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ESCWA REGIONAL STRATEGY FOR MULTIMODAL TRANSPORT DEVELOPMENT

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FORWARD

The present report prepared within the framework of the programme of the Sectoral Issues and Policies Division for the biennium 1994\95 to review the status of intermodal and multimodal transport with view to the establishment of a strategy for its development in the region. This report is also meant to serve as a background paper for deliberations in the expert group meeting on the development of Multimodal transport chain in the ESCWA region schedule for April 1995.

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INTRODUCTION

The increase in international trade and long distance transport across international boundaries lead the international community to explore ways and means to establish mechanisms for the smooth operation of the various modes of transport at the regional and international levels. Development of combined and intermodal systems is one step following the development at the modal level for improving the efficiency of transport around the world.

Intermodal or as referred to as combined transport is now the system recognized in the developed world as the efficient transport system mainly because of the savings that it provides to shippers around the world. The development of the concept of multimodal transport (MMT) was initiated for the establishment of a system organizing the intermodal operation across international borders. From that point the MMT is referred to as carriage of goods, by two or more modes, across international borders where this carriage is covered by a single responsibility contract.

The MMT is an intermodal transport service between points in different countries and is performed for the whole journey under one liability contract.The MMT contract is the one that covers the whole journey from origin to destination irrespective of the number of carriers. The definition of multimodal transport covers these points and according to the UN convention on International Multimodal transport of goods (MMT Convention) is as follows:

".. the carriage of goods by at least two different modes of transport on the basis of multimodal transport contract from a place in one country at which the goods are taken in charge by the MMT operator to a place designated for delivery situated in a different country"

The definition of MMT in accordance with the convention is subject to different interpretation depending on the stage of transport development reached in a region or a country. Some interpretations assume that MMT is the same as intermodal while others see it as something different. The development aspects of multimodal transport would include all factors contributing to the efficient use of the resources contributed by the combination of the various modes participating in the movement of the goods. Therefore the definition should include the basic factors which are in fact implicitly addressed in the definition. The factors forming the basic components for the efficient operation of the MMT include the following:

1. The development of international standards for containers and provision of interface facilities for their operation.

2. The conclusion of a number of conventions and agreements to regulate traffic across international borders.

3. The development in telecommunication and computerization and their link into integrated systems of information.

4. The standardization of codes and messages among the partners in transport.

These four factors are the main determinant of the level of utilization of MMT in a general perspective. The establishment of national MMT operators is an added factor in the development of an MMT chain in the region, however the existence of MMT operators at the international level is bridging this gap. Documentation is another factor in the facilitation of MMT in the region and the volume and speed of its processing affects the efficiency of the transport system.

I. THE GENERAL SITUATION

BACKGROUND

The role of transport in trade is in no way less, if not more, important than any other part in the production cycle. As a matter of fact transport is the major component in the marketing side of trade. Transport costs absorb a larger share,than it should, of export earnings of most economies. It is believed that trade between the developing countries incurs a higher transport cost compared to the cost of transport among the developed countries or between them and the developing counties.

Therefore the influence of the cost of transport on the total cost of trade, and consequently the economy as a whole can not be overestimated. That while the freight factor (ratio of freight cost to product value) for the same commodity between Spain and Brazil was 5.2 it reached 29.96 between Brazil and Egypt[1]. The freight rates for containers shows a similar trend and the south to south rates are higher than the rates of North to South. And as an example of the difference in rates it is also observed that while the twenty foot-equivalent unit container (TEU) rate between Belgium and Hong Kong is U$750, it amounts to US$ 1475 between Rep. of Korea and Oman and U$2000 if the trip is extended to Egypt. The comparison did not take into account the difference in rates according to different products on the assumption that the gap between rates for different products of general cargo has become insignificant in recent years. Table 1 gives a general indication of the cost of transport per unit container between a number of developing countries and between them and developed countries.

TABLE. 1 CONTAINER TRANSPORT RATES FOR SELECTED ROUTS

Origin/destination	$ per TEU
North to south exports	
France to Hong Kong	900
Germany to Thailand	900
France to Saudi Arabia	1050
France to Bahrain	950
France to Jordan	950
South to south exports	
Korea to Egypt	2000
Korea to Morocco	2100
Korea to Oman	1100
Venezuela to Egypt	4500

Source: UNCTAD/SHIP/640 3 August 1992, The role of transport in trade between developing countries.

[1] The role of transport in trade between developing countries. UNCTAD/SHIP/640. 3 August 1992 and Annexes and on trade value variations

TABLE 2. CHANGES IN THE NUMBER OF WORKERS IN SOME PORTS (1970, 1980)

Port	*Period*	*No. of employees*	*% change*
Alexandria	1971	7000	
	1982	5000	-28.6
Amsterdam	1971	3540	
	1981	1906	-46.2
Antwerp	1970	15000	
	1982	9158	-38.9
Aqaba	1977	400	
	1982	3000	+750.0
Aruba	1979	356	
	1983	196	-44.9
Australia	1970	17688	
	1982	7944	-55.1
Dakar	1975	1700	
	1983	1263	-25.7
Hamburg	1973	12544	
	1982	11115	-11.4
Liverpool	1970	11065	
	1982	2333	-78.8
Melbourne	1975-1976	4500	
	1983	1822	-59.5
Mina Sulman	1970	1300	
	1982	786	-39.5
Montreal	1968	3609	
	1982	1242	-65.6
Noterdame	1971	12432	
	1981	9598	-22.9
Shuweikh	1980	2663	
	1982	3171	+19.0
Singapore	1972	3140	
	1982	1070	+65.9
United Kingdom	1970	39104	
	1984	13688	-65.0

Source: Assessment of Manpower Development in Transport Sector for Selected Countries in the ESCWA region E/ESCWA/TCD/1993/18

II. COMPONENT FACTORS IN TRANSPORT COORDINATION

A. THE INFRASTRUCTURE

In ESCWA region the status of transport infrastructure differs widely among member countries. Some member counties have highly developed networks, some with moderate and others need large investments to keep pace with their demand for transport but irrespective of the range of development they isolated modal networks . A coordinated transport chain requires investments in infrastructure for two reasons. The first is the requirement to extend the networks to cover the areas to be served by the transport chain, the second is the requirement to attain compatibility with the adjoining systems and provide technically suitable interchange conditions.

The choice between modes is decided upon against a number of factors. Those are economic, financial, social, political, etc. and those are not homogenous among countries or in different periods of time. The history of transport development is an important factor in investment decisions and in preferences between competing modes under situations of scarce resources. The level of technology acquired in a certain mode rather than the other is an added factor in the choice between modes. A country with a well established railway will tend to invest more in this sector than a country with a well developed road network.

The actual coverage of ESCWA transport networks is considered reasonable for all modes with the exception of rail transport. Road transport is the only mode of land transport in six member countries while the other six member states own railway lines. The transport infrastructure within the region is oriented towards roads which are taking the larger share in the land transport market in all ESCWA member countries including those countries operating railways.

The railways in developed countries are parts in the links contributing to the intermodal chains and this was partly due to the role of the railways as bulk carrier and for its earlier association, before roads, with the sea and river ports. This link is well established in both developed and developing countries. The railways was developed as a land transport mode before the roads in many parts of the world and this together with its large carrying capacity made it a convenient intermodal link.

In ESCWA region the rail transport is not performing the same role as in the developed countries. The original layout of the rail lines was for military and imperial expansion purposes rather than for social and economic development. In spite of the main objective it could have served as an integrated network covering the whole of the northern part of ESCWA region, extending to the east and south of the region. As a matter of fact that objective was not achieved because territorial stability was not established in the region during the past decades.

The development of the railway in ESCWA region was linked to the historical development stages through which each part of the region or country has came across. The countries in the north of ESCWA region went through social and economic development stage at the time when the railways were the dominating land transport system. The Ottoman authorities supported the development of the railways as one their strategic tools of control over the vast stretches of their empire.[3] The competing European powers were pushing for the extension of rail lines as an alternative route to far East. Hence the European interest around the turn of the last century,in the region and the Far East, was the main factor in railway development in the ESCWA region and at a later stage the oil wealth lent itself to road development.

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[3] ESCWA publication " Railway links in Western Asia" E/ESCWA/TCD/1987

In ESCWA region the railways and waterways with their limited contribution in the transport market gave way to road transport to be the dominating land transport sector. The contribution of Road transport to the social and economic development of the region can not be overestimated. It was the main factor in social integration at country and regional levels. The pace of infrastructure development was very fast in most of the ESCWA member countries. The large increase in ESCWA road network can be seen in the cases of Saudi Arabia and the Arab Republic of Syria where the Saudi road link increased from 39000 kilomtres in 1979 to 115000 kilometers in 1991 and the Syrian road network increased for the same period from around 18000 to 40000 kilometers.

The geographical location of ESCWA region is central to three land masses, Africa, Asia and Europe. This location would provide an international traffic access point for the three regions to link with ESCWA region and through the region with each other. Land transport and specially road transport would be suitable to provide that link over land.

Road transport in ESCWA region is the only alternative interregional and interregional mode to maritime transport. The region experienced the need for alternative routes to maritime transport during periods of conflicts which happened to be a recurrent phenomena during the last two decades. The last incidence of major conflict was the Gulf war and land transport was very effective in routing traffic either directly from Europe or as a feeder link from the red sea ports which were in operation at that time. The cost effectiveness of road transport would be achieved if it became a link in an intermodal chain.

TABLE 4. DEVELOPMENT OF ROAD NETWORKS IN SELECTED ESCWA COUNTRIES

(Kilometers)

Country		*1979*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*	*1992*
Bahrain	Total	-	-	2,614	2,614	2,629	2,646	2,671	2,740
	Paved			1,964	1,964	1,979	1,996	2,010	2,052
Egypt	Total	26,892	12,673	23,978	-	39,865	45,348	49,203	-
	Paved	13,115	12,673	13,984	-	30,221	35,261	37,871	109,006
Iraq	Total	22,218	33,238	39,615	35,125	36,438	38,858	39195	-
	Paved	12,384	24,522	26,040	35,125	36,438	38,858	-	-
Jordan	Total	5,018	5,018	5,314	5,527	5,865	6,007	6,124	6,370
	Paved	2,884	2,884	3,885	4,002	4,174	4,185	4,226	4,470
Oman	Total	15,155	20,192	20,844	22,526	24,865	25,806	25,447	5,922
	Paved	1,658	3,984	4,198	4,349	4,680	4,995	5,232	5,621
Saudi Arabia	Total	39,019	85,607	90,391	96,140	101,458	107635	114587	-
	Paved	18,900	28,105	28,883	29,687	30,233	30806	31411	-
Syrian Arab Republic	Total	17,720	29,596	30,065	30,452	31,347	33,453	33,956	36,255
	Paved	15,128	27,594	28,413	28,893	29,733	31,324	31,806	33,252
Yemen	Total	1,943	14,765	14,829	15,036	15,050	15,016	-	7,264
	Paved	1,147	4,398	4,432	4,682	4,847	4,538	2,299	2,344

Sources: Statistical Abstract of the Region of Economic and Social Commission for Western Asia, 1981-1994 issues, Thirteenth and Fourteenth Issues, and national statistical yearbooks of selected countries - 1992 and 1993.

implement its portion. Road fleets are subject to standards determined by the national authorities in each country but those standards are not strictly limited in scope like railway fleets. Road infrastructure is taken into consideration when specifications are determined and regulations are issued to be followed by operators. The actual implementation of the regulations might not be the same in all countries. An example of this was witnessed during the Gulf War when portions of the highway between Iraq and Jordan were affected due to increased axle loads over the design standard of the road.

TABLE 5. MOTOR VEHICLES IN SELECTED ESCWA COUNTRIES

Country/year	*Buses*	*Cars*	*Trucks*
Bahrain			
- 1982	2,982	60,081	15,424
- 1992	3,763	108,784	21,707
Iraq			
- 1982	29,638	280,895	142,113
- 1992	48,108	670,227	251,415
Jordan			
- 1982	2,704	111,469	39,894
- 1992	891	181,494	50,036
Kuwait			
- 1982	10,286	469,108	159,617
- 1992	13,571	474,477	113,246
Oman			
- 1982	50,800	86,403	14,038
- 1992	70,231	96,559	18,584
Qatar			
- 1982	2,805	91,868	37,844
- 1992	624	135,387	56,837
Saudi Arabia			
- 1982	32,493	1,571,446	1,407,745
- 1992	16,100	111,906	133,980
Syria			
- 1982	10,711	79,141	32,424
- 1992	13,549	113,347	82,801

Source: Statistical Yearbooks of member states 1984 and 1994.

In ESCWA region one of the areas where data can not be considered as accurate is motor vehicle statistics where no reliable records are available about the exact number of cars in a country. And inspite of the inaccuracy in numbers of vehicles it is believed that the private passenger car has the highest rate of increase as compared to other types of vehicles. Public transport does not provide the quality of service demanded by the customers and this is specially the case in the oil producing countries. Large cities such as Cairo are attracting commuters an improved city transit routes introduced recently but again the quality of the service in general and the low cost of fuel and the social prestige associated with the car take a large portion of traffic from public transport.

Table 6 indicates a projection in sea trade over the current decade while table 7 indicate actual changes in maritime fleets over the years from mid 1980s to early 1990s. The trade projection and changes in world fleet has their reflection on ESCWA merchant fleet but the resources available to ESCWA countries are the main determinant of the size of their fleets. Another determinant which is also important is the share of traffic available to the region in the international transport market where competition is very strong and the market is dominated by powerful leagues or conferences. The share of ESCWA region in carrying its own sea going traffic is very small and the region should increase the carrying capacity to capture more of its sea trade. While this is the case in ESCWA region it is observed that fleets from other regions are controlling the market of transport in the maritime sector and their demand for additional dead weight capacity rose in the late 1980s.

Investment requirements in fleet development is large and resources of developing countries would not provide the required finds on commercial basis due to the tough competition in ocean transport. Large carriers well established in sea transport are taking the lager share of the market and would derive small national fleets out of the market by price war where they would be able to provide price cuts that can not be met by small fleet operators.

The code of conduct for liner conference has been concluded to provide fair shares of tonnage for all countries. However, fleets operating outside the boundaries of the code of conduct are putting high pressure on the fleets of small operators. Arrangements for developing joint ventures would be one way of providing developing countries fleets with a larger share and a stronger position in international competitive market.

TABLE 8. ESCWA MERCHANT FLEETS IN THE YEARS 1988-1993 AS AT 30 JUNE 1993

(Gross registered tons)

Country	*1988*	*1989*	*1990*	*1991*	*1992*	*1993**
Bahrain	54,471	54,534	46,601	211,297	155,472	103,251
Egypt	1,226,725	1,230,267	1,257,145	1,256,641	1,200,054	1,149,049
Iraq	653,069	1,056,190	1,044,434	930,535	919,740	901,529
Jordan	32,198	32,198	42,226	73,185	61,266	70,751
Kuwait	735,318	1,865,066	1,854,583	1,372,976	1,910,180	2,217,911
Lebanon	405,311	384,495	307,121	274,288	286,149	249,041
Oman	25,470	23,588	22,578	22,578	22,348	15,648
Qatar	308,668	306,054	359,496	484,800	423,705	430,542
Saudi Arabia	2,269,398	2,119,220	1,682,752	1,321,464	1,016,127	997,701
Syrian Arab Republic	64,101	74,309	79,810	109,452	129,651	208,599
United Arab Emirates	824,990	838,627	749,621	888,893	928,720	804,374
Yemen	207,053	207,053	16,716	16,716	16,924	24,261
Total	7,106,718	8,191,601	7,463,083	6,962,825	7,070,336	7,172,654

Source: Transport Bulletin No. 5 E/ESCWA/TCD/1994/7

C. UTILIZATION OF CONTAINERS IN THE REGION

Containers became the leading factor in intermodal transport all over the world. They represent an important technological advancement in the cargo movements across international borders and between different modes. However their transport requires the appropriate coordination of the various modes involved in the exchange of cargo. The standardization of containers made their movement over various networks far more convenient to the traffic operators and reduced transhipment cost. The International Organization for Standardization (ISO) developed a series of standards for containers which are adopted world wide. Table 9 indicate the change in various types of containers in the world. However, the types of containers usually moving in ESCWA region are ISO standard containers of 20 and 40 ft known as series standard containers. Very few of the larger than ISO standard containers are arriving of ESCWA ports but are not normally allowed on ESCWA roads because of length and height limitations on those roads.

The increase in container traffic can be attained through appropriate infrastructure coordination and interface facilities. In developed countries the infrastructure and facilities for container handling between modes are available at the required standards. In ESCWA region this is only true in the well established ports and for ship/shore operation. Some of the ports in ESCWA region own and operate some of the high quality handling equipments not available to most of the developing countries in the world.

TABLE 10. ESCWA COUNTRIES LOADED CONTAINERS IN EQUIVALENT UNITS (000sTEU)

(Comparison of 1982-1992)

Country	*1982*			*1992*		
	Import	*Export*	*Total*	*Import*	*Export*	*Total*
Bahrain	49	18	68	43	18	61
Egypt	74	29	103	277	205	483
Jordan	56	0	56	47	6	53
Kuwait	143	5	149	92	100	102
Qatar	6	6	11	14	8	22
Oman	22	1	23	56	25	81
Saudi Arabia	423	166	590	530	147	677
Syria	28	29	57	46	16	62
United Arab Emirates	173	71	244	1259	972	2231
Yemen	1	0	1	5	-	5
Total	976	324	1,302	2,369	1,407	3,777

Source: Annex 4

Considering the export/import container traffic in ESCWA region it is observed that the imbalance of traffic is a long standing phenomena. It is also observed that the region is increasing gradually its imports but the increase is not up to the level that would bring the balance to the flow of traffic in the two directions.

In 1982 the total container traffic was TEU975,786 in exports and TEU326,164 in imports which reflected a balance of traffic of 3 to 1. A decade later, ie. in 1993, the balance of traffic improved to 1.7 to 1. but the number of total containers increased which means an increase in the number of empty containers to be transported. The effect of this imbalance of traffic is reflected in the overall cost of transportation for containerized cargo to the ESCWA region. This is so because the load factor is an important determinant of the cost, and the lower is the factor the higher the cost will be.

The coordination of transport networks needs suitable interface facilities at points of traffic transhipment. Developed counties are providing such facilities and services at ports and inland transfer points between various modes. In developing countries there is the need to establish arrangements for cargo transfer between modes. In some countries the transfer of cargo between two networks of the same mode is time consuming and costly and this is observed when two rail lines of different gauges are exchanging traffic. In such situations the cargo has to be off loaded from the network and then loaded on the other network and the cost can be reduced if containers and containers facilities are used so that transfer of the unit will take quite a short time reducing working hours and cost.

Availability of interface facilities differs among different countries. Arrangements for ship to shore and shore to ship cargo handling are adequate in Almost all of the ESCWA ports. The ships are served, mostly, to the standard of the developed counties. The transhipment between the port and land transport is not met with the same standard of efficiency. The handling equipments away from the ports are not up to the standards established at the ports because the infrastructure for that is not available. This is not a matter of easy choice because the establishment of an inland container depot is a costly investment and can not be justified under conditions of low density traffic.

Therefore, inland container terminals are not part of the transport system in ESCWA region. Saudi Arabia is the only country in ESCWA region which has a developed inland container terminal. The cargo arriving in high capacity ships at the port is off loaded and then loaded on trucks. This is a costly and time consuming operation as the cargo arriving in large quantities is divided into small units of truck loads. This operation should have been left to a distribution centre such as a land container terminal or rail container depot. Those should be as close as possible to the final destination.

E. Border crossing facilities and formalities

Border crossing has a very significant role in international trade and custom clearance is its most important item and most of the delays in border crossing is attributed to its formalities. Countries established regulations and rules for the organization of border crossing and to guarantee custom revenues without jeopardizing international trade. Immigration and security clearance are main aspects associated with border crossing formalities and in some countries they contribute to the creation of bottlenecks in border crossing.

Multilateral and bilateral agreements were concluded to facilitate border crossings and specially with regard to custom clearance. The Barcelona convention was singed in 1921 as a measure to facilitate trade among its contracting parties following world war 1. Since then a large number of conventions were drafted and a few were actually put into force. The countries in ESCWA region were among the first to recognize the role of conventions in the facilitation of international trade. And as early as 1925 Iraq and Syria were parties in transit conventions.[7] But implementation of international conventions does not appear to be followed in many countries and national regulations seem to be the only source for applicable regulations.

The agreements whether international, regional or bilateral are concluded according to various categories and including the following:

1. Mode of transport eg. air, land or water transport.
2. Type of transport equipment eg. truck, wagon, container, vessel, etc.

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[7] Legal aspects on the facilitation of transit and customs formalities in the countries of Western Asia. E/ECWA/TCT.84/4- - 15.12.1984

TIR convention will not be subjected to the payment or deposit of import or export duties and taxes at customs offices **en route**. The membership of the TIR convention is open to all countries members of the united nations and its specialized agencies as well as to customs and economic unions whose members are contracting parties to the convention.

The international convention on the simplification and harmonization of customs procedures (Kyoto convention) is addressing the custom questions for the cargo transported across international boundaries. This convention was drafted by the technical committee of the custom cooperation council (CCC) and was adopted at Kyoto on 18 May 1973 and entered into force on 25 September 1974. The number of signatories to the convention are 55 countries while the members of the CCC are 155 members and it is possible that the member of signatories would increase.

The preamble of the convention[9] notes that the divergences between the national customs procedures can affect adversely the international trade. The convention as an international instrument for the harmonization and simplification of customs procedures can contribute to the development of international trade and foster international cooperation. The Kyoto convention requests the contracting parties to harmonize and simplify their custom procedures according to the provisions and annexes of the convention. It adds that nothing can prevent the contracting parties from granting facilities greater than those provided for in the convention. It also adds that the provisions of the convention shall not preclude the application of prohibitions or restrictions imposed by national laws.

Liability regimes has been addressed by a number of agreements and conventions as they are basic factors in regulating transport at the international level and of particular importance to shippers in order to safeguard their goods during transport specially when the sea carriers succeeded in limiting their liability for loss and damage of the cargo. The controversy on liabilities lead to the organization of a number of conferences and agreements to resolve the arising controversies problems. Among the conferences organized was a political conference that adopted the international convention for the unification of certain rules of law of lading (Hague Rules). The Hague rules were adopted by the conference in 1924 and entered into force in 1931. Since then, the Hague rules, were subject to controversy by the parties involved in maritime transport.

Technological changes such as containerization necessitated the updating of the Hague rules to accommodate new changes in the field of transport. New rules known as the Hamburg Rules came as a result of negotiations to overcome the controversies around the Hague rules. The Hamburg rules came into force in November 1992.

The convention on multimodal transport[10] was concluded with view to organizing multimodal transport on an international level and was adopted in the united nations conference organized at Geneva from 12 to 30 November 1979 and from 8 to 24 May 1980. The convention was opened for signature by UN member states in New York from 1 September 1980 and 30 signatories are required before the convention can enter into force and did not enter into force as the required number of parties has not been reached yet.

The reasons behind the delay in the entry into force of a convention is basically the difficulty in mobilization of member countries to accept the convention and inform the depository, UN secretary General,

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9 Customs Cooperation Council Handbook 1 " International convention on the simplification and harmonization of customs procedures" Kyoto, 18 May 1973.

10 The United Nations conventions on international multimodal transport of goods. Geneva, 1980

TABLE 12. UNITED NATIONS CONVENTIONS ON SELECTED TRANSPORT MODES

Convention	*Date*	*Entry into force*	*No. of members*
International convention to facilitate the crossing of frontiers by rail	01.1952	04.1953	11
Customs convention on containers	05.1956	08.1949	42
Convention on a code of conduct for liner conferences	04.1974	10.1983	76
United Nations convention on the carriage of goods by sea (Hamburg)	03.1978	11.1992	22
European agreement on main international railway lines	05.1985	04.1989	15
United Nations convention on conditions for registration of ships	02.1986	No	9
Convention on civil liability for damage caused during carriage of goods by road, rail,and inland navigation vessels	10.1989	No	NA
United Nations convention on international multimodal transport of goods	05.1980	No	6
Kyoto	05.1973	09.1974	55
TIR	11-1975	1978	-

Source: United Nations Treaty Series

At the regional level member countries conclude multilateral agreements and conventions according to rising needs within their regional or subregional groups. In ESCWA region member countries concluded a number of bilateral agreements and a few multilateral agreements. The member countries of the Gulf Cooperation Council (GCC) concluded agreements in many fields including transport and most of their agreements were within the framework of economic cooperation the member countries but without limiting the freedom of those members to adopt other conventions which are not conflicting their subregional agreements. The transit agreements among the GCC countries is an example of their efforts to organize transport flows within the subregion and between them and other countries.

The member countries in the League of Arab States (LAS), on the Economic and Social Council resolution No. 672 of 14 March 1977, concluded an agreement on transit traffic on 13 March, 1977. The convention came into force on 28 February 1979 after seven parties deposited their instrument of ratification with the depository of the convention, the Secretary-General of the LAS. The observation in the list of participants to the convention on the regulation of transit traffic among the Arab League States indicates that all the members, except one, are from ESCWA region.

support the introduction of advanced information system. The level of advancement in computerization and its utilization of telecommunications services are basic requirements in EDI development. Development in telecommunications provided the appropriate infrastructure for the transmission of data in quality and quantity and with the speed that was never possible before. The computer ability has been revolutionized by telecommunication development and their merging together and one of the outcomes is the utilization of paperless transactions in transport and trade[11].

EDI utilization is increasing in almost all modes of transport. Most of the development in this line has been in air transport and its utilization covers almost, the whole world. In ESCWA region air transport was the first mode to implement EDI networks. The International Air Transport Association supported the inter-airline electronic data processing (EDP) as it was observed that efficient performance of air transport is very much dependent on an efficient control of the information flow. The benefits of EDI has been recognized by a growing number of trade and transport agencies including savings in documentation, labour cost and management of resources EDI provides true savings, accuracy in translations and increased efficiency.

The replacement of traditional paper documents with electronic messages is becoming the norm among a growing number of trade partners. This has been facilitated with the development of UN Electronic Data Interchange for Administration, Commerce and Transport messages (UN/EDIFACT).[12] The messages developed or being developed are meant to be an international standard adopted by countries participating in paperless transactions.

The EDIFACT includes messages such as:

1. Transport messages:
   a) booking and confirmation of booking
   b) Instructions
   c) Notices and information etc.

2. Commercial messages
   a) Invoices
   b) purchase orders
   c) Dispatch advice
   d) Delivery schedules
   f) Customs declaration
   h) documentary credit
   g) various service messages.

Other electronic messages has also been recognized and those include the International Maritime Organization (IMO) electronic messages known as EDIMAR for vessel clearance. The number of Customs authorities accepting the internationally recognized electronic messages are increasing in developed countries while they are being recognized by a number of developing countries. Developed countries are utilizing electronic messages on a very large scale. Many examples can seen in the United States and Europe. In the United States the Customs Service is connecting its automated manifest system (AMS) to most ocean carriers serving US ports. In Europe the International Transport Information System (INTIS, Rotterdam) provides

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11 Utilization of computer technology in transport management in the ESCWA region with special reference to railways. ESCWA/TCD/1993/13

12 UNCTAD TD/C.4/328. 30 January 1990 United Nations

TABLE 14. DEVELOPMENT TRENDS AND DENSITY FIGURES

Country	*% Increase 1981-1991*	*Density 1990*	*% Increase 1991-2000*	*Density 2000*	*% Increase 1991-2003*	*Density 2003*
Bahrain	8.4	81.65	7.13	29.71	7.2	33.8
Egypt	15.57	3.3	8.96	6.85	9.2	8.56
Iraq	NA	NA	10	7.85	10.27	9.92
Jordan	15.53	6.3	5.61	6.11	5.31	9.56
Kuwait	7.76	15.48	4.14	18.67	4	19.08
Lebanon	NA	NA	6.36	20.09	6.04	21.52
Oman	22.96	6.71	6.64	11.01	6.27	11.6
Qatar	11.65	24.89	3.63	29.57	3.54	30.39
Saudi Arabia	14.47	8.3	5.75	11.09	5.9	12.12
Syrian Arab Republic	7.58	3.96	8.07	6.05	7.87	7.38
United Arab Emirates	13.56	27.01	6.05	41.53	5.79	44.21
Yemen	15.29	1.1	8.96	2.31	9.2	2.88

NA: Data not available owing to exceptional situation.

Source: A report on the present status, development trends and future prospects of telecommunications in the ESCWA region, E/ESCWA/TCD/1994/5 June 1994

In ESCWA region as well as in other parts of the developing regions the satellite communication forms the main element in telecommunications development. Satellite communications provide the developing countries with facilities that were not always accessible to a large number of countries in this category and can reach remote parts of a country with the effectiveness and cost that was only available for reaching capitals and cities with conventional systems. All parts of the area covered can receive satellite signal once beamed and in as many locations as required and the channels can be switched from one location to another without incurring costs for additional channels.

Among the regional organizations is the Arab Satellite Communications Organization (ARABSAT) which is providing services in communications for the Arab states and ESCWA member countries contribute more than 84% of its capital and utilize over 83% of its capacity. ARABSAT is now preparing to launch its first communication satellite of the second generation which will have more channels and coverage than the present orbiting satellite. The event is envisaged mid 1996.

At the international level, ESCWA member countries Own over 6 % of the capital of International

III. GENERAL FRAMEWORK OF MULTIMODAL TRANSPORT STRATEGY

The concept of multimodal transport is not very clear for concerned transport authorities in ESCWA region. Before this concept is clearly identified and then accepted its objective and components should be a subject of a familiarization regional and national companion.

The objective of multimodal transport is to assist in coordination of transport operation with view to increasing its efficiency and reducing transport cost at the regional and international levels. This objective is achieved through coordination, facilitation of administrative procedures, improved communications, standardization of documentation and message codes.

The strategy for development of multimodal transport should address itself to the basic components and developments ingredients and specify the priorities in these areas. The priorities in theses areas depend on the local conditions in each region and on the status of the basic factors contributing to transport development in general and multimodal transport in particular.

Agreements and conventions are considered very effective regularity regimes for coordination and facilitation of traffic flows across international borders. For this purpose the convention on the international multimodal transport of goods was concluded in 1980 under the auspices of the United Nations organization. Fourteen years later only six countries became participating parties to the convention. Those countries are Chile, Malawi, Mexico, Morocco, Norway, Rwanda, Senegal, Venezuela and Zambia while India has developed its own rules for multimodal transport operation.

The list of countries participating to the multimodal convention does not include any member in ESCWA region and also no major trading partner with the region is included in that list. How effective the multimodal transport convention would be in developing the system is not very clear as the interest shown by countries did not help in that direction. Therefore, the strategy for multimodal transport development may not consider the convention, as it stands now, as a first priority towards that end.

The development of a new concept requires, as a first step, to familiarize policy makers, the management and all those concerned with the basics of the issue in question. It is not possible to mobilize support of an agreement or convention if the case issue is not well understood and or that the objectives are not seen as closely related to the activities or within the priorities of the policy makers in the concerned country. The convention as a source for regulation and facilitation will not be effective or even adopted unless all the main factors concerning the operation of multimodal transport are recognized and are already developed. An example for this is the facilities for electronic messages which are important part in multimodal transport operation. These messages depend for their transmission on an established system of EDI which in turn depends on a well developed communication network linking established computerization systems in the countries concerned with the multimodal transport chain.

Containerization is a main requirement in transport development in general and in multimodal transport in particular. The container to be an efficient unit of transport has many requirements to be fulfilled. Among those is the availability of container terminals at the main concentration centres meeting ISO Standard and those are mainly in the ports and few developing countries have container terminals outside the port area. The only one known in ESCWA region is the railway container terminal in Riyadh in Saudi Arabia while another one is planned by the Egyptian railways in Cairo Egypt but there are no information on the implementation stages.

ANNEX 1. AVERAGE ANNUAL VARIATION IN THE VALUE OF WORLD MERCHANDISE TRADE, FROM 1988- 1993)

(Millions of US dollars)

	1982	*1988*	*1989*	*1990*	*1991*	*1992*	*1993*
Exports	1851550	1979133	2145217	2465564	2489677	2652376	2639365
Imports	1922231	2079216	2268893	2591455	2562739	2716001	2647541
Developing countries							
Exports	514516	626197	701635	795163	831141	907600	--
Imports	497507	622780	687194	776103	852653	974715	--
China							
Exports	22322	47521	52538	62091	71844	84635	91721
Imports	19292	55264	59140	53345	63791	80315	103943
Developed countries-Europe							
Exports	708469	1232399	1335910	1605526	1574592	1671078	--
Imports	760273	1263748	1381980	1659013	1661312	1735454	--
Former Soviet Union							
Exports	86912	110559	109173	104177	46274	48815	--
Imports	77752	107229	114567	120651	43458	41728	--
ESCWA region							
Exports	135638	67861	88594	103731	89864	99123	--
Imports	98999	67672	67664	72233	74566	87108	--

Source: United Nations Monthly bulletin of statistics, July 1994.

ANNEX 3. ANALYSIS OF WORLD TEU CONTAINER FLEET BY LENGTH (HEIGHT) AND GEOGRAPHICAL REGION

	Europe	*North America*	*Central/South America*	*North Asia*	*South East Asia*	*Mid-East/India*	*Australasia*	*Africa*	*Total*
20 ft (8 ft)	67,129	7,956	2,810	7,225	1,115	407	1,933	1,219	89,794
20 ft (8 ft 6 in)	1,249,420	1,273,749	51,882	524,480	69,445	92,629	32,793	59,161	3,353,559
20 ft (9 ft 6 in)	1,079	701	-	378	80	-	3,331	1,661	7,230
40 ft (8 ft)	1,452	2,828	200	1,400	70	-	-	44	5,994
40 ft (8 ft 6 in)	803,738	1,994,438	43,884	732,602	57,606	112,342	2,248	7,512	3,754,370
40 ft (9 ft 6 in)	126,778	438,424	7,216	186,390	3,850	15,882	600	42	779,182
45 ft (9 ft 6 in)	20,498	52,846	2,200	20,094	1,125	-	-	-	96,763
48 ft (9 ft 6 in)	-	138,180	-	-	-	-	-	-	138,180
53 ft (9 ft 6 in)	-	15,595	-	-	-	-	-	-	15,595
Other*	55,936	37,911	69	675	30	5	1,550	1,550	98,765
Total	2,326,030	3,962,628	108,261	1,473,244	133,321	221,265	71,189	71,189	8,339,432

* Includes all platform flat/half and non-categorized lengths.

ANNEX 5. ANALYSIS OF WORLD TEU CONTAINER FLEET BY OWNERSHIP/SUMMARIZED TYPE AND GEOGRAPHICAL REGION

		Europe	*North America*	*Central/South America*	*North Asia*	*South East Asia*	*Mid-East/India*	*Australasia*	*Africa*	*Total*
Dry Freight Standard	Carrier	1,216,110	496,981	91,195	1,325,005	122,468	202,012	17,260	50,413	3,521,444
	Lessor	391,364	2,921,109	-	27,500	-	1,000	3,284	-	3,344,257
	Other	170,259	15,722	553	8,800	2,280	50	1,650	6,673	205,987
	Total	1,777,733	3,433,812	91,748	1,361,305	124,748	203,062	22,194	57,086	7,071,688
Dry Freight Special	Carrier	136,585	41,037	1,966	28,666	3,270	9,539	5,287	7,533	233,883
	Lessor	136,344	183,680	-	-	-	-	4,216	-	324,240
	Other	35,897	53,566	-	1,745	1,000	-	3,009	1,947	97,164
	Total	308,826	278,283	1,966	30,411	4,270	9,539	12,512	9,480	655,287
Refer/ Tank	Carrier	139,078	89,055	13,958	78,288	3,703	8,614	5,208	4,075	341,979
	Lessor	74,106	147,406	-	1,700	-	-	1,636	-	224,848
	Other	26,287	14,072	589	1,540	600	50	1,944	548	45,630
	Total	239,471	250,533	14,547	81,528	4,303	8,664	8,788	4,623	612,457
Total	Carrier	1,491,773	627,073	107,119	1,431,959	129,441	220,165	27,755	62,021	4,097,306
	Lessor	601,814	3,252,195	-	29,200	-	1,000	9,136	-	3,893,345
	Other	232,443	83,360	1,142	12,082	3,880	100	6,603	9,168	348,781
	Total	2,326,030	3,962,628	108,261	1,473,244	133,321	221,265	43,494	71,189	8,339,432

Convention	*Date of signature*	*Signatories*
Convention on a code of Conduct for Liner Conferences	6 April 1974	Algeria, Bangledesh, Barbados, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chile, China, Congo, Costa Rica, Cote d'Ivoire, Cuba, Czech Republic, Denmark, Ecuador, Egypt, Ethiopia, Finland, France, Gabon, Gambia, Gerrmany, Ghana, Guatamala, Guinea, Guyana, Honduras, India, Indonesia, Iran, Iraq, Italy, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Madagascar, Malaysia, Mali, Mauritania, Mauritius, Mexico, Morocco, Mozambique, Netherlands, Niger, Nigeria, Norway, Pakistan, Peru, Philippines, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, Somalia, Sri Lanka, Sudan, Sweden, Togo, Trindad and Tobago, Tunisia, Turkey, United Kingdom, United Republic of Tanzania, Uruguay, Venezuela, Yugoslavia, Zaire, Zambia.
United Nations Convention on the Carriage of Goods by Sea, 1978	31 March 1978	Austria, Barbados, Bostwana, Brazil, Burkina Faso, Cameroon, Chile, Czech Republic, Denmark, Ecuador, Egypt, FInalnd, France, Germany, Ghana, Guinea, Holy See, Hungary, Kenya, Lebanon, Lesotho, Madagascar, Malawi, Mexico, Morocco, Nigeria, Norway, Pakistan, Panama, Philippines, Portugal, Romania, Senegal, Sierra Leone, Singapore, Slovakia, Sweden, Tunisia, Uganda, United Republic of Tanzania, United States of America, Venezuela, Zaire, Zambia.
United Nations Convention on Conditions for Registration of Ships	7 February 1986	Algeria, Bolivia, Cameroon, Cote d'Ivoire, Czech Republic, Egypt, Ghana, Haiti, Hungary, Indonesia, Iraq, Libyan Arab Jamahiriya, Mexico, Morocco, Oman, Poland, Russian Federation, Senegal, Slovakia.