

**THE EFFECTS OF THE SYRIAN CIVIL WAR ON LOGISTICS PROCESSES: HOW
THE WAR CHANGED ROAD TRANSPORT ACTIVITIES BETWEEN TURKEY AND
MIDDLE EAST COUNTRIES***

İpek ÖZENİR¹

Pınar ELÇİÇEK GÜNEŞ²

Gülsün NAKİBOĞLU³

ABSTRACT

The civil war that started in Syria in 2011 has affected not only Syria but the surrounding countries, as well, causing substantial changes particularly in these countries' commercial activities. These changes led to various problems especially in cities bordering Syria and with regards to the road transport of logistics companies that perform logistics activities heavily with the Middle East. Despite efforts from authorities to find solutions for overcoming the challenges, the transport sector's problems have yet to be completely solved due to several reasons including international agreements, increased transport costs, difficulty in adapting into new routes and changes in the international agreement. In this paper, the problems that the Syrian Civil War caused in the logistics sector in the city of Hatay, the alternative routes and issues related to these routes, efforts to find new solutions and their results are explained.

Keywords: Hatay, Syrian War, Middle East Countries, logistics, road transport, shipment.

1. INTRODUCTION

Middle East countries, which have been dealing with problems like war and terror for many years due to their natural resources, are the focus of interest for the whole world. The wars in the Middle East, an area which will stay important as long as the need for petroleum is not over, interrupted many processes from daily life to economy. After Iraq, where there has been no stability for many years, the civil war that started in 2011 in Syria -another Middle East country- not only affected Syria itself but also caused several problems in bordering countries.

With its land border with Syria stretching through its six cities, Turkey is one of the countries that have been affected by this war. When we look at the relationships between Turkey and Syria, we see that they are not limited to trade and politics; there are also aspects affecting the public as a result of the familial relations between the people of these two countries.

The existence of familial relations and the humanitarian policies have exposed Turkey to a significant wave of refugees. Even though the impacts of the war are already being felt, the

¹ Lecturer, Hatay Mustafa Kemal University, Antakya Vocational School. Email: ipekozenir@mku.edu.tr.

² PhD Candidate, Cukurova University, Social Sciences Institute. Email: pinarelcicekgunes@gmail.com.

³ Asst.Prof., Cukurova University, Business Department. Email: ngulsun@cu.edu.tr.

*A draft version of this paper was presented along with its published abstract at the Transportation and Logistics National Congress (Ulařtırma ve Lojistik Ulusal Kongresi), 26-27 October 2017, Istanbul University, Istanbul.

impacts that will affect future generations in addition to the current generation will be so substantial that it will not be possible to ignore them.

One of the most affected processes by the war is the transport sector. Having a highly developed road transport infrastructure, Turkey's road transport sector has been deeply affected by the civil war in Syria, a country that has been Turkey's gateway to many Middle East countries.

The transport sector is one of the most important livelihoods particularly in the city of Hatay, which used to be part of Syria before it was annexed into Turkey, and which is one of the cities most affected by the war. Hatay has suffered serious challenges as a result of issues such as the closing of border crossings due to war, looting of trucks, and kidnapping of drivers; however, the war did not stop transportation of materials, which is after all the main reason of existence for logistics activities, and various solutions have been tried.

In this study, first the logistics sector in Turkey, the relations between Syria and Turkey, and the development of the import/export processes between the two countries have been briefly touched upon, and after that, the impacts of the Syrian war, the routes created and the systems devised while adapting to the war have been discussed; finally, in the last part of the paper, suggestions are given.

2. LOGISTICS SECTOR IN TURKEY

Connecting Asia and Europe and being the European countries' gateway to Middle East and Turkic Republics, Turkey has a quite strategic importance with regards to logistics activities and the process of goods transport to Middle East countries. Especially in recent years, with the ongoing wars in the Middle East, Turkey's role in logistics has become even more consequential.

In 2018, Turkey came 47th among 160 countries in the Logistics Performance Index (LPI) (Table 1), which is prepared and published every two years by the World Bank to measure the logistics activities performances of countries based on 6 criteria. Even though there is a decrease in the logistics activities performance of Turkey, which came 34th in 2016, its ranking among 160 countries is quite significant (LPI, 2018).

Table 1: Comparison of 2014, 2016 and 2018 Logistics Performance Index

LPI Criteria	2014		2016		2018	
	LPI Rank	LPI Score	LPI Rank	LPI Score	LPI Rank	LPI Score
LPI Total	30	3.50	34	3.42	47	3.15
The efficiency of customs and border management clearance	34	3,23	36	3,18	58	2.71
The quality of trade- and transport-related infrastructure.	27	3,53	31	3,49	33	3.21
The ease of arranging competitively priced international shipments	48	3,18	35	3,41	53	3.06
The competence and quality of logistics services.	22	3,64	36	3,31	51	3.05
The ability to track and trace consignments	19	3,77	43	3,39	42	3.23
The frequency with which shipments reach consignees within the scheduled or expected delivery time	41	3,68	40	3,75	44	3.63
<i>Source: The World Bank 2014, 2016 and 2018 LPI reports, accessed September 3, 2018. https://lpi.worldbank.org/international/global.</i>						

When we look at the last two evaluation years in the Logistics Performance Index, it is understood that the parts Turkey experiences problems are in efficiency of clearance process, ease of arranging competitively priced international shipments, competence and quality of logistics services.

3. SYRIA–TURKEY RELATIONS AND THE DEVELOPMENT OF IMPORT–EXPORT PROCESSES BETWEEN THE TWO COUNTRIES

The relations between Turkey and Syria go back to World War I. Initially, the relations were problematic between the two countries due to geographical and political issues, but with the Adana Agreement signed in 1998, the bilateral relations had improved; however, with the started war in Syria in 2011, they began deteriorating once more (Benek, 2016).

The issues that have negatively affected the relations most are, the annexation of Hatay into Turkey in 1939, the water problem caused by the sharing of Euphrates, Tigris and Orontes rivers, and the relations between Syria and the terrorist organization PKK (Kurdistan Workers Party). However, Turkey’s “Zero Problems with the Neighbors” policy in 2000s, then-President Ahmet Necdet Sezer’s attendance in the funeral ceremony of Hafez al-Assad, and the Presidency

of Bashar al-Assad had positive effects on the relationships with Syria in many areas (Duran, 2011).

The signing of the Free Trade Agreement in 2004, the agreement becoming effective in 2007, bilateral lifting of the visa requirement between the two countries in 2009, establishment of the High Level Strategic Cooperation Council, participation of ministers from both countries in the council meetings, signing of 50 agreements and consensuses on various topics in the very first meeting all improved the relations (Ari, 2008).

The anti-regime demonstrations that started in Syria in 2011 have turned into a war over time and this was reflected in the trade activities between the two countries; particularly in the last quarter of 2011, there were significant reductions in the export and import rates, with 51.8% and 57.3% respectively. Trade activities between the two countries came to a complete halt in 2012, and this situation has not only affected Syria but also Turkey substantially. In 2012, Turkey's export (Table 2) decreased to USD 501 million while its import decreased to USD 67 million (Republic of Turkey, Ministry of Trade). Import and export rates increased in 2013; however, there has not been a complete stability so far.

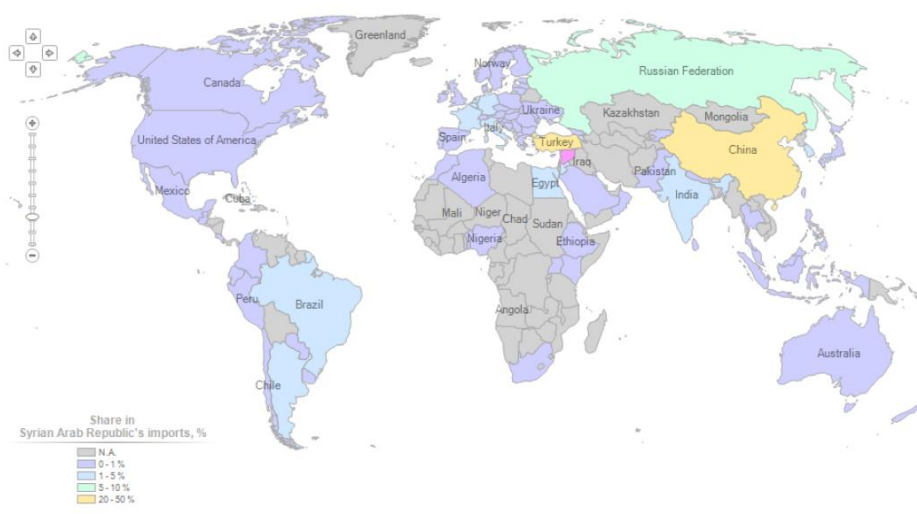
Table 2: Turkey-Syria Foreign Trade (USD Million)

TURKEY-SYRIA FOREIGN TRADE (USD Million)				
Years	Export	Import	Balance	Volume
2007	798	377	421	1,175
2008	1,115	639	476	1,754
2009	1,425	328	1,097	1,753
2010	1,845	663	1,182	2,507
2011	1,610	524	1,086	2,134
2012	501	67	434	568
2013	1,024	85	939	1,209
2014	1,801	115	1,685	1,916
2015	1,522	51	1,470	1,573
2016	1,323	65	1,258	1,388
2017	1,365	71	1,435	1,294

*Source: Republic of Turkey, Ministry of Trade, accessed 30 June, 2018.
<https://www.ticaret.gov.tr/yurtdisi-teskilati/orta-dogu-ve-korfez/suriye/ulke-profil/turkiye-ile-ticaret>*

When import and export processes are examined from Syria's point of view, the magnitude of the trade relations between the two countries can easily be seen. When Syria's imports are reviewed (Figure 1), the country with the biggest import share is Egypt with 16%, Saudi Arabia is second with its 12% share, and Turkey comes third with a rate of 10%.

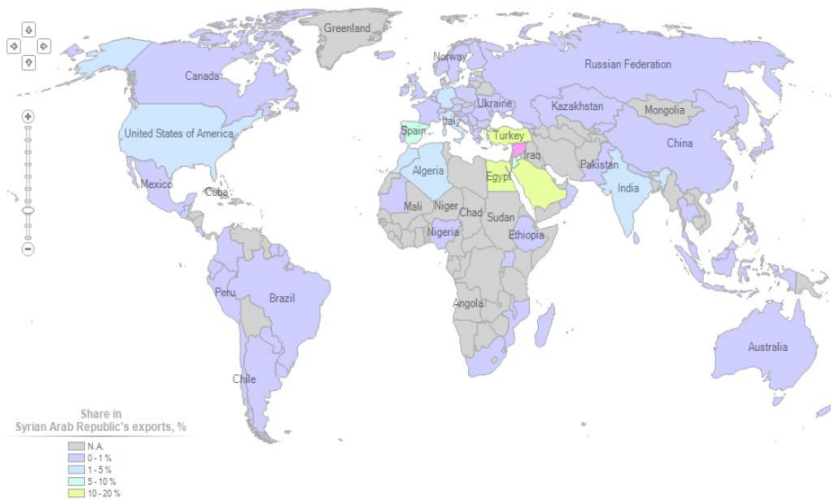
Figure 1: Countries That Syrian Arab Republic Imports From



Source: ITC Trade Map, accessed June 25, 2018.
https://www.trademap.org/Country_SelProductCountry_Map.aspx?nvpm=1|760|||TOTAL|||2|1|2|2|1||2|1|1_

Similarly, when Syria's exports in 2017 are examined (Figure 2), the country with the biggest export share is Turkey with 28%, People's Republic of China comes second with 23%.

Figure 2: Countries Syria Exports To



Source: ITC Trade Map, accessed June 25, 2018.
https://www.trademap.org/Country_SelProductCountry_Map.aspx?nvpm=1|760|||TOTAL|||2|1|2|2|1||2|1|1_

Additionally, an examination of transports from Turkey based on the destination countries shows that Syria has a significant share among the first ten countries (Table 3).

Table 3: First 10 Countries with regards to Export Transports Made with Turkish Vehicles Based on Destination Countries

DESTINATION COUNTRY	2012	2013	2014	2015	2016	2017
IRAQ	580,613	605,538	558,979	473,997	436,364	468,796
SYRIA	14,449	56,434	122,544	168,287	154,330	149,836
GERMANY	87,889	85,577	87,532	89,970	94,404	96,418
NAKHCHIVAN	40,468	60,056	26,604	33,920	57,567	40,756
IRAN	31,035	22,596	33,585	38,669	48,385	49,833
ITALY	37,776	40,620	41,842	43,222	43,120	44,684
ROMANIA	28,136	23,830	23,849	23,229	29,307	33,552
FRANCE	28,204	27,884	27,237	29,652	31,142	30,755
AZERBAIJAN	22,412	37,558	50,805	35,207	26,553	31,358
GEORGIA	78,573	60,782	45,192	36,475	43,338	40,157

Source: "Statistics", International Transporters Association of Turkey, accessed June 20, 2018. <http://www.und.org.tr/tr/19744/istatistikler>

4. IMPACTS OF THE SYRIAN WAR

Even though many cities in Turkey have been affected by the war, the situation in the border cities is rather different due to their geographical locations. There are many people in many of the border cities who have relatives living in Syria and this caused the impacts of the war to be felt more deeply.

In a study by Reçber and Ayhan (2013), the impacts of the war on the city of Hatay were researched, and it was found that there are religious, linguistic and denominational differences, trust issues, increase in the unrecorded economy as a result of smuggling, increase in the unemployment in the city due to refugees working for lower wages, and many problems in transport sector. Transport activities are a very important source of livelihood for the city of Hatay. Having the third largest tractor-trailer fleet of Turkey, there are around 14,000 drivers, 8,821 tractor-trailers (tow trucks), 9,914 trailers (full-semi trailers), 2,789 trucks in Hatay according to September 2017 data (ATSO Ekonomik Rapor, 2017).

In contrast to the pre-war period, after the Syrian war broke out, bilateral lifting of visa requirements and all previous efforts to improve trading activities between the two countries were suspended. The freight charges for the Middle East countries prior to the war were between USD 1,200-3,500 whereas after the war, they were increased to around USD 6,000-10,000 (Özdemir, 2018).

There has been a significant market lost as a result of the war; many efforts have been made to determine alternative routes, and maritime transport began to be used instead of road transport. Carrying goods via maritime decreased the number of truck trips and subsequently caused many transport companies to experience market share loss and even to shut down. Bankrupted transport companies led to unemployment. The necessity to continue transport activities on one hand and the security problems caused by the war on the other (looting trucks, kidnapping drivers etc.) resulted in increases in driver fees. Trip fees that used to be around USD 400-500 increased to around USD 800-1,000 (Özdemir, 2018).

From the beginning of the Syrian War until 2014, there was a decrease in the entries to and exits from Syria, especially in the number of trucks used for goods transport. When 2011 and 2012 are compared in particular, we see that the number of transport trucks that entered Syria from Turkey dropped by fifty percent (Table 4). However, the necessity to send humanitarian aid made it imperative to continue transport activities. In 2013, transport activities, which were being carried out under extreme security threats, stopped for a while as a result of the explosion in Cilvegözü border crossing in February, 2013. However, an increase has been observed again in the transport figures following the resumption of the transport activities with a new practice of queuing introduced by Cilvegözü Customs Office on 18 November 2013 and by adopting a system of transfer.

Table 4: Entries into Syria from Turkey between 2011- 2017

Years	Number of Trucks Entering Syria
2011	76,153
2012	31,681
2013	38,572
2014	63,358
2015	80,229
2016	73,566
2017	93,998
2018 (until 07/08/2018)	58,900
<i>Source: F. Özdemir meeting notes, 2018</i>	

According to border crossings, there are similar situations with regards to export transport figures from Turkey (Table 5). In 2012, there were severe decreases in transports to

Middle East countries. It became impossible to use Syria as a transit route as a result of incidents like the war fully erupting between 2012-2013; looting, stealing and mass burning of many trucks while the vehicles were en route within Syria; and the explosion at the Cilvegözü border crossing.

Table 5: Export Transport Figures from Turkey According to Border Crossings

BORDER CROSSINGS	YEARS							
	2010	2011	2012	2013	2014	2015	2016	2017
Cilvegözü	64,930	63,610	23,895	36,258	62,964	76,898	97,620	94,052
Habur	487,645	539,216	604,339	627,284	571,894	480,759	436,280	474,841
Nusaybin	2,460	1,578	0	0	1,550	1,120	613	671
Öncüpınar	13,146	17,808	6,918	19,650	59,725	90,818	56,546	55,769

*Source: International Transporters Association of Turkey,
<http://www.und.org.tr/tr/19744/istatistikler>*

5. ROUTES DETERMINED WHILE ADAPTING TO THE WAR

Due to incidents that took place in Syria in July 2012 like burning and looting of Turkish trucks, Cilvegözü border crossing was completely closed for entries and exits. However, the increased need for goods and materials due to war and the necessity to continue other countries' import processes made it imperative to continue transports. It used to be possible to reach many Middle East countries like Lebanon, Jordan, Saudi Arabia, Yemen, Oman, UAE and Qatar via Syria when vehicles exited from Cilvegözü border crossing and traveled through the road which was used actively before; however, the routes have changed with the war (Figure 3 and Figure 4).

Figure 3: Pre-War Hatay-Saudi Arabia and Hatay-Jordan Route



Figure 4: Pre-War Hatay-Lebanon Route



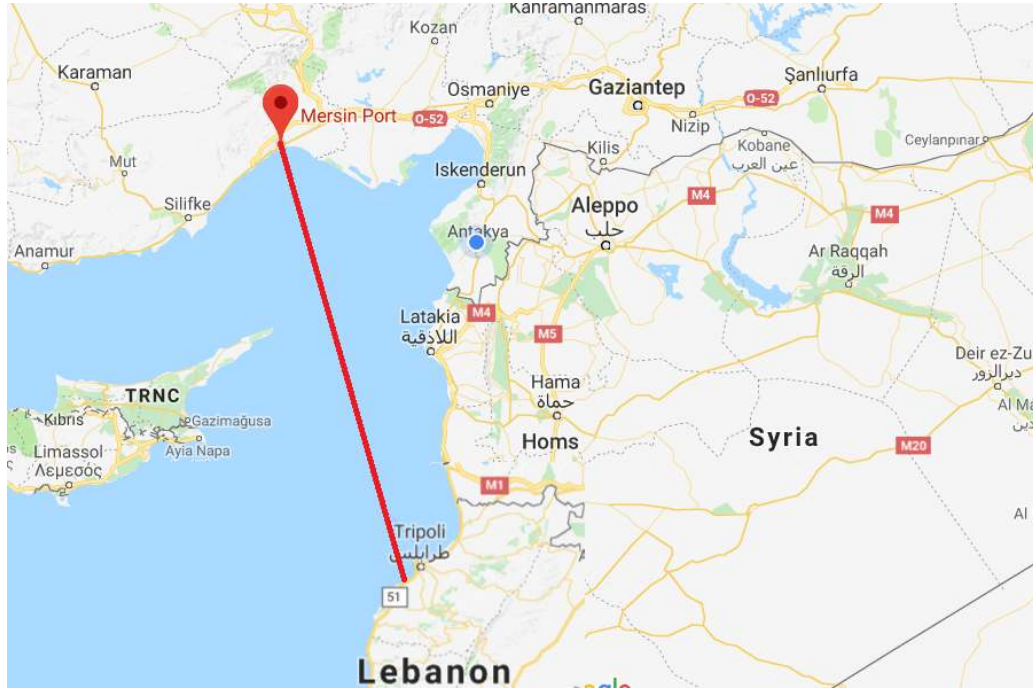
As part of the process of adapting to war, maritime transport, which was not in active use in

Hatay prior to the war, was considered as an alternative means of transport. As a result, maritime transport businesses started doing trials in April 2012 with the aim of turning the current crisis into an opportunity and continuing transports. After long and unsuccessful attempts, transports lasting up to 45 days, and the severe challenges experienced by companies during this period, the first regular maritime transport trips started in June 2013. Port of Mersin and Port of Iskenderun began to be used as alternatives. Despite being advantageous for Mersin, Iskenderun and Israel, this caused transport times to extend. Maritime transport is more expensive than road transport; however, when transports are done through Israel, costs can be reduced, albeit slightly (Özdemir, 2018).

Three alternative routes have been determined in order to continue transport activities to Middle East countries:

- For the transports to Lebanon, the Port of Mersin–Port of Tripoli (Lebanon) route is used (Figure 5).

Figure 5: Port of Mersin Ro-Ro – Port of Tripoli (Lebanon) Route



- Transports to Jordan can be done by using the Port of Iskenderun-Haifa Port (Israel) route and reaching Jordan after driving about 70 km through Israel (Figure 6).

Figure 6: Port of Iskenderun - Haifa Port (Israel) Route



- As it is not possible to enter Saudi Arabia through Israel, using Suez Canal became imperative and transport activities to Saudi Arabia and further countries are therefore carried out via Ro-RO shipments between the Port of Iskenderun – Port of Duba (Saudi Arabia) (Figure 7). This caused freight charges to go up significantly.

Figure 7: Port of Iskenderun – Port of Duba (Saudi Arabia) Route



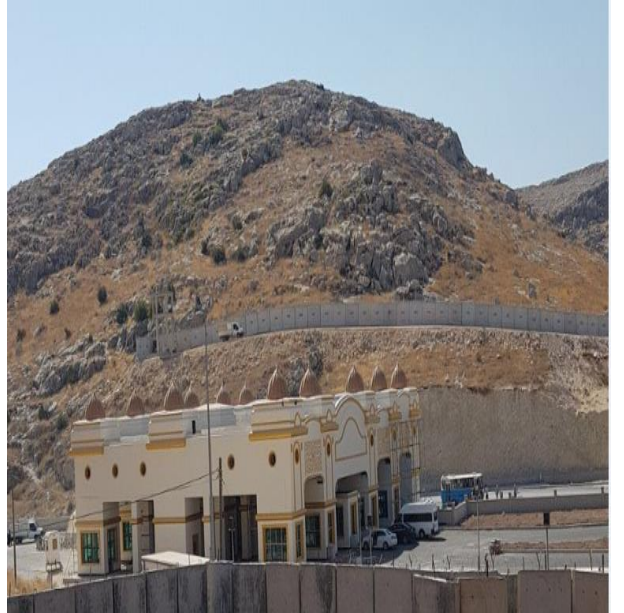
However, Arab countries, with the exception of Jordan, do not allow trucks transiting through Israel into their countries. As a solution, Turkey and Egypt, who did not use to have any road transport agreement in place, signed and executed a 1-year temporary memorandum of understanding. With this memorandum, the transit route was determined for 1 year as follows: from Port of Iskenderun to Port Said (Egypt), from there to Port of Adabiya (Egypt) via a 300 km highway, after that into Saudi Arabia from the Port of Duba (Saudi Arabia) via the Red Sea. As the memorandum was not renewed after 1 year (Republic of Turkey, Ministry of Foreign Affairs), transits into Saudi Arabia through Egypt have stopped. This and the fact that Saudi Arabia does not allow transports that transit through Israel into the country have made it imperative for maritime transport businesses to use the Suez Canal. Using the Suez Canal caused the freight charges to almost double depending on the size of ships; the round-trip transit cost through the Suez Canal of a RO-PAX ship with around 95 truck capacity is around USD 236,000 (Özdemir, 2018). In contrast to the 9 days on average one-way transport time through Egypt, with regular RO-RO transports it is possible to reduce the transport time to 4 days through Suez Canal.

6. SYSTEMS DEvised WHILE ADAPTING TO THE WAR

Average annual number of transits through Cilvegözü Border Crossing before the war was around 80,000-100,000; but with the war, these transits almost stopped completely. However, with the increased need for humanitarian aid for Syria, they were brought back on the agenda.

Some Turkish transport companies got in contact with the buyers located in Syria and continued their transport activities by transferring their goods to the Syrian buyers' vehicles in the buffer zone. Considering this transfer method effective, the officials took necessary steps to officialize the practice. Initially, the transfers were made by carrying goods from one truck to another by the roadside. However, when these activities increased in number, regular transfer activities began to be made on an unused empty land 2 km away from the Cilvegözü Border Crossing. With the transfers continuing on a regular basis in increasing numbers, efforts to expand and develop the land in question began, and a large transfer field has been established. The inadequacies of the transfer field, which was around 50 decaire in size, were eliminated over time; 45,000m² of it began to be utilized as an open area allocated for normal goods and vehicles while 5,000m² is used as an indoor area. Projects to turn the whole transfer field into a closed indoor area are in progress. Photographs of the initial and final state of the transfer field are given below in Photograph 1.

Photograph 1: Photos of the Initial and Final State of the Transfer Field



Similarly, while adapting to the war, the “electronic queuing practice” was created as a response to problems such as vehicles piling up at the Cilvegözü border crossing, urgent nature of humanitarian aid and perishable foods, problems with queuing etc. The system became effective in a short time and with it, the problems of piling up and physical queuing at the border decreased significantly. Currently, the electronic queuing practice is executed as follows:

- The online system can only be accessed by the officials located at the border crossing entrance.
- After drivers submit their documents such as declarations, invoices, weighbridge (truck scale) receipts etc. to the officials and police officers at the entrance, the vehicle, declaration and driver details are entered into the system by an official and a queue number is assigned.
- The system makes the distinction between vehicles carrying dry cargo and refrigerator trucks carrying perishable foods based on the cargo type stated on the declaration and gives priority to perishable foods accordingly.
- Aid trucks can enter and exit without being assigned a queue number.
- In order to prevent suspicious operations, the system administrator is notified of all transports that have same declaration number-different vehicle, same license plate-different declaration number, and same driver-same vehicle-different declaration, and the system automatically rejects all such jobs.

7. CONCLUSION AND SUGGESTIONS

Before the Syrian war, bilateral lifting of visas between Syria and Turkey, and the agreements with Jordan and Lebanon for visa-free periods increased the importance of Middle East. This increased importance of the region and continued demand from Turkey and the whole world to trade with Middle East countries led Turkey -a gateway to Middle East- to search for new solutions.

Therefore, alternative routes have been created. Lebanon transports began to be carried out through Port of Mersin–Port of Tripoli (Lebanon) route; Jordan transports through Port of Iskenderun–Haifa Port (Israel) route (by driving 70 km through Israel); and for transports to Saudi Arabia and further countries, RO-RO trips are carried out on the Suez Canal between Port of Iskenderun–Port of Duba (Saudi Arabia). Furthermore, with Syria’s increased need for humanitarian aid, a new practice emerged where goods are transferred to different vehicles: some Turkish transport businesses got in contact with the buyers in Syria and transferred their goods to Syrian buyers’ vehicles in the buffer zone and continued transport activities in this way. Increased number of transfers led to piling up of vehicles and queuing issues at Cilvegözü border crossing and to a need to prioritize humanitarian aid and perishable foods. In order to prevent these, “electronic queuing practice” has been implemented.

In conclusion, with the idea that life goes on despite the war, Turkey endeavors to manage this process successfully. However, considering the importance of transport activities for the country’s revenue and employment numbers, actions are needed regarding the following points:

- Facilitating easier bilateral trade relations with Egypt and Saudi Arabia,

- Saudi Arabia to allow vehicles that transit through Israel into the country,
- Making it easier for drivers that arrive at Saudi Arabia through plane to obtain necessary permits,
- Turkish government to subsidize transport businesses since transports through the Suez Canal have high costs.

BIBLIOGRAPHY

- ATSO (Antakya Chamber of Commerce and Industry), ATSO Ekonomik Rapor. Retrieved June 27, 2018 from <http://dokumanlar.antakyatso.org.tr/2017%20yayinlar%20overiler/ekonomik%20rapor%202017/EKONOM%C4%B0K%20RAPOR%202017.pdf>.
- Arı, T. (2008). *Geçmişten Günümüze Ortadoğu Siyaset, Savaş ve Diplomasi*, Bursa: MKM.
- Benek, S. (2016). Türkiye-Suriye İlişkilerinin Sosyal Coğrafya Açısından Tarihsel Arka Planı. *Gaziantep University Journal of Social Sciences*, 15, 1: 171-192.
- Duran, H. (2011). Adana Protokolü Sonrası Türkiye-Suriye İlişkileri. *Middle East Yearbook/ Ortadoğu Yıllığı*: 501-518.
- International Transporters Association of Turkey. Statistics. Retrieved June 20, 2018 from <http://www.und.org.tr/tr/19744/istatistikler>.
- ITC Trade Map. Retrieved June 25, 2018 from https://www.trademap.org/Country_SelProductCountry_Map.aspx?nvpm=1|760|||TOTAL||2|1|2|1|1|2|1|1.
- LPI, The World Bank, Retrieved September 3, 2018 from <https://lpi.worldbank.org/international/global>.
- Özdemir, F. (International Transporters Association of Turkey, Hatay Representative) meeting notes. June, 2018
- Reçber, K. & Ayhan, V. (2013). Türkiye İle Suriye Arasındaki Krizin Hatay Bölgesi Üzerindeki Etkileri. *Alternatif Politika/Alternative Politics*, 5, 3: 324- 340.
- Republic of Turkey, Ministry of Foreign Affairs. Retrieved 30 June, 2018 from http://www.mfa.gov.tr/sc-37_-28-ekim-2014_-disisleri-bakanligi-sozcusu-tanju-bilgic_in-misir_in-ro-ro-ve-karayolu-transit-tasimaciligi-alaninda-ibirl.tr.mfa.
- Republic of Turkey, Ministry of Trade. Retrieved 30 June, 2018 from <https://www.ticaret.gov.tr/yurtdisi-teskilati/orta-dogu-ve-korfez/suriye/ulke-profilu/turkiye-ile-ticaret>.