

Happy Life Region
West Mediterranean



WEST MEDITERRANEAN DEVELOPMENT AGENCY

June 2011

FOREWORD

Regional development agencies whose history dates back to old times in developed countries are the models newly adopted in Turkey. These agencies aim to accelerate regional development, ensure sustainability and reduce interregional development disparities in accordance with the principles and policies set in the development plans and programs, through a cooperative networking between local authorities, private sector and civil society.

One of the tasks given to agencies to achieve their aim is whether to do research on determining the resources and opportunities of the region, accelerating economic and social development and enhancing the competitiveness or to support the researches done by other individuals, organizations and institutions.

West Mediterranean Development Agency which largely completed its process of establishment and institutionalization is responsible for providing free consulting services to investors in Antalya, Isparta and Burdur. In addition, through a one-stop shop approach, the agency offers an extensive range of services including coordinating and following-up the permits, licensing procedures and other administrative works within the scope of public institutions and organizations of investors. Furthermore, the agency promotes the investment opportunities of the region both at national and international level in cooperation with relevant organizations.

In line with the mentioned task above, the sector reports were prepared to guide the investors willing to invest in the region and promote the investment opportunities of the region.

At first, Marble, Milk and Dairy Products, Solar Energy, Golf Tourism and Health Tourism Sector Reports of West Mediterranean Region, Tourism Potential of Egirdir Report and Antalya – Konya High Speed Rail-Line Report have been prepared. Over time, many sector reports related with the region will be prepared and investment opportunities of the region will continue to be promoted. Being helpful with these sector reports to investors and all other institutions operating in the region is our greatest wish.

Tuncay ENGIN
Secretary General of WMDA

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Governor of Antalya
Chairman of WMDA





ANTALYA-KONYA HIGH SPEED RAIL LINE

Antalya-Konya high speed rail line is discussed in this report which is a reflection of the desire of a dream for Antalya over the past hundred years. In this report, some estimates about the line are given in order to evaluate the economic, social and cultural contributions for the region and Turkey.

A SHORT HISTORY OF ANTALYA RAILWAY



Looking at the history of Antalya railway; railway construction initiative in Antalya is seen for the first time in 1892. In September 1892, Baron De Sfelter, deputy of Georgy Earl Cerh, from America applied for the permission of discovery of possible railroad route from Antalya to Sivas.



On August 17th, 1913, there exist some mailings to Umur-u İktisadiye and Sınaiye Anonymous Company about the construction of a trading port together with the railway line in Antalya.

On May 21st, 1919, Italian Consular Marquis Grant together with a retired Italian, called Marini, two Italian commanders, a doctor and a translator had been in Korkuteli to make the exploration of the path Finike-Korkuteli-Antalya-Burdur.

On May 24th, 1919, Italians had started Finike-Antalya-Burdur railway line construction, without getting any permission from the government (When the Italian occupation ended on July 5th, 1921, this initiative would also remain inconclusive).

On June 29th, 1927, Nafia Vekaleti was given the privilege for making meetings with the candidate company that wanted to construct Burdur-Baladız-Dinar-Sandıklı part of Antalya-Afyon railroad.

On January 5th, 1933, thousands from Antalya collected in Government Square celebrated the council's decision of making railway on Afyon-Antalya with great enthusiasm.

On April 1st, 1933, the Parliament adopted the law on the construction of the Afyon-Antalya railway.

On August 27th, 1934, the foundation of Afyon-Antalya railway line was laid.

On February 11th, 1935, Austrian engineers Bezic, David and Schitehelm were sent in order to work in Afyon-Antalya railway line.

On July 10th, 1935, the good news of the railway would come to Antalya was announced.

On July 11th, 1935, railway line construction began in Antalya.



On July 28th, 1935, a ceremony was attended by a large number of proud in Burdur Ballad (Gümüřgün) train station for the railway line to Antalya.

On November 26th, 1935, Afyon-Isparta railway was put into service for transportation.

On March 25th, 1936, Afyon-Karakuyu and one day later Bozanönü-Isparta railways were opened with a great ceremony.

In 1980, study, design and engineering service works of Burdur-Antalya Railway line were given to Middle East Technical University by the Ministry of Transportation.

In 1981, Antalya railway construction project was taken out of the investment program because of the opinion of the investment was not feasible.

In 1984, METU has given the duty of making a feasibility comparison of lines of Burdur-Antalya and Isparta-Antalya. This research resulted in the opinion of "It is not feasible for both lines, but the line of Burdur-Antalya is more appropriate than Isparta-Antalya line".

On December 27th, 2002, CHP Deputy Feridun Fikret Balođlu from Antalya asked to the Minister of Transportation about Burdur-Antalya rail project in TBMM.

On March 4th, 2003, CHP Antalya deputy Feridun Fikret Balođlu asked to the Minister of Transportation "When would it finish Antalya-Burdur railway that has not been finished for decades." Minister Binali Yıldırım in his reply stated that the project was a very expensive one, and said that they were looking for international financial loans in order to complete the project.

On January 21st, 2008 in Antalya, hosted by the City Council and headed by AKP Antalya Deputy Sadik Badak organized a panel discussion about the railroad.





ANTALYA-KONYA HIGH SPEED RAIL LINE

Rail line of Antalya-Konya will turn to Konya either between Manavgat and Alanya or after passing through Alanya. The estimated distance will be 385 km and travel time will be around one and a half hour. The estimated cost of the line is about 2.5 billion to 5.5 billion dollars depending on the exact path that will be decided after the survey work in the region depends on the slope of the rails, the amount and length of tunnels and bridge structures. The slope of 12.5 per thousand is accepted for the moment by railway professionals. The lower the slope is, the higher the speed will be. This also raises the cost of the construction of the railroad. However, with the developing railway technology, today higher slopes are also acceptable. The difficulty of Antalya-Konya line, even regardless of this line, constructing a particular railway line to Antalya is the requisite of bouncing to a height of 1000 meters from sea level while maintaining the rate of a specific small tilt. The best solution to this problem is to dig tunnels or to construct bridges. The longer the length of the tunnels to do the cost increases exponentially.

THE EFFECTS OF ANTALYA-KONYA HIGH SPEED RAIL LINE ON TRANSPORTATION TIMES



Evaluated independently of the other lines that are planned in Antalya, Antalya-Konya high speed rail line is expected to improve the travel times as indicated in the table below. The normal time in the table means the time passed at a 110 km/h speed.

“As it can be seen from the table, travel times to Ankara, Istanbul, Konya and Alanya will be reduced by fifty percent or even more with the high-speed train.

Table 1: Expected effects of high speed train to travel times

From	To	Distance	Line Name	Normal Time	High Speed Train Time
Antalya	Alanya	138 km	D400	1 hr 50 min	39 min
Antalya	Konya	323 km	D400, D695, D696	4 hr	1 hr 39 min
Antalya	Ankara	544 km	D650	5 hr 30 min	2 hr 45 min
Antalya	İstanbul	724 km	D650	10 hr	5 hr
Antalya	Eskişehir	424 km	D650	4 hr	3 hr 30 min
Antalya	Bursa	537 km	D650	5 hr	4 hr 45 min

Source : General Directorate of Highways

As it can be seen from the table, travel times to Ankara, Istanbul, Konya and Alanya will be reduced by fifty percent or even more with the high-speed train. There will be some small improvements in travel times to Bursa and Eskişehir as well.





ANTALYA-KONYA HIGH SPEED RAILWAY LINE IN TERMS OF DOMESTIC TOURISM



Konya, Ankara, Eskisehir, Kocaeli, Istanbul cities, which are either on Antalya-Konya high speed line or Ankara-Istanbul high speed line which is still under construction, and Bursa, which will be connected to high speed rail network through an additional line, are the most important domestic tourism markets of Antalya. In the population of these 6 cities and Antalya a 12% increase is expected between 2010-2018 and a 18.59% increase between the years 2010-2023, the total population of these seven cities will be about 30 million. In 2015, it is expected that the income per capita of these cities will be around 20000 USD. However, during these years, due to imbalance in the distribution of income, in the Marmara region a 40% group will get the 75% of GDP. This high-income population with today's shopping, consumption and travel habits will do several touristic travels within a year.



“Konya, Ankara, Eskisehir, Kocaeli, Istanbul cities, which are either on Antalya-Konya high speed line or Ankara-Istanbul high speed line which is still under construction, and Bursa, which will be connected to high speed rail network through an additional line, are the most important domestic tourism markets of Antalya.

Table 2: Population projections of some cities that can be reached by high speed train from Antalya

CITIES	Population Projections				Resource: TÜİK, TSV2023
	2010	2013	2018	2023	2010-2023 Change
Antalya	1.960.779	2.112.823	2.364.692	2.609.451	33,08
Ankara	4.686.009	4.885.314	5.200.437	5.486.347	17,08
Konya	2.004.743	2.050.921	2.111.845	2.152.428	7,37
Bursa	2.629.919	2.813.935	3.122.382	3.429.760	30,41
Eskişehir	768.363	807.893	871.942	932.689	21,39
Kocaeli	1.573.424	1.699.004	1.908.939	2.116.643	34,52
İstanbul	13.050.933	13.571.135	14.407.233	15.188.562	16,38
Toplam	24.713.391	25.828.202	27.622.778	29.306.429	18,59

Source : TÜİK

In mid-2010s this domestic demand who have money in their pockets, will go to Middle Europe or Adriatic coast by highway or Ankara-Edirne high speed train unless there is a comfortable, secured and alternative high speed train from Ankara, İstanbul to Antalya. This will not result in only tourist loss but also serious trade loss through shopping.



ANTALYA-KONYA HIGH SPEED RAIL LINE IN TERMS OF FOREIGN TOURISM INDUSTRY

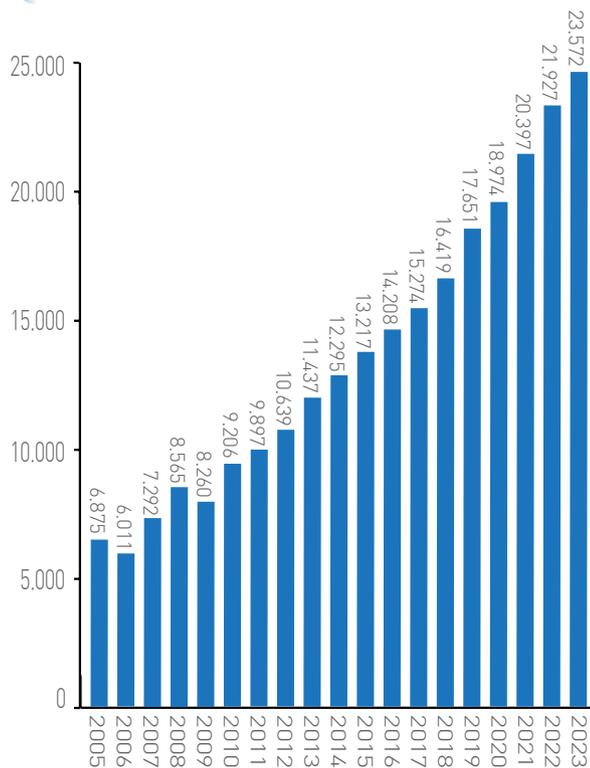


Figure 1: Some past and estimated future tourist numbers of Antalya (Source: TÜİK)

Antalya alone served 31.5% of all guests visited Turkey in 2009. By 2015 this figure is expected to be 34% and 37% in 2023. The majority of tourists visiting Antalya are Europeans, especially from Germany and Russia.

Businessmen working in tourism industry in Antalya do not have an alternative transportation mean other than plane to bring European customers compared to their rivals Spain, France, Italy, Greece and Serbia who have the alternatives of railway, highway and plane to bring the European customers to their coasts. From this point of view, the high speed rail line of Edirne-Konya and its extension Konya-Antalya which will make it possible to carry passengers from Europe and Marmara to Mediterranean coasts of Turkey will compensate a very important disadvantage.





“Europeans’ common culture of travelling by railway provides an opportunity to Antalya.





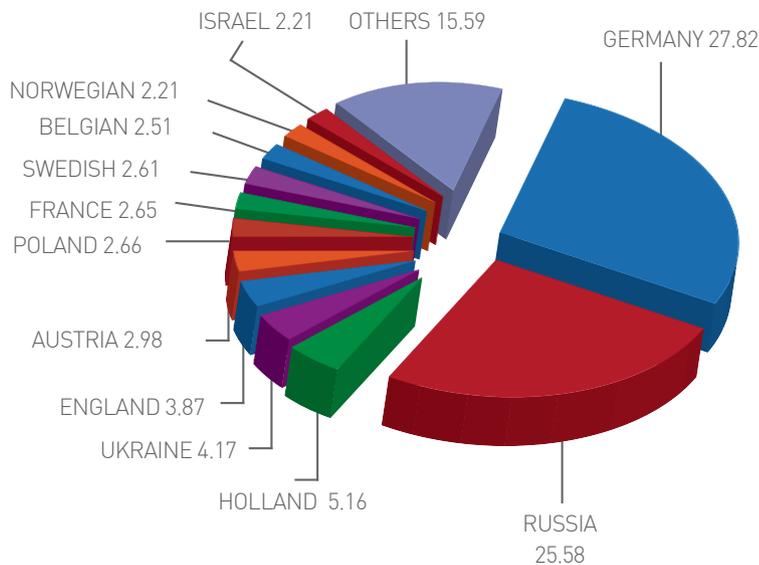


Figure 2: Percent distribution of nationalities of tourists visited Antalya in 2009 (Source: Antalya Directorate of Tourism)

Europeans' common culture of travelling by railway provides an opportunity to Antalya. As shown in the table below, 6 of the top 10 countries having the most passenger-km values are European countries and Russia. It is seen in the above figure that Russia, Germany, France, Ukraine and the United Kingdom are among the countries sending the most tourists to Antalya. Although it is not seen in the following table, when rail usage is considered some other European countries also have good results, namely Poland ranks 17, the Netherland ranks 18, Belgium ranks 23, Austria ranks 26 and Sweden ranks 31. It can be said that travelling by train is a common method among the Europeans.



Table 3: Annual rail passenger-km transportation amounts order

ÜLKE	Milyar yolcu-km	Yıl
China	787,889	2009
India	770	2008
Japan	259	2008
Russia	175	2008
France	78,46	2006
Germany	74,73	2006
Ukraine	53,23	2006
UK	50,7	2008
İtalya	46,44	2006
Egypt	40,84	2005

Source: International Union of Railways, 2009

In addition, after completion of the Antalya-Konya high speed rail line it will be possible for foreigners to travel to other touristic centers in Turkey. There will be an important touristic passenger market that will want to go to Cappadocia via Konya if it was possible to travel from Antalya in a fast, secured and comfortable manner. Antalya-Konya-Cappadocia tourism line will be acquired after the completion of Konya-Kayseri via Cappadocia high speed rail line which is planned for after 2020. Upon the completion of the project, it will be possible to organize daily touristic tours from Antalya to Konya and Cappadocia region.

“Antalya-Konya-Cappadocia tourism line will be acquired after the completion of Konya-Kayseri via Cappadocia high speed rail line which is planned for after 2020.



After completion of the Antalya-Konya high speed rail line there will be an emerging market of foreign tourist travel market between Antalya and Istanbul. There will be a potential among the tourists visiting Antalya that want to see Istanbul and the tourists visiting Istanbul that want to see Antalya.

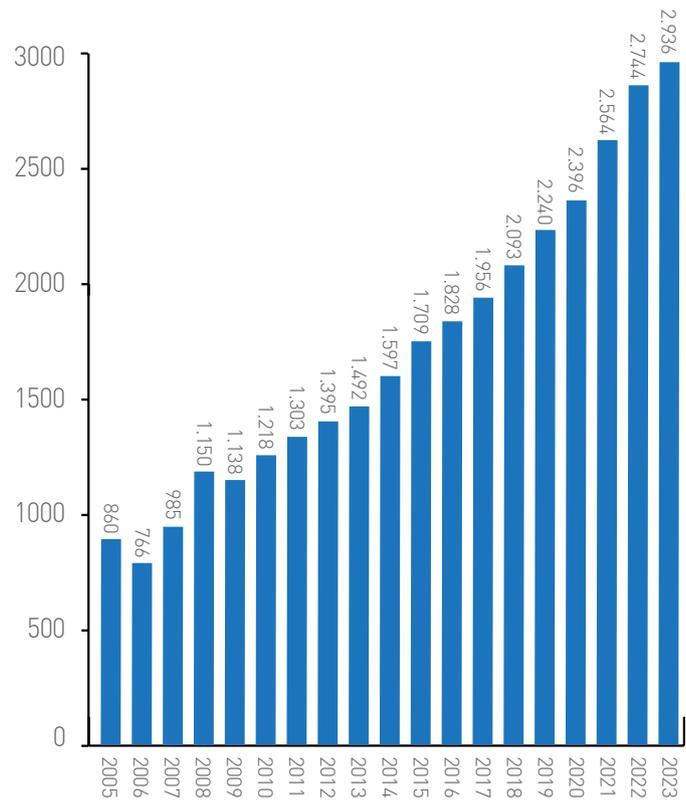


Figure 3: Some past and estimated future figures of tourists visited Cappadocia (Resource: Nevşehir Governorship)

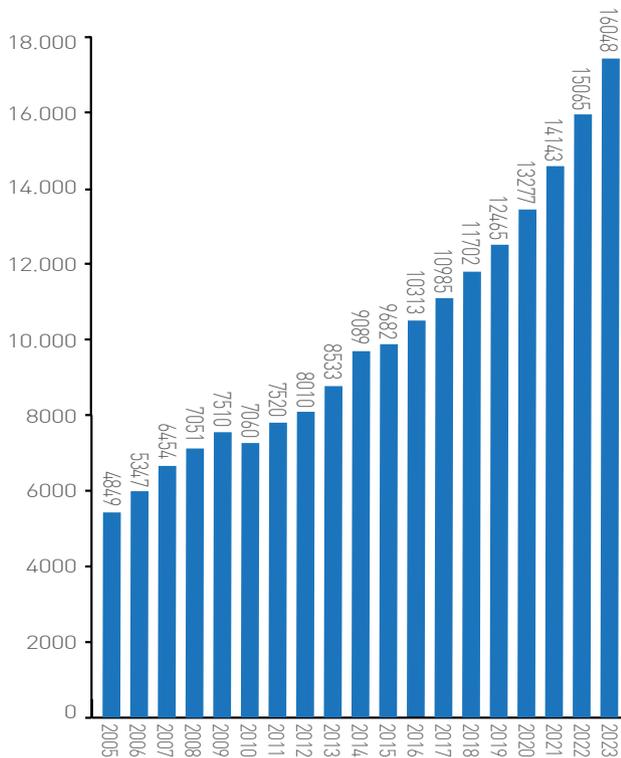


Figure 4: Some past and estimated future figures of tourists visited Istanbul (Source: TÜİK)

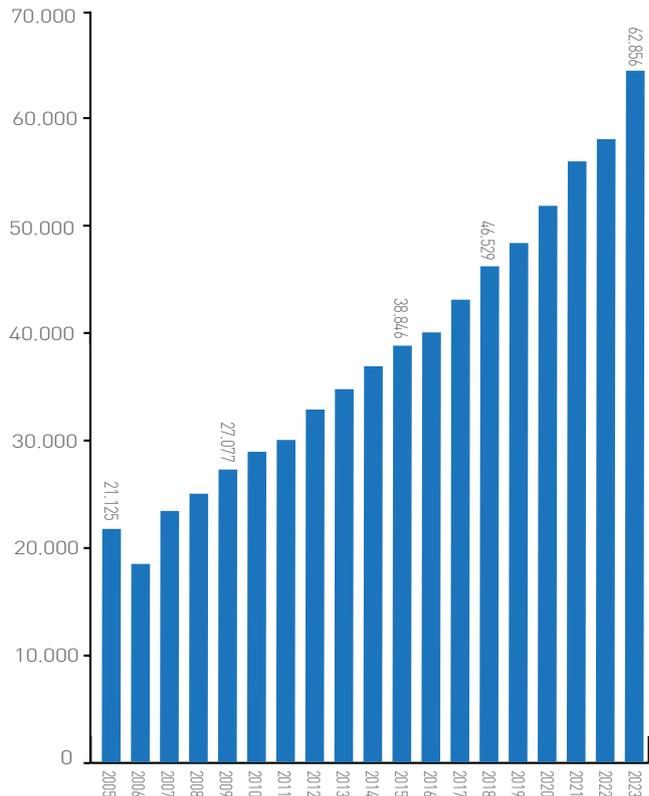


Figure 5: Some past and estimated future figures of tourists visited Turkey (Resource: TÜİK)

After completion of Antalya-Konya high speed rail line in post-2015 it will be possible to add alternative tourism areas to sea-sand-sun tourism. So that it will be possible to attract tourists from the coastal areas to inland regions and generate more revenue.

Only in this way, the tourism strategy of 2023, in which a target of 63 million tourists and tourism revenue of 86 billion dollars are targeted, will be possible to achieve.

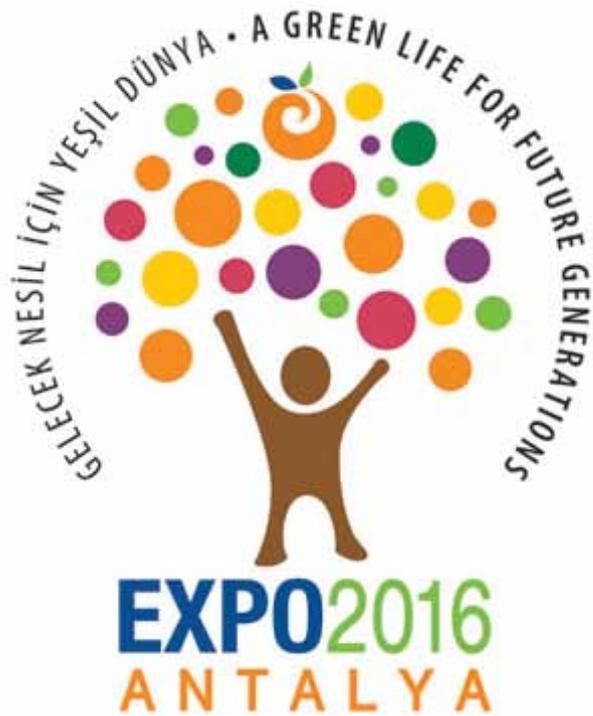


ANTALYA-KONYA HIGH SPEED RAIL LINE IN TERMS OF “EXPO-2016 ANTALYA”



In 2016, Expo Fair will be held with the theme of “Children and Flowers” in Antalya. Within the scope of this exhibition 20,000 international social and cultural activities will be held in Antalya in 2016. The fair, participants of which are from 100 countries, is expected to be visited by a total of 8 million people, 5 million of which are expected to be foreigners. The exhibition will remain open for 6 months in total with the introduction of Antalya and Turkey so that Antalya and Turkey will become a center of attraction. If Antalya-Konya high speed rail line can be finished until that date it will create a great synergy. In such a case of no completion a serious drawback can be expected in terms of transportation in Antalya. The number of tourists will be doubled, but alternative public transportation methods will not be sufficient which makes the city waits very serious problems.

“Expo 2016 participants of which are from 100 countries is expected to be visited by a total of 8 million people, 5 million of which are expected to be foreigners.



ANTALYA-KONYA HIGH SPEED RAIL LINE IN TERMS OF SEA TRANSPORTATION



Port of Antalya has the first place with the highest development potential among the ports of Turkey. Antalya, where millions of foreign tourists are welcomed each year and have a fast development in terms of tourism and trade of Turkey, is the biggest organized center between Izmir and Mersin where has a length of 700 sea mile coast. Port of Antalya is the only port between Mersin and Izmir connected to Anatolia. Despite all these advantages, only 60% of the handling capacity and only 35% of the ship acceptance capacity is used. The most important reason for this situation is the absence of a railway line that connects Antalya port to inner parts of Anatolia.

Through Antalya-Konya high speed line, Antalya port will have a big hinterland including Konya and Ankara whose industrial potential is very high. It will be possible to carry container loads to inner Anatolia via Antalya-Konya high speed rail line.

Antalya-Konya high speed rail line will make very large contributions to the region and the country's economy in terms of cruise tourism. The port of Antalya plays a complementary role in the region together with Antalya Airport, which has high passenger capacity, to become a major transportation hub. However, since there is no an alternative, modern, safe and comfortable transportation line other than the road linking the two terminal points breaks the chain of the integrity of these centers. This also lacks the development of cruise tourism in the region. Antalya-Konya high speed rail line will make it possible for Antalya to be a starting or ending point for cruise ship tours by connecting the seaport and airport of Antalya. It should not be forgotten that in cruise tourism the start or end ports gets the lion's share. A modern high-speed train passenger station in which there are hotel, shopping and recreation center integrated with cruise port will also make contributions to the economy.

“Antalya-Konya high speed rail line will make very large contributions to the region and the country's economy in terms of cruise tourism.”





ANTALYA-KONYA HIGH SPEED RAIL LINE IN TERMS OF TRANSPORTATION OF AGRICULTURAL PRODUCTS



78% of Turkey's greenhouse vegetable production is provided by West Mediterranean. Almost all of this product and some of flower production is sent to Ankara and Istanbul in domestic market or to CIS countries by ferry over the Black Sea via Trabzon. On the other hand, it is sent to Europe by road or by ferry to shores of Italy via Tekirdag. Antalya has the disadvantage of being far from the market in this competition. It will be possible to carry this product by Antalya-Konya high speed railway line within a period of 24-48 hours to European markets in refrigerated railway cars. So that Turkish farmers will have the chance of delivery of these fresh vegetables and fruits which have to be consumed within a short period. As a result they will compensate their disadvantage in this area.

In addition to that, the comfort of railway transportation of fresh vegetables and fruit will reduce waste and corruption that occur during shipping. The superiority of railway transportation in terms of standard of comfort compared to roads are obvious. Only in this perspective, even the magnitude of economic losses that occur in the name of Antalya, is sufficient to determine the need for high-speed rail.



ANTALYA-KONYA HIGH SPEED RAIL LINE IN TERMS OF ROAD TRANSPORT



One of the most heavily used line among our country's road network is the line called D400 that connects the province of Alanya to Antalya city center. According to information supplied by Police Department; in the city center of Antalya on this road, in 2008 a total of 460 accidents, in 2009 a total of 359 accidents were recorded. In these accidents a total of 11 citizens were killed and nearly 250 injuries has occurred. Antalya-Konya speed rail line project will decrease the traffic load on this axle and the number of accidents occurring on this road will be reduced.

ANTALYA-KONYA HIGH SPEED RAIL LINE IN TERMS OF AIR TRANSPORT



Two of most heavily used airports of Turkey are Antalya and Istanbul Ataturk airports. The most heavily used domestic flights from Antalya Airport are Antalya-Istanbul and Antalya-Ankara flight lines. In 2009, sum of flight numbers to these two points constituted 16% of traffic of Antalya Airport. Similarly, the first 8 months of 2010 it is 15% as well.

Table 4: Antalya Airport, the total number of down-flying aircraft

Total Number of Aircraft in Antalya Airport (Domestic or International Incoming-Outgoing)

	2008	2009	2010(8 months)
AYT Total Number of Aircraft	126.682	126.743	100.942
Ankara or İstanbul (Landing-Departing)	9.844	9.961	7.495
Distribution(%)	16	16	15

Source: Fraport IC Ictas



“Two of most heavily used airports of Turkey are Antalya and Istanbul Ataturk airports.”



Table 5: Atatürk Airport, the total number of down-flying aircraft

Total Number of Aircraft in Istanbul Ataturk Airport (Domestic or International Incoming-Outgoing)

	2008	2009
IST Total Number of Aircraft	276.148	283.953
Aircraft number from IST to AYT	6.891	6.396
Percent Distribution	5	4.5

Source: DHMİ, Fraport IC İċtaṡ

Paris-Lyon high speed train line has decreased the air traffic between these two cities by 40%. Similarly, the introduction of the Antalya-Konya high speed rail line will decrease the air traffics of Istanbul-Antalya and Ankara-Antalya. This will on one hand result in increased flight security, on the other hand, will increase the the high-speed train passenger numbers. Since train is cheaper than the airline, travel by train will also be preferred to travel by plane. It will be possible to replace the free domestic flight slots, that is because of high speed train, with international flights in these airports.

As a result, Antalya-Konya high speed rail line should be constructed because this route will make much bigger economic contributions in tourism sector, in transportation sector (both in freight and passenger transport), in industry sector and in agricultural sector than its construction cost.

The project can be constructed by built-operate-transfer model or public private partnership model.



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