache-Tanger
Rabat-Fès
Rabat-Marrakech
Rabat-El Jadida
Agadir-Taroudant
Tetouan-Sebta

The realisation of this project will have very important consequences on the cost of the transport of Moroccan products by ITR (International Road Transport) lorries, as it will reduce transit times in Morocco.

B. Ports

Equipment expenses of ports are charged on the general budget. Equipment and maintenance of ports must be financed by exploitation incoming. An Office was created in 1984 to assume responsibility for the exploitation of all the main ports of the Kingdom.

C. Airports

A similar solution is adopted foı the airports. Equipment expenses are charged on the general budget. Exploitation earnings must allow the financing of the equipment and the maintenance of the airports. The National Office of the Airports was created in January 1990 to assume responsibility for the exploitation of the infrastructures.

The prerogatives of the National Centre for Air Navigation have been transferred to that Office.

D. Management of the ports

The organisation of the Moroccan harbour system is characterised by the distinction between the role of the Administration and that of the commercial operators. The Administration, through the Ministry of Public Works, defines the general trends of the harbour policy, plans, programs, builds and maintains harbour infrastructures.
The ODEP is responsible for the commercial exploitation of nearly all the infrastructure.
Created in December 1984, the ODEP is a public institution which is responsible for nearly all the commercial ports of the country : Nador, Tangiers, Kenitra, Mohamedia, Casablanca, Jorf Lasfar, Safi, Agadir, Tan Tan, Laayoune, Dakhla, as well as some marinas and Jorf ports.

The ODEP carries out the following missions:

- lighterage, handling and storing of goods (except in the port of Kénitra where these services are performed by private enterprises which rent the warehouses, the earth platforms and the equipment from the ODEP);
- the piloting and the fuelling of ships;
- the towing and the piloting (except in Casablanca and Jorf Lasfar where this service is performed by a private operator;
- the management and the maintenance of the system of roads, of the earth platforms and diverse networks within the ports precincts;
- the management of the harbour stations and their out buildings;
- the management of the dry docks, the docking basins, the handling basins;
- the management of the harbour public property at the disposal of the administration;
- the maintenance and the repairing of the anchoring berths and of the superstructures;
- the construction of the superstructures and the anchoring berth whenever necessary.

The private sector intervenes in the following sectors:

- towing and piloting in the port of Casablanca;
- stevedoring in all the ports, except in Mohamedia, where it is the ODEP which is responsible for that;
- lighterage and storage in the port of Kénitra.

E. The management of the airports

The management of the airports is achieved by the National Office of the Airports, on behalf of the administration. The Office carries out infrastructure and maintenance operations and provides navigation in the Moroccan airspace.

PART IV

The transport policy

The transport policy includes actions on the transport environment, on the harbour and road infrastructures, on the regulations of the activities, and the development policies of the sector.
In a first part, a description of the transport environment with the Customs Administration, the freight agents and the Exchange Office in the transport operations will show what progresses have been made, and what constraints are still to be overcome.
Finally, the sectoral policies will be described and analysed in the light of the objectives to be reached and the means used to implement them.

I. The environment the transports

It is necessary to analyse the principal commercial public activities related with transports, as they have a direct influence on the transport efficiency. It is evident that the cost of transport depends on the duration of the transit chain, because of financial reasons, and of the depreciation costs of the equipment. A vehicle immobilised, or a ship detained in the harbour entails important costs that the operators recover as demurrage, of by increasing the average freight cost by an immobilisation charge.

A. The Customs

The Customs Administration depends on the Ministry of Financial Affairs.

The structural adjustment policy carried out since the middle of the 80's has deeply modified its mission and its means.

During this period, Morocco has changed from a substitution import policy characterised by a regular increase of import dues and taxes and of customs rubrics (in order to protect industry and increase fiscal revenues) to a policy based on the diminution of the rates and of the number of rubrics, and on the simplification of the import procedure.

In spite of important modernisation efforts due to the recent development of the computerisation of the declarations and the reduction of the number of forms, this administration is still characterised by the following features, acquired during the 70's.

. Fastidious control
. Remuneration of customs officers service
. Delay in the treatment of operations.

The usual problems of the developing countries have not been fully resolved. Because of redundancies in the clearance operations, for which both a computerised declaration and the handing in of documents are required, the simplification of the procedures has not really been achieved. As the rules on the manifests handing in are not strictly applied (no computerised handing in, obligation to hand in manifests within 24 h after the arrival of planes or ships), clearance declarations can only begin after the manifest's acquisition data, thus increasing transit time.

B. Transport agents

Due to the complexity of the written and explicit rules concerning clearance operations, the activity of the transport agent has greatly developed.
Apart from making customs declarations, transport agents very often act as freight agents and as consignee of international road transport vehicle.

The implementation of the SADOK system concerning the computerised declarations of the customs operations has deeply modified the profession.

The simplification of the nomenclature and of the procedures should result in a convergence on the services with the highest added values. The development of the activity will thus depend less on the transaction capacities of the transport agents.

C. The Exchange Office

Because of the important consequence of the controls on the development of the sector, the Exchange Office in included in this section.
Until the measures laid down in December 1992 concerning the convertibility of the Dirham, foreign carriers operating in Morocco had to elaborate port of call account giving the detail of the expenses in Dirhams made in Morocco.
The Exchange Office then proceeded to the analysis of the pertinence of the expenses made before allowing the transfer of the counterparts in foreign currency. This resulted generally in more than six months delays, even more if there were problems concerning the balance of payments. The counterparts in Dirhams were held by local correspondents, making the relations between the different parties difficult. Several conflict have thus arisen. By not allowing foreign operators to create a subsidiary society controlled at a hundred per cent, the Marocanisation law has increased their risks in Moroccan, and consequently the cost of the freight.

II. The policy of the maritime transport

In order to fully understand the maritime transport policy, a description of the main intervening administrations will precede that of the main axes of the transport policy.

A. The policy

The maritime transport policy aims at reducing the deficit of the trade balance. It was part of the substitution import policy, thus being in conformity with the general orientations of the policy of the country.

1. Objectives

According to the analysis, the very important imbalance of the transport sector in the balance of payments could be straightened out by a development of the national flag and of its share in the Moroccan foreign trade.
Strategic, dependency and predatory risks hazards considerations, as well as the development of a new-born industry dictated this policy, the cost of which must not hurt exports. Thus, two main objectives have been determined:

1. The development of a national flag, and the regular increase of its participation to Moroccan foreign trade.

2. The promotion of the exports, both through the structural effects associated with the development of a national flag, and through a reduction in the cost of freight, which will be balanced by an increase in the cost of imported freight.

2. The means

The Ministry used diverse means to enforce its policy. The following classification is effected afterward. It does not reflect the strategy used to reach the objectives.

a. The Maritime Investments Code

The promulgation of an investments code in the maritime transport sector has been at the origin of the development of a national shipping business. This code included the usual incentives:

- equipment subsidies,
- credits with a bonus,
- subsidies for the creation of jobs,
- exoneration from taxes and duties.

The implementation of this code has been made possible by the important increase of the phosphates receipts, allowing thus the acquisition of numerous ships and the considerable development of national and private shipping business.

b. Maritime Code giving the preference to the ship owners

The ship owners having been granted the exclusiveness of chartering has also been important in the development of the Moroccan fleet. The chartering of ships by public enterprises (ONE, OCE, OCP, SAMIR and SCP) yielding important earnings, private operators became ship owners in order to benefit from this market.

c. National preference (when possible)

In theory, the priority has always been given to the national flag. In fact, only the OCE has accepted a different freight from the one it could have got on the market, with the initiation of a 5 per cent premium for the benefit of the national flag. Public enterprises were somewhat successfully encouraged to have recourse to the national flag. The modalities of the official price fixing were based on the effective production costs and a fixed return on capital, thus explaining the effectiveness of the interventions of the Ministry (it went directly as an increase in costs for the consumer or a reduction of revenue for the main share holder (State)). But this incentive policy was not successful in the grain import sector, where the big international carriers[0] succeeded in imposing their preferences, in spite of the insertion of a preferential clause for the benefit of the COMANAV, in case the costs were similar.

d. Development of the COMANAV

The Code of Maritime Investments was successful in establishing a private shipping business. Nevertheless, as Morocco wanted to increase the share of the national flag, and as it was generally agreed that the private sector could not mobilise enough capital and create big enterprises, Morocco took the COMANAV back, and made of it a leading enterprise. As it could benefit by international credit through the guarantee of the Treasury, and by the Investments Code, it soon constituted a diversified fleet and became the first shipping company of the country.

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[0]. Continental, Cargill, Bunge, Dreyfus, etc...

e. Bilateral conventions of the traffic distribution

As part of its policy of promotion of an international agreement on maritime conferences, Morocco has established bilateral agreement on the traffic sharing with France (1979), Spain (1979) and Italy (1982). It encouraged the constitution of pools, in particular on the line Marseilles-Casablanca, the most important for Moroccan foreign trade. The exports promotion policy has played an important role in this sector, as the COMANAV has reduced export freights.

f. Maritime conferences management code

Morocco has played an important role in the CNUCED proceedings for the opening of maritime conferences to Third World Countries, according to principle 40, 40, 20. The action of the government always tends to increase the part of the national flag.

g. Limitation of the activity of foreign operators

According to the law on Marocanisation, transport enterprises could only be established as joint ventures. Furthermore, for the exploitation of regular lines, the requested licences were delivered according to national preference rules and so as to protect lines already exploited by a Moroccan ship owner.

h. Improvement of the infrastructures and the subsidiary services

In order to increase the profitability of the equipment, and to reduce the global cost of maritime transport services, an improvement of infrastructure and subsidiary services has been achieved. The creation of the ports of Jorf, Nador and Agadir, as well as that of the ODEP is in keeping with that policy.

3. The developments of the policy

Since the beginning of the liberalisation of Moroccan economy, this policy is submitted to tensions which result from the development of exports and the continuous search for efficiency and competitiveness. As part of the suppression of the law on Marocanisation, the creation of foreign shipping companies in Morocco is no longer restricted, thus resulting in competition with Moroccan shipping companies. Moreover, the removal of the monopoly of the OCE has resulted in the actual suppression of subsidies for the benefice of the national flag, and limited to a considerable extent the capacity of the Ministry to intervene. Even, the policy which aims at promoting the Moroccan participation to conferences is exposed to the will of private ship owners to intervene on the most profitable lines.

In addition, due to the new convertibility of the Dirham and the removal of the Exchanges control procedures, an intense competition has set in, thus reducing the possibility of the Ministry to intervene.

B. Organisation and attributions

The administrative organisation of the sector is characterised by the great number of administrations which intervene in it. Ministry of Transports was created in order to federate the different parties. But this has not resulted in the constitution of a body structured enough to intervene in all the sectors.
Thus, the maritime transport sector falls within the competence of several administrations.

1. The Ministry of Fishery and Merchant Marine

The Ministry of Fishery and Merchant Marine plays an important part in defining the policy of the sector. It was the Ministry which initiated the elaboration of the Code of Maritime Investments. It elaborated too the maritime code, renewing thus the legal frame for the exercise of maritime activities. Moreover, as trustee of the COMANAV, it intervenes directly in decisions concerning the strategy of the enterprise, and is perfectly aware of the constraints of the market.

2. The Ministry of Public Works

Through the trusteeship it exercises on the ODEP, the Ministry of Public Works exercises a supreme control over harbour infrastructures planning and the management of ports. It thus participate in investments choices and harbour policies as well as in what concerns the strategy, the specialisation, etc...

III. Air Transport Policy

Air transport development policy in Morocco is indeed a story of the Royal Air Maroc. The main objective of the policy is to endow Morocco with a national airline company, as the European countries. The very projectionist rules of the IATA, especially in comparison with maritime usage made it possible, as they give the state the sovereignty on his air space, and the possibility to negotiate all the traffic dues.

A. The Policy

1. The objectives

The objectives of the policy are the following ones:

1. To promote tourism by servicing the main destinations of the country.
2. To develop the national transport capacity.
3. To develop the export of Moroccan products.

2. The means

The Chicago Convention of 1947 set up sovereignty prerogative. The following articles provided that:

<u>Art. 1</u>:

The contracting States recognise that each State has a complete and exclusive sovereignty over its territory.

<u>Art. 6</u>:

No regular international service can be exploited over or inside the territory of a contracting sate without special permission or any other authorisation of the said state, and in conformity with this permission or authorisation.

Art. 7:

Every contracting state has the right to refuse to the aircraft of other contracting states the permission to fly over its territory in the destination of another place of this territory.

Effectively the above-quoted articles allow the state to exercise a decisive control over his air-space. Thus, Morocco has set up its airline company on the pattern of national European companies. Traffic rights being the property of the state, the latter creates an airline company and establishes pool agreements with other national companies for the service of lines between the two countries. Once the pool has been set up, tariffs are fixed by mutual agreement, and the supply is divided equitably between the two companies.

This monopoly has allowed Morocco to develop, from the revenues produced by the lines between France and Morocco, lines to other destinations. The RAM has thus developed the traffic, first to European destinations, and then to African, Middle East, and America destinations. The implications on the strategy of the RAM will be developed later. Concerning the promotion of exports the RAM subsidises export freight and taxes import freight. That is how corates[0] have been adopted for the m important products which are traditionally exported.

B. Organisation and attributions

As has been stated above, the Ministry of Public Works plays an important part in the planning and the construction of harbour infrastructures, as well as in their management. In the air transport field, the Ministry retains its prerogatives concerning the realisation on airports. Nevertheless, it is the Air Administration which is in charge of air transport legislation, bilateral negotiations and the trusteeship on Royal Air Maroc. As mentioned, the Air Administration has transferred its prerogatives concerning the management of airports to the "Office National des Aéroports".

1. Administration air

Situated in the Ministry of Transports, it is responsible for the planning of the equipment, the trusteeship on the managers of the infrastructures and the management of the sector. It delivers authorisations for the exploitation of airlines and supervises the national company.

2. The ONDA

The Office National des Aéroports has only recently been created[0]. As the ODEP was successful, it has been decided to entrust a single agency which functions like a private society with the management of airport infrastructures. Since its creation, the policy of the Office has aimed at improving reception terminals and developing the assistance to modern navigation on the national level. This action is financed by passage rights on the use of the infrastructures, and freight and passengers duties.

IV. The Road transport Policy

The road transport policy is still characterised by the transport sector crisis of 1936. Before that time, the sector developed rapidly. New roads were constructed, and the unification of the market attracted investments. In 1936, the economic crisis reduced the activity and entailed a situation of over capacity. An analysis of the crisis having shown that the excess of the transport supply was "structural", a system of agreements and licenses was

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[0]. Special tariffs to be applied to certain products.

[0]. The ONDA has been created in January 1990. It replaces direct management of airports situated outside Casablanca, and the "Office des Aeroports de Casablanca" (OAC). The prerogative of the Centre National du Contrôle de la Navigation Aérienne (National Centre of the Control of Air Navigation) have been transfered to it in December 1990.

set up. The "Bureau Central du Transport" (Central Transport Office) was created, and was commissioned to secure the freighting of vehicles under agreements in a situation of legal monopoly. In order to control the transport capacity of all the towns, agreements are granted by centres. The list of the centres is established by the administration, and only if there is no vehicle under agreement in a centre available can a loaded return occur on a non centre vehicle.

Since this system was established by the Protectorate authorities, very few changes have occurred. Only the name of the BCT (Bureau Central du Transport) has changed. It has become, after the Independence, the Office National du Transport (National Transport Office).

Before going back to the main characteristics of the road transport policy, and to its links with international transport, the administrative organisation of the sector will be briefly described.

A. Organisation and attributions of the different administrations

The two administrations responsible for the supervision and the promotion of transport are the DTT, Direction des Transports Terrestres (Directorate of land transport) and the ONT.

1. Direction des Transports Terrestres

The DTT is responsible for the regulation of the cargo and passenger transport market. It exercises a qualitative control policy of the supply two ways:

- Its road squads control vehicles which carry cargo, in order to make sure that they are in possession of a transport agreement, or that they carry goods on their own account.

- It analyses the situation of the supply and of the demand of transport in the different centres, in order to propose the development of the number of vehicles under agreement.

It is not entitled to issue new transport agreements. This prerogative is reserved to the National Transport Commission, which examines agreement requests formulated by provincial economic services, before accepting or refusing them.

2. ONT

The National Transport Offices is the only transport freighter. Through an agency in every centre registered as freight origin, it ensures the management of agreements.
It redistributes the collected freight to all the carriers under agreement, in such a way as to equalise the profitability of the tonnage under agreement.
The ONT has thus acquired a knowledge of the market which enables it to help the DTT to understand the constraints, so as to increase the capacities under agreement. In the International Transport Field, the ONT led quite a different policy.

B. Policy

It is necessary to fully understand the relations between national and international transport policies. The regulation system of the transport supply by means of the agreement has created an important lobby which resists to every liberalisation attempt of the national road transport system, in spite of its failure. More that 80 per cent of the tkm[0] are carried by vehicles not under agreement, which are thus committing an infringement to

[0] Tons per kilometer, usual unit of cargo activity.

the law on the freighting monopoly of the ONT. The transport is carried for the most part on 8,5 t vehicles, the costs of which are much higher than those of trailers or of great capacity truck.

This regulation system has also indirect negative effects on the sector.

- As customers do not, in general, choose their carriers, this results in a lack of specialisation and a undifferentiated service.

- Carriers do not develop a commercial know-how, as they do not look for customers directly.

- The only carriers in situation of competition are those who operate with vehicles not under agreement. Because of the legal constraints, they cannot organise themselves in a powerful transport group. Their competition is based for the most part on their knowledge of the flow and on the price.

It is no wonder that no transport group can emerge, some being protected in the ONT sector, and the other not being able to develop in the legal framework.

When RORO vessels, and the development of train ferries on the Strait of Gibraltar made possible the development of international road connections, the Moroccan carriers were not ready to turn to international transport.

1. Objectives

The objectives of the Moroccan policy of the development of international road transport are as follows:

1. The development of the national flag.
2. The promotion of the exports.

2. The means

The means used are the following are:

1. The signature of bilateral and multilateral conventions on the sharing of the traffic with nearly all of the European countries.

2. The development of a national society in the sector of road transport, the COMITRAM.

3. The signature of a multilateral transport convention (TIR Convention) and the designation of the ONT as guarantor to the IRU (International Road Union).

4. The negotiation with Spain of land transit conditions.

PART V

Evolution of the sector and strategy of the operators

The strategy of the operators will be analysed in this part, so as to appreciate if the policies were successfully implemented.

I. Air transport

In that sector, the strategy of the RAM and of its competitors will be analysed. So as not to dwell at too great length on the passenger transport strategy, an analysis of passenger transport in relation with goods transport will be first done, in order to set the problem within the strategy of the RAM.

A. The strategy of the RAM

The present strategy of the RAM is to protect the pool lines which allow its expansion. On the lines to France, the fill rate being very important, and the tariffs very high, the margin rates are more than forty per cent. These profits are used to expand the company network towards Africa and America. These destinations are much less profitable, some are loosing money.

The RAM dreads the eventuality of the installation of an independent competitor, which would specialise towards profitable destinations, and compel it to a tariff war. Being a national company, the RAM knows that such a company would not get the required authorisations for passenger transport. But concerning cargo transport, the case is different, as Egyptian and Latin-American precedents testify. But once an airline company has started a cargo exploitation, it could possibly ask for passenger lines transport. That is the reason why the RAM insists on developing its cargo capacities, whatever the price, so as not to be attacked on its profitable lines.

1. The emergence of air freight

The elaboration of the freight strategy of the RAM has been determined by several factors.

- Increase in the export freight demand

The low special tariffs allowed by the RAM in order to develop exports have been successful. After the adjustment measures of the Moroccan economy, and the 1985 devaluation, the export demand for perishable products has greatly increased.

- Saturation of the capacities on passenger flights

The development of the exports has quickly saturated the cargo capacities of passenger planes to European destinations.

- End of the life span of the B 707

The two Boeing 707, which the company has acquired in order to develop its long-distance lines can no longer he used on passenger lines. On one hand, the passengers prefer B 747, and on the other hand, their fuel consumption and their noise level make them obsolete.

- Development of a powerful lobby in favour of the export of cut flowers

  The congestion of the cargo capacity of passenger planes has resulted in flower being put down, and in the refusal of exporters reservations. As a result, a lobby of the exporters of perishable products has been constituted which has asked the administration to improve the performances of the company in the freight sector. The company then reserved the B 707 to the transport of cargo and developed this activity, giving greater means to the freight sub-direction.

Subsequently a development of the quality of the service was realised, and an admissible procedure for the modification of freight tariffs was developed.

a. The services

When a regular freight activity was started, the most important problems that arose were due to the poor quality of the service of the RAM. The personnel was not familiar with perishable goods air transport constraints. The goods could be unloaded at the last minute to give place to luggage. Land equipment, in particular for the storage and the preparation of plane pallets were rudimentary. The reservation service was not experimented enough to estimate suitably the "No show" and the capacities available on planes.

In order to improve the infrastructures, freight centres have been constructed in the airports of Nouasser, Agadir, Inezgane and in the extension of Marrakech airport. The RAM has joint the SITA system for the reservation of cargo capacities and the management of cargo lines. It has also undertaken recruitment and training programme.

b. The pricing

The development of the new cargo lines has rapidly set the problem of the profitability of this new activity. The pricing of the cargo capacity on passengers plane did not set any problem, at is was a marginal activity as compared to passenger transport. But a pricing problem was set by the cargo activity. In accordance with a study conducted by ITA, which recommended that the tariffs be nearly doubled, the RAM tried to increase considerably its tariffs. The exporters, for whom the freight costs averaged 30 per cent of their turnover, asked the trusteeship authorities to arbitrate.

The arbitration, mainly a political one, was done on the basis of three propositions:

- The cargo activity must be financially balanced.
- The Ministry of Agriculture will subsidise agricultural products freight, thus participating in making up the exploitation deficit.
- A study on the pricing and the deficit of the RAM would be undertaken.

The study has shown that the deficit was due, for the main part, to the fact that the standing expenses of the company were entered in the accounts of the activity freight. It has also shown that the tariffs were consistent with financial balance, if the activity was managed in a better way.
Since, then tariff discussions have been linked to meetings with the exporters and the planning of export campaigns. The very low subsidies of the MARA are used to improve exports to far-away and/or strategic destinations, in what concerns the promotion of new markets and products.

2. The problems

Three main problems face the company at the present time:

a. The North American service

The North America service concerns mainly the export of cut flowers and fresh vegetables. It undergoes heavy losses.

b. Differentiated increase of the import and the export

On the European market, towards which freight transport activity is directed for the most part, the increasing imbalance between exports and import affects the profitability of the activity. The average receipts per kilo at the import are much higher than receipt at the export. A differentiated increase in the quantities results in the assignment of new capacities to export, thus reducing the fill rate of the export and worsening financial results.

c. Fleet repmacement

The B 707 are costing too much, especially as compared with other aeroplanes available. This is due to the following factors:

- The crews : B 707 being used only for the transport of cargo, it is not possible to assign indifferently the pilots.
- The planes : Maintenance requires qualified ground teams and spare parts stocks in sufficient quantities.
- The fuel consumption.

3. The prospects

Faced with these problems, the RAM has developed a new strategy based on:

- A close alliance with Air France
Air France market directly the available capacities, with a view to increase the filling rate at the import. Thus, triangular flights Morocco-France-Algeria-Morocco have been initiated, as air transport in Algeria is inversely unbalanced. It is characterised by a very important filling rate in the direction North South, and excess capacities in the direction South North.
The main profit of this association consists in the capacities of the commercial service of Air France to sell the connection France-Morocco.

- Replacement of the aircraft

The B 707 have been replaced by B 737 cargoes in November 1993.

- Interruption of the service to North America

The new planes being not long range aircraft are not adequate for North America service. Thus, the RAM will concentrate on the European market, and develop associations for the service of North America from Paris and Frankfurt. Due to the present over capacity available on the Atlantic, profits are generated with the same tariffs as before.

- Development of hub and multimodal transport

Three airports play the role of hub for the service to Europe. Goods to other towns are carried by plane and/or lorry. This concentration on a little number of destinations allows the full usage of planes.

- Cost and profit centre

Lastly, the freight activity is considered as an independent profit centre. The accountancy will no longer bear the overhead costs due to the standing expenses of the head office.

B. Competitiveness of the RAM in cargo transport

As part of such a study, the competitiveness of the RAM must be measured. Several factors will be analysed. The analysis of the costs and profits of cargo activity show that the RAM does not fully exploit its monopoly on air transport. Its cargo lines have sometimes shown important deficits. Lufthansa withdrawing from the cargo line between Casablanca and Frankfurt shows clearly that it is difficult to draw a profit from cargoes, when there is an important imbalance between import and exports.

Nevertheless, the RAM has not carried through its expenses reduction process, which alone would allow it to keep its place in the air transport sector. Alternatives to the IATA and to its traffic organisation having developed, the air transport sector has become more and more competitive.
When accounting procedures of the standing expenses are used to evaluate the costs of cargo activity, very important deficits are shown. The results are very different when only direct expenses ase accounted.
Moreover, even if the planes used are amortised, their operating costs are very important, and they are not fit for the traffic to Europe, for which medium range air crafts are more adapted.

In conclusion, the RAM does not profit directly by its monopoly on the traffic. On the other hand, the lack of competition allows it to make use of not very suitable planes. The analysis of the results of the campaign 93/94, when the B 707 will be replaced and suitable accounting procedures used, will be very instructive.

1. The tariffs of the competitors

One of the major problems that the exporters raise concerns the influence of the high tariffs of the RAM on their competitiveness. The following table shows freight rate paid by wholesale importers of London and Paris for their imports of flowers from Colombia, and of vegetable, fruit and flowers from Sub-Saharan Africa. It shows that the tariffs of the RAM are not very high. Freight from Morocco is sensibly less expensive than from any of these origins. It is true that the difference is less than 50 centimes between Ouagadougou and Agadir for example, nevertheless it is not true that exporters suffer a loss of competitiveness because of the freight.

Flowers	Rates	Dhs	Airline
Bogota Paris	2 $/kg	18.00 dhs	Colombian Air
Nairobi Paris	12 FF/kg	18.00 dhs	BA
Casa Paris	6.85 dh/kg		RAM
Early produce			
Nairobi Londres	1.52 $/kg	13.68 dhs	British Airways
Lusaka Londres	.95 $ /kg	8.55 dhs	British Airways
Lusaka Londres	1.60 $/kg	14.4 dhs	Zambia Airways
Nairobi Londres	1.48 $/kg	13.32 dhs	Swissair
Hararé Londres	0.97 £/kg	12.00 dhs	British Airways
Casa Londres	7.55 dhs/kg		RAM
Kenya Paris	7.50 FF/kg	12.37 dhs	Air Afrique
Burkina Paris	5.80 FF/kg	9.57 dhs	Air Afrique
Dakar Paris	5.80 FF/kg	9.57 dhs	Air Afrique
Bamako Paris	5.80 FF/kg	9.57 dhs	Air Afrique
Cameroun Paris	5.80 FF/kg	9.57 dhs	Air Afrique
Bénin Paris	5.80 FF/kg	9.57 dhs	Air Afrique
Burundi Paris	7.80 FF/kg	12.87 dhs	Air Afrique
Zambie Paris	1.60 USD/kg	14.40 dhs	B A
Zimbabwe Paris	9.00 FF/kg	14.85 dhs	B A

C. The hindrances

The hindrances of the Moroccan air transport supply are due for the main part to the lack of competition on one hand, and to the monopolies held by the RAM, or by the ONDA in what concerns the complementary services on the other hand. In addition Moroccan exports of perishable products do not really benefit from the proximity advantages, as the difference in the tariffs between the RAM and Airlines to Sub-Saharan destinations doesn't reflect difference in distance, as has been above-mentioned.

1. Competition

Due to the lack of competition, exporters depend exclusively on the national company. They receive thus lower quality of service, and are faced with higher freight rates. As mentioned before, the tariffs from countries situated at the south of the Sahara are inferior to Moroccan tariffs. If we compare the tariffs Paris-USA and Casa-USA, the result is different. According to the agreement with the RAM, American Airlines offer capacities for 50 cts/kg between Paris and New-York. This can be compared to the 7,50 dhs/kg tariff to Paris from Casablanca, or to the 15,45 dhs/kg cost from Casablanca to New-York. But it must not be forgotten that on these lines the competition is very different.

According to the Air Administration, there is no impediment to the installation of a cargo transport airline company in Morocco. Nevertheless, two projects have been unsuccessfully submitted. But the true problems that the monopolies create concern the providing of key services for the transport of goods.

2. Monopolies

A first monopoly which hinders considerably the emergence of competition on the air transport concerns the handling. The RAM is sole responsible for the supply of land services, and owns freight centres. In order to limit competition, these services are priced in a discriminating way. Concerning the companies with which it has pool agreements, the RAM supplies services at a rate in keeping with the service they themselves supply. Air France charges the RAM low rate service costs in France, and the RAM does the same in Morocco. In what concerns other companies, prices are deliberately increased,

so as to protect the market of the RAM. The loading of a plane is charged 1500 Dhs per 100 kg, plus 200 Dhs airport duties. If airport duties and destination handling costs are added, it is perfectly understandable that charter planes are reluctant to transport cargo, although they often have unused capacities for export.
The second monopoly is that of the National Airport Office. The relative management freedom which it enjoys allows it to tariff its services at levels that can impede the development of exports by air. In addition, it is presently engaged in the improvement of infrastructures, which will increase its charges.

II. Maritime transport

Operators in this sector are more numerous, and lead more complex and different strategies.
Public operators lead ambitious strategies, while private operators rather look for a niche.

A. The strategy of the operators

In order to fully understand the strategy of the operators, a brief outline of the recent story of the societies and of the development of the market is necessary.

1. COMANAV

a. The objectives

The state took over the COMANAV in order to realise its objectives in the maritime transport sector. They have been set at 20 per cent of the Moroccan exports, through COMANAV.

Several conditions had to be fulfilled

The COMANAV had to engage both in conventional and in specialised transport.

It had to be developed, thus an ambitions equipment plan was set up.

As a counterpart, it negotiated financing possibilities and an institutional support in order to penetrate maritime conferences between Morocco and Europe and Morocco and France in particular, as well as a support which would make Moroccan public enterprises choose the COMANAV for the transport of cargo.

b. The transport

As a result, a strategy was developed, which would make of the COMANAV a general shipping company.

- It invested in citrus fruit transport, through the convention OCE-COMANAV, as well as in the constitution of a refrigerated fleet.

- It invested in regular lines.

  1. Through the participation to the conference on the sea route Morocco Mediterranean with Sud Marine.
  2. Through the participation to the conference on the sea route Morocco-North Sea with SCMA (Combined Morocco-German Service).
  3. Through the participation to the conference on the sea route Morocco-Italy.

4. Through the participation to the conference on the sea route Morocco-Atlantic English Channel.
5. Through the establishment of a regular line to West Africa and the Middle East:

- It invested in big tramping through the acquisition of two bulk carriers.

- It invested in passenger transport through the acquisition of a train-ferry on the line Tangier-Site.

- It invested in subsidiary services : handling, consignment, containers for hire, bulking of goods, land transport, transit, stevedoring and transhipment.

- It invested in tourism through COMANAV-Voyages.

c. The results

As a result, a big shipping company has been constituted, which is present in all the sectors. An important staff has been engaged and trained on maritime transport problems. Concerning the profitability and the investment returns, this strategy has not been entirely successful.

(1) Regular lines

If the exploitation of conference lines to Europe is earning profits, the new lines to West Africa and the Middle East have long suffered important losses, until they were suppressed and/or managed jointly with a French ship owner.

(2) Passengers and tourism

This activity is profitable. This is mainly due to the very important tariffs of the conference for the crossing of the Straits of Gibraltar.

(3) Tramping

This activity suffered important losses. The company has been obliged to sell the two ships which it had acquired, after she gave their management to the French group UNITRAMP[0].

(4) Transport of citrus fruit and early produce

The effects of the investments realised in the specialised transport of citrus fruit and early produce can be fully understood only if two periods are clearly separated: before and after the creation of the AFB. The COMANAV was the leader in the transport of citrus fruit when the OCE enjoyed the monopoly.

But today its situation is different. On one hand, the AFB has not continued the sectoral agreement which granted a 5% premium to the national shipping business, and on the other hand the refrigerated ships of the COMANAV have very big capacities, and are adequate for long distance transport of citrus fruits (Russian agreements), but they no longer meet the exporters needs. The exporters want more and more small and average capacities, rapid ships, for the service of the European markets.

Thus, one of the most important sectors of the COMANAV at the beginning of the 80's is no longer an asset for the expansion of the company.

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[0]. Cf note n° 10.

(5) Subsidiary services

The development of handling and consignment subsidiary services is directly in competition with the private sector, which is very active in the field. Although it aims in the first place at meeting the needs of the main company, the development of these services was planned from the point of view of an important increase in the activity of the company. The financial viability of these services, as an autonomous entity has become questionable.

2. Other operators

The other operators lead much more specialised strategies.

a. MARPHOCEAN

MARPHOCEAN is the biggest Moroccan ship owner, in number of ships and in TPL. A subsidiary of the OCP group, it has been constituted in order to undertake the transport of the products of the group, the phosphoric acid in particular, which requires specialised ships. The importance of the OCP, first world exporter of phosphoric acid and phosphates, as well as the destinations of the exports, India, Indonesia and Malaysia for the main part, explain why the group has constituted its own fleet.

The strategy of this shipping business is a simple one. It must undertake the exports of the products of the group, and take its place back in the international market, in case the activity of the group weakens. This strategy has got more and more elaborate. At first, MARPHOCEAN had a bulk carries fleet for the phosphates exports, in addition to ships specialised in the transport of acid. The situation of the international market of dry bulk, characterised by an excess supply and very low prices, made it give up its bulk activity, and concentrate on acid transport.

b. Citrus fruits and early produce transport

Several Moroccan ship owners specialised in citrus fruits transport, in addition to their freight activities. They adjusted their service supply, in order to conform to the evolution of the services provided by international carriers and to tender successfully of the AFB. Their strategy is a relatively simple one. They try to manage in the best possible way the ships placed at the disposal of the AFB in terms operating costs, and try to anticipate on future needs of the sector, before defining their investment program. The try to protect their relation with the AFB on the grounds of its negotiating capacity, which would be greatly reduced, if the Moroccan specialised shipping business disappeared.

Because of their close co-operation with the AFB, regular lines for the ocean transport of cargo have been established to France, Germany, and England in the near future.

c. Maritime lines

Other ship owners have chosen to develop regular lines to European ports in competition with the COMANAV, or to service new destinations, speculating thus on the competition of European ports. This strategy is usually based on the development in depth of one line, on a very active commercial service, and on the support of a European partner and of the port of registry. For example, it is the case of one of the most appreciated companies in the port of Casablanca, Atlas. They offer a personalised service, which brings into relief the limitations of the COMANAV.

This service is characterised by the following aspects : a single interlocutor, the follow-up of the goods and adjustment of the tariffs to market conditions. All that contributes in increasing the fidelity of the customers.

d. Specialised transports

Other ship owners invest in specialised transport, like the bulk transport of vegetable oil, the transport of chemical products, etc. These companies cannot be competitive in segments which require an important fleet, and important means, such as the import of grain and or coal.

e. Ferries

Moroccan operators have invested too in the transport through the Straits of Gibraltar by ferry. The entry of new operators on this very profitable line is strongly opposed by the beneficiaries of the concession and the managers of the conference. The COMANAV has established a RORO line between Casablanca and Cadiz, at the same price that the line Tangiers-Algesiras, in spite of the important difference in duration, costs, and number of turn-rounds.

B. Development factors

The strategies of the operators, and their adjustment during the last years, reflects the evolution of the international and national market of the maritime transport. In particular, the establishment on the Moroccan market of big companies operating lines around the world has changed radically the environment. These companies which have contributed to reduce the unacceptable character of closed conference have renewed the way in which national ship owners consider their integration in the market.

1. The Market

Moroccan and International markets have undergone very important developments during the last decade.

a. The National market

The most important development concerns its growing integration to world economy. This is characterised by an important growth of manufactured products exchanges. This has resulted in an important increase in unitary[0] traffic, particularly on regular lines to Europe. This increase in the exchanged volume has created new opportunities of competition, as it has made the installation of new capacities possible.
On the protected conference lines, newcomers have established particular lines as outsiders. This is the case for example of the CONADE, which exploits a RORO line between Casablanca and Marseilles. The other great development factor has been the establishment of lines which operate feedering round the world from Morocco.

A brief outline of the modification of competition conditions in the international market is necessary, if one wants to understand the effects on the national market.

b. The International market

The international market has been characterised by an unprecedented increase in the carrying capacity, which provoked freight rates to contract substantially. The answer has been the introduction of new technologies, in order to gain productivity earnings.

1. Development of very big container carriers, with a very low cost in miles TEU.
2. Development of container transhipment centres.
3. Development of networks for the computerised exchange of documents.

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[0] By container, trailers and generally paletized.

These three factors have contributed in the emergence of lines round the world. They operate from a limited number of transhipment ports, are supplied by feeders, and offer very interesting freight rates. Evergreen, SEALAND and Maersk for example operate on that basis.
The rates they offer give them a considerable advantage over medium and small capacity container carrier lines.

2. SEALAND

The experience of SEALAND in Morocco is typical of the effects that the developments of the international market had on the national market. SEALAND first came to Morocco to carry out a contract for the delivery of American military equipment. Afterwards it created a partnership for the exploitation of :

- the containers brought for the above-mentioned contract,
- the transhipment terminal of Algesiras,
- the line Rouen the world, which calls at Marseilles and Algesiras.

It thus commercialised the delivery of forty feet containers from Morocco to Marseilles through Algesiras, and practised prices nearly 50 qer cent less expensive than the price of the regular line of the conference COMANAV/Sud Marine. Its partner, the CONADE, operates a feeder line from Casablanca to the transhipment port of Algesiras. In doing so, it completely modified the situation in the national market. The COMANAV was compelled to fai! into line with the new prices. New exporters have used containers. The pressure exerted on the global profitability of the COMANAV made it readjust its policy.

	Import		Export		
	1989	1993	1987	1989	1993
North Sea					
20'	2000 DM	1800 DM		1 800 DM	1 600 DM
40'	3500 DM	3200 DM		2 900 DM	2 500 DM
Casa /Cadix					
ER	84 000 Pts	84 000 Pts			80 500 Pts
Tanger/Cadix					
ER		60 000 Pts			60 000 Pts
ER/AP		40 000 Pts			40 000 Pts
Marseille					
SR	9 000 FF	8 500 FF		9 000 FF	8 500 FF
20'	6 700 FF	7 400 FF	8 000 FF	4 900 FF	3 800 FF
40'	11 000 FF	8 500 FF	8 500 FF	5 000 FF	5 000 FF

The table above shows the results of competition on container freight tariffs. The price of the 40 feet container has fallen from 8500 FF to 5000 FF between 1987 and 1993. But the freight tariffs of the RORO trailers to Marseilles have not contracted to that extent.

a. Result on the use of containers

The first result of this price war was the development of the 40 feet container to the detriment of the 20 feet container for the exports of vegetable preserved food and fish. The 40 feet is easier to handle, and promotes Moroccan products in foreign markets. Moreover, several preserved food exporters who first made use of conventional cargo have turned to containers to cut their costs. This must have contributed in the decision to construct a container in the port of Casablanca.

The second result is subtler. It concerns the introduction of a box pricing instead of the product pricing which was done before. This also increase the use of unitary transport, as it reduces the costs for expensive products.

b. Result on the strategy of the COMANAV

In what concerns the COMANAV, the result has been profit reduction on its most profitable lines, preventing thus the development of new lines. The strategy of the COMANAV of its future development was modified. The COMANAV reduced its activity on the Middle Eastern line, and gave the management of its line to West Africa to DELMAS.

In addition, the COMANAV realised that the traditional expansion modalities of its activity were reduced, and that it had to start operating as feeder for more important companies. This led it to conclude and agreement with NEDLLOYD, and to replace its line to the Middle East by a transhipment from an Italian port. This increases the profitability of its Italian line, and prevents losses due to tariff reduction on its Middle Eastern line.

c. Results on the strategy of other ship owners

The other ship owners too oriented themselves towards the development of feeder lines round the world, either trough Rotterdam for the operators of the North Sea line, or through Le Havre for the Atlantic operators. This allows them to offer services which had long been out of reach, like regular services to North America or to South East Asia.

The exports of navel oranges to Hong Kong have thus been realised by refrigerated containers, at the price of 2,5 dhs/kg, and tomatoes have been exported from Agadir to the Canada for sensibly similar selling prices (the air transport costs nearly 10 dhs/kg).

d. The Departure of SEALAND and its replacement by Maersk

Because of invoice recovery problems due to the exchange control on the port of call accounts, SEALAND decide to leave the Moroccan market. This considerable loss for the export trade of the country was soon compensated by the establishment of a subsidiary of Maersk, which took over the same activities.

C. Prospects

Maritime transport competition results in a reduction of the costs of exported products. Because of the privileged situation of Moroccan the development of feedering should also result in an expansion of the area accessible to Moroccan products, in particular in the direction of North America to the West, and to the Middle East and Southeast Asia to the East. These development are thus full of promise. What is still unknown concerns the Moroccan policy of second national flag, the restructuring of the COMANAV, the harbour policy and the future of bilateral agreements.

1. Second national flag

The development of the Moroccan shipping business has been helped in a decisive way by the State through numerous actions. Nevertheless, in order to promote the development of a national know-how, the government set up labour regulations very favourable to seamen, on the pattern of European regulations.

The repercussions of these various rules on the crew costs reduced considerably the competitiveness of the Moroccan shipping business.

Moreover, if the protections given to the Moroccan financial system, especially in the obligation to use local insurance companies, and the limitations to the credits modalities are taken into account, the operation costs of the Moroccan flag will show to be higher than those of their competitors. Thus, the decision to develop a second national flag in order to increase the competitiveness of the Moroccan shipping business is a prerequisite, in order to reduce the ageing of the fleet, and to allow an expansion of the sector.

2. Restructuring of the COMANAV

The transition of the Moroccan economy towards more liberalism imposes sectoral restructuring measures, in order to derive all the benefits from the policy in terms of growth increase. In the case off the COMANAV, there is a conflict between the two roles of the State : share holder and regulator. The State share holder acted as regulator when it made possible for the company to benefit from preferential agreements on certain lines, thus providing it with the necessary means for its development. By so doing, it no longer ensures an environment propitious to the reduction of the rents and the increase in the efficiency of the investments. The discussions on the role that the COMANAV plays in tariff reduction in the direction South North, and the supposed compatibility of a policy aiming at protecting the company with the promotion of the exports reflects only the imbalance between the flows and thus the constraints of pricing of regular lines. Moreover, the orientation given to the COMANAV have produced a development incompatible with its market. A restructuring of the company is thus imperative. It will constitute a preliminary condition to a greater liberalisation of its activity, in particular through the increase of competition on regular lines. The examples of Tunisia and Algeria, which have both denounced the conference accords on the lines to Marseilles, and have thus reduced the tariffs by nearly 50 per cent, are very instructive. The promotion of Moroccan exports would profit by such an action.

The COMANAV once played the role of leader for the development of the sector. But it has now become a hindrance to a better insertion of Moroccan economy in the world economy. A restructuring must be realised, before the privatisation.

3. The harbour policy

The creation of the ODEP as a replacement for the RAPC (Lighterage Administration of the Port of Casablanca) has improved considerably the efficiency of the port, and reduced the costs of the service of the country through a judicious investment and management policy. Subsequently, the management of all the commercial ports was entrusted to the ODEP.

The ODEP has developed a complementarity and specialisation policy of the ports, in order to optimise the investments and their profitability. This policy ignores the lessons of these last years concerning the dynamics the expansion of ports. These dynamics have constantly been spurred on by competition to attract traffic.

The tariffs of the services offered and the efficiency of the investments have been conditioned by competition to a large extent. This results from the reduction of the costs of land transport, and from the increase of the harbours hinterlands. Traffic being thus attracted, this reduces the costs of land installations and allows the use of great capacity ships. It would thus be necessary to follow up attentively the tariffs of the offered services and of the investments in the different ports to prevent the constitution of monopolies.

From the start, the ODEP realised important investments and increased the tariffs. Much more than the tariffs increase, the investments allowed productivity gains, as they reduced service time and increased the reliability of service. The increase in the lighterage and craning costs were inferior to the decline of the tariffs on regular lines.

Nevertheless, when the ODEP revised its tariffs, ship owners protested and formed themselves into a containers users committee in order to discuss the options of the ODEP and limit its monopoly power.

4. Conferences and bilateral agreements

Agreements on regular lines result in high costs, which is prejudicial to the development of the trade. Morocco must thus proceed with the liberalisation policy, particularly in what concerns lines which are decisive for its foreign trade, such as the line to Marseilles or the crossing of the Straits. As competition is nil on the latter, tariffs are nearly 4400 FF, while they are only 2200 FF for the crossing of the Channel. This contributes to reduce the desired integration to European economy. There also, lessons can be drawn from the Algerian and Tunisian examples.

III. Road transport

Off all the international transport modes, the TIR (Transport International Routier, International Road transport) is the mode the development of which has been least assisted. To the exception of the COMITRAM, a public corporation which was subsequently sold to the private sector because of important losses, the State did not give any assistance to the establishment of Moroccan carriers in the field of international trade. This is mainly due to the struggle between the exporters, who did not want any change to occur, and trustee-ship authorities, in particular the ONT.

A. Strategies of the operators

The operators have started leading complementary strategies, after a period of tentative efforts concerning their respective roles due to the apparent contradiction of Moroccan legislation on freighting monopoly and on mixed enterprises (enterprises to which the State and private industry participate). At the beginning, the ONT tried to force its prerogatives up on loaders and carriers. The idea was to create a multi-modal transport centre in Casablanca, which would allow a control of the activity of the sector by way of a freight exchange. But the exporters quickly managed to secure very favourable conditions due to the imbalance of the exchanges by road, and to the lack of knowledge of foreign road carriers of the Moroccan market. Foreign carriers, most of them French charged the journey North-South the cost of the turnaround when they came the Morocco. As a result, they were ready to sell off freight in the direction South-North. For fear a public intervention would increase costs, the exporters reacted vigorously, and the ONT renounced its claims. Foreign carriers perceived the potentialities of the Moroccan market. They first associated with Moroccan transit agents, then created subsidiaries.

1. The ONT

The strategy of the ONT has changed since the beginning of the 80's. Initially, it wanted to exercise a freighting monopoly in international transport. In the face of the reaction of the exporters, its strategy has changed. It aims at :

- protecting it base of operations on the national transport,
- promoting the development of international road freight, in order to increase the total amount of the taxes collected.

a. Protection of the base of operations

For the ONT, the greater risk is to lose its freighting monopoly, which allows it to perceive an tax on the traffic, as well as a payment for its service. Concerning the development of international road transport, the risk is different. The transport supply may be transferred to the inland market if the export activity varies.

b. Promotion of the development of TIR

This is an important development axis. It allows the development of the revenue basis of the ONT, confirms its role as a public service, and thus helps in protecting its base of operations. The Direction des Transports Terrestres has thus been made able to modify the legislation, and has been given the means to interpret favourably what is implied by a mixed transport society, as well as the legislation on international transport. Further more, the ONT stands as national guarantor to the IRU of the transport operated within the TIR. Thus, if the ONT loses its freighting monopoly, it will have the possibility to develop new activities.

2. Foreign carriers

Foreign carriers in Morocco fall into three groups:

- Occasional carriers, solicited by a foreign principal, and who elaborate their supply on the basis of the turnover cost with an empty return.

- Carriers who develop association relations with transit agents. These last ones act as freighting agents and as consignees at the same time.

- Carriers who have created subsidiaries in Morocco, and who carry out the consignment, the marketing, the bulking and the transit.

As carriers can make large profits in Morocco, this last group is the one which development the most rapidly. This development is made possible by two factors: their knowledge of the market, which allows them to reduce their costs, which is not the case for occasional carriers, and the unbalanced way in which travel authorisations are issued. As part of the bilateral conventions, three types of authorisations are provided for. The first ones are issued for the sole benefit of the carriers belonging to the foreign country signatory, the second ones for the benefit of Moroccan carriers, and the last ones for the benefit of mixed companies. As the authorisations for foreign carriers are rapidly off, carriers who can profit by Moroccan or mixed societies authorisations are favoured.
Mixed societies were to make Morocco develop transport groups through transfer of know-how and capital, but the results were well within the ambitions.

3. Moroccan carriers

Few Moroccan carriers have specialised in international transport. Most of them have specialised in refrigerated transport, as it has undergone a very important increase due to the development of the exporting sector (fish, shell fish and early produce) and due to the remission of import duties concerning refrigerated trailers.

Refrigerated transport presents characteristics very favourable to Moroccan carriers, as the rotations are usually operated from Morocco, and empty return is the rule.

B. Problems of the sector

The problems of the sector are threefold. A first group of problems concerns the arbitration between the different sectors, which is unfavourable to the transport sector. The second group concerns the rule of the road and the equipment standards. The third group concerns the regulation mode of national road transport chosen by Morocco since 1935.

1. International arbitration and development of the TIR

This sector is the one which suffers the most from the import substitution policy that was implemented in the 70's. The political will to endow the country with an automobile industry has entailed the setting up of protected assembly shops, for the production of tractors and trailers. The investments made in this sector limited the liberalisation process of foreign trade of the structural adjustment program for these products.
Moreover, the Industrial Investments Code does not include these products in the list of the equipment which are exonerated from customs duties, to the exception of refrigerated trailers. Thus, international transport firms are compelled to supply themselves in Morocco at a much higher price than their foreign competitors[0]. The remarkable development of refrigerated transport shows what the development potentialities of the sector are, if competition conditions were similar.

Transport societies cannot recover completely the VAT. As they cannot operate in the inland market, firms supply themselves locally with taxed products, and sell abroad services exempted from duty. They are thus structurally entitled to recuperate the VAT on local purchases. But the taxation authorities are reluctant to return tax that they have already collected. Moroccan firms are thus hurt in comparison with their foreign competitors.

Nearly 50% of the shares in the assembly sector is in the possession of the State. The administration is thus reluctant to remove those constraints which hinder the development of the transport sector.

In theory national carriers are encouraged by the travels authorisation system, which must reserve nearly 40% of the activity to them. In reality, under the pressure of the exporters, the administration distributes exceptional authorisations or provides for quotas much beyond the potentialities of the sector, thus preventing the system from being operative.
In other words, the sector has always had the lower in inter ministerial arbitration.

2. Standards

The development of international road transport has long been hindered by the following constraints:

- The lack of qualified drivers, who have a good knowledge of the driving code and of European transport regulations. Several firms were hurt for not respecting the compulsory rest hours and the maximum duration of driving in Europe.

- The difference between Moroccan tractors and trailers standards and European ones before the alignment on the EEC in 1992, which hurt carriers, as it increased the number of infractions and the clearance delays. New standards apply only to new material, and a delay is necessary before these difficulties disappear.

- The reluctance of the Ministry of Public Works to accept the alignment on European standards concerning the axle-load tonnage.

3. Regulation of the inland market

The main reason for the present situation of international road transport lies with the choice of a direct regulation of road transport of cargo. The adoption of transport agreements and of a freighting monopoly, as well as the administrative fixation of the tariffs were made possible by two factors:

- The refusal to allow international carriers operate on the foreign market unless they have been granted exceptional authorisations. This impedes the possibilities of using the equipment, and the effect of the seasonally.

- The standardisation of cargo transport under the authority of the ONT, which redistributes the demand proportionally to the tonnage agreed up on between the members of co-operatives.

[0]. A trailer tractor costs 1,8 more in Morocco than in France.

This standardisation has different effects. On the one hand loaders and carriers cannot establish direct relations with each other, thus making of the transport activity a minimal and interchangeable service. On the other hand, it impedes the development of powerful groups of national carriers, that would have at their disposal a marketing network, and that could establish alliances with foreign groups on equal terms.

The most dynamic segment of cargo transport, constituted with 8,5 tons useful load lorries, is confined to illegality, because no agreement for cargo transport for account for a third party is provided for.

The liberalisation of the inland market has thus become a prerequisite for the development of international road transport on a local basis. Only this liberalisation will allow the development of groups operating on the national and the international level, favour the renewal of the equipment according to international standards and increase the integration of Moroccan economy to European economy.

C. Prospects and hindrances

As it has already been underlined, the development of Moroccan international road transport depends to a large extent on the liberalisation of cargo transport in Morocco. International offer is presently adequate and meets the requirements of the development of this traffic. A national sector is necessary to the freight availability, and will foster the integration of exporters and carriers.

The future use of the transport books TIR, of the IRU, should contribute in reducing the costs of the crossing to Spain. Thus, the procedure concerning the confirmation of the carriers by the Customs Administration should be hastened. The journey Casablanca-Perpignan costs between 28.000 and 30.000 FF by refrigerated lorry, while the journey Mamaga-Perpignan costs only 12.000 FF.
The disparity is due to maritime transport (4400 FF), to visitor's tax in Morocco (500 FF), to transit charges in Spain (1200 FF), in addition to a margin due to delay risk and to the lack of knowledge of the market. The application of TIR books should reduce this disparity, or at least the disparity due to transit costs in Spain. In the long run, the emergence of a true Moroccan competition should reduce the margin ascribed to Moroccan risk.

A part of the cost increase is undoubtedly attributable of the road network, which delays the transit. The road program will reduce logistics costs, if it is accompanied by a simplification of the procedures.

PART VI

Analysis of the transport chain of early produce

The analysis of the transport chain of early produce will permit the identification of the factors which hinder the reduction of the transport costs, in order to achieve an increase of the exports. The description of the two typical modalities of early produce transport - the ship and the lorry - will be preceded by a brief presentation of the sector. For each one of the two modalities, the competition costs will be examined, in order to point out the advantages of the sector.

I. The organisation of the early produce sector

The production of early produce for the export - tomatoes and vegetables - is concentrated at the South of Casablanca and in the South Massa area.

A. The producers

Two distinct groups of producers operate in this sector[0]:

- Small producers gathered around conditioning co-operatives.
- Big producers who have at their disposal packing stations.

B. Marketing groups and logistics

The producers export either directly, or through the marketing groups which have replaced the OCE since 1985. The latter have created an economic interests pooling, Atlas Fruit Board, which manages logistics problems, primarily concerning citrus fruit export.
After their success in the organisation of citrus fruit transport, they turned towards early produce transport, which they handle in a flexible way. The group can work either with carriers or with the AFB.

II. Transport chain by ship

The AFB has concluded an agreement with NAVIMAR, a ship owner who specialises in refrigerated transport. Regular lines have been established between Agadir and Casablanca on one hand, and the most important European ports on the other hand. The marketing groups have agreed to load more than 90% of the capacities. In return, they benefit by a lesser freight rate than would be the case in a traditional system. In case the marketing groups do not carry out their engagements concerning the use of the capacities, they pay freight rate for the empty capacity just as if it were full. This marketing guarantee of the capacities allows the ship owner to offer reliable ships, and very advantageous price conditions. Concerning the exporters, the development of early

[0]. See the report on early produce realized as part of the AMI works.

produce exports and the marketing campaign of citrus fruit help ensure the use of the capacities. The ships are characterised by:

- their speed, which ensures the freshness of the products on the arrival,
- several holds, which permits to adapt the temperature according to the products.

The participation of regular lines to the exports has increased in a considerable way, especially for early produce (tomatoes and vegetables).

A. The main destinations

Moroccan products are mainly exported to Europe, and especially to France. But the most promising expansion prospects are the Canadian market, and European markets other than France.

As a result, ship owners centred on these destinations, either establishing regular lines, or programmed transport. For the export campaign 93/94, new European destinations will be serviced by regular lines, mainly to England.

Concerning the service to Canada, Maersk comes first. It has established a subsidiary at Agadir, and has associated with Agrisouss to set up an experimental export programme by refrigerated containers to the Canada. The transhipment centre is located in the port of Algesiras, gathering conditions and transport temperatures were determined after a trial period. The program will be implemented from the campaign 93/94.

B. Competition

In the field of early produce, competitors are the Canary Islands, the Murcie region in Spain, and the Netherlands.

Early produce transport from the Murcie region is done by lorry, while the other two competitors export by ship. The following table shows that the Moroccan system is more favourable, concerning the cost per pallet.

Origin/Destination	Canaries in foreign currency	Canaries Dhs	Agadir Dhs
Ports mouth			800
Southampton	98 £ per pallet	1470	
Rotterdam	302 Gulden per pallet	1330	900

III. Transport chain by lorry

The transport chain by refrigerated lorry is simpler. The exporter applies to a carrier, negotiates the rate, and the transaction is concluded. The carrier goes at the appointed time to the conditioning station, loads the goods, and starts the journey in order to deliver it.

A. The organisation

Refrigerated carriers work in two ways. Those who are always present negotiate transport agreements for the campaign, on the basis of a minimum number of turn-rounds, and on a basic price for the turn-round. The other ones, for the majority Spanish carriers, come looking for freight without having necessarily concluded an agreement. On their arrival, they canvass for customers and for other carriers to be able to go back.

B. The cost

The cost of the turnovers is about 34.000 FF for the journey Agadir-Perpignan, which is the preferred journey for the export of tomatoes, because the market of Perpignan is the principal French market for the vegetables. The freight cost can reach 36.000 FF to discharge at Rungis.

C. The competition

The main competition comes from Canarian productions, which are carried by ship to the German coast from Spanish production from Murcie, carried by refrigerated lorry, and from Dutch productions.

The only exporters whose price can be compared with Moroccan prices are Spanish producers from Murcie. They pay 9 Ps per kg to deliver at Perpignan, that is to say 54 cts per kg versus 2,73 dhs/kg for a Moroccan producer of the region of Agadir.

The following table shows the transport costs of a pallet between Agadir and several European destinations. One refrigerated lorry carries 24 pallets.

Freight rate for the transport of a pallet by refrigerated lorry from Agadir					
Products/Dest.	Perpignan	Lyon	Marseille	Rungis	Brussels
Tomatoes	2 197.65	2 334.50	2 270.10	2 471.35	2 471.35
Peppers	2 226.40	2 364.03	2 295.22	2 505.71	2 505.71
Courgettes	2 203.11	2 334.15	2 268.63	2 473.38	2 473.38
Sugar peas	2 202.00	2 340.00	2 268.00	2 478.00	2 478.00
Pimentos	2 019.60	2 142.80	2 081.20	2 270.40	2 270.40

Freight rate for the transport of a pallet by refrigerated ship from Agadir							
Products/Dest.	Dieppe	Marseille	Le Havre	Brême	Anvers	Rotterdam	Portsmouth
Tomatoes	829.15	796.95	764.75	925.75	933.80	893.55	796.95
Peppers	801.50	769.12	744.83	894.61	906.75	866.27	777.22
Courgettes	794.43	761.67	728.91	884.52	892.71	859.95	769.86
Sugar peas	792.00	762.00	738.00	882.00	894.00	858.00	768.00
Pimentos	792.00	761.20	734.80	884.40	893.20	858.00	765.60

The following table permits to compare the transport cost of the pallet by ship to that of the transport by lorry, and shows clearly that maritime transport is more advantageous. As a result, several marketing groups modified their logistics, giving a more important place to the transport by ship, since regular lines have been established.

PART VII

Analysis of the transport of cut flowers

The deficiencies of the organisation of air freight from Morocco were brought to light by the tremendous increase of the exports of cut flowers. Due to the efforts of the exporters to ensure satisfactory freight conditions, and a good quality service, the RAM was compelled to modify its supply. The present logistics problems are due for the main part to the structure of the sector. It will thus be dealt with at the beginning of this part. The rise of road exports, and the potential competitiveness gains that this forwarding mode allows, are perhaps the most important developments of these last years. It is thus necessary to describe the constraints which must be overcome, in order to increase its participation to the exports.

I. General description of the sector

The exports of cut flowers from Morocco have started developing in the middle of the 80's, because of the conjunction of several favourable factors:

- the exoneration of the input and the development of plasticulture and of localised irrigation,
- the increase of the French demand, because of the decrease of local production,
- the 1985 devaluation,
- the exoneration of a bilateral quota of 500 t from import duties to France,
- the advantageous export tariffs of the RAM.

It must first be said that the sector is an artisanal one. Even if important investments are required, the exporters are small producers. They exploit four to five hectares areas, and dispatch directly their production to European florists and to Rungis wholesalers. They have not set up grouped marketing enterprises, as has been done in Colombia or Kenya. As a result, the transport demand is characterised by:

- a great number of small volume expeditions,
- a great number of destinations, in order to service the province.

The demand was first satisfied by passenger transport aircraft. The strategy of the RAM was to make use of small capacity planes to a great number of destinations. But soon, the demand could only be met by cargo planes.

The tariffs in force on passenger planes were no longer sufficient to cover the exploitation costs of cargo planes. The additional capacities lessen the filling rate of the flights at the import. Moreover, cargo planes cannot service the same number of destinations as passenger planes do.

This logistics crisis, associated to a large extent with the problem of the predominant distribution mode has led to a progressive restructuring of the sector according to 2 axes.

- the development of the relations with importers and wholesalers operating on the big markets,
- an increase in the size of Moroccan exporters, associated with a diversification of the production, which materialise in a relative decrease of the production of roses and an increase in the production of carnations and other floral products.

On its part, the RAM participates to the movement by adding new capacities to the big destinations: Rungis, Amsterdam and Frankfurt. The tariff question was resolved by an arbitration of the government, the implementation of exonerated quotas to France, and subsidies to the new markets.

II. The logistics

Logistics associated with lorry transport are very simple. Once the card board boxes are prepared in the exporter's conditioning centre, the lorry is loaded and starts its journey. On the contrary, logistics associated with air transport are more complex. The key problem to be resolved is that of the grouping of the parcels for the export.
As a result, the RAM has set up regional freight centres to take care of these operations.

A. Freight centres and transport by plane

Beside the centre of Nouasser, which handles most of the exports, two important regional freight centres have been set up by the RAM, one in Marrakech and the other in Agadir. These regional centres dispatch the exports to the centre of Nouasser, which acts as hub for cargo planes. This collection is performed by refrigerated lorry from Marrakech, and by plane from Agadir. These three centres have been equipped with refrigerated warehouses in order to allow the conservation of the flowers.

B. Lorries

The exports by lorry present the exporters with two kinds of problems. The first one is due to the lack of grouping by refrigerated lorry, which imposes the freighting of an entire trailer. The second one is due to the damages that can be caused to the products when they are transported by lorry.

The first problem is of a similar kind than the one dealt with above. The exporters who operate on a small scale prefer to sell directly to the florists. They sell in small quantities, and at high prices. Exporters operating on a larger scale proceed to partial deliveries. A lorry is loaded on the account of three to five customers, and delivers according to the schedule agreed upon before hand.
Concerning the second kind of problems, the experiments which have been made up to now show that lorry transport does not damage carnation. But the same experiments are not decisive, in what concerns roses. These problems will be solved by the following factors:

- a speeding up of the transit to Spain,
- the development of the journeys within the terms of TIR books,
- negotiations on the setting up of a free trade area,
- the development of controlled atmosphere transport technologies, and the use of preservation additives.

Several experiments are being or will be realised to test these methods.

III. The competition

An examination of the competition freight costs shows that the tariffs applied to Moroccan exporters are not prohibitive. Moreover, the renewal of the RAM aircraft and the development of lorry competition will result in a gradual reduction of transport costs by air. To achieve that, two mechanisms will come into play:

- the restoring of a balance between import and export freights, associated to a loss of a part of the traffic for the benefit of the lorry,
- the increased efficiency of a network based on the service to Europe by means of medium range aircraft.

The agreements concluded between French and Moroccan producers in order to replace the quota system to France by a voluntary limitation of the exports confirm the future of the sector.

PART VIII

The transport chain of preserved vegetables

The analysis of the transport chain of preserved vegetables will permit to identify the factors which hinder the reduction of the logistics costs, in order to promote the penetration of foreign markets. A brief description of the sector will be followed by the presentation of the two main transport modalities: the co-ordination of rail and maritime transport and the co-ordination of road and masitime transport. The subject of the study being the analysis of logistics and transport, this description will be limited to the producers and exporters of olives and preserved apricots. In general, the other productions make use of the same transport modalities.
To the difference of the other sub-sectors which have already been analysed, this sub-sector concerns durable products. This conditions to a large extent the logistic choices of the operators.

1. General description of the sector

The production of preserved olives and apricots is one of the most ancient Moroccan industrial productions. For the most part, the industries are installed in Marrakech, as the orchards are concentrated in that area.

This industry is traditionally oriented towards France and benefits from commercial concessions as part of the partnership agreements between the EEC and Morocco. Of late years, the research of new markets, in particular in the USA, but also in the Middle East, has become a priority. Thus an analysis of the logistics problems has to be done.

II. The logistics

As the exporters are located in the industrial district of Marrakech, they can make use of the railway and the road to dispatch the containers of the port of Casablanca.
The use of the container is relatively recent. Exporters have long used the conventional box in order to reduce their costs. Later on, they started using the 20 feet, at the request of their customers. Lastly, when the 40' was introduced in Morocco by SEALAND, it was quickly adopted for the two following reasons:

- the tariffs were very attractive, and the pricing adopted was box pricing,
- palettisation was made possible[0].
- the loading and the discharge could be done by lift truck.

To these specific advantages of the 40', the container advantages can be added:

- the possibility of servicing the most distant destinations by transhipment,
- the reduction of the handling costs.

Therefore the most appropriate transport mode must be chosen, in order to carry out land transit at the export tariff conditions. Either the railway or the trailer can be used.

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[0]. The 20' and the 40' have almost the same weight capacity, while the volume is doubled when the 40' is used. The exporters fill the 20' by hand in order to secure the 21 t. to dispatch, as the use of pallets reduces considerably the useful weight of the container. In what concerns the 40', the products are first palletised, and then loaded by a lift truck. The discharge lasts only two hours instead of a whole day, thus reducing the number of hands necessary en Europe.

A. The co-ordination rail-ship

The connection to the railway is very easy because of the location of industrial units. A line goes through the industrial districts, and allows to load directly the container.
The main problems are the following ones:

- the quality of the service offered by the ONCF, not enough flexible, and not always reliable[0],
- the travelling times are too long, as compared to the lorry,
- the tariffs are increased without notice.

In fact, after the ONCF increased heavily its tariffs, the exporters contacted a carrier for the service Marrakech-Casa Port. Later on, the ONCF cancelled the tariff increase.

B. The co-ordination road-ship

The main advantage of the road is the flexibility that it allows to the exporters. The latter are frequently late in the realisation of their programmes, and use the lorry, as it allows a shorter forwarding time.

There are no great differences in price. The ONCF charges 2500 dhs per container, and lorry carriers charge 3200 dhs per container.

III. The problems

Two problems have often been raised by the exporters:

- the cost of the services of the ODEP, nearly 1000 dhs per box for the handling of containers,
- the cost of transport to some destinations. For example Spanish exporters pay 1000 USD for the transport to the Middle East, while Moroccan exporters pay nearly 2500 USD.

That confirms the analysis which has already been made concerning the cost of the services of the ODEP, and the effects of the agreements to certain destinations.

[0]. Containers have already been sent to other destinations, instead of being dispatched to the port. But this does not happen very often.

PART IX

Recommendations

The study of the transport sector has identified several hindrances to the promotion of the exports and to the competitiveness of the Moroccan supply from which recommendations follow readily.

International road transport

Obstacles of two kinds to the development of this sector have been identified. The first one concerns the regulation mode of inland transport. The second one concerns the effects of the protection policy and of the financial system on the competitiveness of the Moroccan supply.

As it forbids inland traffic, the regulation of inland transport reduces the possibilities of using the equipment intended for international transport. Moreover, the agreements system, and the freighting monopoly of the ONT prevent the emergence of transport groups capable of developing in the field of international transport. Lastly, it shields carriers who have been granted agreements against competitive pressures, thus reducing their performance.

Equipment costs are perceptibly higher than the costs borne by foreign competitors, because of the protection granted to the local vehicle assembly sector. On the other hand TIR operators being not able to recover the VAT that increases their operating costs to the prejudice of their competitiveness.

As a result, the following recommendations can be formulated:

1. to liberalise the inland market of the road transport and to suppress the barriers between national and international activity,

2. to align competition conditions between local and foreign operators concerning the VAT and the equipment,

3. to revise bilateral conventions in order to achieve a better distribution of the traffic, after having raised the previous constraints.

In addition to intervening in favour of a reform of the regulation the project must encourage the transfer of cargo transported by air to the highway, by implementing experiments on the use of controlled atmosphere transport or of precooling devices for the transport of roses.

Air transport of cargo

The monopoly situation of the RAM in the transport supply sector as well as in the goods handling sector is detrimental in the long run to the development of the exports. Two recommendations follow:

1. an administrative fixing of the handling tariffs should be done, until the monopoly is dismantled,

2. the operating costs of the freight activity of the RAM should be followed up, until other airlines are established.

In what concerns the project, the development of new road transport techniques for the products transported up to now by air will foster competition and make the RAM control its margins.

The Maritime transport

The maritime transport sector is characterised by monopoly situations detrimental in the long run, from which three recommendations follow:

1. The conferences which govern the crossing of the Straits of Gibraltar, and those which govern the line Casa-Marseilles should be revised and even denounced as part of the new negotiations with the EEC on the realisation of a free exchange area.

2. The COMANAV should be restructured in such a way as to allow the competition to play a greater role, thus reducing the costs. The confusion between the roles of the State shareholder and the State regulator should be removed.

3. The national monopoly of the ODEP should be carefully controlled so as to prevent tariff behaviour at variance with the development of the exports. This can be done in two ways, either through a competition with the port of Jorf, after having given the latter a greater autonomy, or through the control of the tariffs and of the productivity by the users and the administration.

The protectionist policy in the field of ship insurance and freighting should be removed. Moreover the status of seamen must be revised so as to allow Moroccan ship owners to be competitive. Failing that, a second national flag policy should be initiated.

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