CURRENT DATA AND CONDITIONS AND FUTURE PRIORITIES OF THE PALESTINIAN FREIGHT TRANSPORT

Khaled Al-Sahili*
Associate Professor, Civil Engineering Department
Construction and Transportation Research Center
An-Najah National University
Nablus, Palestine
Tel: 972-92345113
Fax: 972-92387982
alsahili@najah.edu

Sameer Abu-Eisheh
Professor, Civil Engineering Department
An-Najah National University
Nablus, Palestine
Tel: 972-92345113
Fax: 972-92387982
sameeraa@najah.edu

Submitted to

The TRB 85th Annual Meeting

January 22–26, 2006

Re-submitted on November 20, 2005

Word Count: 5327 words (excluding abstract) + 6 Tables + 2 Figures (7309 words total)

* Corresponding Author

CURRENT DATA AND CONDITIONS AND FUTURE PRIORITIES OF THE PALESTINIAN FREIGHT TRANSPORT

Khaled Al-Sahili and Sameer Abu-Eisheh

ABSTRACT

This paper presents part of the findings of the World Bank sponsored study updating conditions of the transport sector in the Palestinian territories. This study focuses on freight transport; conditions and needed development programs to enable it to play its role in the economy of the upcoming Palestinian state. Freight transport is currently road-based and fully privatized. The number of operating vehicles increased drastically after establishing the Palestinian National Authority. However, due to the current political conditions, which resulted in travel restrictions and road closures by the Israeli authorities, this number sharply declined and some freight companies closed operation. Sizeable percentages of operating vehicles and companies did not renew their registrations because of lack of enforcement and the economic depression. The Israeli imposed measures increased travel distances, time, and costs; therefore, freight transport experienced loss or severe decline in services. Israel controls border points within the West Bank and Gaza Strip, with Israel, and the outside world. Travel between the West Bank and Gaza Strip, which has the only Palestinian airport and the under-construction seaport, is severely restricted. The paper concludes that the priorities are facilitating freight travel within the West Bank and across Gaza Strip, eliminating road closures and movement restrictions, constructing freight land border-crossings, establishing the free-trade area, and assisting in the consolidation of freight services because it is mainly done by the informal sector. There should be a comprehensive study to evaluate the inter-modal freight transport, at the verge of establishing the Palestinian state.

1. BACKGROUND AND INTRODUCTION

The Palestinian territories are currently divided into two main parts, the West Bank and Gaza Strip. Over the last thirty-five years of occupation, the comprehensive transport system in the West Bank and Gaza Strip was ignored.

After the eruption of the Palestinian Uprising (Intifada) in September 2000, the Israeli authorities imposed several measures on Palestinian travel for claimed security reasons. Various types of roadblocks were erected surrounding many cities, towns, and villages and on main rural roads. In November 2004, movement from one locality to another in the West Bank was controlled by a network of 674 obstacles (checkpoints, roadblocks, road gates, earth mounds, earth walls, and trenches, in addition to observation towers and the use of "flying checkpoints"). According to the Israeli organization B'Tselem, Palestinians could not use 732 kilometers on 41 West Bank roads because they are completely or partially closed to Palestinians, require a special permit, or are partially restricted (2).

Inter-city travelers and those obliged to cross many of the road blocks have to change vehicles several times before reaching their destinations, and they have to walk across such roadblocks, where they are checked and delayed by the Israeli soldiers. Trip travel time and cost are becoming much higher than before. Deterioration of vehicles and roads increased at a high rate (3). In many instances, Palestinians were forced to use alternate routes to avoid these roadblocks. The new routes were mostly on lower class roads and, many times, on narrow dirt roads that are not adequate for travel (unpaved). As a result, the total direct and indirect transportation costs, trip time and distance, and freight vehicles depreciation rate increased, as explained later (3).

Because of these travel restrictions and measures where products have to be unloaded and loaded again at several stations (roadblocks), a large quantity of Palestinian products, especially agricultural and food products were damaged. The economic establishments, including freight transport, faced major problems in their work because of the Israeli measures. Some of them had problems on obtaining raw materials and inputs, and others in shipping goods and marketing (4). The details of these impacts are explained in a later section in this paper.

Due to its underdeveloped status, the transportation sector contribution to the gross domestic product (GDP) of the Palestinian territories is limited, as it accounted for 4.2% of the GDP in the West Bank (not including Jerusalem) and Gaza Strip in 2000, which is on the low level compared to the contributions of the other sectors. For example, the services sector contributed to the GDP by 23.8%, public administration by 15.8%, by agriculture 10.3%, 10.2% by manufacturing, and 9.2% for wholesale retail trade. This is despite the observed trend of gradual increase of the share of the transport sector in the GDP, as the share was 3.4% in 1995, and 3.9% in 1997 and 5.8% of the GDP in 1998 (1). Although the GDP of the Palestinian territories has been slightly improving, transportation infrastructure investment is still low compared to other developing countries.

The transport sector employed about 9.4% of total persons employed in the service sector in the Palestinian territories in 2002, which was the lowest employing sector among the services sectors (5). The number of persons engaged in the transport sector dropped by 40% in 2002 compared to 2000, just before the beginning of the Palestinian *Intifada*. The share of the employed persons in the transport sector was estimated at 4% of the total labor force in the Palestinian territories in 1995, but this percentage was slightly decreasing over the years in both the West Bank and Gaza Strip (1). The total number of enterprises working in land transport sector was 190 in 2002 (5).

2. OBJECTIVES AND METHODOLOGY

This paper focuses on the freight sub-sector of the transport sector. Its purpose is to analyze the current conditions of the freight sub-sector in the Palestinian territories, impact of current political conditions and measures on the freight transport, and challenges. This assessment will help formulate strategies for future assistance and intervention to respond to the needs of this sub-sector. Such assessment would lead to identifying developmental objectives and sectoral priorities. The study outlines the freight developmental program priorities for the coming five years.

A simple methodology was followed in this paper, where the evaluation of current conditions and challenges was based on current data, indicators, surveys, and studies obtained from official and non-official sources, as well as field observations and interviews with officials. Based on the analysis, key issues were identified. Based on these analyses and the review of official development plan, the priorities of a development program for the Palestinian freight transportation were outlined.

3. DESCRIPTION OF FREIGHT AND COMMERCIAL TRANSPORT

Freight transport, referred to as "trucking industry", in the Palestinian territories is road-based. Freight is carried by means of light and heavy trucks with 2 and 3 axles. Trailers, articulated trucks, and special purpose trucks are rarely used.

The freight transport in the Palestinian areas is fully privatized. Vehicles are owned and operated by individuals or companies. Freight routes are not fixed or regulated. The Ministry of Transport (MOT) recently started regulating the transport of hazardous material. There is no enforcement of maximum weights. A high percentage of vehicles is old; about 20 years old or even more (6).

By 1998, there were about 22,000 and 8,000 trucks registered in the West Bank and Gaza Strip, respectively (1). In 2001, the number of licensed trailers/semi-trailers in the Palestinian territories was 386, with the vast majority in Gaza Strip. The number of trucks in the Palestinian territories was 22,829, with a majority in the West Bank. There were 438 newly registered trucks in the West Bank, while there was no new registration of trailers/semi-trailers. In addition, there were approximately 900 vehicles operating in a non-legal freight transport (7).

In 2002, the number of licensed trailers/semi-trailers and trucks dropped in the West Bank; however, increased in Gaza Strip. In the West Bank, there were 384 newly registered trucks and no new registered trailers/semi-trailers. In Gaza Strip, new registration of freight transport vehicles increased compared to 2001 (8).

The number of enterprises working in freight transport in the Palestinian territories was 33 in year 2000 (8) and 35 in 2002 (9). Records of the Ministry of National Economy showed that there were only 14 officially registered freight transport companies in the Palestinian territories in 2003; 10 companies in the West Bank and 4 in Gaza Strip (10). Several companies went out of business or froze their operations mainly because of the travel restrictions imposed by the Israelis. In addition, there are several small companies or individuals that provide freight transport services and are not registered. Some others have registered in Israel to be able to benefit from moving across the Israeli check points in the West Bank and going to/coming from Israel. Therefore, there are so many operating freight vehicles and fewer firms.

The number of operating vehicles in freight transport increased by 25% during the period of 1995-1998 (1). This was the period just following the establishment of the Palestinian National Authority (PNA) in the Palestinian territories, where economic activities did well. Therefore, there was a good demand for transporting goods. Between the period of

2000 and 2001, the number of licensed freight transport slightly increased (by 3.7%). However, this number declined in 2002 in the West Bank, while it increased at a normal rate in Gaza Strip (7). This decrease in the number of licensed freight vehicles was a result of Israeli invasion to Palestinian cities and the absence of various working bodies of the PNA. Table 1 shows the number of licensed vehicles used in freight transport.

Records of the MOT showed that the total number of vehicles operating in freight transport in 2003 (whether registered or did not renew registration) was 23 732, and 11,440 of which were in the West Bank (6).

The drop in the number of vehicles and companies in the freight industry in the West Bank in the last few years was mainly due to constraints of imposed road closures and declining economy. There were companies and individuals that ran out of business in the freight industry.

The percentages of officially registered commercial vehicles out of total commercial vehicles that are operating in the West Bank decreased continuously between 2000 and 2002, and slightly increased in 2003 (6). The primary reason for the decrease is the absence of executive and enforcing bodies of the PNA and declining economy because of the on-going political conditions, in addition to the drop in the economic activities associated with the crisis, as mentioned before. However, by year 2003, the percentages started to increase because of the partial presence of the PNA bodies in the West Bank. Figure 1 shows a summary of these percentages.

4. CURRENT LOGISTICS, KEY DESTINATIONS, AND TRADES

Palestinian trade is through borders controlled by Israel. International trade with Israel, Jordan, and Egypt is through land border crossings. Palestinian international trade to European, Asian, and American countries is currently through Israeli airports and seaports. The only Palestinian airport is Gaza International Airport, which is currently not operational because of the current political crisis. Trade commodities through the Israeli airport and seaports must use the Palestinian-Israeli land crossings first. Almost 99% of the Palestinian imports are through land. The PNA has some control over the type of products, taxation, and limited control over border crossings with Israel. The Israelis have full control over borders with the PNA and international borders.

The volume and type of products and the logistics of transporting imports/exports to and from the Palestinian territories are regulated by the Israeli authorities. Some of these regulations frequently caused delays, more costs, disruptions, and damages to these products because of the enforced loading and unloading at border crossings with Israel or other neighboring countries. Existing facilities for border crossings into Israel have not been planned with trade facilitation in mind. Instead, with security the paramount consideration, ad hoc agglomerations of parking, and inspection facilities have developed. Long handling delays are some-times incurred for Palestinian cargo arriving at the Israeli ports; these are related to procedures rather than security. Palestinian shipments to and through Israel encounter significant costs. Truck operating costs are high because the use of both Palestinian and Israeli trucks is mandated by the back-to-back system, because of difficulties in obtaining return cargoes to Israel, and because equipment and drivers are kept for extended periods at border crossings (2).

Under normal political conditions, the Palestinian economy has the potential to gradually increase its exports and decrease its imports (1). However, to achieve this objective, Palestinians must have adequate access to the regional and international markets by means of air, sea, and land modes of transport. An integral transport system is essential.

For exports through Israeli gateways, the costs associated with the border crossing exceed the costs of truck transport (2).Trade for Palestine generally increased between 1995 and 2000 (11). The net trade balance decreased up to 2002 (10). The summary of trade for Palestine between 1995 and 2002 is shown in Table 2. Manufactured goods and materials had the largest share of commodities flowing (export and imports), followed by food and animals. Mineral fuels and chemical related materials were the third on the list of imported products.

Israel remained the main trade partner for the PNA over the years. The export to Israel was about 94% of the total Palestinian export in 1996, increased to approximately 97% in 1999, then decreased to approximately 92% in 2000 and, because of the continued bad political relations between Israel and the PNA, further decreased to less than 90% in 2002. Export to Arab countries was approximately 5% in 1996, decreased to approximately 3% in 1999, increased to 7% in 2000, and reached 6% in 2002. The share of American, European, and Asian countries of the Palestinian's export was no more than 1%.

Israel was also the main source of imports for Palestine with approximately 86% of Palestinian imports in 1996, and then decreased to approximately 73% in 2000 and 74% in 2002. European and Asian countries were the second and third sources of imports, respectively. Arab countries shared less than 2% in 1996 up to 2002. Table 3 shows a summary of the values of the imports and exports.

Because of this trade pattern, Israel accounts for a high percentage of negative trade balance for the Palestinian territories, which is an indication of the dependence of the Palestinian economy on Israel. However, this negative trade balance is decreasing because of the increased share of the Asian and European countries in the last years.

The majority of export/import is through border crossings of the West Bank compared to Gaza Strip. Exports from the West Bank are much higher than Gaza Strip because of its higher industrial and manufacturing capacity as well as the availability of raw materials and natural resources (1). Table 4 shows the Palestinian trade by border crossing between 1996 and 2000. Detailed data beyond 2000 was not available at the time of preparing this study.

Exports to neighboring Arab countries, mainly Jordan, is through Prince Mohammad/Damiah border crossing, and was allowed through King Hussein/Allenby Bridge in 1997. Imports from Jordan are through King Hussein/Allenby Bridge (1), as shown in Figure 2. All Palestinian export and import border points are subject to Israeli control. Israel specified such locations and the type of activity at these locations. Therefore, certain locations were specified for either imports or exports. The selection of these locations for specific trade activity may also change over the years. As a result, certain border crossings may have no import or export, as shown in Table 4.

Trade development scenarios for the Palestinian territories were presented for year 2010 by the World Bank report (1). These scenarios are shown in Table 5. Based on these scenarios, exports formed only about 5% of the total Palestinian trade by ton with the listed countries; the rest (95%) were imports. The highest trade volume is with Israel, which shows the dependence of the Palestinian economy on Israel.

The scenario estimates that in 2010, freight traffic of imports would increase by 11% to Israel and by 33% to Jordan. However, political conditions of the area, such as the phased Israeli withdrawal from Gaza Strip and the West Bank, will dictate the achievement of this progress.

5. IMPACT OF CURRENT CONDITIONS ON FREIGHT TRANSPORT

As indicated earlier, the current political conditions were associated with road closures, travel restriction, and travel delays, which started after the eruption of the Intifada in September 2000. For the freight transport sub-sector, these meant loss or severe decline in services.

Surveys have shown a decline in the number of people working in the transport sector by 40%, especially employees of the freight transport (5). Production in this sector dropped by 70% in 2002 compared to 2000.

Travel restrictions resulted in damages to a large quantity of Palestinian products, especially agricultural and food products. The cost of transporting goods also increased because products have to be unloaded and loaded again at several stations. Demand for freight transport decreased because imports from Israel decreased. Freight vehicles depreciation rate has also increased because vehicle have frequently used alternate routes of unpaved and low quality roads to avoid roadblocks. The total estimated losses in the freight transport between October 2000 and September 2002 was $1 billion (5).

Between the period of October 2000 and June 2001, the distance traveled by freight transport vehicles from origins in the West Bank and Gaza Strip increased considerably as follows: 35% to Israeli border points, 16% to Rafah crossing, and 47% to Damiah Bridge. The travel time to domestic market increased by an average of 208%, to border points with Israel by 123%, through Rafah by 475%, and through Damiah Bridge by 84%. The time spent on borders increased by 242% in Rafah, 778% at Damiah Bridge, and by an average of 245% in border points between the Palestinian territories and Israel (12).

The transport cost per shipment had also increased by 82% within domestic market, by 84% on shipments from Gaza to Rafah, and 423% on shipments transported across Damiah Bridge. Transport costs on shipments across Israeli border points had also risen by 69%. The percentage of damaged goods was highest in the case of goods imported through Rafah (17.5%), followed by Haifa port (16.4%) (12). A summary of impacts of the political conditions on transport cost and mobility is presented in Table 6.

In a survey on the perception of the owners/managers of the economic establishments, including freight transport, towards the economic conditions, they reported facing major problems in their work because of the Israeli measures (4). Some of them had problems on obtaining raw materials and inputs (26.1% of the respondents), and others in shipping goods and marketing (17.7%).

The Office United Nations Special Coordinator (UNSCO) estimated that exports and imports precipitously declined in the first half of 2002, due to demand- and supply-related reasons predominantly resulting from closure (13). Both exports and imports declined by approximately 30% in US dollar value compared to year 1999. In Gaza, average monthly imported truckloads for the first six months of 2002 were 15% lower than they were for the same period of 2001. Average monthly exports in the first six months of 2002 were 60% less than they were for the same period of 2001. The period April 2001 to March 2002 constitutes the lowest number of exported truckloads in any year since UNSCO began tracking this data in 1997.

The external trade was badly affected by the conditions of siege and road closures imposed on the Palestinian territories; especially because a great portion of this trade is with Israel. These condition worsened gradually; the worst was in the summer of 2002 (10). This was clearly reflected by the sharp decline in imports from Israel. For example, Israeli imports in the first quarter of 2003 were 44% of the imports for the same period of 2000; before the Intifada (10).

Exports also declined; exports in the first quarter of 2003 were 51% of the original exports in 2000. The main reasons for this decline were the increase in transportation cost, diversion of foreign buyers to other sources, and the switch of Palestinian producers to local service market (10).

The internal market was also affected by the road closure policy. Survey data obtained in 2001 showed that utilization of production capacity in the industrial sector decreased from an average of 78% to 33% of total capacity due to the closure policies. Manufacturers reported increases in transportation costs, because routes became much longer, more difficult to traverse, and caused greater damage to vehicles. The consumer price index (CPI) for transportation showed a continuous rise, increasing by 23% between June 2001 and June 2002. In the severely impacted West Bank, it increased by almost 33% between June 2001 and June 2002. In Gaza, this has limited internal closure, the same price component increased by less than 4 % (13).

6. REVIVAL OF THE PALESTINIAN TRADE AND FREIGHT TRANSPORT

It is believed that the Palestinian freight transport has the correct formula; the industry is fully privatized and has the potential to grow and contribute to the Palestinian economy, as this industry did since the establishment of the PNA in 1994. However, travel restrictions and logistical restrictions imposed by the Israeli authority since the beginning of the current political crisis were the main obstacles and caused serious damage to this industry and the Palestinian economy. For the Palestinians, the greatest potential for economic growth lies in trade (2). This trade includes not only the primary exchange of goods and services with Israel, but also trade with its neighboring countries, Egypt and Jordan, and with other countries. Efficient and reliable trade logistics are a prerequisite, however, if Palestinian producers are to be able to compete in regional and global markets.

A number of measures can be taken to maintain or even enhance Israeli security while greatly improving cross-border cargo management. The construction of properly designed modern terminals and the use of security technology and proper administrative procedures can permit the orderly flow of cargo and the maintenance of security. Where trade routes cross customs borders, customs procedures need to be integrated with security screening.

Given the need for planning and coordination, piloting some changes with a view to scaling them up based on experience may be appropriate. In this respect, a realistic timeline should be developed between relevant parties (PNA, Israel, international community) for implementing these measures as rapidly as possible.

On the Palestinian side, the management and operations of the freight industry should be reevaluated, as there are so many small companies and individuals providing freight services and many of them are not registered. The number of registered and large size firms is limited, as indicated earlier. However, these issues should be thoroughly evaluated by the PNA to reach at the most appropriate formula for the Palestinian conditions.

Palestinian customs should once again assume responsibility for clearing cargo and collecting custom duties at the external borders of Gaza and the West Bank. If Palestinian exporters are to become more competitive, they should also benefit from direct access to the outside world. A World Bank study suggested a Roll-On, Roll-Off facility and a helicopter service in Gaza as interim solutions pending the construction of the Gaza seaport and refurbishment of the airport (2).

7. KEY ISSUES OF THE FREIGHT TRANSPORT

Based on the previous analysis and review of Palestinian development plans, the followings are some of the key issues facing the Palestinian freight transport.

- There are severe restrictions on the movement of passengers and goods between the Palestinian communities, between the West Bank and Gaza Strip, and between the Palestinian territories and the outside world. The impacts of these measures, which were intensified since the start of the Intifada, include limiting mobility and accessibility, increasing travel time and cost, restricting the transportation of agricultural, industrial, construction materials, and imports and exports. Palestinians have been frequently forbidden from using considerable sections of the main and regional road networks, as well as the bypass roads. International flights were stopped from and to Gaza International Airport (GIA) since the start of the Intifada, while movement across the border crossings to Jordan and Egypt has been frequently restricted. However, after the Israeli withdrawal from Gaza Strip in August 2005, new freight activities are expected to develop between Gaza Strip and Egypt.

- There is still no linkage or free passage between the West Bank with Gaza Strip. This is a key national issue, where connecting the two physically separated parts of the Palestinian territories via a transportation corridor would lead to their integration, lead to a self-dependant transportation system, facilitate flow of people and goods, and enhance economic development of the Palestinian territories. The only Palestinian airport and the future seaport, both are located in Gaza Strip and considered as gates to the outside world and markets, are not accessible to the Palestinian living in the West Bank.
- The current conditions of road closures, travel restrictions, and trade restrictions are obstacles towards a healthy Palestinian trade. These restrictions limited the level of private business investment. The uncertainty about access to markets, equipment, and material reduced the willingness of local or foreign investors to invest in the Palestinian territories.
- There is considerable damage to the various components of the transportation sector as a result of Israeli military actions including GIA and facilities and installations of the seaport, which was under construction. These facilities have to be repaired or replaced to mobilize the Palestinian international freight transport through them.
- Coordination between the components of the transportation sector and inter-modal transportation is lagging. Furthermore, no proper road infrastructure is present within Gaza Strip that connects the road network with the airport, future seaport, border crossings, and planned free-trade zones.
- The current border crossings for Palestinian freight are through Israel or controlled by Israel. This carries additional travel and shipping cost and fees for intermediaries, agents, and vehicle. Furthermore, losses due to damages of products add to the product cost. The trade through Palestinian air and sea carries a lot of growth potential for Palestinian international trade. The proper infrastructure and services would greatly facilitate the competitive edge for the Palestinian economy.
- The current Palestinian trade is dependent on Israel. A very high percentage of Palestinian trade is with Israel. The Israeli market will remain crucial for the Palestinian economy for the short and medium terms. Palestinians increased trade with Asian countries in the last few years. On the long-term strategy, Palestinian economy should seek out new export/import markets.
- The Palestinian seaport in Gaza Strip is under development and the airport was functional before the Intifada. These are two major hubs for freight activities, especially for foreign trade. These two locations could play a major role in the regional trade activity in the Middle East. Links of these two hubs to major commercial centers in the West Bank and Gaza Strip are essential for the success of the regional and international trade through these border points. However, truck routes are not fully designated or equipped to handle future freight traffic to these locations. Therefore, there should be a comprehensive study to evaluate the availability and suitability of available routes to the airport and seaport.

8. CONCLUSIONS AND PRIORITIES OF THE PALESTINIAN FREIGHT TRANSPORT

The general conclusion is that the Palestinian freight sub-sector suffers from a set of obstacles. The main issue is road closures and travel restrictions, and border crossings. These obstacles adversely affect freight transport from playing its intended role in the Palestinian economy and its future statehood. The rest of conclusions are presented here in terms of priorities for this sub-sector that were derived based on the analysis of available data and review of the Palestinian development plan (14).

The suggestion of the components to be included in the transport sector developmental program would require the identification of priorities, which should lead to the arrival at an anticipated output that will contribute to the satisfaction of the goals and objectives. The constraints on development should be taken into account while identifying priorities.

First, criteria used to prioritize proposals and projects include the consistency with agreed upon sector strategies and the regional plans for the West Bank and Gaza Strip prepared by Ministry of Planning and International Cooperation, and the likely technical, economic, and financial feasibility. The approach followed in this study was to discuss the priorities criteria with each of the institutions, so the priorities considered in the study have mainly come from the agencies involved in the freight transport sector. These priorities are highlighted as follows.

- Priority is to be given to facilitate freight travel within the West Bank and across Gaza Strip, where efforts should be made to eliminate the road closures and movement restrictions, which restrict the ability of the Palestinian freight transport to serve the Palestinian economy. The new condition after the Israeli withdrawal from Gaza Strip is expected to create a new environment for freight transport; therefore, should be taken into considerations. The vital West Bank-Gaza Corridor is expected to be constructed at the start of the statehood.
- The construction of freight land border-crossings, as international trade is done currently through Israel or controlled by Israel. The trade through Palestinian air and sea must be encouraged as well will in order to improve growth potential for the freight industry and the Palestinian international trade. Links of the seaport and airport to major commercial centers in the West Bank and Gaza Strip are essential. Therefore, there should be a comprehensive study to evaluate the availability and suitability of available routes to the airport and seaport.
- Improving the Palestinian freight industry (trade) is mutually beneficial for Israel and the PNA, as the Israeli economy also suffered from the imposed constraints during the current political conditions. What is required, and what is possible today, is a systematic rethinking of the balance between security and trade facilitation through the design of border crossing facilities, the use of security technologies, and the adoption and monitoring of new management procedures.
- Efforts should be directed to evaluate the consolidation of freight services. The majority of the freight industry is done by the informal sector, which is characterized as small scale and unregulated. There are limited numbers of registered companies providing freight services in the Palestinian territories. Based on international experiences, the freight services should generally be consolidated into larger and more organized establishments. This should be associated with a proper training for managers and operators to improve their managerial skills of an organized freight industry.
- Inter-modal freight transport should be well studied and encouraged. The freight

industry service relies on land, air, and water transport systems. An efficient international and regional freight industry is a function of a strategic planning of the land, air, and water transport systems within a logistic chain aiming at integrating these components. The inter-modal transport system of these three means and its connection to a potential free-trade zone carries a high growth for the freight industry, the Palestinian transport system, and the economy.

- As the freight industry is required to play its role in the Palestinian economy, assistance is suggested to be given to update its fleet as newer model vehicles should be used as well as to introduce trailer transportation. Vehicles in the freight industry are generally characterized as old, especially trucks providing services through the Jordanian borders. This will improve safety and efficiency of the freight services.
- The previously presented conditions and lessons derived from the economic impact on the transport industry of political unrest areas leading to limited cooperation between neighbors (the Palestinian-Israeli case) could be appropriately related to situations where a lack of cooperation between countries makes border crossings difficult.

ACKNOWLEDGMENT

The authors wish to acknowledge the support of World Bank to conduct the original study on the assessment of the transport sector in the West Bank and Gaza Strip. They also wish to thank the officials of the involved Palestinian ministries and institutions for cooperation throughout the preparation of the study.

REFERENCES

1. The World Bank. *West Bank and Gaza Strip Transport Sector Study*. The World Bank, Palestine, 2000.
2. The World Bank. *Stagnation of Revival. Israeli Disengagement and the Palestinian Economic Prospects-Border and Trade Logistics*. December 2004.
3. Abu-Eisheh, S. and Al-Sahili, K. *Infrastructure Assessment in the West Bank and Gaza: Transport Sector Assessment,* Universal Group for Engineering and Consulting. Submitted to the World Bank, Jerusalem, 2004.
4. Palestinian Central Bureau of Statistics (PCBS). *Perception of the Owners/Managers of the Economic Establishments about the Economic Conditions. Fifth Round of the Survey, 7/2/2004-17/2/2004*. Ramallah, 2004.
5. El-Jafari, M., Makhool, B., Lafi, D., and Atyani, N. *Palestinian Service Sector and Its Role in Economic Development.* Palestine Economic Policy Research Institute, Ramallah, 2003.
6. Ministry of Transport. *Registered Vehicles in the West Bank*, Unpublished Records. Ramallah, Palestine, 2004.
7. Palestinian Central Bureau of Statistics (PCBS) Home Page, Selected Statistics, Ramallah.
   www.pcbs.org. Accessed April 15, 2004.
8. Palestinian Central Bureau of Statistics. *Economic Survey Series – Transport, Storage, and Communication Survey; the Formal Sector: 2000 - Main Results.* Ramallah, 2002.
9. Palestinian Central Bureau of Statistics. *Palestinian Exports in 2001 and 2002. PCBS Dissemination & Documentation Department, Division of Users Services.* Ramallah, 2003.
10. Ministry of National Economy. Unpublished Records. Ramallah, Palestine, 2004.

11. Palestinian Central Bureau of Statistics. *Foreign Trade Statistics, Main Statistics - 2000*. Ramallah, 2002.
12. Awartani, H. Transport Impact on Cost of Goods and People Mobility. Center for Private Sector Development. Unpublished Paper. Nablus, Palestine, 2001.
13. Office of the United Nations Special Coordinator. *The Impact of Closure and Other Mobility Restrictions on Palestinian Productive Activities, 1 January 2002 - 30 June 2002*. Jerusalem, 2002.
14. Palestinian Authority. *Palestinian Development Plan 1999-2003.* Ramallah, Palestine, 1999.

LIST OF TABLES AND FIGURES

List of Tables

List of Figures

TABLE 1 Number of Freight Transport Vehicles (1995-2002)

Year	Type of Vehicle	Palestinian Territories	West Bank	Gaza Strip
1995(1)	Trucks and Commercial Vehicles	25,225	18,599	6,626
1998(1)	Trucks and Commercial Vehicles	31,609	23,686	7,923
2000(2)	Trailers and Semi-Trailers	559	206	353
	Trucks and Commercial Vehicles	21,810	13,310	8,500
	Total	**22,369**	**13,516**	**8,853**
2001(2)	Trailers and Semi-Trailers	386	20	366
	Trucks and Commercial Vehicles	22,829	14,117	8,712
	Total	**23,215**	**14,137**	**9,078**
2002(2)	Trailers and Semi-Trailers	404	19	385
	Trucks and Commercial Vehicles	19,451	10,495	8,956
	Total	**19,855**	**10,514**	**9,341**

(1) The numbers of freight vehicles are the actual number of operating vehicles, whether they are licensed or not. Trailers and semi-trailers are included.

(2) The numbers of freight vehicles are the number of licensed vehicles only.

Sources: References (6), (7), and (8)

TABLE 2 Total Trade Value for Palestine in Million US Dollar (1995-2002)

Year	Total Value of Imports	Total Value of Exports	Net Trade Balance	Trade Transaction (in thousands)
1995	1,658	394	-1,264	2,052
1996	2,016	339	-1,676	2,356
1997	2,239	382	-1,856	2,621
1998	2,375	395	-1,980	2,770
1999	3,007	372	-2,635	3,379
2000	2,383	401	-1,982	2,784
2001	2,034	290	-1,744	N/A
2002	1,516	241	1,275	N/A

N/A: Final information was not available (under preparation) at the time of preparing this report.
Sources: References (8) and (9)

TABLE 3 Palestinian Trade by Country Group in Million US Dollars (1996-2002)

Region	Imports					Exports				
	1996	**1999**	**2000**	**2001**	**2002**	**1996**	**1999**	**2000**	**2001**	**2002**
American	28.9	90.4	58.1	52.0	8.0	0.8	0.3	0.07	0.1	0.2
Arab	26.5	81.1	39.7	37.0	31.0	19.1	9.6	29.1	15.0	15.0
European Union	147.0	484.6	263.6	359.0	161.0	0.2	1.5	1.7	2.6	8.0
Eastern Europe	6.5	29.5	26.8	N/A	N/A	0.0	0.0	0.0	0.03	0.0
Israel	1,619.3	1,853.6	1,739.5	1,352.0	1,117.0	319.0	360.5	369.7	273.0	216.0
Asian	60.5	432.0	218.8	N/A	N/A	0.3	0.007	0.3	0.03	0.0
Others	125.3	35.9	36.3	234.0(1)	199.0(1)	0.01	0.2	0.0	0.0	0.0
Total	**1,892.6**	**3,007.2**	**2,382.8**	**2,034.0**	**1,516.0**	**339.5**	**372.1**	**400.9**	**290.8**	**239.2**

(1) Import values from European and Asian countries are included within the other countries.
Source: References (1), (8), and (9)

TABLE 4 Palestinian Trade by Border Crossing in Thousand US Dollars (1996-2000)

Border Crossing	Export			Import		
	1996	1999	2000	1996	1999	2000
West Bank						
Prince Mohammad/Damiah Bridge	19,262	11,686	9,996	0	0	0
King Hussein/ Allenby Bridge	0	0	0	0	6,726	26,014
West Bank-Israel Crossings	287,068	318,702	313,103	1,264,282	2,107,810	1,564,874
Sub-Total	**306,330**	**330,388**	**323,099**	**1,264,282**	**2,114,536**	**1,590,888**
Gaza Strip						
Al-Qararah/ Sufa	0	0	0	9,961	6,819	4,352
Beit Hanun/ Erez	20,884	0	0	375,084	162,928	69,309
Al-Montar/ Karni	12,253	41,760	59,017	154,020	473,698	459,527
Al-Shijaiyah/ Nahal Auz	0	0	0	74,228	4,728	0
Rafah	0	0	0	15,023	23,889	4,317
Sub-Total	**33,137**	**41,760**	**59,017**	**628,316**	**672,062**	**537,505**
Total*	**339,467**	**372,148**	**400,857**	**1,892,598**	**3,007,227**	**2,382,807**

* Total values include water, electricity, and petroleum products for Gaza Strip only.

Sources: References (1) and (8)

TABLE 5 Regional Trade (in tons)

Destination	Origin (1994)				Origin (2010)			
	Jordan	**Egypt**	**Israel**	**Palestine**	**Jordan**	**Egypt**	**Israel**	**Palestine**
Egypt	13812	-	12698	2	59137	-	550502	2546
Israel	-	1582932	-	53689	240653	2229947	-	60168
Jordan	-	44244	-	20583	-	661364	209430	27853
Palestine	508	2414	1471882	-	120101	206460	1415110	-

Source: Reference (1)

TABLE 6 Transport Impact on Cost of Goods and People Mobility (June 2001)

Measure	Region	%Increase
Traveled Distance	From Firm to Israeli Border	35
	Rafah	16
	Damiah Bridge	47
Travel Time	To Local Market	208
	To Border With Israel	123
	Rafah	473
	Damiah Bridge	84
Time Spent On Borders	Rafah	242
	Damiah Bridge	778
	Borders With Israel	245
Transport Cost	At Borders With Israel	69
Goods Damage	Imported Through Rafah	17.5
	Imported Through Haifa Port	16.4

Source: Reference (12)

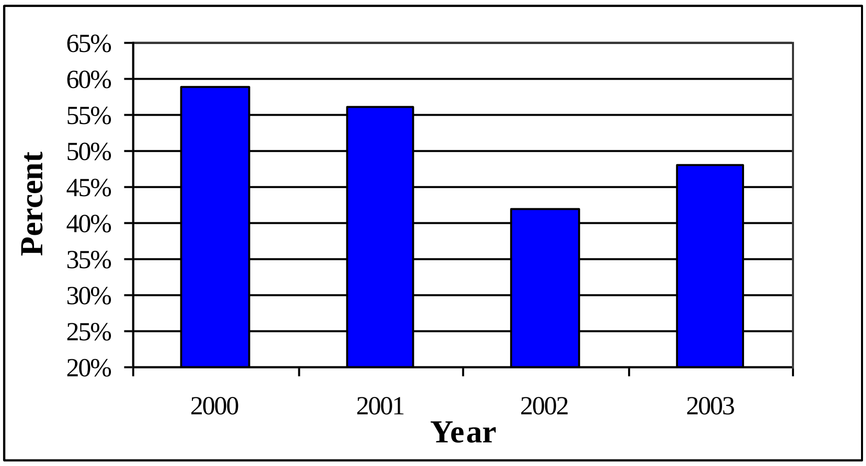

FIGURE 1 Percentage of registered commercial vehicles in the West Bank.

FIGURE 2 Map of the West Bank and Gaza Strip.