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TRADE EFFICIENCY IN THE ESCWA MEMBER STATES

A COMPREHENSIVE STUDY: TRANSPORT

This report was prepared within the framework of the cooperation between the Transport Section of the Sectoral Issues and Policies Division and the Trade Section of the Economic Development and Policies Division of the United Nations Economic and Social Commission for Western Asia (ESCWA). It includes extracts from other reports and studies either already prepared or being prepared by personnel in the Transport Section or ESCWA advisors on transport. The conclusions which it contains are therefore still being studied and considered by the concerned parties in ESCWA and by representatives of the member States in the region. As such, they do not necessarily represent the view of ESCWA or any member State.

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INTRODUCTION

In view of the close link between transport and trade, transport efficiency is a vital prerequisite for trade efficiency. The sophisticated transport systems in the West have played a substantial role in increasing trade efficiency among the countries of the developed world, whereas the difficulty and high cost of transportation among the countries of the third world are major factors having adverse repercussions on the movement of trade among those countries.

In further explanation, all commodity trade entails two basic processes: the first is the contract between the seller and the buyer and the second is the transportation of the goods in question from their source to the place of delivery specified in the contract. The two processes are inevitably correlated and neither is dissociable from the other.

The process of contract takes place between the seller (exporter, producer, agent, distributor, etc.) and the buyer (importer, consumer, wholesaler, retailer, agent, distributor, etc.) whereby the seller usually offers a price and the buyer submits a purchase order, together with a letter of guarantee comprising the conditions agreed between them. The contract determines the specifications for the goods, their volume, price, mode of transport and time of delivery, the means of ascertaining that they are delivered safe and intact, the payment method and schedule, the conditions guaranteeing execution of the contract and so on. The clauses of the contract and the negotiations preceding its signature obviously cover the finance method and cost, the relevant bank services, the letter of guarantee and insurance. These are largely affected to a fundamental degree, however, by the cost and level of the service available to transport the goods from their source at the seller's end to the point of delivery at the buyer's end, as well as by the services, procedures and restrictions which come into play during the journey. It is from here that the process of transporting goods under contract derives its major significance.

The process of transporting goods can be quite complicated to describe. The modes of transport (land, sea, air or multimodal) and the types of vehicle used (refrigerated or container lorries, for example) may vary between one transaction and another according to the type of goods and their volume, specifications, source, country of delivery, place of delivery and so on, although it is a well-known fact that about 90 per cent of world trade is done through ports. The transport process can therefore be described as normally comprising the transport of goods from their source (place or places of production or storage) by land (road or railway) to the port (or ports) of export, then by sea from the port of export to the port of import (usually with stops at a number of ports, which inevitably affects journey time and may also affect the degree of safety risk to the goods) and from there by land (road or rail) to the place of delivery. As already mentioned, various services, procedures and restrictions with considerable time and cost implications come into play during the journey. These include, *inter alia*, land transport services and networks, port services, cargo services, container services, customs procedures, border transit procedures and so on, whether in the country of export, the country of import or intermediary countries through which the goods pass by land or sea. Both regionally and internationally, the level and cost of such services are unquestionably affected to a large degree by the general political and economic situation in each country, by the status of the international transport system and the ensuing procedures in each country, and by the integration and consistency between international transport regulations and procedures in each country.

It is thus apparent that trade efficiency depends largely on the efficiency of the aforementioned transport system, *inter alia*, the efficiency of transportation and procedures in terms of both money and time. Here, it should be noted that, irrespective of where in the world they might be, the seller and buyer wish to ensure the conclusion of their agreed transaction, a natural consequence of which is their interest in ensuring that high quality goods arrive on the market safe and intact at the right time and at a saleable price, bearing in mind the existing market competition. It is also equally natural that the carrier (transport fleet operator) should wish to provide the best possible goods transport service in terms of cost, time and safety. The three main parties in the trade process (seller, buyer and carrier) would therefore like the other parties which have a part in its completion (banks, insurance companies, carriage network owners and operators, customs authorities, land and sea border administrations, port and airport administrations) to develop to the highest possible degree the infrastructure for international transport systems and the methods of administering, operating and maintaining them, as well as simplify procedures and facilitate services without overlooking

the other main objectives of those services (such as border security). In so doing, all the scientific and technical developments made in the fields of transport, communications, management and information should also be used to advantage. Such are the measures which must be undertaken and which are already largely in place in the developed countries of the world in Western Europe and North America and in the countries of Eastern Asia. The situation in the developing countries, however, particularly those in Western Asia, is altogether different, a matter which will be further discussed in the following chapters of this report.

I. REGIONAL OVERVIEW OF TRANSPORT IN THE ESCWA REGION

A. HISTORICAL PERSPECTIVE

The region of Western Asia lies at the crossroads of the three major continents of Europe, Africa and Asia and is bordered on several sides by seas and oceans; the Mediterranean Sea to the north-west, the Red Sea to the west of the Arabian Peninsula and eastern Egypt, the Arabian Sea and the Indian Ocean to the south and the Gulf to the east.

With its distinct geographical location, Western Asia lay at the heart of the ancient world, forming a cradle for its civilizations and a crossroads, both for international trade and for other civilizations and their hungry invaders as they moved across to the east. The region has stood witness to the world's oldest civilizations, whose sciences and arts started their journey over its routes to the rest of the world, as did apostles, supplicants and monks, bringing unaccustomed teachings to the human race and spreading the divine word throughout the globe.

The routes in the region formerly served as a corridor for trade among it towns, as well as for east-west trade through them. Since ancient times, the region has also known treaties and agreements under which trade passage was permitted, caravans protected and tax collected for the use of its lands.

The demand for transport is as ancient as human civilization, its purpose being to satisfy the essential needs of human communities in connection with their economic, social and political circumstances. In addition to witnessing a number of human civilizations over history, the ESCWA region has seen the development of different transport modes. Rudimentary methods of land transport began there; in about 3500 B.C., the people of Iraq succeeded in using materials to bind and strengthen soil, leading to paved roads in Mesopotamia and a usefulness for the wheel that was previously impossible.

Maritime shipping routes were also accessible to the ESCWA region for various reasons, primarily its prominent location between the three continental blocs and the waterways surrounding it which offer the shortest trade routes between east and west.

In addition to the waterways and their importance to the movement of trade between east and west, the land routes across the Western Asia region also enjoyed great and longstanding significance, at certain times having either supplemented or served as alternatives to the maritime routes. Conceivably, it was during the period when the Portuguese controlled the seas that the initial shift was made towards using land routes as an alternative to the sea trade routes. The Portuguese waged warfare on the sea trading vessels and fleets owned by Arabs, who consequently lost their ability to compete on the waterways from India and the other countries of the east. They therefore partially shifted their trade to the internal caravan routes.

The nature of the demand for transport affected the history and development of transport modes in Western Asia, where their quality improved significantly during the periods dating back to the Ottoman Empire. In this instance, the demand was more strategic and military than to satisfy a purely economic or commercial need. Competition among the European countries meant that, for political and military reasons, the demand for transport in the region varied. A further outcome was the emergence of a new shape of transport, together with advanced transport technology.

Given its control over the entrances to the Red Sea and the maritime routes to India and Eastern Asia, Britain's maritime capability outstripped that of other European States. Interest therefore arose in finding routes which could be used to compete with the British maritime fleets. The authorities of the Ottoman Empire were won over by Germany's bid to build railway lines in the Western Asia region that would link Europe and the Ottoman capital with the fringes of the region as far as Saudi Arabia and the Gulf.[1] This new land route provided the Ottoman Empire with a strategic line of communication out to its parts in Western Asia and gave the German State the opportunity to acquire a strategic route as a counterpart to the sea

1 *Railway Links in Western Asia* (E/ESCWA/TCD/87/7).

passages under British control. There was also an economic aspect to the new route, as consent was given for the Germans to exploit the natural resources on either side of the railway to a distance of 12 kilometres.

The period of railway growth ultimately produced a transport network in Western Asia which linked the north, middle and south of the region via the Hijazi railroad, extending eastwards across Iraq and westwards to Egypt. It therefore formed an interconnection between locations which now constitute the States of the Syrian Arab Republic, Lebanon, Iraq, Jordan, Saudi Arabia, Egypt and Palestine, as well as a connection in the north with the capital of the Ottoman Empire and Europe.

Turkish rule ended with nationalist revolts, followed by European intervention, the ultimate outcome of which was the region's division into independent States. The new situation altered the face of the transport networks so as to respond to the changing demand for transport and fulfil the needs of the decision-influencers in the region. The demand for transport now originates on a territorial basis, the link between the areas of the railway network having been interrupted and divided into territorial networks on the basis of the internal politics and economics of each of the countries which gained independence and formed their own personality with different characteristics to those of their neighbours.

In addition to the disintegration of the integral railway network, the authorities of the independent countries imposed border outlines crossed by regional trade and elaborated laws and regulations which, in some respects, created an unnatural barrier to the movement of trade.

Under the control of the Ottoman Empire, the countries in the region had no border customs or security points of the type which were introduced following their independence. Border regulations which hindered trade became a source of concern for the independent States, who endeavoured to rectify the situation by drawing up bilateral agreements or entering into collective agreements to lift the unnatural barriers to the movement of trade.

Having exhausted all the conventional routes to eliminating transit and trade barriers, these States turned their attention to new methods comprising multimodal transport, electronic data interchange and electronic commerce. If the States of the region are to make much progress in facilitating trade among themselves and with the rest of the world, the current status of the trade processes and any fresh developments in the demand for transport must be thoroughly reviewed. By the same token, it is essential to study the effects of such changes on the infrastructure and the logistical support needed to reach the same stages as the developed countries in eliminating transport and trade barriers.

B. VARYING DEMAND FOR TRANSPORT

As a result of international and regional changes, the ESCWA region has experienced successive periods of upward and downward growth, which have had repercussions on the movement of trade and hence on the demand for transport. Trade growth statistics show that, over the past four decades, the countries of the ESCWA region experienced the highest growth of imports and exports among ESCWA States and trading partners during the 1970s and the lowest growth during the 1980s (table 1).

Recent statistics indicate that, in 1996, total exports from the ESCWA States amounted to almost $133 billion, including $118 billion from the six Gulf States (i.e., 89 per cent of the region's total exports), while during the same year, the value of the region's imports approached $101.8 billion, including $67.5 billion to the Gulf States (i.e., 66.9 per cent of the region's total imports). In other words, the export-import ratio was 1.75 for the Gulf States and 0.5 for the seven other States in the region. Worse still, in 1996, the States of the region had no more than a 5.4 per cent share of its exports (compared with 10.9 per cent in 1990) and a 6.7 per cent share of its imports (compared with 9.1 per cent in 1990). The situation is also broadly similar in the case of the Arab States. The Arab Monetary Fund and other bodies endeavoured to increase this proportion and established a fund of $5 million to finance trade among the Arab States. The demand for funding, however, was low owing to the complicated border and customs procedures in place among the States of the region (see *Survey of Economic and Social Developments in the ESCWA Region,1996-1997*, ESCWA, 1997, pages 51-76).

The demand for transport meant that, in ancient times, the Western Asia region was ahead of all other nations in innovating and developing transport technology. There are two aspects, however, which now differentiate the region from the rest of today's world, particularly where the railway network is concerned. The first is the fall in demand, as the railway networks in Western Asia cover only a small part of the whole area and operate in only one-fifth of its countries. The roads are relatively superior to the railway networks in terms of coverage and density as compared with the size of the area and the distribution of the population in the region.

The second aspect is the region's poor performance and its reliance on technology that fails to meet the current demand, as a result of which little interest is generated and the size of investments from the States concerned is minimal. The Egyptian experience in building a sophisticated underground train network clearly illustrates the increase in demand for transport when advanced technology is used.

The demand for road transport has risen as a result of the high quality infrastructure and falling fuel prices in many of the region's countries. It is well-known, however, that road transport costs are high in comparison to railway, particularly if a global calculation is made to include road construction, operation and maintenance costs, which are mostly shouldered by the State and not by road users.

Maritime transport has retained its status as the method used to transport most exports from the region, in particular petroleum products, as well as a fair amount of its imports. The transportation of imports, however, particularly those which are perishable or of high value, is slowly but noticeably shifting from sea transport to land transport. The trend towards land transport began during periods of crisis and conflict in the Western Asia region that had negative repercussions for its sea entrances (a case in point being the closure of the Suez Canal). The hindrance to shipping contributed to higher sea transport costs owing to the late arrival of incoming goods subjected to inspection at sea. Another contributing factor to the higher costs was the increase in maritime insurance premiums owing to the risks of navigating the sea entrances to the region. Each of these obstacles had an adverse impact on maritime transport, as opening the door to competition had not formed part of the calculations of those engaged in maritime shipping; the national maritime transport fleets in the ESCWA region are open to sharp competition from foreign fleets and a substantial portion of trade revenues go to foreign carriers who transport over 90 per cent of the region's trade.

As for air transport, it has managed to keep pace with the global development in the field. The region has successfully built its airports to the level of those in the developed countries and owns modern fleets which provide the same sort of services as airline companies in the developed countries, particularly on routes where there is fierce competition with foreign companies. The services offered by the national airlines on their domestic and regional routes, however, are less efficient and of poorer quality than those offered on the international routes. It is noteworthy that the demand for air transport services in the ESCWA region still outstrips the available supply, particularly in the seasons identified by their dates, such as summer and the time of pilgrimage. However, lifting protection by increasing the freedoms granted to foreign companies may create the problem whereby capacity is greater than the external and internal demand and will also open the door to a kind of competition in which the companies operating under the current protection regimes have never before engaged. If Arab companies are unable to obviate the situation with alternative strategies, the projected losses could lead to suspension of business for several national companies.

The proposed options in connection with the development of transport systems with a view to promoting the growth of trade include improving the infrastructure and enhancing methods of planning, organization, administration, operation and maintenance by using appropriate modern techniques and applications from the fields of transport, administration, communications and information and by defining the role to be played by the State and the private sector. The new involvement of the private sector in various transport-related activities is an important feature in neighbouring regions. Private sector activity now incorporates the construction and acquisition of roads within the framework of agreements defining the authorities of the parties concerned. In some countries, such as Egypt, the private sector has also started to become involved in the administration of ports and airports. Saudi Arabia, too, is fast leaning towards privatization of its railway network as a means of ensuring its development, as indicated by an economic feasibility study commenced two years ago and nearing completion (see *Al-Sharq Al-Awsat* newspaper, 5 November 1998, page 11).

TABLE 1. AVERAGE IMPORT AND EXPORT GROWTH IN THE ESCWA REGION

State	1950-1960		1960-1970		1970-1980		1980-1990	
	Export	Import	Export	Import	Export	Import	Export	Improt
Bahrain	2.2	3.9	1.2	1.9	32.5	31.2	– 3.4	– 2.3
Egypt	0.3	0.4	4.4	-	13.0	25.3	– 27.0	1.4
Jordan	12.8	13.6	13.1	4.7	34.4	31.8	6.1	– 1.9
Kuwait	14.6	13.1	5.4	12.0	27.7	30.3	– 7.6	– 4.1
Iraq	16.4	12.4	5.5	2.5	40.5	36.9	– 5.9	–11.1
Qatar	19.1	15.5	7.6	6.6	35.7	39.9	– 8.1	– 1.3
Lebanon	9.4	11.1	17.4	9.2	14.2	14.0	– 3.6	– 5.4
Oman	0.0	9.8	64.7	3.3	33.9	58.7	2.9	0.7
Saudi Arabia	6.2	5.7	10.6	12.4	44.2	52.3	– 13.4	– 6.1
Syrian Arab Republic	3.7	3.7	4.7	5.5	27.5	29.5	2.4	– 8.5
United Arab Emirates	– 2.9	8.1	79.4	6.7	43.0	45.8	– 1.2	0.7
Yemen	5.7	5.4	– 4.2	0.6	17.4	32.5	– 1.6	– 4.9
Average	7.3	8.6	18.2	4.4	30.3	35.7	6.9	– 3.6

Source: See reference 2.

Another proposed option is deregulation, which opens the door to competition that may ultimately increase efficiency and reduce cost, contrary to limited view associating the role of the private sector with higher service prices in instances where it takes over services from the State. Such deregulation is the challenge which may face the region's transport companies and establishments, whether owned by the State or by the private sector. At the domestic level, deregulation may enhance efficiency in national companies by ensuring equal competition among companies governed by the same circumstances and by offering the potential for equal resources. The deregulation of foreign companies must be given careful consideration with a view to ensuring that national companies and establishments can survive on the open market to compete with companies from outside the region. National companies cannot hold out against the resources and competitive abilities of large companies worldwide unless they make the necessary arrangements to increase efficiency and formulate strategies to help them endure in tomorrow's world.

In short, various development options are available for the development of transport modes, including improvement of the infrastructure and the greater use of innovations and qualitative enhancements, as well as the development of administration, planning and operation methods through use of the latest systems in those areas, such as information technology and electronic data interchange. Further options are to develop the infrastructure using an integrated national approach or a process of regional coordination, to update management and operation systems and to introduce the use of electronic date interchange. An integrated national transport system may then be created. By increasing coordination among the different States, the regional transport system may also be developed into a multimodal transport system which makes use of the resources available to each mode to create an interconnected network that quickly responds to the demand for transport and cost requirements, thereby ultimately achieving transport and trade efficiency at the regional level.

C. MULTIMODAL TRANSPORT

The document on the multimodal transport system[2] states that the latter is a transboundary transport system which involves more than one means of transport, but which nevertheless takes place under one contract and with single liability. Multimodal transport is therefore essentially linked to a system to facilitate border transit and transfers from one means of transport to another, using containers and electronic date interchange, without much time being lost in procedures that are repeated at each border transit point and when changing from one means of transport to another. The liability for each journey also lies with one party under a carriage contract which specifies such liability. The success of multimodal transport is dependent on there being a party (an individual or a company) to arrange transport, provide the required guarantee for border stations and insure the transported items for the entire journey (door-to-door), howsoever conducted by land, sea or air. Multimodal transport could not exist in the absence of that highly instrumental party, which could be whoever owns the transport fleets or is at least in a position to offer fleets under contracts which guarantee them and assume the insurance for the goods transported on them. Such party should have correspondents or agents who deal with clients and form a key part of the whole process, rather than officers with responsibility for only one part of the journey or only one of the modes of transport used.

Containers are a mainstay of multimodal transport and must comply with internationally agreed specifications. At the very least, agreement as to their dimensions must be reached between commercial companies and the States whose borders are transited by such containers. In this case, the ideal system is to use the international specifications for comparable containers as specified by the International Organization for Standardisation (OSI). Container transport saves time and cost when a transfer is made from one mode of transport to another, as the use of cranes means that goods can be transferred in tremendous quantity in short periods of time. Using this form of transport minimizes the inspection time at border entrances when customs seals from the neighbouring States are used and containers can transit without being opened for inspection before their final destination. It should be noted that containers lose their distinct advantages when they are handled at ports and transit stations using the recognized conventional methods of goods inspection and clearance at such points. Ports and border points must be treated as transit points for these

2 *Policy and Project Proposals for the Development of Multimodal Transport System in the ESCWA Region* (E/ESCWA/TRANS/1997/4).

ontainers on the understanding that they will be inspected when they arrive at their final destination after the border transit point or outside the port.

The use of containers means that ports and transfer stations at border points require container depots that are suitably equipped for changing containers over to different modes of transport. Inland container depots are seen as a mainstay of multimodal transport, but there is currently only one of these in the ESCWA region. The ports of Western Asia have several conventional container depots, several of which have been developed to advanced standards in terms of their service equipment. Inland container depots are important as a means of reducing the backlog of goods in ports and at border transit points and a good deal of investment is earmarked for projects to expand such facilities. Internal container stations also save time and cost in that the transported items are set down at points more convenient to the consignees instead of being handled by port customs before being repacked in the containers and sent to their final destinations.

Multimodal transport aims to increase the efficiency of all transport modes involved in the process and essentially endeavours to enhance the benefits of container transport by offering facilities which enable the door-to-door transport process to be completed with great efficiency. This objective can be achieved by taking the necessary steps to develop the processes of transport and trade among different countries. These include the formulation of sound principles for facilitating trade by using modern transport techniques and data interchange and by implementing international regulations and agreements recognized by commercial companies, such as the United Nations Convention on the International Multimodal Transport of Goods or elective laws devised by the International Chamber of Commerce. The coordination process includes agreement concerning liability for the carriage and insurance of items transported via different modes. It also includes essential facilities in connection with the infrastructure of the transport network with a view to expediting the transfer of containers to other modes of transport at transfer points. Success in this respect also depends on smooth and harmonized border procedures among the States concerned. Such arrangements should be concluded in accordance with international or regional agreements.

Although the concept of multimodal transport has spread since the middle of the last decade, it is employed as a modern transport system only within narrow limits, essentially because the United Nations Convention on the International Multimodal Transport of Goods has not yet entered the implementation stage and the equipment crucial to the system is unavailable in many of the States in the region.

In the absence of an international agreement on the subject, a number of States have regulated operation of the multimodal transport system by applying special laws proposed by the United Nations Commission for Trade and Development (UNCTAD)and the International Chamber of Commerce, although these are applied voluntarily among the States concerned with specific transport operations. It should be pointed out the international road transport (TIR) carnet has been supplemented by a special carnet for multimodal transport. The experimental use of this carnet by States which use the TIR system will enable them to determine its usefulness. Nevertheless, irrespective of whether operation of the multimodal transport system is dependent on the Customs Convention on the International Transport of Goods Under Cover of TIR carnets (TIR Convention) or any other agreement, it remains important to formulate sound principles for its success.

In the case of both multimodal transport and conventional transport, the customs, security and administrative procedures at border points are a chief factor in the facilitation of transport operations and the promotion of international trade.

II. BORDER-CROSSING PROCEDURES

The border-crossing procedures for goods are a main factor of influence in external trade among the countries of the world and have a positive or negative effect depending on how they respond to the requirements of trade. They also vary from country to country according to the different objectives and the different economic and political approaches connected with the local and regional environment in each country. Moreover, they are affected by international changes and the extent to which each State complies with any agreed international treaties or conventions, as well as by any internal political changes that might take place within a State in tandem with changes in its general objectives. They are similarly affected by relations among the regimes of neighbouring States and the consistency of government policies in different regions.

Border procedures are not pointless extra procedures, nor are they so superfluous that they can be eliminated without other acceptable solutions being found to cater for the flow of trade among the countries of the world. On the contrary, they are necessary for security, political and economic reasons. Without exception, all States place them high on their list of concerns, lay down laws to regulate them, train the staff needed to implement them and provide the resources necessitated by the work activity at their geographical points of access, whether land, sea or air boundaries.

Border procedures are divided by type into: (a) key procedures, including security, passport, immigration and customs procedures; (b) support procedures, including health, veterinary and agricultural procedures, as well as currency and insurance procedures. The subject will be covered according to these divisions, ending with a discussion concerning the simplification of procedures and the efforts and proposals made by ESCWA in this field.

A. KEY PROCEDURES

1. *Security procedures*

The aspects of the security protection undertaken by the State include those in connection with transit points between neighbouring States or at seaports or airports. One such aspect relating to transit posts is the often unclearly defined border security that may form part of passport and immigration procedures or be carried out through customs procedures. Irrespective of whether it is a stand-alone procedure or forms part of other procedures, such security has come to assume considerable importance in the Western Asia region for the following reasons:

(a) Traffic in alcoholic beverages and drugs, which, being prohibited under religious laws, are more than simply a customs matter in some States and involve security in the sense that their circulation poses a threat to the political regime or is inconsistent with the laws applied by the ruling system;

(b) Traffic in arms, a danger to which States devote substantial attention and fear of which results in exhaustive checking of transit goods and meticulous searches of lorries;

(c) Fear of groups which are undesirable either politically or from the security point of view or which are known terrorist groups, in turn leading to lengthy entry or transit procedures for passengers and to cases where, owing to name similarities, certain individuals can be held in transit for many hours and sometimes experience days of delay;

(d) The process of combating the infiltration of incoming labour that is unrestricted by labour laws.

2. *Immigration and customs procedures*

Passport procedures are linked with the security authorities on the one hand and with the diplomatic authorities on the other. The security connection arises from the link between an embassy passport section and security laws, the former being subject to the consent of the Ministry of the Interior in the country of

destination. Embassy passport sections also interact with other States on a reciprocal basis whereby each State minimizes passport procedures for the citizens of the other, who may then transit borders without needing to obtain an entry permit from the embassy of the country of destination.

The procedures for obtaining an advance entry permit from embassies not only inhibit tourism, but also have an adverse impact on the flow of goods among the countries of the region and through to other regions. Some countries, for instance, require a lorry driver to have an entry permit stamped in his passport by the embassy before embarking on the journey to a border post. Despite the recommendations of a number of Arab committees and conferences concerned with transit, various countries still adhere to the letter of such procedures so that lorry drivers are unable to obtain an entry permit at a border transit post and must instead contact the embassy of the country of destination in order to obtain one.

Some employees are occupied in work which requires them to transit borders on a regular or intermittent basis, while many companies engage in country-wide activities which necessitate follow-up both at transit posts and inland. In most countries, such employees or company representatives are unable to transit borders to complete pressing duties without obtaining an advance entry permit from embassies located mostly in capitals which are nowhere near the border posts.

Despite the absence of uniform passport procedures in the Western Asia region, the member States of the Gulf Cooperation Council have facilitated entry for their citizens, who are now able to transit the borders of these States without difficulty. Some States in the region also give reciprocal treatment to citizens from other States (inside or outside the region) by exempting them from the requirement to obtain an entry permit from an embassy and instead conducting all such procedures at the border points.

The method employed at some border posts in the Western Asia region presents an obstacle to tourism and the flow of transit goods, while at many other posts, passengers are faced with congestion for which there is no justification. The reasons for this congestion include, *inter alia*, lack of coordination between neighbouring border posts, with the border exit post of one country processing passengers with reasonable speed, while the receiving post processes the traffic slowly, leading to overcrowded arrival halls. The reverse is equally true.

3. *Customs handling*

Customs handling is essential at border posts in general and at land posts in particular; were it not for goods transiting between two or more States, many land border posts would never have been established. The size of a border post is greater or smaller depending on the amount of customs revenue generated and the significance attached to customs procedures usually lies in the extent to which the State treasury is reliant on such revenue. Despite the importance of custom revenue to some States, however, none of them has conducted an economic feasibility study to justify the immense size of their customs administrations.

Customs administrations largely pride themselves on the amount of revenue which they collect, but fail to mention the direct cost of operating customs machinery and have no information on the losses to the regional economy as a result of customs complications and lengthy procedures for the passage of goods.

The expansion of the customs administrations in many States in the region has increased expenditure on that item. In some Arab States, the customs administrations have been elevated from the order of civil administrations to that of military administrations offering the same ranks and salaries as the other regular forces, thus reflecting the growing interest of some States in border security.

As to the flexibility of customs procedures, they are the most complicated of all border procedures and operate under highly elaborate laws and regulations, some of which date back to times before the changes brought in by some customs administrations were made. A number of customs administrations in the Western Asia region have devoted attention to improving customs performance and handling methods, successfully introducing modern technology and computerization to their work. Several of the States concerned, however, have conspicuously attempted computerization without reviewing the instruments in force or the method of processing transit passengers or goods. Unless work is fundamentally restructured in line with the use of modern techniques, it will be impossible to reap any benefit from computerization, which will instead increase actual costs.

In several States in the region, customs handling at land borders is a lengthy process that is apparently less problematic in theory than in practice. Theoretically, completion of the required documents should not take long, but the reality is altogether different. In order to complete procedures, for example, it is necessary to move around inside the customs post among various employees, some of whom are positioned in offices and others in the inspection yards. In most cases, goods and vehicle owners waste a considerable amount of time inside the border post seeking out the employees who sign documents, inspect goods, collect duty and so on. If the journey is between several countries, they then find themselves repeating the same procedures at the subsequent posts until the end of the journey.

One reason which prolongs the customs process and prompts customs officials to conduct a full goods inspection is their lack of confidence in the information provided by certain carriers, exporters and importers. The value of goods is the significant factor in assessing customs duty on imports and the yardstick for determining transit service duty. In this connection, disagreements between goods owners and customs authorities over valuations take up a substantial amount of time. Some administrations resort to outside arbitrators with experience in assessing duty who provide a valuation of the goods in dispute.

More than one body has recommended that transit duty should be assessed on the basis of the weight of goods, as their weight cannot be disputed and may also be checked by reweighing at the customs post. Some customs administrations believe that this method will cause them to lose part of the revenue obtained from duty on high-value goods, since any standardization of duty based on the weight of goods would be done on the basis of low-value goods, thus reducing the income thus generated.

To talk about the importance of reconsidering the calculation of transit duty on the basis of value and propose the use of weight is nothing new, both having been discussed at a number of regional meetings concerning customs affairs and transit carriage. Disputes over the value of transit goods remain a delaying factor in the transit of goods awaiting an agreed valuation. In most instances, long periods of time are spent awaiting further documentation or inspection by experts accredited by the customs administrations. A better formula for calculating or abolishing transit duty would have a positive effect on the movement of transit goods in the Western Asia region.

By the same token, the failure of customs officials to trust the information provided by lorry and taxi drivers concerning the type of items carried in their vehicles means that minute and sometimes lengthy customs inspections are carried out with the aim of uncovering any of the trafficking which is known to be principally conducted by some of those who repeatedly pass through border posts, in particular taxi drivers.

Some drivers admit that the trafficking which they carry out en route covers the cost of the journey, transport fares being so low in a number of the States in the region that they fail to cover operating costs. These drivers therefore resort to trafficking profitable items between one State and another.

B. SUPPORT PROCEDURES

1. *Health procedures*

In addition to security, customs and passport procedures, several other procedures must be completed in various cases of transit or entry across border passages. Some of these procedures are often just as important as the key border procedures. Health procedures, for instance, come before passport and customs procedures, particularly if protection is necessary against endemic diseases or emergency epidemics in regions of which it is feared that those arriving from them will bring such diseases into the host States. Health procedures are an important feature in some countries during particular seasons, such as the season of pilgrimage to the holy sites in Saudi Arabia. They are also widely linked to passenger movement and to foodstuffs imported from a country which necessitates precautions in connection with any imports received from it.

The lengthy procedures and the expedient of storing goods during the wait for completion of the procedures for their release produce the opposite effect to the one desired by the health authorities when the items concerned are medicines, perishable goods or goods which require specific temperatures of cold or

storage systems that cannot be provided at transit points and in certain ports. The health authorities often prohibit the circulation of items that have become unfit for use, which would not happen if the relevant procedures were completed with the appropriate speed.

2. *Veterinary control procedures*

Veterinary control procedures are support procedures which are paramount in protecting domestic animals from diseases which may be communicated by imported animals. In addition to their typical use as a procedure to protect animal resources in the home country, these veterinary controls are sometimes in the context of trade wars to bar imports from particular countries. They are also occasionally used to protect animals against extinction under requirements imposed by local laws or international agreements. Given that the Western Asia region does not transport animals in any great numbers in comparison with the total volume of trade in the region, veterinary procedures have little impact on border transit.

3. *Agricultural control procedures*

In addition to veterinary procedures, agricultural procedures also receive attention from the States in the region. Plants and trees brought in from outside the region are usually kept in isolation for periods estimated by the competent authorities, during which time they are checked for anything that might endanger the local animal resources. Some States have run experiments in which plant diseases harmful to agriculture were communicated, thus prompting several of them to take strict measures to prevent the repeat of such experiments.

4. *Currency procedures*

Currency procedures are particularly important and have a special place in States which do not have free currencies and whose currency protection laws do not allow the local currency to be taken abroad or other currencies to be brought in without the consent of the authorities in question. Anyone arriving across border entrances is usually required to declare the amount of currency which he wishes to bring in and is also required to exchange it with designated currency authorities. Some Arab States have adopted exceptional measures to combat currency dealing outside the banking system, including imprisonment for a number of years and, in rare cases, the death penalty. Gold is treated as currency and any gold carried by passengers is often confiscated at a number of border posts. Passengers would like currencies to be freed, as they would then be relieved of the daily burden of keeping track of currencies whenever they travel and trying to avoid mistakes that cause them to lose during such the course of travel.

5. *Insurance procedures*

Insurance procedures apply in the case of transit goods and vehicles entering a country. Vehicle insurance either insures the vehicle against accidents or the vehicle itself as a guarantee of its re-export. Accident insurance is undertaken by the private sector and does not constitute an impediment to border transit. However, the possibility of using the same insurance across more than one border access point and the failure to maintain uniform insurance are matters which should be reviewed.

The insurance of transit goods is one matter which affects the ease with which border access points are crossed. The importance of a non-monetary guarantee for goods and lorries transiting State territories should be pointed out as an alternative to the financial guarantee provided either through banks or by bringing in sums to cover the amount of customs duty levied with a view to payment at the points of departure. Passengers also often encounter difficulty concerning cash sums deposited as security for equipment or materials which they are carrying en route and must endure lengthy procedures to recover their deposits.

The ideal guarantee for transit goods is accomplished under international agreements, such as the TIR Convention, whereby security is guaranteed through local guaranteeing associations operating under the protection of an international guarantee. Under this system, in accordance with article 8 of the Convention, the guaranteeing association pays the required import or export duties and taxes, together with any default interest, due under the customs laws and regulations of the country in which an irregularity has been noted in

connection with a TIR carnet. The Convention also sets the limits of the guarantee, currently $50,000 for each TIR carnet. The payment of customs dues by the guaranteeing association does not release the owner of the goods from liability, since, as far as possible, the competent authorities prosecute the debtor before seeking recourse against the guaranteeing association.

C. SIMPLIFICATION OF PROCEDURES

In view of the trend towards trade liberalization and globalization, it is essential for the developing countries to review many of the procedures relevant to international transport and external trade. Any country is obviously able to enter the competitive arena if it can reduce the cost of transactions in connection with external trade, including transport, and improve prices and competitive opportunities on the world markets. As customs procedures are part of the framework within which external trade operates, consideration should be given to restructuring them in such a way as to assist the commercial sector in the field of international competition.

Numerous meetings on the simplification of customs procedures have been held in both the Western Asia and Arab regions, while many international and regional organizations have called for new working methods to be devised that give consideration to minimizing the number and volume of documents required for goods transactions, similar to the recommendations of the meeting of experts on the unification of border procedures,[3] organized by ESCWA in 1984. Over the years, these recommendations have been repeated in different forms and by various focal points, including ESCWA, the League of Arab States, the Council of Arab Economic Unity, the Cooperation Council for the Arab States of the Gulf and other regional and international organizations concerned with transport and trade. Only limited successes, however, have been achieved in coordinating and reducing the volume of documentation. It is striking that every meeting of experts organized by ESCWA on this subject has consistently submitted recommendations calling for less documentation. Various ESCWA studies on transport have also contained recommendations along the same lines. The accomplishments achieved were the result of implementing bilateral agreements and agreements concluded among various States in the region, in particular those of the Gulf Cooperation Council.

The new approach applied by both ESCWA and the European Commission is to advocate the use of information technology as a practical solution for the development of transport and trade in general and the facilitation of border transit in particular. They have also called for compliance with the minimum international agreements which harmonize international transport and border transit and facilitate administrative procedures. Despite the wide gap between what is being done and what should be done, a number of States in the region have managed to improve working methods at border posts, while some have joined the International Customs Organization and benefited from its expertise to develop working methods and enhance performance. Working hours at border posts have also been extended to cover the entire day and several States have made arrangements for the exchange of expertise.

The meeting of experts on border transit procedures, held in 1996,[4] or in other words, over ten years after the first meeting, also decided that more effort should be channelled into improving border transit procedures. The recommendations clearly stated that the efforts made over a decade had not provided the necessary transit facilities, even though the completion of border procedures had greatly improved since the mid-1980s. The overall recommendations of that meeting were as follows:

1. To emphasize the importance of making allowances for changes having occurred both internationally, including the General Agreement on Tariffs and Trades and the establishment of the World Trade Organization, and in the ESCWA region, and the effects of all such changes on the movement of trade and transport in the region;

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3 *Meeting of the expert group on the technical aspects of harmonization and unification in the field of land transport*, 19-22 November 1984.

4 *Meeting of the expert group on border transit procedures and conventions on the carriage of passengers and goods*, 4-7 November 1996, Cairo.

2. To emphasize the importance of placing the economic interests of the Arab States first among the key considerations when drafting resolutions and legislative enactments relating to border transit;

3. To stress the imperative of benefiting from the technical development of communications networks, means of communication and electronic interchange, as well as from the use of information technology as a potential means of facilitating the movement of regional and international transport;

4. To promote coordination among the authorities concerned with border post matters with a view to creating an integrated border administration at each post;

5. To make efforts to develop smooth passenger and goods traffic inside border posts and coordinate the positioning of employees to match the sequence of procedures;

6. To raise efficiency in line with improvements made in the working methods and environment and develop the capabilities of those working in border posts through administrative and technical training programmes;

7. To accelerate efforts to computerize work inside border posts through universal application of the electronic date interchange system at the start of the next century;

8. To commence the formulation of an integrated national plan to implement the electronic data interchange system in general and in connection with transport and transit in particular;

9. To make efforts to use modern methods of pinpointing the positions of transport modes, such as the international global positioning system (GPS);

10. To make efforts to review national procedures in order to bring them in line with any transit and transport conventions which have been signed.

The most significant comments made by the experts in 1996 concerned the importance of using modern technology as a major factor in facilitating transboundary transport and trade, as well as the importance of drawing up a timetable for the computerization of border posts and making gradual improvements in such posts in order to bring the work up to speed with the electronic data interchange system.

The simplification of procedures at border posts calls for full coordination among the various work units involved. Most of this coordination can be achieved by placing the focus of concern on passenger and goods traffic, on which basis the architectural structure of border posts and the positioning of the employees who process passengers or goods can be established. The importance of matching the architectural structure to the demands of passenger traffic is that it then becomes easier for passengers to follow and complete the procedural sequence in a much shorter time than if they have to spend time rushing about from one place to another in all directions before completing the round of procedures. Signs indicating the different processing stations and the siting of employees in fixed positions also represent important time-saving measures for passengers, particularly those travelling by car.

III. INTERNATIONAL ROAD TRANSPORT IN THE ESCWA REGION

As already mentioned, overall development and economic integration in the ESCWA region are fundamentally reliant on the existence of an uninterrupted and continuous road link among the States of the region, as well as among its neighbouring States, that would help to promote reciprocal trade, tourism and the development of commodity trade in the region. This undoubtedly calls for a transport network which conforms to high and unified specifications, enjoys strong traffic safety and is able to accommodate the demands of technological progress in connection with the transport methods used, administration, information, modern communication means and other important areas relating to the use of unified technical specifications for transport networks. Accordingly, expansion of the transport network, coupled with the adequate preparedness of mobile units and the transport infrastructure, will widen and enhance the consumer capacity of the national economy, thereby generally producing economic growth and an increasing wish to improve the standard of living, in turn producing a higher demand for transport.

This chapter offers a brief description of the main highways proposed for the region's international road network, the aim being to examine both the capacity of its constituent parts to cope with the flow of traffic and the technical specifications for its construction, and then to unify those specifications and formulate a sound basis for development of the network so that transport efficiency along those highways can be easily achieved, with the ultimate goal of enhancing trade efficiency and tourism.

Development of the local and international road networks in the countries of the ESCWA region is recognizably and markedly uneven in terms of the time taken to construct paved roads, the lengths of road completed and the technical specifications used in the construction process. It can be said, however, that construction of the major portions of the paved road networks in the ESCWA countries was complete by the end of the 1980s. Table 2 shows the lengths of roads completed in the ESCWA region between 1985 and 1997.

Another recognized fact is the current absence of any agreement among the States of the region as to the definition of "international roads". The overriding tendency has been to define an international road as a road linking a particular State with a neighbouring State or a road constituted of portions of national roads used by international traffic or a road which could be used by international traffic if its level of service was raised to meet the necessary requirements. Evidently, any road linked to main production and export centres, such as seaports, border points or multimodal transport terminals, is also regarded as an international road.

The international roads in the region can be divided into two types, i.e., main roads and connecting roads. Main roads are the main north-south and east-west highways which cover long distances and are usually designed for high speed travel (120 km per hour). Connecting roads are roads linking those main highways with major towns, ports and airports which are not situated on the main roads. They usually span limited distances and are designed for travel at speeds below 120 km per hour.

It should be pointed out that no uniform international road numbering system is currently used in the ESCWA countries, each of which instead has its own national system of numbering or naming roads. Agreement should therefore be reached as to the formulation of a specific numbering system for the region's international road network, including both main and secondary roads, using even numbers for the international roads running from east to west, starting with M10 in the north, followed by M20, M30 and so on. The same system should also be used for main roads until the southernmost point is reached. In the case of secondary roads, the number four should be added to the road number, *viz.* M410, M412, M414, M420, M430 and so on. The international roads running from north to south should have uneven numbers, starting with M5, followed by M15, M25 and so on, progressing upwards from east to west in the case of main roads and adding the number five in the case of secondary roads so that they are numbered M505, M507, M509, M515, M525 and so on. The letter "M" is used before the road number to indicate that it is an international road in the Middle East region, the intention being to distinguish it from similar roads in Europe, Asia or Africa (the letter "A" may be used to indicate that the road is Arab or Asian, or the letters "WA" may be used to indicate the Western Asia region).

TABLE 2. ROAD LENGTHS

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Bahrain												
Road lengths	-	2 614	2 614	2 629	2 646	2 671	2 740	2 767	2 816	2 993	-	-
Asphalt	-	1 964	1 964	1 979	1 996	2 010	2 052	2 079	2 101	2 200	-	-
Paved	-	650	650	650	650	661	688	688	715	793	-	-
Egypt												
Road lengths	12 673	23 978	-	39 860	45 348	49 203	-	-	-	-	-	-
Asphalt	12 673	13 984	-	30 221	35 261	38 871	-	38 500	-	-	-	-
Paved	-	9 994	-	9 644	10 087	11 332	-	-	-	-	-	-
Iraq												
Road lengths	33 238	39 615	-	-	-	-	-	-	-	-	-	-
Asphalt	24 522	26 040	35 125	36 438	38 858	39 195	39 730	39 735	-	-	-	-
Paved	8 716	13 575	-	-	-	-	-	-	-	-	-	-
Jordan												
Road lengths	5 018	5 314	5 527	5 865	6 007	6 124	6 370	6 678	6 856	7 133	7 558	7 519
Asphalt	2 884	3 885	4 002	4 174	4 185	4 226	4 470	4 627	4 719	4 844	5 075	5 037
Paved	2 134	1 428	1 525	1 691	1 822	1 898	1 900	2 051	2 137	2 289	2 483	2 482
Kuwait												
Road lengths	4 106	4 458	4 607	4 742	4 790	4 790	4 796	4 807	4 871	4 941	4 953	-
Asphalt	-	-	-	-	-	-	-	-	-	-	-	-
Paved	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 2. (*continued*)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Lebanon												
Road lengths	-	-	-	-	-	-	-	-	-	-	-	-
Asphalt	-	-	-	-	-	-	-	-	-	-	-	-
Paved	-	-	-	-	-	-	-	-	-	-	-	-
Oman												
Road lengths	20 192	20 844	22 526	24 865	25 806	24 150	26 281	29 135	29 878	30 544	31 391	32 673
Asphalt	3 984	4 198	4 349	4 611	4 976	5 208	5 566	5 760	5 937	6 257	6 591	7 407
Paved	160 208	16 646	18 177	18 535	18 689	18 922	20 663	23 375	23 941	24 287	24 800	25 266
Qatar												
Road lengths	-	-	-	-	-	-	-	-	-	-	-	-
Asphalt	-	-	-	-	-	-	-	-	-	-	-	-
Paved	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia												
Road lengths	85 607	90 391	96 140	101 458	107 635	114 587	121 042	121 922	126 474	130 496	135 174	137 844
Asphalt	28 105	28 883	29 687	30 223	30 910	31 411	32 129	33 481	34 415	34 555	36 150	36 581
Paved	53 132	57 138	62 083	66 855	72 355	78 806	84 543	88 441	92 059	95 941	99 024	101 263
Syrian Arab Republic												
Road lengths	29 596	30 065	30 452	31 347	33 453	33 956	36 250	36 377	37 475	39 333	40 499	-
Asphalt	27 594	28 413	28 893	29 733	31 324	31 806	34 252	34 209	35 377	37 096	38 095	-
Paved	2 002	1 652	1 559	1 614	2 129	2 150	3 003	2 168	2 098	2 237	2 404	-

TABLE 2. (*continued*)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
United Arab Emirates												
Road lengths	-	-	2 849	2 868	2 868	2 929	3 171	3 239	3 254	3 312	3 326	-
Asphalt	-	-	2 849	2 868	2 868	2 929	3 171	3 239	3 254	3 312	3 326	-
Paved	-	-	-	-	-	-	-	-	-	-	-	-
(Former) Yemen Arab Republic												
Road lengths	10 932	10 932	10 982	-	-	-	-	-	-	-	-	-
Asphalt	2 102	2 073	2 227	-	-	-	-	-	-	-	-	-
Paved	8 830	8 860	8 755	-	-	-	-	-	-	-	-	-
(Former) People's Democratic Republic of Yemen												
Road lengths	3 833	3 896	4 054	-	-	-	-	-	-	-	-	-
Asphalt	2 296	2 359	2 455	-	-	-	-	-	-	-	-	-
Paved	1 537	1 537	1 599	-	-	-	-	-	-	-	-	-
Republic of Yemen												
Road lengths	-	-	-	15 050	6 827	7 078	7 264	7 781	7 985	8 232	7 722	8 280
Asphalt	-	-	-	4 847	4 718	4 779	4 473	4 987	5 130	5 220	5 233	5 287
Paved	-	-	-	10 444	2 109	2 299	2 344	2 794	2 855	3 012	2 489	2 993

A. ROAD TRANSPORT AGREEMENTS

The ESCWA States can be said to have many road transport agreements, such as the international conventions to which some ESCWA States have acceded, agreements signed among Arab States and bilateral agreements for the regulation of transport between two States in the region. The international conventions undoubtedly have a substantial effect in achieving some measure of uniformity in the legislation and systems in force in the countries of the world. The two Kyoto Conventions and the Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (the TIR Convention) are the main conventions concerning the facilitation of customs and transit procedures. The TIR Convention is an important land transport agreement which has been signed by the ESCWA States of the Hashemite Kingdom of Jordan, Lebanon and Kuwait, and more recently, by the Syrian Arab Republic. (Other Arab States having signed the Convention include Tunisia, Algeria and Morocco.) At this point, it should be emphasized that the TIR Convention effectively helps to facilitate transit traffic among the signatory States and is well safeguarded by the International Road Union.

No Arab State, however, has acceded to the International Convention on the Facilitation and Harmonization of Customs Procedures, known as the Kyoto Convention.

A major agreement regulating transit among the States of the Arab League was signed in 1977 at the headquarters of the Arab League in Cairo by all Arab States, which are bound under its provisions to facilitate the transit of goods and transport modes through their transit points. Although the States of the region are signatories to the agreement, there are several issues which stand in the way of its success.

At the moment, there are no Arab agreements concerning the technical specifications for the road and railway networks and related facilities, such as bridges, railway station amenities and so on. Consideration should therefore be given to the agreements already formulated by United Nations Economic Commission for Europe which other commissions have proceeded to adopt and implement. The two principal agreements in this field are the European Agreement on Main International Traffic Arteries (AGR) of 1970 and the European Agreement on Main International Railway Lines (AGC) of 1985. These two agreements concern the road and railway networks and the standardization of their technical specifications and the traffic signs and signals which they use. States should make improvements and modifications to any parts of their roads and railways which traverse international networks in order to bring them into compliance with the technical specifications stipulated in both agreements, which have helped in designating the road transport network and standardizing its international highways. They have also helped to save time in transporting goods and passengers and have tangibly stimulated the economy in the States of the region. Moreover, financial assistance has been obtained to improve parts of the network, particularly from international finance institutions and the private sector.

B. PROPOSED MAIN INTERNATIONAL HIGHWAYS

Diagram 1 shows the main international roads proposed in the ESCWA region. It should be noted that, in 1979, ESCWA undertook a comprehensive study on the designation of the region's international road network. It also conducted field surveys to determine the specifications for the network and proposed a numbering system that could be used. Carried out some 20 years ago, this earlier study is now being updated and developed by the study which we are currently undertaking and which has immediately benefited from its conclusions, bearing in mind the following:

(a) Several links and parts of the network were either incomplete or unbuilt at that time, meaning that the information on the parts of the network in each ESCWA country needed updating;

(b) The road network in the Arab Republic of Egypt was not included in the earlier study, as Egypt was not an ESCWA member State at the time. The road network illustrated in diagram 1 therefore also contains parts of the road network in the Arab Republic of Egypt;

(c) The numbering employed in this study is intended for clarification purposes only and may therefore be amended.

The reference materials contain a detailed description of the main international road network proposed for the ESCWA region. In short, this network comprises six highways running from north to south (M15, M25, M35, M45, M55, M65) and 15 highways running from west to east (M10, M20, M30, M40, M50, M60, M70, M80, M90, M100, M120, M130, M140, M150, M160). It is worth noting, however, that specific features must be taken into account when designating and approving the main international highways in the ESCWA region in preparation for standardizing their specifications so that they become an integral part of the international road network in Europe (E-roads) or its equivalents in Asia and Africa. These special features may apply to some parts of the network only and can be summarized as follows:

1. *Extent of completion of the road network*

It should be stressed that the construction of most parts of the road network forming the international network is complete at the national level, as are those parts which cross boundaries to link the States of the region with neighbouring States. Some links are not yet complete, such as the link between the Sultanate of Oman and the Republic of Yemen, which is under construction. There is also no land route linking the Arab Republic of Egypt with the Hashemite Kingdom of Jordan at the Gulf of Aqaba in the south, where the predominant political situation precludes the construction of a ring road that would create a direct link between the two States and dispense with the need to use the ferries between Aqaba and Nuwaibi to transport passengers and lorries carrying goods and persons. Furthermore, some of the roads already constructed require expansion, modernization and maintenance.

2. *Technical specifications for the road networks*

The technical features of some parts of the network vary noticeably along all of the aforementioned international highways. In practice, the cross-sections differ (lane numbers and widths, widths of shoulders, transverse slopes and central islands), as do clearly all traffic signs and warning signals, the designed speed of some parts of the highways and the structural design of the pavements. The result is that these highways experience confused traffic, accidents and so on, which have an adverse effect on the efficiency of transport on the region's roads.

3. *Numbering system*

It is important to emphasize that the road networks in most ESCWA countries were originally built as part of the local road network and were not intended to form part of any international highways. On the contrary, they were designed to serve local transport. Most parts of the network therefore pass through populated areas and fall inside town boundaries. In addition, having failed to coordinate, the States in the region employed different road numbering systems, particularly on the connecting links between them and the links on through highways. There is a critical need to follow a unified system of numbering the international roads in the region. Our proposals in this field are open to discussion and amendment in accordance with the agreement of the States in the region.

4. *Border stations*

It is important to designate the border stations on the international road network, draw up their technical specifications in line with the volume of traffic passing through them and unify the procedures to be followed within them. These stations must be furnished with all requisites for the facilitation of road transport and should operate as stations that expedite traffic and not the reverse. This in turn calls for the necessary laws to be drafted on highway load limits and the total maximum load permissible on international roads. A decision may be reached to draft unified laws on these maximum loads. At the moment, there is an obvious discrepancy in the maximum highway loads permitted in the countries of the region, which hinders lorries in transit. The maximum individual highway load permitted in the Hashemite Kingdom of Jordan, the Republic of Yemen and the Kingdom of Saudi Arabia, for instance, is 13 tons, whereas no more than 10 tons is permitted in Qatar and the Arab Republic of Egypt.

5. *Integration of the road network with other means of transport*

The fact that most ports and airports in the ESCWA region are directly connected to the road network fosters the adoption of policies on multimodal transport, of which roads are one component. There is no obvious integration, however, between the railway and road networks, as only one-fifth of the States in the region have railways, which are used for specific purposes, *inter alia*, to serve industry.

C. CURRENT STATUS OF ROAD NETWORKS IN VARIOUS ESCWA COUNTRIES

1. *Arab Republic of Egypt*

In 1995, the length of the paved road network in Egypt amounted to some 39,750 kilometres, including 18,770 kilometres (47 per cent) belonging to the General Organization of Roads and Bridges. The remaining 20,980 kilometres of road belong to local authorities and serve internal transport. Table 3 shows the development of the road networks in the Arab Republic of Egypt.

Between 1982 and 1995, the road network made a noticeable leap forward, the length of the paved road network having increased by more than one and a half times.

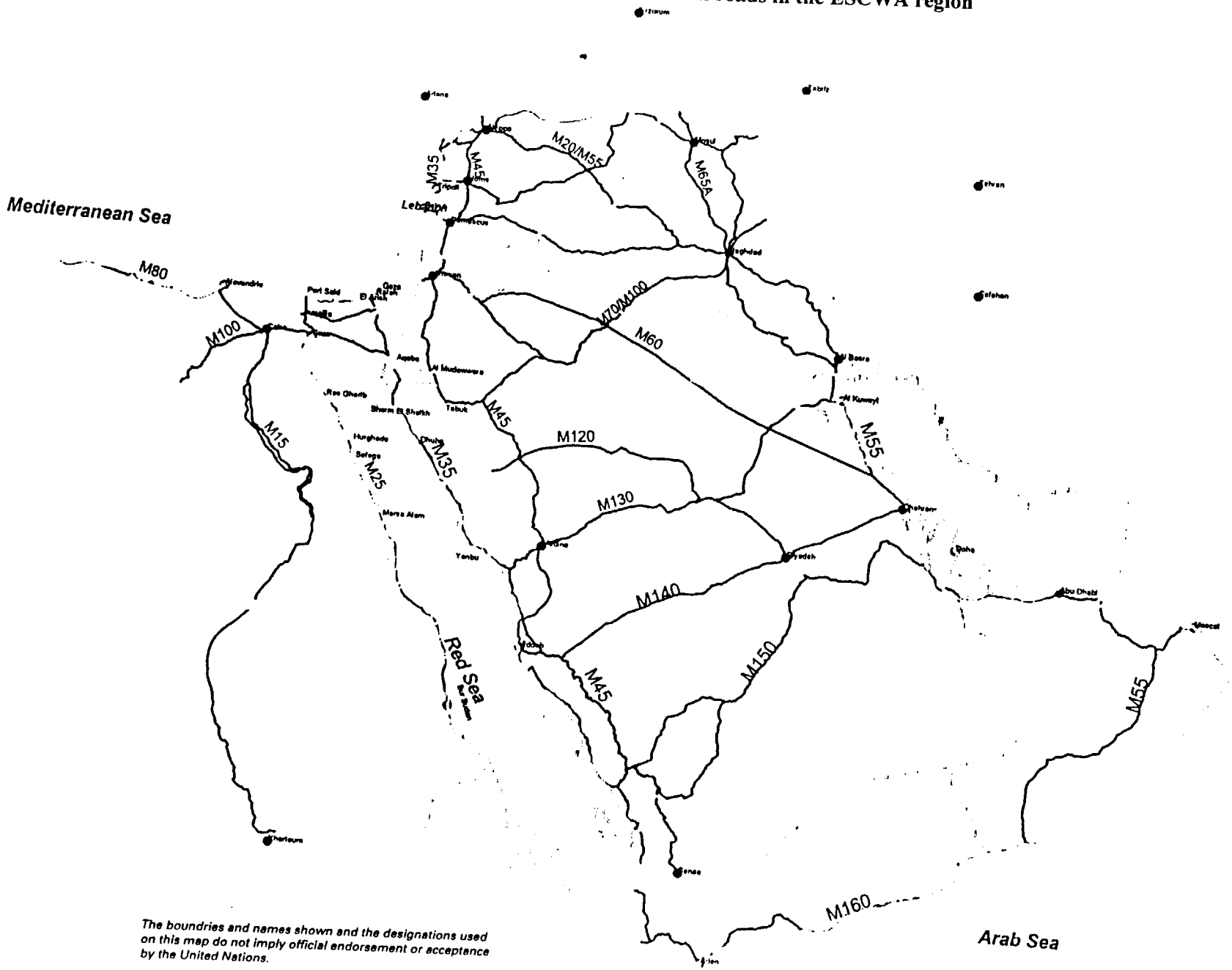
Table 4 shows the main highways in the Arab Republic of Egypt linking the land gateways with the Libyan Arab Jamahiriya in the west, the Sudan in the south and Palestine in the east, as well as with various points of access to the Mediterranean Sea in the north. Egypt is linked to the Libyan Arab Jamahiriya by the level highway that connects Cairo with Alexandria and Matruh, reaching the border point at Salum. This highway is 752 kilometres in length and has a dual carriageway in each direction. The lanes are 10.5 metres wide and the opposing directions are divided by a central island. The daily volume of traffic on this important highway amounts to about 12,000 vehicles. The highway constitutes a major portion of the Cairo-Nouakchott road which traverses the Arab States of North and West Africa.

Egypt's eastern boundaries are linked with the Palestine National Authority at the Rafah land access point. This 360-kilometre highway starts at Cairo and passes through Ismailiya, Qantara and Arish before arriving at Rafah. The Cairo-Ismailia stretch has two lanes of 10.5 metres in width in each direction and a stretch of 15.5 kilometres at the entrance to Arish. It is a single lane road for the rest of the way. This vital highway, which runs alongside the Mediterranean Sea, links Cairo with the Palestine National Authority, the Syrian Arab Republic and Lebanon and extends to Turkey and the countries of Europe.

Egypt is also linked to the countries of the Arab Orient by the road connecting Cairo and Nuwaibi on the Red Sea and from there to the port of Aqaba by the ferry line. This highway is used to carry passengers from the Arab Gulf countries and Jordan to Egypt and vice versa. Between Cairo and Nuwaibi, it runs through the towns of Suez, Shatt, Sadd Al-Haytan, Nahal and Ra's Al-Naqab and is 470 kilometres long in total. Between Cairo and Suez, it has two dual carriageways which are each 10.5 metres wide, and a dual carriageway, 11.5 metres wide, for the rest of the way. It connects Nuwaibi with the Taba land access point, a distance of 64 kilometres.

In the south of Egypt, there are three highways to link it with the Sudan. The first of these, which is 1,200 kilometres long, runs west of the River Nile from Cairo to Aswan and on to Wadi Halfa on the northern borders of the Sudan. The second runs east of the River Nile, also from Cairo to Aswan, and ends at the border point at the Edfin land exit. These two highways linking Egypt with the northern boundaries of the Sudan form the main part of the 915-kilometre eastern road across the African continent, starting at Cairo and passing through Egypt, the Sudan, Ethiopia, Kenya and Tanzania. This road is connected to the States of Central Africa by a number of cross links. Egypt is also connected to a number of ports on the Mediterranean, the Red Sea, the Gulf of Suez and the Gulf of Aqaba by roads which can be used as multimodal transport links, as illustrated in table 5.

Diagram 1. Proposed international roads in the ESCWA region



The boundries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

TABLE 3. LENGTHS OF PAVED ROADS AND BRIDGES IN THE ARAB REPUBLIC OF EGYPT

Year	Paved roads (General Organization of Roads and Bridges)	"Local authority" paved roads	Total length of paved roads
1981/82	8 365	6 933	15 298
1982/83	10 166	8 052	18 218
1983/84	11 755	9 124	20 879
1984/85	13 871	10 821	24 692
1985/86	14 305	12 632	26 937
1986/87	15 000	13 522	28 522
1987/88	16 581	13 941	30 522
1988/89	16 480	14 700	31 180
1989/90	16 746	17 236	33 982
1990/91	17 000	18 263	35 263
1991/92	17 500	18 500	36 000
1992/93	18 326	18 373	36 700
1993/94	18 818	19 832	38 650
1994/95	18 770	20 980	39 750

TABLE 4. MAIN NATIONAL ROAD NETWORK ARTERIES

Route	Length in kilometres according to road width				Total length (km)
	6 lanes	4 lanes	2 lanes 7.5 m	2 lanes 9 m	
Cario-Alexandria agricultural highway	100	124			224
Tanta-Damietta		117			117
Cairo-Alexandria desert highway	15	210			225
Cairo-Aswan western Nile highway	10	38	574	282	904
Cairo-Aswan eastern Nile highway		60	790		850
Cairo-Ismailia desert highway		121			121
Ismailia-Port Said		121			121
Port Said-Cairo/Alexandria desert highway intersection (international northern coastal highway)		178			178
Cairo - Arish - Rafah		515			515
Cairo - Suez desert highway		134			134
Cairo - Ayn Sukhna			110		110
Ahmad Hamdi tunnel (Shatt) - Nakhl - Taba			258		258

TABLE 4. (*continued*)

Route	Length in kilometres according to road width				
	6 lanes	4 lanes	2 lanes 7.5 m	2 lanes 9 m	Total length (km)
East Qantara - Shatt - Tur - Sharm Al-Shaikh			475		475
Sharm Al-Shaikh - Nuwaiba - Taba			295		295
Ismailia - Suez			89		89
Suez - Shalatin and Halayeb (Red Sea coast)			993		993
Qena - Safaga			169		169
Edfu - Marsa Ilm				228	228
Sikh Fadhl (Minya) - Ra's Gharib			250		250
Cairo - Asyut desert highway			350		350
Asyut - Kharja (Wadi Hadid)			225		225
Kharja - Dakhla			189		189
Aswan - Abu Simbel - Wadi Halfa				305	305
Tushki - Abu Sibel - Darb Arba'in (Bir Shab) - Ayn village - Awiyat airport			220	180	400
Kharja - Tushki intersection east of Awiyat at Bir Shab (Darb Arba'in)			350		350
Cairo - Fayum		91			91
Greater Cairo ring road including the Manyab and Wariq bridges over the Nile	108				108
TOTAL	233	1 662	5 209	1 345	8 449

TABLE 5. ROAD LINKS TO EGYPTIAN SEAPORTS

A. Mediterranean ports	B. Red Sea ports	C. Gulf of Suez and Gulf of Aqaba ports
1. Cairo-Alexandria road, 220 km long	1. Port of Suez Cairo-Suez desert road, 130 km long	1. Tur port Cairo-Suez-Shatt-Ra's Sadr-Tur road, 380 km long
2. Port Said Cairo-Ismailiya-Port Said road, 200 km long	2. Ports of Adabiya, Hurgada, Abu Ghasun and Burnis via the Red Sea coastal road from Suez to Halayib	2. Sharm Al-Shaikh port Cairo-Suez-R'as Sadr-Tur-Sharm Al-Shaikh road, 450 km long

Table 5 (*continued*)

A.	Mediterranean ports	B.	Red Sea ports	C.	Gulf of Suez and Gulf of Aqaba ports
3.	Damietta port Cairo-Tanta-Mahala-Mansura-Damietta road, 200 km long	3.	Safaga port From the Nile Valley via the Qana-Safaga road, 160 km long, or via the Red Sea coastal road from Suez to Halayeb	3.	Nuwaibi port Cairo-Suez-Shatt-Nakhl-Tamad-Ra's Naqab-Nuwaiba road, 470 km long
4.	Arish port Cairo-Qantara-Arish-road, 150 km long	4.	Qasir port From the Nile Valley via the Faqat-Qasir road, 180 km long, or via the Red Sea coastal road from Suez to Halayib		

2. *Hashemite Kingdom of Jordan*

The road network in the Hashemite Kingdom of Jordan has developed to the point where it now has fast links to all the neighbouring countries. In 1995, it had over 6,855 kilometres of paved roads, divided into main, secondary and village roads with lengths of approximately 2,826 kilometres, 1,873 kilometres and 2,156 kilometres respectively. The road network can be described as in good condition. Diagram 2 shows Jordan's international roads.

A survey of the major highways linking Jordan with the neighbouring countries would show that there are highways from both north to south and east to west of the country. The most important highway starts at Jabir on the northern borders and runs southwards through Mafraq, Zarqa and the capital, Amman, and then further south to Qatrana and Ma'an, where it branches into two forks. The first fork heads towards Mudwarra and the Saudi Arabian borders and the other towards Aqaba and Durra and again on to Saudi Arabian borders. The importance of this highway lies in the fact that, for the most part, it has four carriageways and is designed for average speeds of 100-120 km per hour. The section between Ra's Naqab and the town of Aqaba is now being extended to four carriageways. Another important highway crosses the north of the country through northern Shuna, heading from the Jordan Valley along the Dead Sea and then southwards towards the Safi depression and Wadi Araba to the town of Aqaba. This highway is connected to the principal highway at more than one point (as shown on the annexed map). The main west-east highway runs in a line from the Dead Sea, Na'ur and Amman and then heads eastwards towards the town of Zarqa and Mafraq and on to Safawi and Ruwaished as far as the Iraqi borders. Yet another important highway starts in the Jordan Valley region and passes through Ardha, Salt and Amman before heading eastwards towards Azraq and on to Omari and the Saudi Arabian borders.

It can be said that Jordan's international road network is virtually complete and in good condition, as are its road signals and signs. A number of improvements have been made to several border stations, in particular the Jabir border point. The network also has sufficient capacity to cater for the daily volume of traffic.

3. *Syrian Arab Republic*

The transport sector in the Syrian Arab Republic has developed remarkably over the last ten years in terms of road construction and maintenance. Table 6 shows the lengths of the different types of road between 1980 and 1997, during which time the length of asphalt roads has more than doubled.

It should be pointed out here that the Syrian Arab Republic represents the main link between the ESCWA States and Europe, as it has more than one border point connecting it with Turkey in the north. The standard of its international roads has greatly improved, particularly in the case of those connecting it with Jordan in the south; a modern border station has been established at Nasib and there is a dual road link with Jordan. A look at the main regional links between the Syrian Arab Republic and its neighbour States shows that there are six main highways, as follows:

The first highway, 160 kilometres long, links the Turkish borders (from the Nasibin border point) with Lataqiya and Tartus down to the Lebanese borders at the Aridha transit point.

The second highway, approximately 450 kilometres long, starts at the Jabir border point and intersects the Syrian borders at the Nasib station, passing through Hums, Hama, Saraqib and Aleppo and terminating at the Bab Hawa point on the Turkish borders. Constituting the main highway, it is used by buses and lorries to travel between the two countries.

The third highway starts in the western border region towards Damascus, passing through Tadmur and Dair Zur on to Hasaka and terminating at Qamishli near the Turkish borders. It is 763 kilometres long.

The fourth highway links the Lebanese borders at Jadida Yabus and heads towards Damascus, then eastwards to Sab Biyar and on to the Tanaf border station on the Iraqi frontiers. This highway, which is about 310 kilometres long, is a major highway linking the Syrian Arab Republic and Iraq. Apart from the portion between the Lebanese borders and Damascus, this road has only two carriageways, each 8 metres wide, and is designed for a speed of 100 km per hour.

Diagram 2. Jordan's international road network

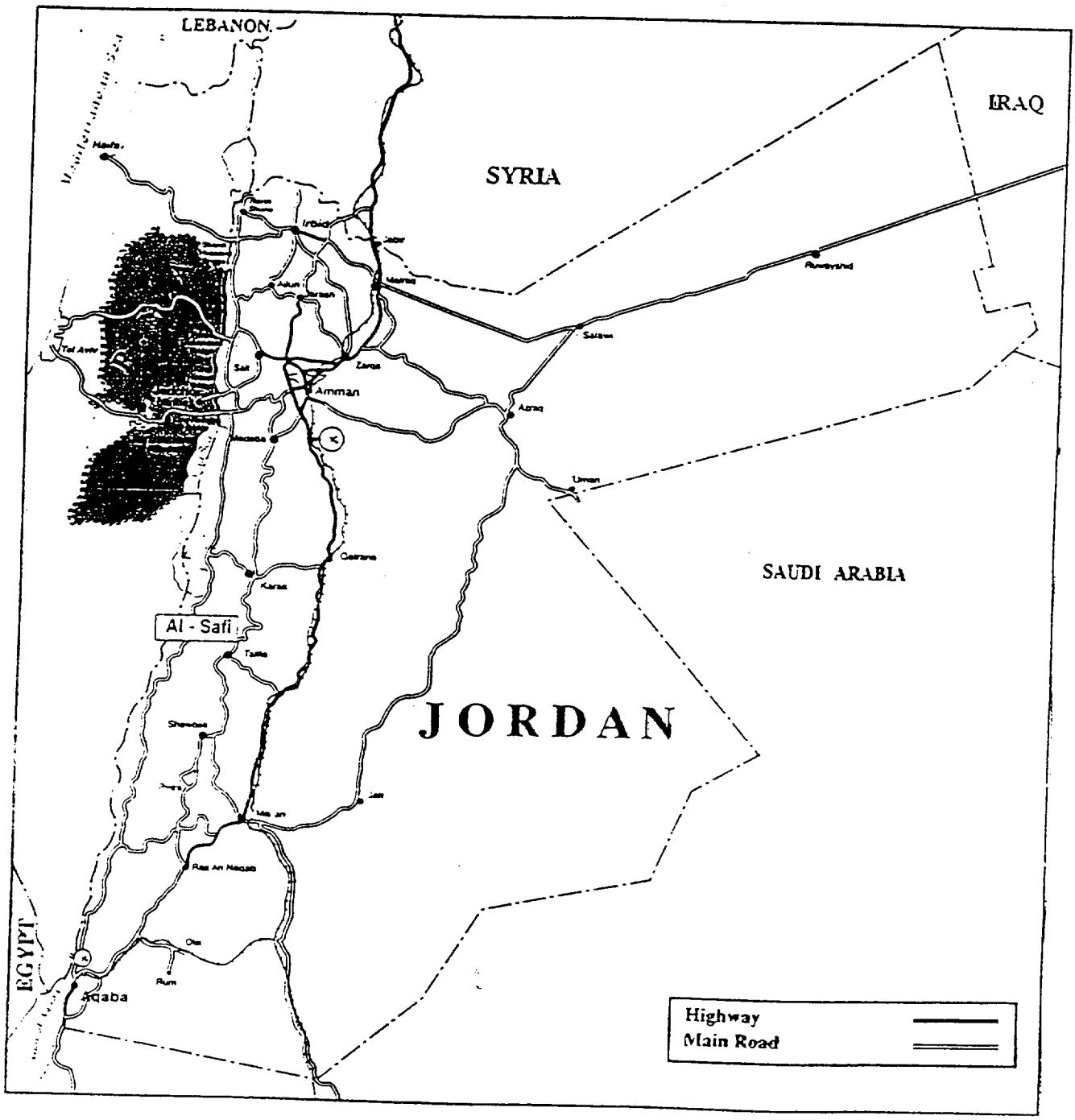


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TABLE 6. ROAD LENGTHS IN THE SYRIAN ARAB REPUBLIC (1980-1997)
(kilometres)

Types of road Year	Asphalt	Paved	Levelled	Total	Comparative figures 1980 = 100
1980	12 969	4 172	2 678	19 819	100
1981	14 875	4 156	2 698	21 729	110
1982	15 880	4 697	2 682	23 259	117
1983	16 338	4 682	1 612	22 632	114
1984	19 950	5 943	2 914	28 807	145
1985	20 732	5 467	2 197	28 396	143
1986	21 791	5 563	2 002	29 356	148
1987	22 155	6 018	1 652	29 825	150
1988	22 498	6 155	1 559	30 121	152
1989	22 928	6 565	1 614	31 107	157
1990	23 779	7 305	2 129	33 213	168
1991	24 375	7 431	2 150	33 956	171
1992	25 887	7 365	3 003	36 377	184
1993	26 299	7 910	2 168	36 377	184
1994	26 993	8 384	2 098	37 475	189
1995	27 769	9 327	2 237	39 333	198
1996	28 665	9 430	2 404	40 499	204
1997	29 215	9 585	2 651	41 451	209

The fifth highway is an important highway link between the Mediterranean port of Tartus and the Iraqi borders. This highway, which is 363 kilometres long, starts at the port of Tartus and heads towards Hums and Tadmur and on to the Al Bukamal border station on the Iraqi frontiers.

The sixth highway, which also links Lataqiya with the Iraqi borders, is seen as an important highway in that it links a major Mediterranean port with the Iraqi borders. This highway passes through the towns of Ariha, Aleppo, Raqqa and Dair Zur, terminating at the Bukmal border point. It is some 610 kilometres long and has two carriageways. Work has commenced on expanding the portion of road between Aleppo and Ariha to four carriageways.

The final highway links the Turkish and Iraqi borders. Beginning at the Bab Hawa border point on the Turkish borders, it heads eastwards through Aleppo, Manbaj, Tal Tamur and Qamishli and on to the Nasibin border point on the Iraqi frontiers. About 230 kilometres long, it is a dual carriageway and is the main artery for traffic to northern Iraq.

In its current state, the road network can be said to serve the main Mediterranean ports, the more so once the improvements being made to the portion between Latiqiya and Ariha are complete. These roads can be used to cross to the Arab Gulf States along the highway linking them with the Jordanian borders, which has four carriageways. In the north, there is also a point of contact with Europe, serving international trade via Bab Al-Hava. Consideration must be given, however, to improving the standard of the road to this border point from both Aleppo and Idleb in order to cope with the growing density of traffic on this road.

IV. CURRENT STATUS OF INTERNATIONAL MARITIME TRANSPORT AND ITS FUTURE PROSPECTS IN THE ESCWA REGION

A. SUPPLY AND DEMAND IN CONNECTION WITH MARITIME TRANSPORT SERVICES

1. *Seaborne trade*

Information taken from the specialist maritime magazine "Fearnley" indicates that, in 1996, the total volume of world seaborne trade amounted to 4.8 billion tons, an increase of 2.2 per cent over 1995 figures. Data produced by the Institute of Shipping Economics and Logistics (ISL) also indicates that, in 1996, some 1.9 billion tons of the volume of world seaborne trade involved goods which were not classified under oil and dry bulk (i.e., general cargo and containerized goods). The data further indicates that, during the period 1991-1996, the growth in general cargo and containerized goods averaged 3.7 per cent compared to only 2.7 per cent for oil and dry bulk.

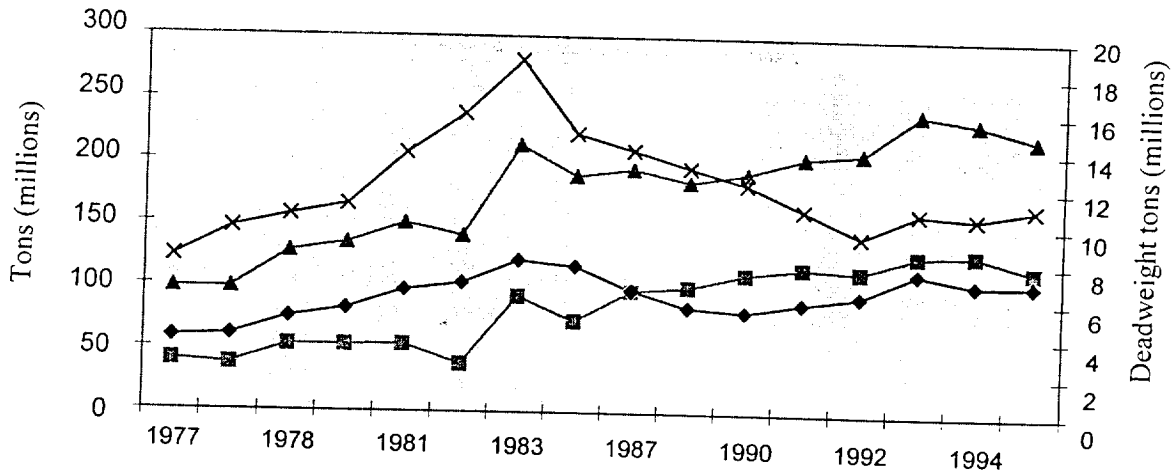
In the ESCWA region,[5] the volume of goods carried by sea, excluding petroleum, aggregated roughly 221.5 million tons in 1995. Since all ESCWA States have sea coasts and ports and since maritime transport is still less costly than other methods, the forecast is that the demand for maritime transport services will continue to grow.

2. *Merchant fleets*

Throughout 1996, the world fleet continuously expanded. According to the records of the Institute of Shipping Economics and Logistics, the world fleet of ships of 300 tons or more aggregated 37,965 ships with a dead-weight tonnage of 722.5 million and a capacity of almost five million twenty-foot equivalent units (TEUs). Compared with 1995 figures, Deadweight tonnage increased by 2.9 per cent and TEU tonnage by 9 per cent. The most recent information produced by the Institute of Shipping Economics and Logistics (June 1998) shows that, between 1 January 1994 and 1 January 1998, the world fleet of cellular container ships grew by an annual average of 12.8 per cent in terms of Deadweight tonnage, whereas the fleet of ships carrying general cargo fell by an average of 0.4 per cent during the same period.

In 1996, the Deadweight tonnage of the merchant fleet in the ESCWA States increased by only 0.5 per cent in comparison to 1995. During the period 1994-1998, the Deadweight tonnage increase averaged 0.75 per cent.

Diagram 3. Trends in seaborne trade and the size of shipping fleets in the ESCWA region



x Fleet (Deadweight tonnage).
. Total loaded and unloaded.
– Unloaded.
گ Loaded.

5 Excluding Iraq and the Palestinian autonomous regions.

It should be pointed out that the size of the merchant fleets of the ESCWA States has been affected by economic performance in those States, both positively and negatively, notably in connection with oil prices and the volume of oil production, particularly bearing in mind that most national shipping companies in the region were established in the mid-1970s when there was a massive jump in world oil prices and the region's oil production and while wars, conflicts and the threat to shipping in the region diminished or halted investment in shipping fleets.

The shipping fleets belonging to the ESCWA States are mostly over 20 years old and the majority of ships are predominantly designed for carrying general cargo and are therefore unsuitable in quality. Moreover, there is a severe shortage of container ships. In view of these facts, the future demand will be for qualitative and containerized goods services. The demand for containerized ships will therefore increase more than for other types of ship. The major shipping companies in the region, such as the United Arab Shipping Company and the National Shipping Company of Saudi Arabia, are developing their fleets and building additional large container ships that will support the demand for modern maritime transport services in the region.

B. Development of container traffic in the region

In world trade, the use of containers in maritime and land transport has accelerated and the goods which can be containerized are constantly growing, having reached 75 per cent worldwide. Goods loaded in containers represent 40 to 60 per cent of the total dry cargo handled in the region's ports.

In the ESCWA States, external trade essentially relies on Europe, the United States and the Far East, where the container transport system is used intensively, thus affecting the speed with which that system has spread in the States of the region. Container transport has grown continuously in the past ten years, the number of containers handled in the main ports of the ESCWA region having risen from 2.37 million TEUs in 1986 to 6.8 million TEUs in 1995 (table 7). During this period, the increase amounted to 188 per cent. The number of containers handled in 1995 was also 6.6 per cent higher than in 1994.

In regard to individual countries, the number of containers in the main ports of the Arab Republic of Egypt increased from 574,000 TEUs to 1.16 million TEUs, or in other words, by 102 per cent between 1991 and 1995. During the same period, the number of transhipment containers also increased by almost 60 per cent. With the Dubai Ports Authority (Rashid and Jabal Ali) ranked as the fourteenth largest container terminal in the world, the ports of the United Arab Emirates - which are now leading the container business on the global scale - are also experiencing noticeable increases in container handling, having handled a total of 2.25 million TEUs in 1996. The development and establishment of modern container handling terminals are also constantly increasing in the region, as are the so-called inland container depots or dry ports as an extension of port activities via roads, railways or inland waterways. The same applies to the linkage of these depots with towns and urban communities.

The flourishing transhipment container activity in the ports of Damietta and Port Said in the Arab Republic of Egypt, as well as in those of Dubai, Ports, Khor Fakkan and Fujaira, is now a major activity (having approached 60 per cent in several of the region's ports designed to serve (hub ports) distribution centres and connecting links between distant areas). Relatively recent though it is, this activity represents a new dimension and a shift in the objective of the shipping lines network which connects major and secondary ports with various regions.

C. Major international ports in the region

The ports in the ESCWA region are situated on the coasts of the Mediterranean, the Red Sea and the Gulf. The main Mediterranean ports are Lattakia and Tartus in the Syrian Arab Republic, Beirut and Tripoli in Lebanon, and Alexandria, Port Said and Damietta in the Arab Republic of Egypt. These ports serve as links in the global maritime network which connects the countries of Europe and both Americas with those of South-East Asia via the Suez Canal and Red Sea. Each of those regions is also individually linked with the ESCWA States which lie on the Mediterranean and the Red Sea.

Egyptian ports, in particular Port Said and Damietta, have taken advantage of their locations on the international shipping routes through the Suez Canal to attract transhipment goods whereby containers from large container carriers are unloaded in these ports and reloaded on smaller ships to the ports of southern and northern Europe and even the United States of America. Egyptian ports face strong competition from the other ports in the Mediterranean basin, thus demanding continuously higher efficiency and performance and the elimination of administrative and institutional obstacles, including customs barriers and so on.

TABLE 7. TEU TRAFFIC IN THE PORTS OF THE ESCWA STATES IN 1995 AND 1996

Port/State	1995	1996	1996 world ranking	Growth (per cent) %
Dubai ports (UAE)	2 073 081	2 247 024	14	8.4
Jeddah (Saudi Arabia)	795 059	827 073	39	0.4
Damietta (Egypt)	764 297	808 608	42	5.8
Khor Fakkan (UAE)	581 763	655 046	52	12.6
Fujairah (UAE)	558 247	604 889*	57	8.4
Damnam (UAE)	278 300	307 184	95	10.4
Zayed (UAE)	245 952	244 794*	110	– 0.5
Beirut (Lebanon)	209 966	202 225	124	–3.7
Aqaba (Jordan)	108 819	139 317	148	28.0
Salman (Bahrain)	99 445	103 339	162	3.9
Sultan Qaboos (Oman)	95 605	100 835	163	5.5
Khaled (UAE)	52 866	56 016	207	6.0
Umm Said (Qatar)	45 391	50 776**	212	11.9
Jubail (Saudi Arabia)	15 368	13 710	297	–10.8
Aden (Yemen)	8 913	12 528	310	40.6
Shuaiba (Kuwait)	32 186	58 923		83.1
Shuwaikh (Kuwait)	86 124	64 562		–25.0
Alexandria (Egypt)	298 648*	298 648*		0.0
Lattakia (Syria)	132 961***	132 961***		0.0
Port Said (Egypt)	240 020	362 311		51.0
Total	6 723 011	7 290 787		8.4

Source: Containerization International Yearbook 1998, Lloyd's Ports of the World 1998.

* Figures estimated annually.
** Figures of the ports authority.
*** 1994 figures.

As for Syrian ports, having increased their container handling capacity, they would be able to receive goods bound for Iraq and Jordan via the maritime routes from Europe and the United States, thus providing a time factor benefit and a reduction in journey costs owing to the shorter distance and avoidance of the Suez Canal crossing. Conversely, the port of Aqaba by receiving Syrian goods arriving from South-East Asia, again will provide a time factor benefit and a reduction in journey costs.

The Lebanese ports are being renovated and expanded and the work is in progress for the completion of a modern container terminal with open yards of over 1 million square metres in area and 15-metre water depth berths that will accommodate container ships of 10,000-TEU capacity. The projected terminal capacity is 1.2 million TEUs. A contract has recently been concluded with the Dubai Ports Authority to administer and operate the terminal, which is expected to start operations in mid-2001.

In view of the proximity of Beirut port to the Syrian Arab Republic (90 kilometres from Damascus), whose ports are over 400 kilometres away from Damascus (in the case of Lattakia), it is anticipated that, once complete, the Beirut container terminal will be used to handle and transport transit containers by land to Iraq, which has insufficient capabilities in its ports for handling containers in line with the volume of its imports, particularly when the embargo against it is lifted.

The main ports in the ESCWA region located on the Red Sea coast are Suez (Egypt), Aqaba (Jordan), Jeddah, Yanbu and Jubail industrial port (Saudi Arabia) and Hodeidah and Aden[6] (Yemen).

In addition to its location, the port of Aqaba is distinguished by its capacity to handle up to 20 million tons of goods, including 8 million tons which are currently unexploited. The port has already received goods in transit to Iraq and Iraqi oil exported by oil tankers, thus enabling it to continue receiving transit goods to Iraq, particularly those coming from the Far East and East Africa. The port can also provide the same services to the Syrian Arab Republic on the basis of an exchange agreement concerning the receipt of goods from Europe, the United States and the Far East. The port of Aqaba receives goods from the Far East and regions east of the Suez Canal that are bound for the Palestinian autonomous regions and Israel.

The Jordanian port of Aqaba and the Egyptian port of Nuwaibeh also play an effective role in linking Jordan and the Arab Mashreq, including the Arab Gulf States, with Egypt and the Arab Maghreb via the joint shipping line established between Jordan and Egypt under the maritime transport agreement signed between them in Cairo on 9 January 1985. It is noteworthy that, in 1995, a total of almost 1.2 million passengers, 33,000 private vehicles, 22,000 lorries and reeter lorries and 3,670 buses travelled across this access point.[7]

In terms of berth numbers, capacity and storage facilities, Jeddah the biggest port in the Kingdom of Saudi Arabia is one of the biggest ports in the entire region. It is also distinguished by its capacity to receive pilgrims and passengers at the modern passenger terminal, which is almost 12,000 square metres in area.

The port of Jeddah endeavours to benefit from its position halfway along the Red Sea to attract transhipment trade and from its enormous capacity to serve as a regional port for handling and distribution, particularly for goods coming from the Far East and East Africa. Some well-known international lines have now begun to use it for this purpose. Jubail industrial port exports essentially industrial products.

The port of Aden, which faces the Gulf of Aden and the Arabian Sea at the entrance to the Red Sea, is one of the region's best ports in terms of its position on international shipping routes between Europe, the United States, the Middle East, the Indian subcontinent, East Africa and South-East Asia. Following completion of its renovation and expansion, it is expected that the port will accommodate container ships and thus come to perform its former function as a distribution and transhipment port for various ports in the region, including the Gulf, and other neighbouring regions.

The main ports in the ESCWA region located on the Gulf, Arabian Sea and Indian Ocean are Salalah and Sultan Qaboos in the Sultanate of Oman, Fujaira, Khor Fakkan, Dubai (Rashid and Jabal Ali) and Zaied in the United Arab Emirates, Salman in Bahrain, Doha and Umm Said in Qatar, Dammam in Saudi Arabia, Shuaiba and Shuwaikh in Kuwait and Umm Qasr in Iraq.

The ports in the Sultanate of Oman (Salalah and Sultan Qaboos) and the Emirates (Fujaira and Khor Fakkan) are distinguished by their strategic location facing the Indian Ocean on international shipping routes

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6 The port of Aden faces the Gulf of Aden and the Arabian Sea at the entrance to the Red Sea.

7 *The port of Aqaba in the 1990s: achievements and productivity (1991-1995)*, Aqaba Port Authority, Hashemite Kingdom of Jordan.

between Europe, the Middle East, the Indian subcontinent, East Africa and South-East Asia. In addition, lying outside the Straits of Hormuz, they are unaffected by any of the circumstances which might impede or endanger shipping inside the Gulf basin. They are also capable of receiving transhipment goods carried on large vessels which do not wish to enter the waters of the Gulf and of dischanging any cargo bound for the central and northern Gulf States.

Given their huge resources, the merits of their performance and efficiency, as well as the variety of their services and activities, Dubai ports (Rashid and Jabal Ali) have succeeded in attracting transhipment vessels from various regions (about 60 per cent of the overall traffic). In 1996, they handled a total of almost 2.25 million TEUs and now occupy such a high position as to be among the top container handling ports in the world.

A number of States in the region use the distribution and transhipment services which Dubai ports provide through feeder vessels, barges and sailboats, as well as road lorries, to the Sultanate of Oman, Qatar, Bahrain, Kuwait, Iraq and the ports of Iran.

Situated halfway along the western coast of the Gulf, the port of Dammam in Saudi Arabia receives Saudi goods and containers and transports containers by railway to the dry container depot in Riyadh for the completion of customs and other procedures in preparation for their delivery to consignees from traders or other parties to whom they belong.

In addition to Dammam, the Kuwaiti ports, particularly Shuaiba with its enormous capacities, are the best long-term alternatives for the receipt and handling of transit goods bound for Iraq.

D. COASTAL SHIPPING

Forming part of the network of foreign and national shipping lines, the ports in the ESCWA region have links with various ports throughout the globe. Since the early 1970s, the ESCWA States have been increasingly concerned to develop their national fleets with a view to transporting their trade with the outside world. They are also equally interested in constructing new ports and in expanding and developing the existing ports to accommodate large modern vessels and cater for a high volume of different types of imported goods and products.

Apart from Gulf States such as Saudi Arabia and Kuwait which have established small modern ports for coastal shipping which charge nominal dues and charges on small vessels, barges and sailboats, several of the region's States have no coastal ports which are specially equipped to provide services for coastal shipping vessels and boats and which levy low dues and charges geared to the size and earnings of these types of vessels and boat.

The case is the same for fleets; most States in the region have devoted attention to developing their ocean shipping fleets, consisting of large ships belonging mostly to the public sector. As it is the private sector which owns the smaller vessels, barges and sailboats in the region, governments have attached no importance to their development or to the provision of financial assistance to that end. Instead, on entering main ports, these types of vessel suffer from having to pay high dues and charges which are not commensurate with their size or particular purposes.

To make the situation worse, there are no large companies owning coastal vessels that would engage in mutual cooperation and coordination, as well as endeavour to seek government assistance from governments and maintain their rights. On the contrary, most owners are individuals and a small sprinkling of companies owning a limited number of these vessels, which are neither run by modern methods nor operated systematically. Similarly, in the public sector, there are no regular coastal shipping companies with publicized and vessel time schedules between the region's ports. With the two exceptions of the port of Alexandria, which is linked to the Nile water transport network and the Damietta port project, and the port of Basra, which is linked by the River Tigris to central Iraq, there is no river shipping in the ESCWA region. Neither are there any suitable river ports on the Nile or the Tigris.

In order to establish a link network between the coasts of the Arab States with a view to encouraging and developing trade between those with adjoining coastlines and among all Arab States situated on the Mediterranean, Red Sea and Gulf coasts, as well as linking the countries of the Arab Maghreb with those of the Arab Orient, the following is required:

1. The development of small ports for coastal shipping with an appropriate infrastructure and superstructure, and adoption of rules, regulations, duties and charges that correspond to the type of vessels, their technical resources and their limited earnings;

2. Investment and backing from governments and from national and regional finance institutions for coastal shipping companies which build and provide vessels to specifications and sizes appropriate to the nature of coastal shipping and the type of goods in circulation in the Arab region, as well as the operation of regular lines at competitive prices with a view to encouraging trade among the Arab States;

3. The agreement of Arab Governments to policies or arrangements which facilitate Arab coastal shipping for vessels, goods and individuals between the ports of the region and the granting of the facilities required to promote trade, passenger transport and tourism.

V. CONCLUSION AND RECOMMENDATIONS

A. CONCLUSION

1. In view of the close linke between transport and trade, transport efficiency, involving cost, time, safety, transportation procedures and obstacles during the journey from the point of origin to the point of delivery of the goods, is a vital prerequisite for trade efficiency. The sophisticated transport systems in the West have played a large role in increasing trade efficiency among the countries of the developed world, whereas the difficulty and high cost of transportation among the countries of the third world are major factors having adverse repercussions on the movement of trade among those countries.

2. The three main parties in the trade process (the seller, buyer and carrier) would like the other parties which have a part in its completion (banks, insurance companies, the owners and operators of transport networks, customs organizations and the administrations of land and sea borders, ports and airports) to develop to the highest degree possible the infrastructure for international transport systems and the methods of administering, operating and maintaining them. They would also like them to facilitate procedures and expedite services with a view to reaping the benefit of all the scientific and technical developments taking place in the fields of transport, communications, administration and information. Such are the measures which must be taken and which are largely already in place in the developed countries of the world. In the developing countries, however, particularly those in Western Asia, the situation is altogether different.

B. RECOMMENDATIONS

1. *Recommendations concerning border transit and multimodal transport*

1. The comments made in a number of studies and at expert meetings affirm that the Western Asia region could increase transport efficiency and promote trade by improving use of the available resources, part of which entails facilitating transit procedures at the various land and sea crossing points.

2. In transit, the efficiency of transport is linked to the provisions of laws that safeguard the infrastructure, which, as far as possible, must conform to the required specifications for international road transport. Roads, equipment and transport mode specifications must also be maintained within specific bases so as to guarantee safe use of the infrastructure. Compliance with highway axle-load maximum limits constitutes an important element in the facilitation of transit procedures. Measures must be taken to combat lax compliance and the failure of some carriers to abide by the criteria limiting axle-loads in each country. Technical resources must also be provided for weighing lorries and penalties introduced that will explicitly prevent contraventions.

3. The increased efficiency of the transport sector and the facilitation of transit procedures represent major steps forward in eliminating the barriers which impede trade. The efficiency of the sector is connected with updating working methods by using modern techniques, such as the advance cargo information system. This system has proved its effectiveness in monitoring goods traffic in developing countries and may be tried as an experiment with road and railway transport in the Western Asia region.

4. From an evaluation of the current situation, it is clear that transit procedures have improved somewhat since the 1980s. It is equally clear that considerable improvements can be made during a short space of time if the competent authorities employ information technology in their working methods and if serious consideration is given to participating in the drafting and implementation of international agreements relating to the movement of transport among States.

5. The status of transport in the ESCWA region is better than it was some years ago, a number of positive initiatives having enhanced the situation in some parts of the region. Of these, reference must be made to the trend among the Arab Gulf States to formulate principles for a form of customs cooperation that will further regional and international trade. Arrangements have progressed apace towards achieving the objectives of the Customs Federation.

6. Implementation of the transit system approved by the League of Arab States is also an important initiative, although the agreement (approved in 1977) has not been finally recognized by all States, despite the time it has been in existence. Nevertheless, its accession by a large number of States, including 11 from the ESCWA region, constitutes a significant step towards a good transit system.

7. Despite several initiatives and the progress made in facilitating the movement of trade and transport, the region is still in urgent need of an integrated transport system with the defined objectives of facilitating transport and trade-related services, reducing their cost and shaping the contours of the system in a manner conducive to its acceptance and implementation by the States in the region and by other Arab States which would like to join the new system.

8. The sophisticated transport system to which the region aspires must fall within the plans for sustainable development. The developmental integration of all sectors relevant to transport and trade is also essential. Clear mention must also be made of an important and neglected aspect in the region, namely the awareness of the environment that should be taken into consideration when starting to plan projects. The result of failing to attach importance to the environmental effects of certain modes of transport has increased reliance on them over the use of other modes of transport which are environmentally more friendly. Irrespective of the type of incentives or the laws formulated, transport planning must include the environmental element as one of those used in the selection of transport modes.

2. *Recommendations concerning the road transport network*

1. It is a well-known fact that transport plays an important role in the economic and social development of the world's countries. Accordingly, there is a growing need to establish a fast and highly efficient integrated road network in the ESCWA region, as in the other neighbouring States and regions, a network that will make an effective contribution to enhancing regional trade, tourism and economic cooperation. The role of international developments must also be recognized, together with any restrictions to be placed on the use of the road networks. In this context, our proposals are as follows:

2. An agreement should be approved and implemented among member States concerning the adoption of an international road network in the region, as well as an agreement on the main highways of that network. The proposal set forth in this report can be regarded as an initial description of the network. A lengthy period of time is needed to develop and improve the network in phases, in which connection it may be appropriate to focus first on the most important highways (possibly one or two highways, such as the M55 and M100).

3. Thereafter, the missing parts and links along the main highways used for the international network may be determined. The study also revealed that there are parts missing along some of the main highways linking various countries in the region, such as the part between the Republic of Yemen and the Sultanate of Oman, as well as the land link needed to connect the port of Aqaba with the surrounding countries of the Arab Republic of Egypt, the Kingdom of Saudi Arabia and the Hashemite Kingdom of Jordan.

4. It is imperative to reach agreement on the technical and engineering specifications for the approved connecting highways, their projected speeds, the type of signals and signs to be used on them (in terms of size, language, colour and so on), the maximum loads to be carried on them, the type and level of services to be provided and so forth. To that end, great efforts are needed, as are various studies, beginning with the completion of data collection on the current status of the network in all countries of the region, gradually followed by studies on all such changes. Points of view concerning national legislative acts and specifications should then be brought together with a view to achieving coordination among the States in the region. At this juncture, it may prove useful to benefit from the previous expertise in this field, in particular the agreements formulated by the United Nations Economic Commission for Europe on technical specifications for highways and their infrastructure and the facilitation of transit procedures on such highways.

3. *Recommendations concerning international maritime transport*

1. Under ESCWA supervision, complete preparation of a comprehensive updated study on the development of an international and regional integrated maritime transport network for the Arab region in general and the ESCWA States in particular.

2. Ensure the adoption by Arab States of arrangements or an agreement, similar to ones completed in several other regions, on the coordination and harmonization of maritime transport policies with a view to having a common maritime transport policy in the region, cooperating in the development of national fleets, coordinating in the matter of acceding to international maritime transport agreements, facilitating maritime transport traffic and services, promoting regional trade and cooperating on matters of maritime safety. ESCWA can prepare and coordinate this process, subject to such an agreement.

3. Prepare a special study on Arab coastal transport including all types of small vessel, including dhows, sailboats and barges, and determine the types most suited to the nature of the Arab coasts and the types and sizes of the cargoes which they carry, as well as coastal shipping ports, their technical capabilities, regulations, services and the structure of dues and charges. The study may be executed by specialist advisors, in cooperation with the League of Arab States, the Arab Union of Sea Carriers, the Union of Arab Seaports and ESCWA.

4. Trigger and encourage the role of the Arab Federation of Shipping, the Arab Seaports Federation and the Union of Gulf Ports with a view to promoting the coordination of maritime transport policies among Arab States and the States of the region in particular.

5. Ensure coordination among the States of the region in connection with port plans and projects in order to avoid duplication, harmful competition and waste of financial resources.

6. Gear plans and projects for expanding port infrastructures towards the construction of container terminals and the development of existing terminals in view of the shortfall in this sector and in line with the steady increases in the numbers of handled containers and their projected growth in the region.

7. Ensure that national and regional finance institutions invest in maritime transport in general and finance the construction and acquisition of ships, particularly container ships, oil and gas tankers, and small vessels for coastal shipping among the States in the region.

8. Promote and encourage education and training in the field of maritime transport, particularly as offered by the Arab Academy of Science, Technology and Maritime Transport in Alexandria, with a view to training maritime staff and thereby helping to develop the Arab maritime fleets, as well as encourage institutes which provide training in port activities, in particular the Dammam Institute in Saudi Arabia, the Aqaba Institute in the Hashemite Kingdom of Jordan and other similar institutes in the region.

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