



Turkish Petroleum Corporation General Directorate

2010

Oil and Natural Gas

Sector Report

August 2011

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1. OIL and NATURAL GAS SECTOR VIEW IN THE WORLD

Crude oil that has been number one energy resource since the first commercial production in early 20th century and has been in the first place among primary energy resources, sustains its strategic position through long ages.

In 2010, world energy demand has surpassed world economic growth rate and the highest increase rate with 5.6% in global energy consumption has been recorded since 1973. Consumption increase in OECD and non-OECD countries were 3.5% and 7.5%, respectively in 2010. China has surpassed US (2.3 billion ton) in energy consumption and become the highest energy consuming country with 2.4 billion ton (11.2% increase) in 2010.

In 2010, crude oil accounts for 33.6% and natural gas accounts for 23.8% of global energy consumption. Even though crude oil has the first place among energy resources, crude oil consumption rate has been in downtrend in the past 11 years.

In 2010 with respect to 2009, the increase rates in global energy consumption have become such that; crude oil 3.1%, hydroelectric 5.3%, coal 7.6%, natural gas 7.4%, renewable energy 15.4% and nuclear energy 2% [1]. The consumption rates of those are shown in Figure 1[2].

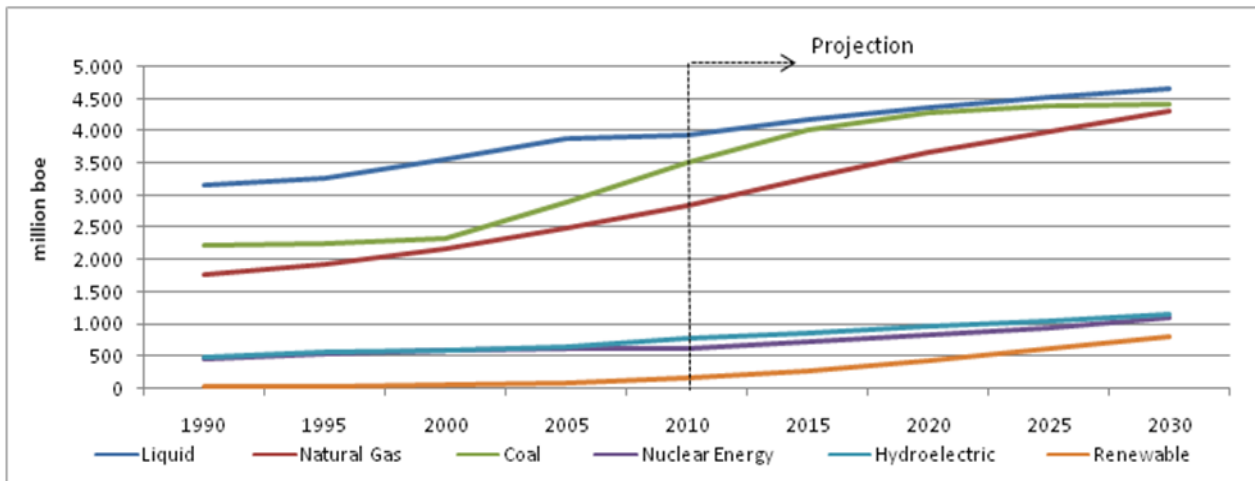


Figure 1. World Primary Energy Consumption between 1990-2030[1]

1.1 Oil Sector

Oil trading volume, which was in downtrend since 2008, has become 53.5 million b/d with an increase of 2.2% in 2010. The highest export has come from Middle East which is followed by former Soviet Union countries. 11% of oil import and 90% of import growth rate were from Asia-Pacific in 2010. The breakdown of global oil trade was 70% crude oil and 30% refined products[1].

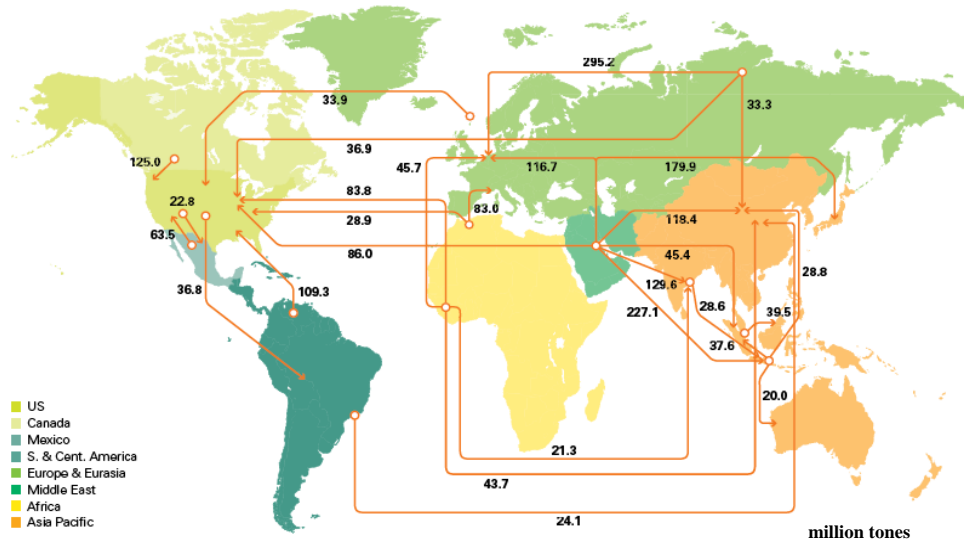


Figure 2. Global Oil Trade in 2010[1]

Oil demand, which was declining since 2008, has reached the highest rate over the time and recorded as 87.4 million b/d with an increase of 2.7 million b/d in 2010. Higher prices meant that oil consumption has recorded the weakest growth in global energy consumption.

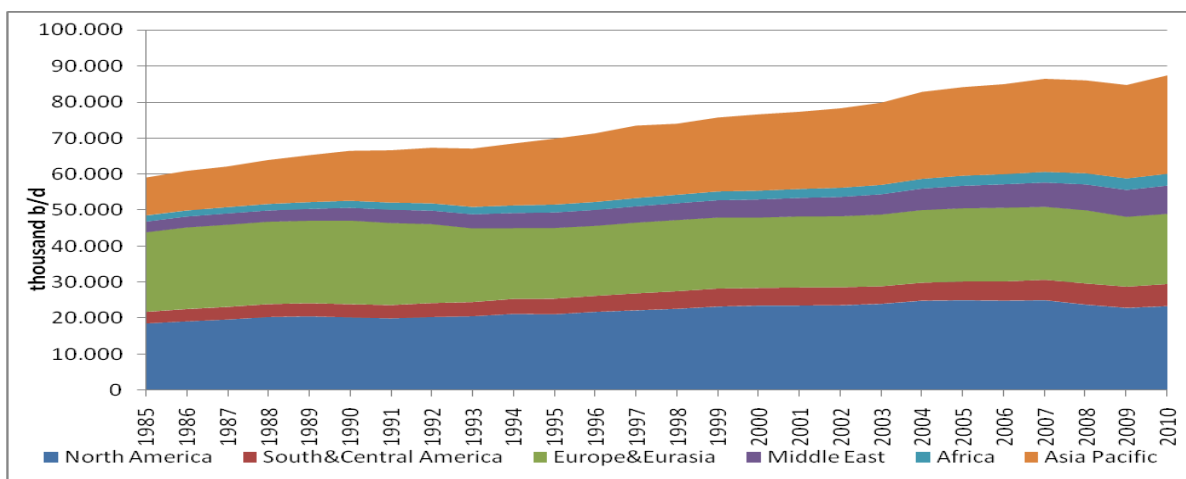


Figure 3. Global Oil Consumption by years[1]

In OECD countries oil demand grew by 0.9% (480,000 b/d) the first increase since 2005. Non-OECD countries mainly China and Middle East countries have recorded 2.2 million b/d consumption growth (5.5%)[1].

It is anticipated that the rise in oil demand in 2011 will be lower than 2010 because of the impacts of earthquake and tsunami in Japan. Since the energy demand is met by natural gas and oil, any considerable amount of change in oil demand in Japan in 2011 with respect to previous year is not expected[3].

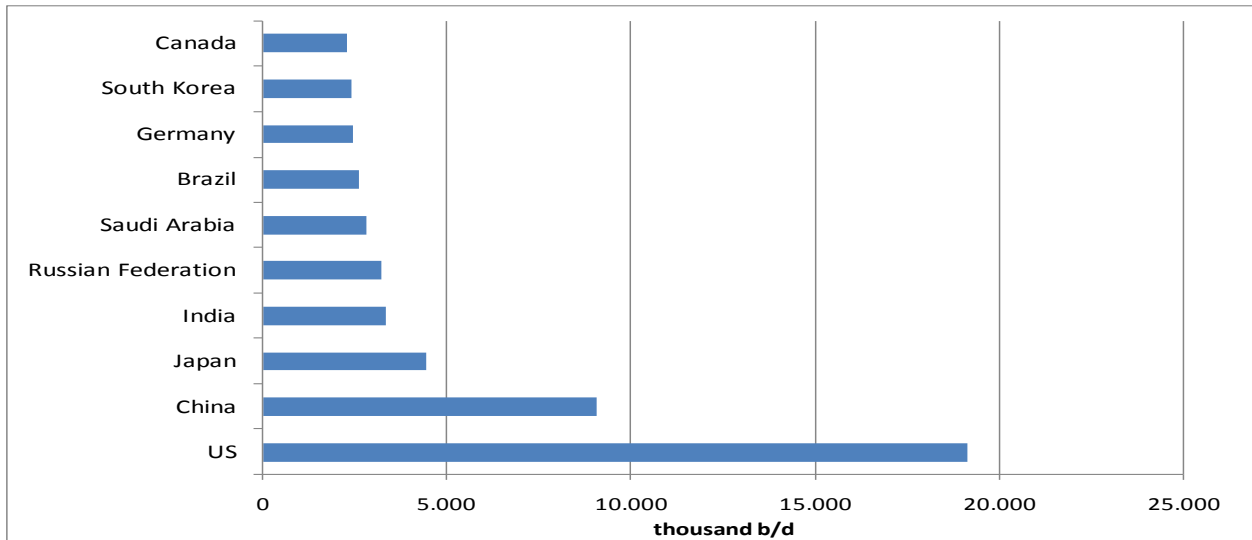


Figure 4. Global Oil Consumption in 2010 (Top Ten Country)[1]

While world oil reserves recorded 1.376 trillion barrels in 2009, it has become 1.383 trillion barrels with an increase of 0.5% [1].

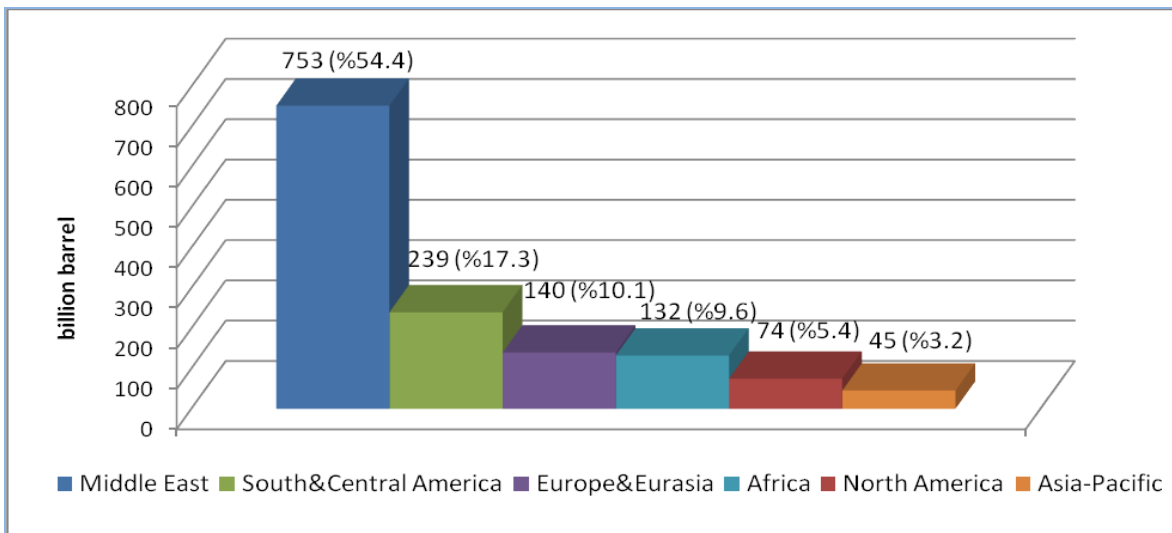


Figure 5. 2010 World Proved Oil Reserves by Regions [1]

Oil consumption reached its peak in history in 2010 which was in downtrend since 2008. Oil supply was also increased to meet oil demand whereas global oil proved reserves rose slightly in 2010. Thus, oil P/R ratio recorded as 46.98 years in 2009 has decreased by 1.75% and become 46.16 years in 2010[1].

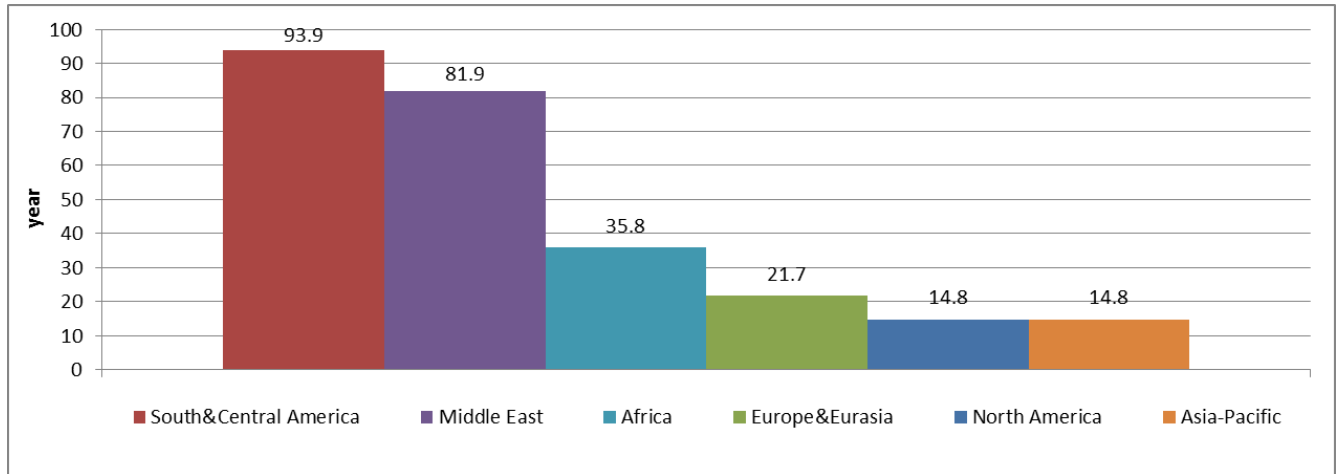


Figure 6. 2010 Regional Oil R/P Ratio[1]

World oil production which was 80.3 million b/d in 2009 recorded as 82.1 million b/d in 2010. This 1.8 million b/d (2.2%) increase in oil production did not match the global oil consumption in 2010. The rise in production was 959,000 b/d (2.9%) and 588,000 b/d (1.7%) in OPEC and non-OPEC countries, respectively in 2010. OPEC production cuts implemented late in 2008 were maintained through 2010. Non-OPEC countries have 58.2% of oil production. The production rate has increased mainly in China, followed by US and Russia; whereas decline continued in Norway[1].

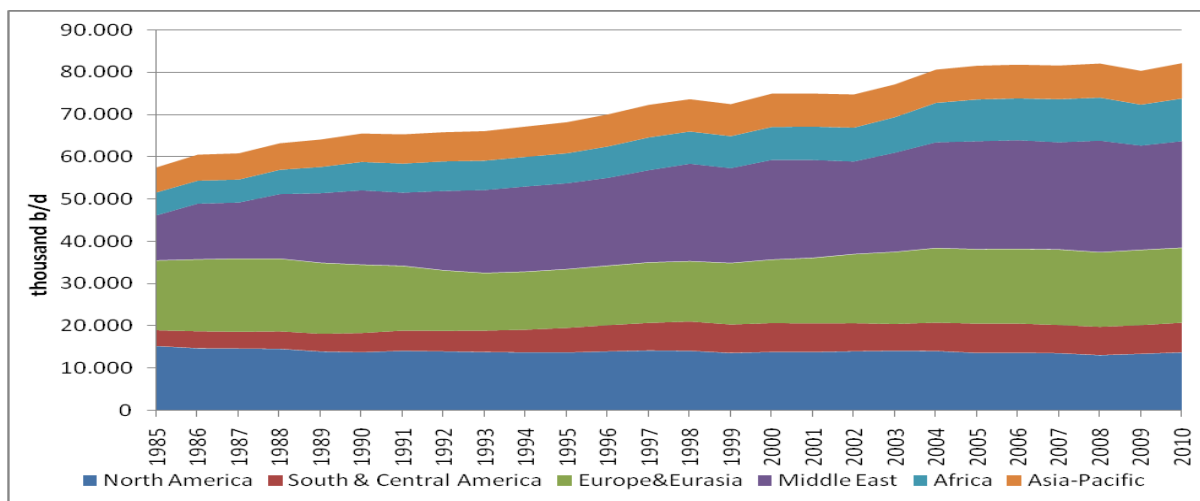


Figure 7. Global Oil Supply by years[1]

In 2010 daily crude oil refining capacity has become 91.8 million b/d with a 0.8% increase. While the capacity in North America, Europe and Eurasia has decreased in this period, the increase in the capacity has continued in Asia Pacific which is the leading region and constitutes 30.9% of world oil refinery capacity. China is listed number one in increasing its refinery capacity with 6.8% rise in Asia Pacific region.

The amount of refined crude oil has increased by 1.8 million b/d (2.4%) and become 74.8 million barrel in 2010 with respect to 73 million barrel in 2009. Within this period the capacity in non-OECD countries exceeded by 1.5 million b/d in OECD countries.

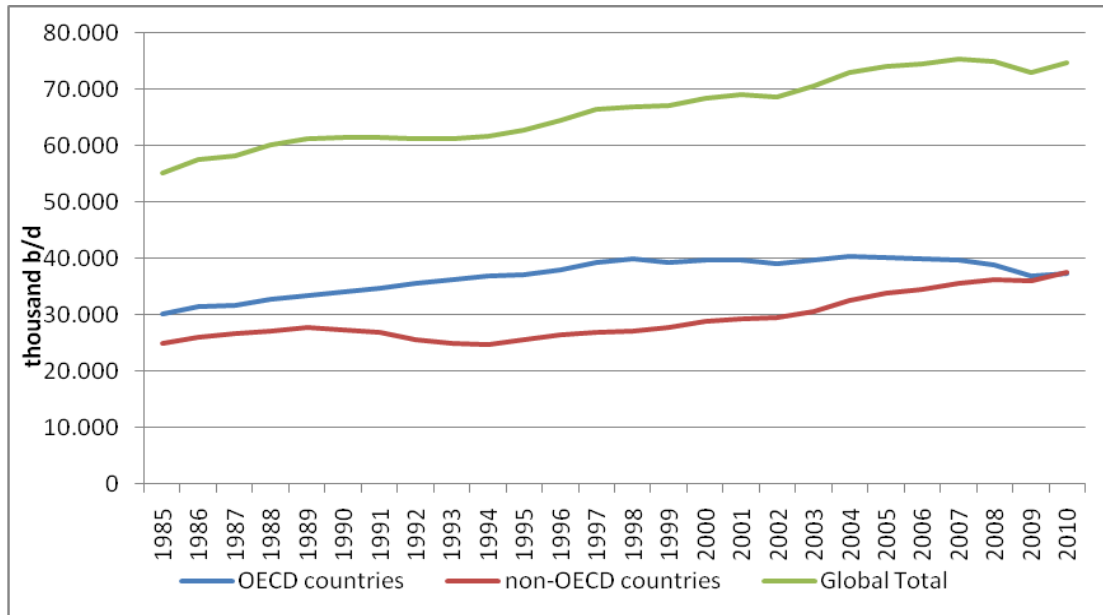


Figure 8. Global Refinery Capacity between 1985-2010[1]

In recent years, increase on refinery investments and cost advantages in other countries have resulted in the refinery production interruptions in Europe. Refinery capacity and the amount of refined oil in European Union countries have decreased by 2% and 0.9%, respectively[1].

Table 1. Developments in European Refineries in 2010[4]

Country	Company	Plant	Capacity (kb/d)	Time
France	Petroplus	Reichstett	85	2011
France	Total SA	Gonfreville l'Orcher (Capacity Reduction)	94	2011
France	Total SA	Dunkirk (closed)	141	2010
Germany	Shell	Harburg	110	2012
Italy	Tamoil	Cremona	94	2011
UK	Petroplus	Teeside (closed)	100	2009
Romania	Arpichem SA	Pitesti (closed)	70	2010
Total Europe			694	

However, Chinese and Russian refinery firms are still interested in European refining sector. PetroChina and UK-based Ienos have made joint venture agreement on refining and oil trade. Russian oil giant Rosneft bought some shares of PDVSA, and made joint venture agreements for 4 German refineries with BP. BP has also interest in buying 13 European refineries[4].

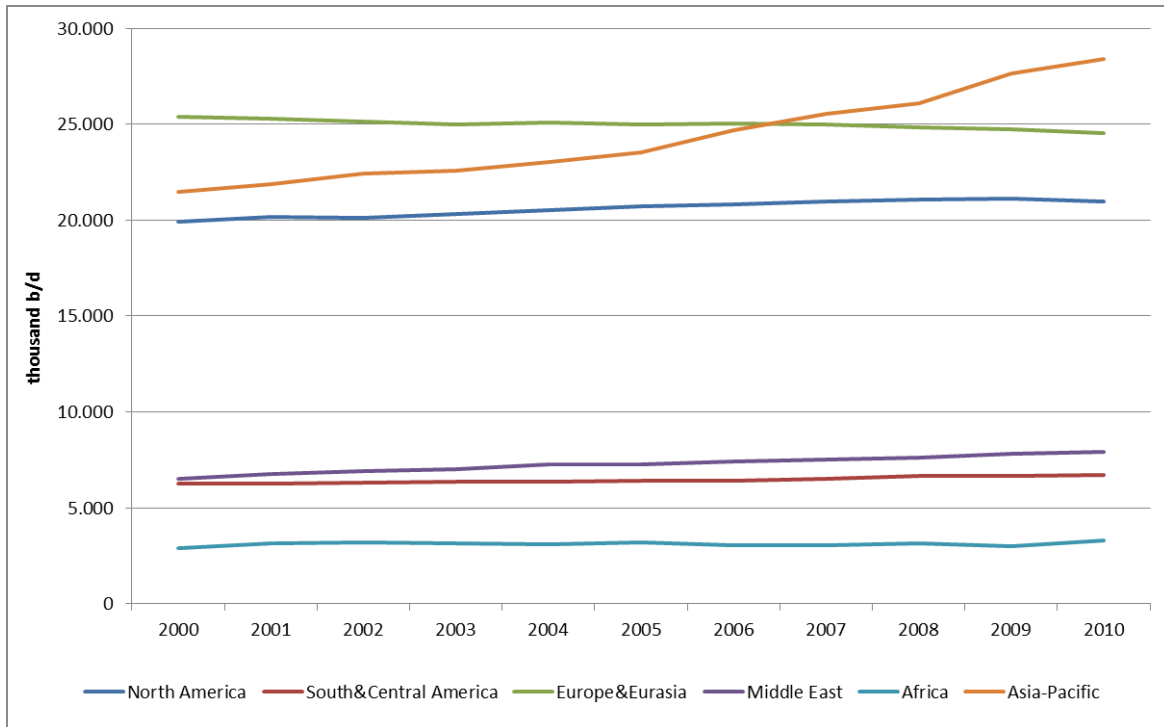


Figure 9. Global Refinery Capacity by years [1]

Brent crude oil price has increased by 29% and become 79.5 \$/b compared to 2009. Demand increase and OPEC production cut have led oil price increases and Brent crude oil prices have become 93.52 \$/b in the year end. Compared to other energy sources, demand increase in oil has kept limited due to higher oil prices. In the first half of 2011, average Brent crude oil price has become 111.14 \$/b.

Brent crude oil price is more volatile than WTI oil prices which is carried by pipelines. Due to the recent political developments in 2011, the gap between Brent and WTI oil has widened. This brings about the probability of WTI oil not to be the peer oil in the future periods[5].

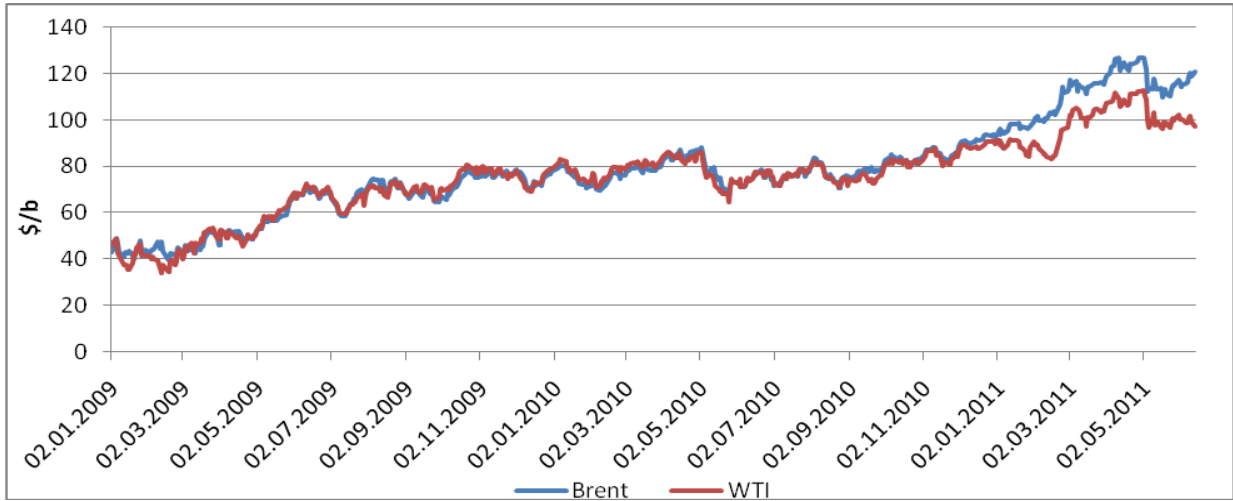


Figure 10. WTI Oil Prices between 2009- 2010[6]

1.2 Natural Gas Sector

Natural gas trade in 2010 has increased by 10.1% and reached 975.22 billion m³ which was 885.76 billion m³ in 2009. LNG trade with a rise of 22.6% takes the largest share of world natural gas trade with 30% of global natural gas trade. South Korea, UK and Japan are the major LNG importers[1].

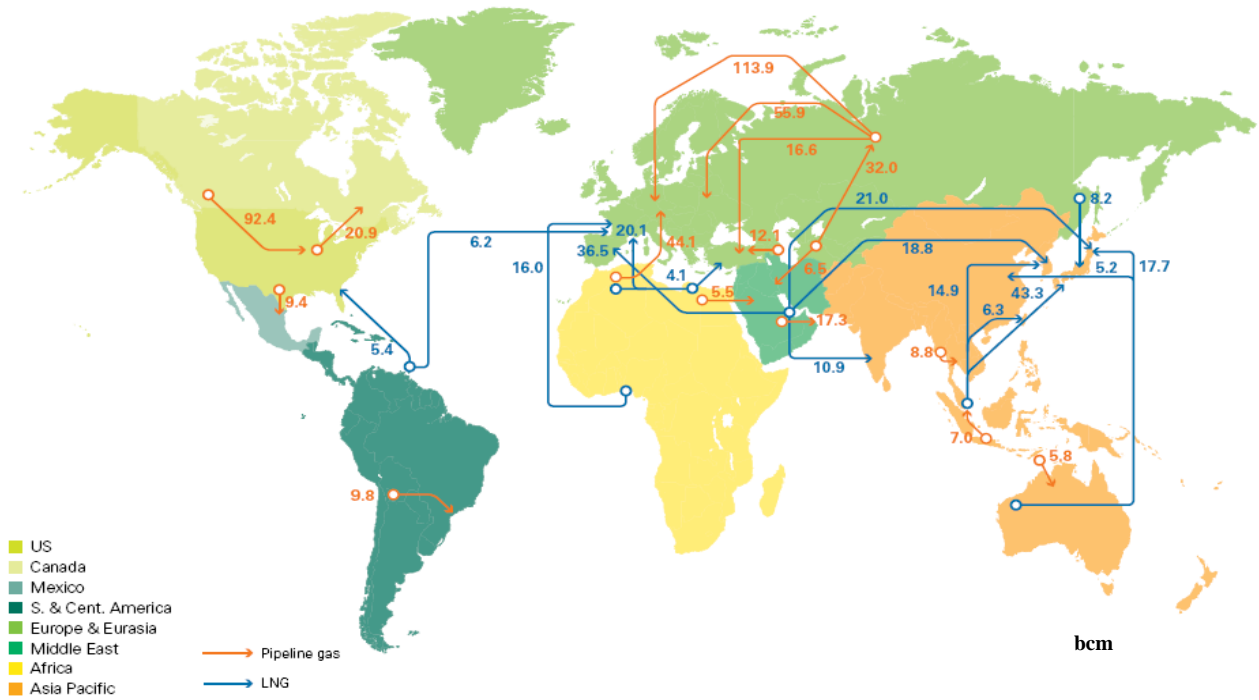


Figure 11. 2010 World Natural Gas Trade Movements in 2010[1]

Natural Gas Consumption

Natural gas consumption averaged 2.95 trillion m³ in 2009, recorded as 3.169 trillion m³ with an increase of 7.4%. The highest consumption increase is observed in Asia-Pacific (12.6%), South and Central America (9.3%); on the other hand, the lowest increase comes from North America (4.7%). World biggest natural gas consumer US has raised its consumption by 36.7 billion m³ (5.6%), followed by Russia with an increase of 24.5 billion m³ (6.3%) and China with an increase of 19.5 billion m³ (21.8%)[1].

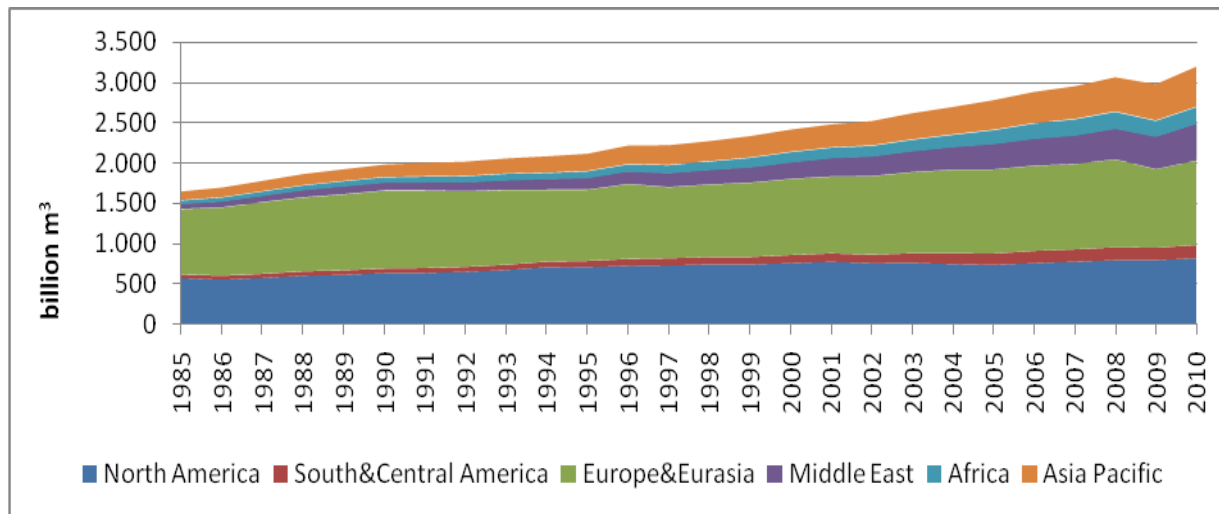


Figure 12. Global Natural Gas Consumption by years[1]

186.6 trillion m³ natural gas reserves in 2009 has increased to 187.1 trillion m³ in 2010.

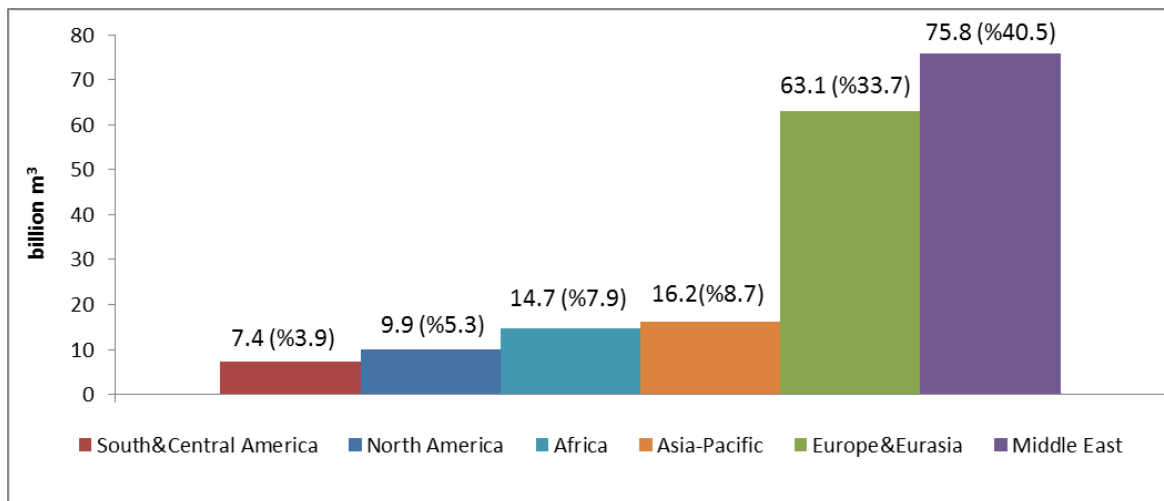


Figure 13. Regional World Natural Gas Reserve in 2010[1]

While in 1990, 43.4% and 30.2% of world natural gas reserves were located in Europe and Eurasia, and Middle East countries, respectively; the ratio for Europe and Eurasia has declined to 33.7% and the ratio for Middle East has increased to 40.5% in 2010.

Russia was ranked first with 44.8 trillion m³ proven reserve, followed by Iran with 29.6 trillion m³ and Qatar with 25.3 billion m³ in 2010[1].

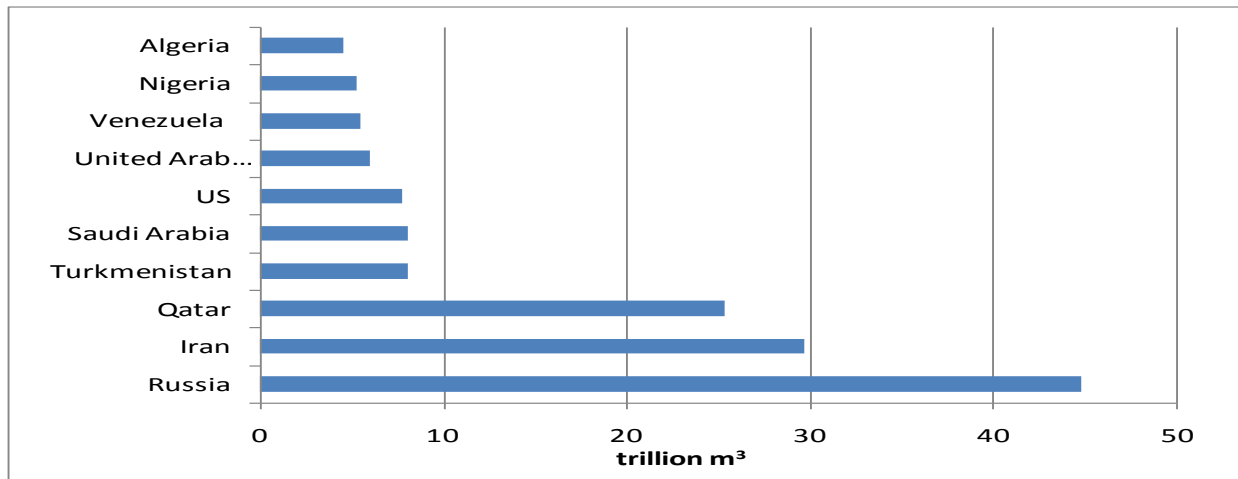


Figure 14. Proved Global Oil Reserve in 2010 (Top Ten Countries) [1]

Due to the economic crisis in 2009 a decline in gas production and an increase of R/P ratio was observed, consequently R/P ratio became 62.8 years. With the reduction of the economic crisis effects, an increase in natural gas demand was regarded and R/P ratio of 2010 became 58.6 years with a decline of 7% yoy basis[1].

Natural gas production averaged 2.975 trillion m³ in 2009, recorded as 3.193 trillion m³ with an increase of 7.3%. Production has risen by 11.6%, 4.7%, and 30.7%, in Russia, US and Qatar, respectively. US remained the world's largest producer with the supply of unconventional gas.

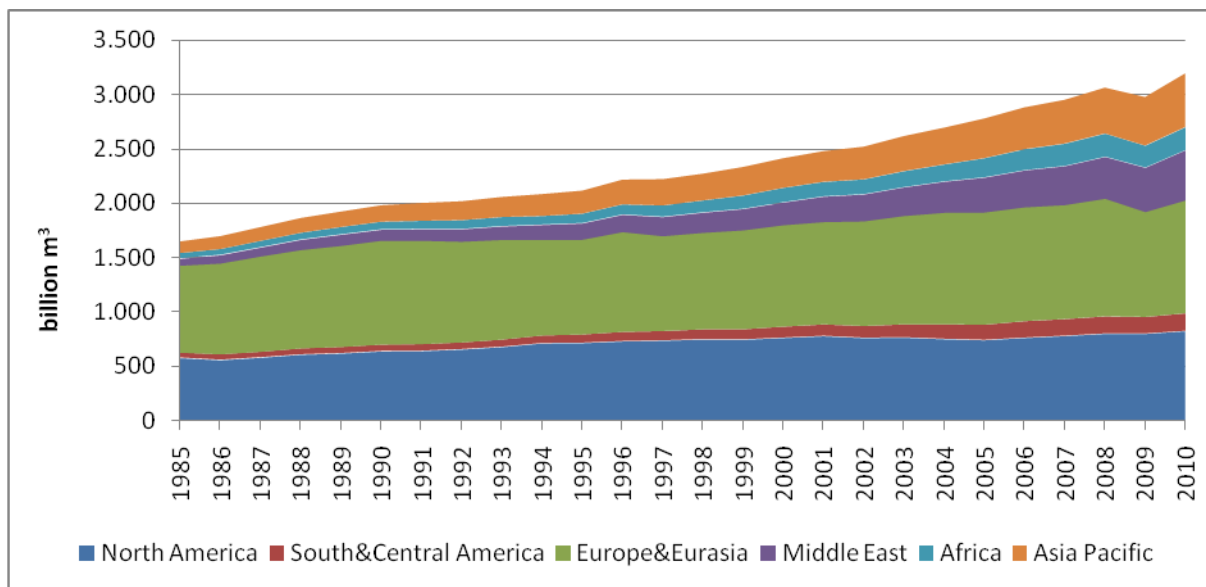


Figure 15. Global Natural Gas Production by years[1]

In 2010 main production increase has come from Middle East, Asia-Pacific, Europe and Eurasia. US, world biggest consumer and producer of natural gas, has increased its production by 28.2

trillion m³, on the other hand, Russia which is in 2nd rank could not produce as much as its consumption[1].

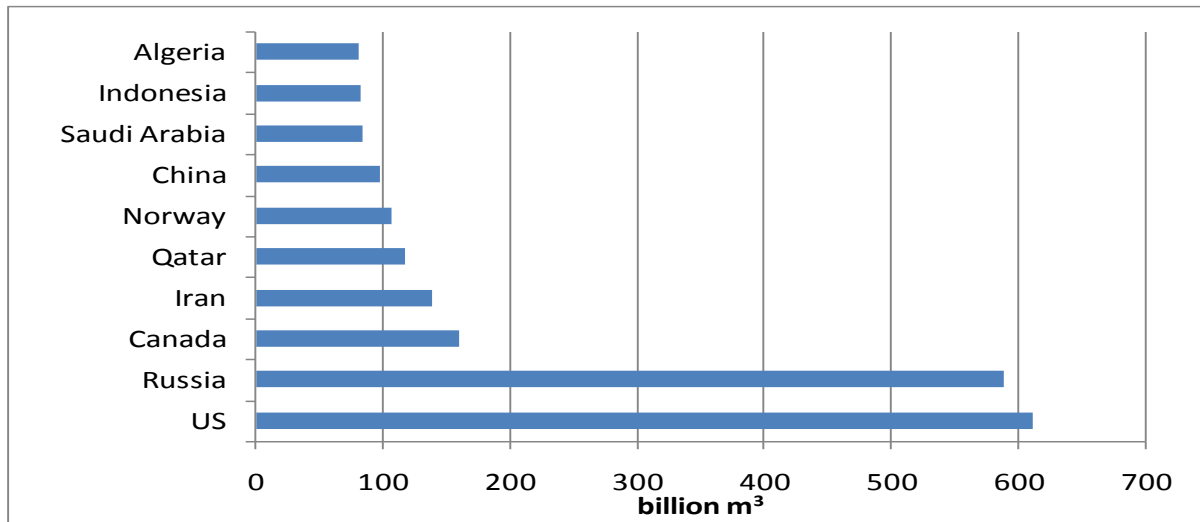


Figure 16. Global Natural Gas Production by years[1]

With the statistics of November 2010 there have been 647 facilities with 335.6 billion m³ capacity. North America has 70% of storage capacity of the world with 452 storage facilities including USA with 402 facilities and Canada with 50 facilities. Following North America there are 131 facilities in Europe 52 facilities in countries of Commonwealth of Independent States and 12 facilities in Asia-Oceania[7].

First underground natural gas storage in Middle East has started up in May 2011 by NGSC to meet natural gas demand in winter season. Initially, it is planned to increase initial capacity 7.3-9 million m³ to 30 million m³[8][9].

Henry Hub natural gas prices averaged 4.16 \$/MMBTU in 2009 and became averaged 4.52 \$/MMBTU in 2010[6]. Unconventional production techniques developed in the recent years and increasing LNG trade caused a rise in supply and fall in prices.

Natural gas prices has been in lower rates in US which continued higher unconventional gas production, On the other hand, Europe natural gas prices are above US, even though natural gas prices are in the lower rates due to recent changes in leases.

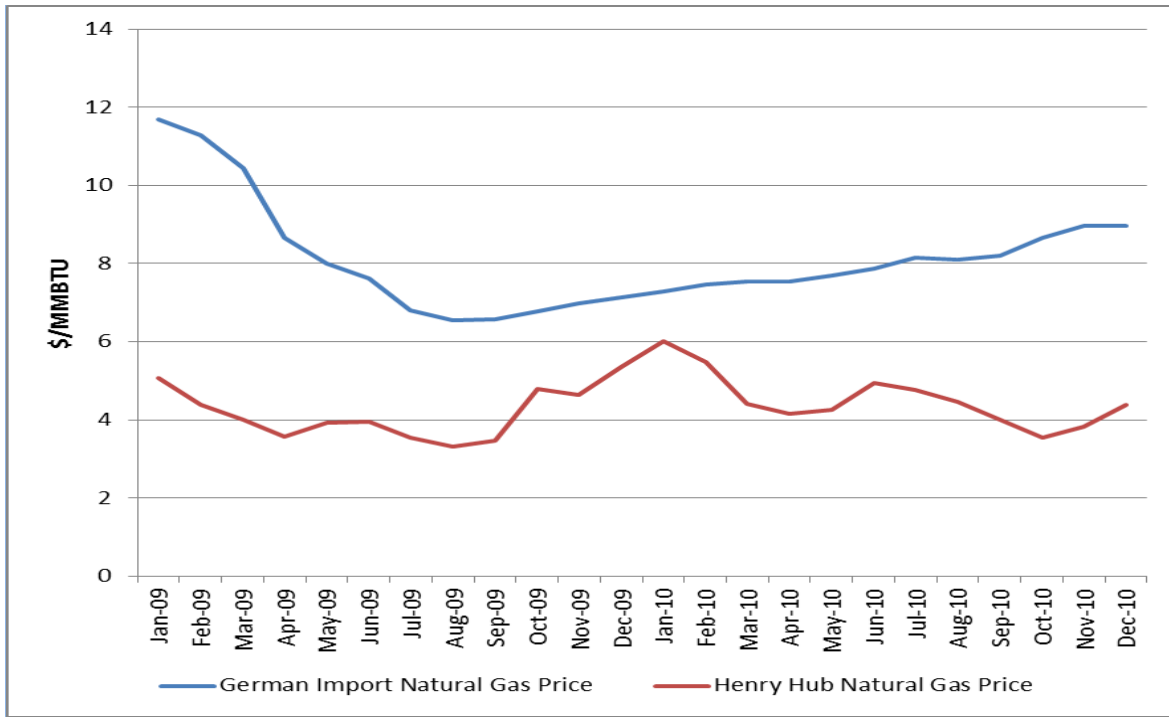


Figure 17. Monthly Henry Hub and German Import Natural Gas Prices 2009-2010 [6][10]

Until recent years, not preferred unconventional gas production due to higher production costs, insufficient technology and underutilized reserves, has started to increase with new developed methods in US.

Projections made in the beginning of 2000 had expected US to be LNG importer; however, production made by new unconventional methods has made them LNG exporter as of 2011[11].

On the other hand, unconventional gas production risks have some differences in regards to regions. Firms have started to make joint ventures in different parts of world which has higher production rates to improve their technology in unconventional gas production. Countries that have high potential for unconventional gas production try to solve problems with the legislation. It is expected that the positions of these countries that use methods of unconventional gas production is expected to change in international trade and with the fall of costs of gas production unconventional gas production is forecasted to increase.

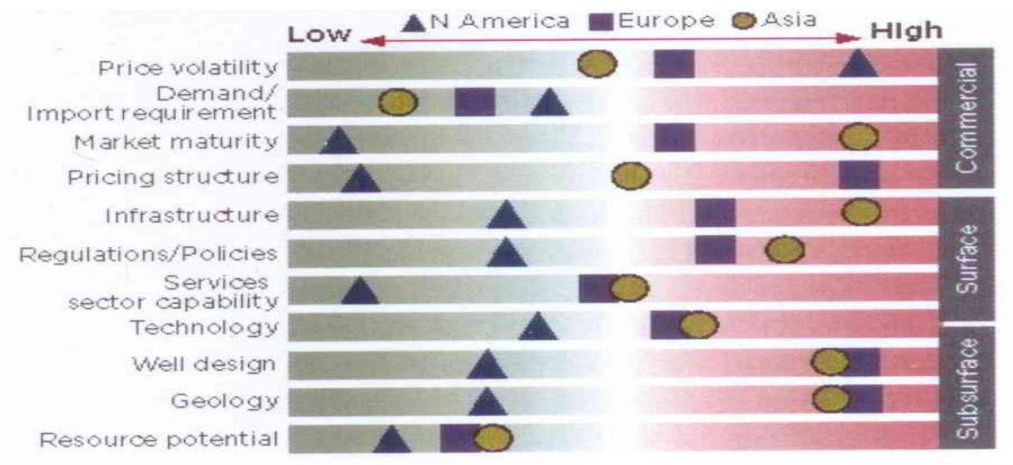


Figure 18. Risk Assessment in Unconventional Gas Production [12]

1.3 Main Issues in Oil and Natural Gas Sectors in 2011

- The year 2010 can be evaluated as a recovery year from economic crisis. Economic growth rate was recorded as 2.8% in US. Whereas Europe – Euro zone divided into two in the economic sense: on one side, led by Germany and France, recovered from economic crisis and beginning to grow, on the other side funded economy not to feel global economic crisis and following this caused budget deficits and debt crisis. In 2010 economic growth rate was recorded as 1.8% in Euro-Zone. In developing economies there have been regarded very high levels of growth; especially in China and India in turn 10.3% and 10.4% of growth rates were regarded[13].

Growth rate in Japan recorded as 4.0% in 2010 is expected to fall (by 0.7%) behind the expectations after the earthquake and tsunami in 2011 and also oil demand of country is estimated to decline. In addition to economic impacts of the earthquake, nuclear energy plants are also questioned. In long term it is expected to rise in natural gas demand for electricity production[3].

- The considerations for environmental protection and security have increased due to oil spill in Gulf of Mexico in 2010 and nuclear threat in Japan in 2011.
- Developments in Egypt and Libya caused oil prices to exceed 100 \$/b[14]. In long term, uptrend in oil prices expected to continue. Higher oil prices has resulted in increase in biofuel investments and allocating agricultural areas to biofuel production. There has been a fear that decreasing agricultural areas will increase world food prices[15].
- Incidents in Middle East and North Africa region at the beginning of 2011 brought up a possible disruption of oil trade. Because of the political instability in Libya started in February 2011, oil supply from Libya has cut off as of May 2011 and there is no precise information about continuity of oil production in the region[16]. Saudi Arabia declared that she could use spare capacity for production due to recent incidents in Libya[17].

- In short term, Iraq is expected to increase oil supply; in mid-term oil supply is expected to meet demand due to recent developments of Brazil's off-shore activities.
- Costs are expected to rise because of security precautions for on shore and heavy activities on ultra deep sea in Australia and West Africa[18]. Notably, it is stated that Asian national oil companies will be able to compete with major oil companies in near future[19].
- Main reasons for rising upstream cost in 2010 and first quarter of 2011 are that dual active rigs and downhole tools have been started to use. Investments for upstream are expected to increase, and rig prices are to be fall[20].
- Both conventional natural gas production and unconventional natural gas production are increasing. Hence, LNG investments are to be rise in 2011[20].
- In the recent years studies on climate change has increased. In this regard, in UN Climate Change Conference in 2009 climate change was declared as one of the most challenging issues in global context; however there was no binding document in this conference. In UN Climate Change Conference in 2010 the necessity of cooperation to deal with climate change was underlined and for reduction of greenhouse gases and carbon emission importance of action plans was emphasized. Also it was concluded that a fund for 100 billion \$ would be established to assist developing countries to achieve their goals.

2. OIL and NATURAL GAS SECTOR VIEW IN TURKEY

In accordance with the exploration, discovery, appraisal and the production activities of hydrocarbon potential of our country in 2010, 5,566 km² geological field survey (all by TPAO), (936 km 2D seismic, 1,203 km² 3D seismic and 15,424 stations by TPAO), 2,547 km 2D onshore, 2,099 km 2D sea, 471 km² 3D sea seismic survey and 29,492 stations gravity magnetic survey were conducted under geophysics activities ; in total 216 wells being as 103 exploration wells, 49 appraisal wells and 64 production wells were drilled and 325,592 meters drilling activities (171,486 meters by TPAO) were conducted[21].

In 2010, 2.5 million tons of oil and 726 million m³ natural gas was produced and totally 135.6 million tons of oil and 12 billion m³ natural gas were produced by now.

In the last decade, 2.2% decline is regarded in Turkish oil production. With the exploration of new oil fields and developing secondary production methods, production decline was partly prevented and 4% increase has been recorded yoy in 2010.

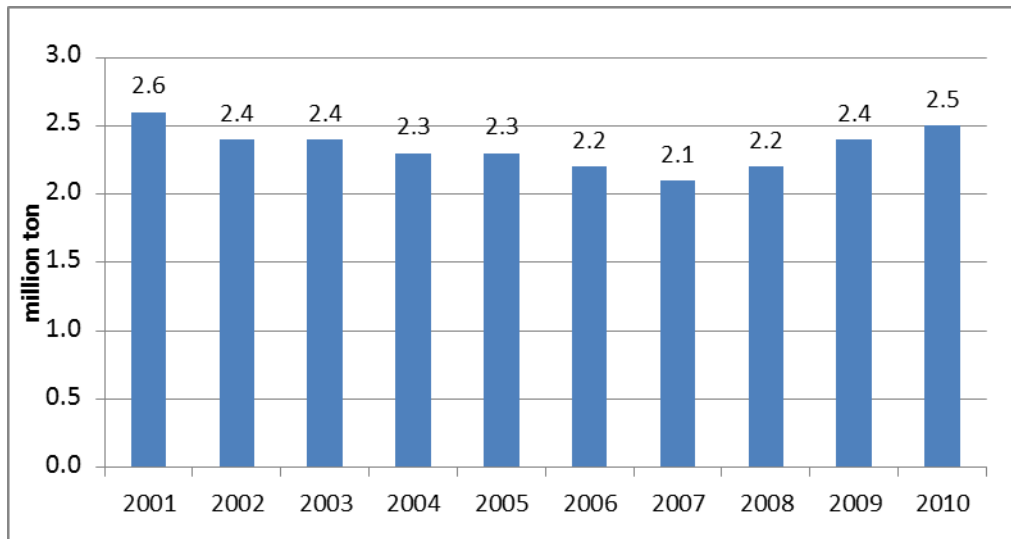


Figure 19. Crude Oil Production in Turkey by years [22]

Furthermore, through new production wells drilled in old fields and new natural gas explorations conducted by TPAO-Amity oil partnership in Thrace since 2002; gas production that declined in 2001 started to increase again and reached its peak level in 2008 with production rate of 1,014 million m³. However after 2009 upward trend slowed down and in 2010 natural gas production recorded as 726 million m³[22] .

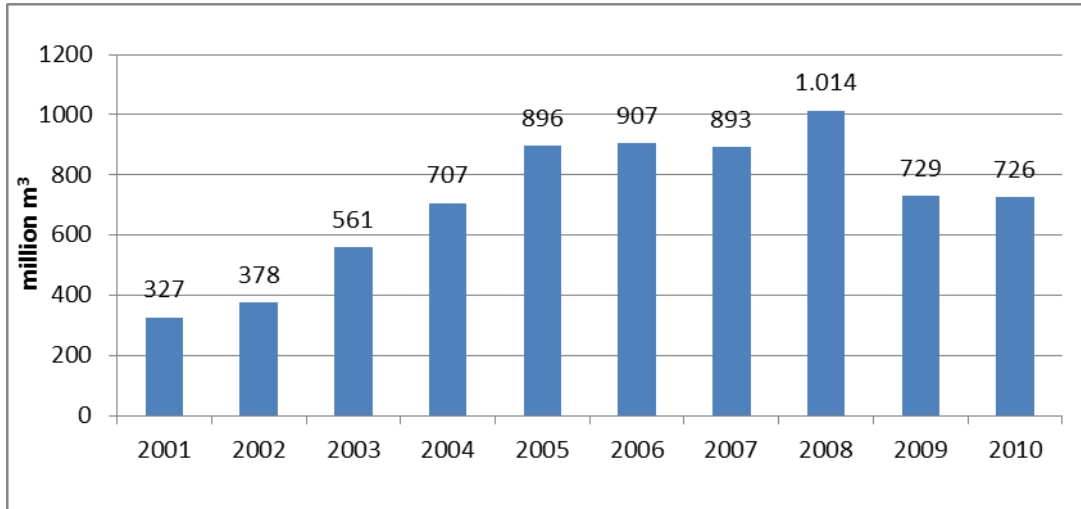


Figure 20. Natural Gas Production in Turkey by years [22]

By the end of 2010, recoverable oil reserve reached 291.5 million barrels (43.14 million tons) and in case of no new exploration; estimated R/P ratio of domestic crude oil is 17.2 years with the current production level. At this time period domestic natural gas reserves were 6.2 billion m³. In case of no new discovery and with the current production level, estimated R/P ratio of domestic natural gas reserves is 8.6 years. However it is possible to produce oil and gas from shale by using developing technologies and methods for last 10 years. Turkey is in one of top six countries in Europe that produce unconventional natural gas. In April, 2010 first unconventional well, Kecipirtepe-1, was drilled, and new production techniques have been tried[21].

In Turkey 10% of the oil fields have 25-500 million barrels reserves, remaining fields 90% of oil fields have less than 25 million barrels of oil reserves. In other words 90% of unexplored oil fields of Turkey regarded as small fields and 10% of it as middle fields.

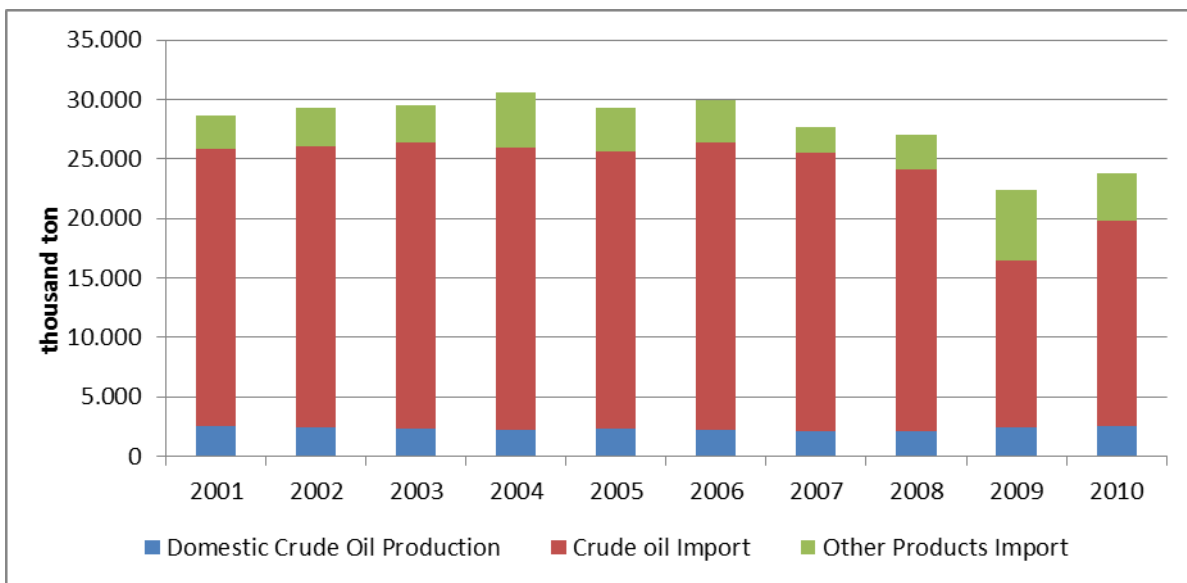


Figure 21. Crude Oil Supply in Turkey by years[22]

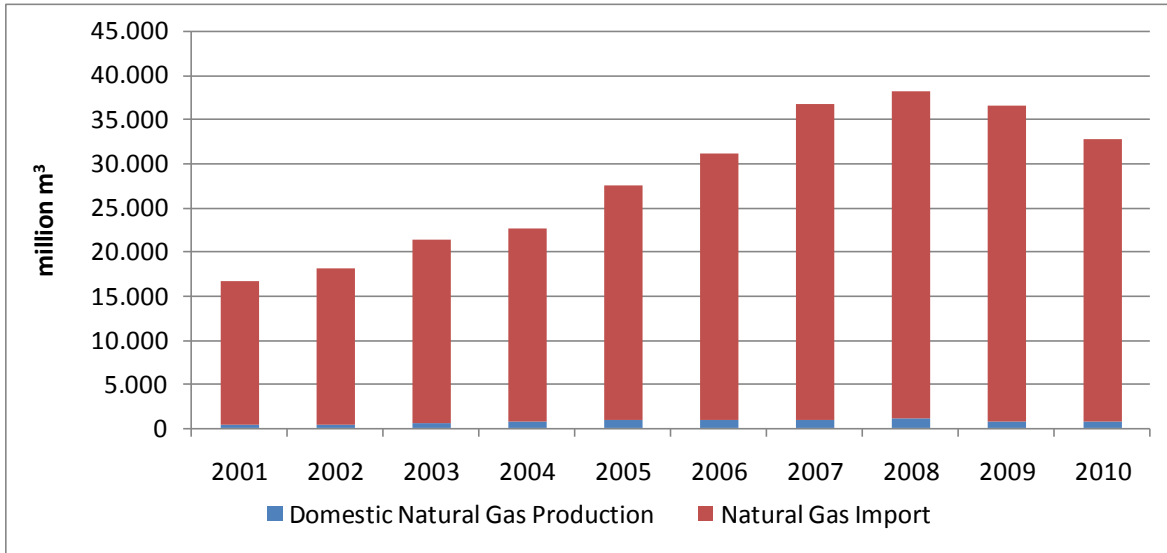


Figure 22. Natural Gas Supply in Turkey by years[22]

In the last decade, crude oil supply has decreased by 17%, on the other hand; natural gas supply has increased by 96% in Turkey. 10.5% of crude oil demand and 2.2% of natural gas demand have been met by local supply in 2010[21].

Table 2. Crude Oil Reserves in Turkey by the end of 2010[22]

COMPANIES	Original Oil in Place (million b) *	Recoverable Oil (million b)	Remaining Recoverable Oil (million b)
TPAO	5,433.54	871.57	218.07
N.V. Turkse Perenco	641.96	200.72	28.56
TransAtlantic E.M.I. + DMLP Ltd.	539.00	98.50	13.74
TPAO + Tiway Oil	49.61	19.60	1.46
TPAO + N.V. Turkse Perenco	105.27	30.80	14.18
Aladdin + GYP	58.71	10.36	2.51
Aladdin + GYP + Madison (Turkey) LLC.	24.30	6.19	4.02
Aladdin + GYP + Talon	25.00	7.50	7.28
TPAO + Amity Oil	0.14	0.14	0.01
Extreme-Petrako	8.39	1.68	1.68
TPIC	0.21	0.21	-
Other	0.03	0.03	0.001
TOTAL	6,886.17	1,247.31	291.52

*Total of proved, probable and possible reserves

Table 3. Natural Gas Reserves in Turkey by the end of 2010.[22]

COMPANIES	Original Gas in Place (million m³)*	Recoverable Gas (million m³)	Remaining Recoverable Gas (million m³)
TPAO	11,708	8,835	1,166
N,V, Turkse Perenco	4,654	3,258	2,960
Amity Oil Int, + TPAO	1,916	1,624	293
Thrace Basin	2,010	1,835	500
Thrace Basin + Pinnacle Turkey	1,561	1,368	569
TPAO + Petrol Ofis + Foinavon + Tiway	1,821	1,183	641
TransAtlantic + Petrako + Edirne Enerji	159	144	90
Amity Oil Int,	10	8	6
TOTAL	23,839	17,524	6,221

*Total of proved, probable and possible reserves

2.1 TPAO in the Sector

TPAO, conducts her operations in accordance with her vision “To become a regionally effective world-class energy company meeting Turkey’s oil and natural gas demand and to be the most desired company to work with.”

TPAO continues her abroad operations by participating in international consortiums formed by major oil companies in Azerbaijan and Kazakhstan for production activities. In addition to those, she will start operations in 4 oil fields in Iraq. She is the operator in one of them. TPAO conducts new business development activities through relationships between countries and firms.

The great portion of the Company’s international production comes from Azeri-Chirag-Guneshli Project in Azerbaijan.

TPAO, as a partner of Shah Deniz project, produced natural gas for the first time in international fields, in addition to this production TPAO has met some national gas demand from international sources. TPAO delivers natural gas of Shah Deniz Project continuously via using Southern Caucasus Pipeline. The main target of the project is transmitting regional natural gas to the Europe via Turkey in the second stage.

In 2009 the first exploration drilling was completed and oil was discovered in Libya; 7 of 11 exploration wells drilled by Our Corporation resulted with oil discovery so far. It is expected to provide political stability in Libya to sustain the activities.

Activities in Iraq continue to evaluate investment opportunities for hydrocarbon exploration and production since 1994. In license auctions announced by Ministry of Oil of Iraq TPAO won Missan, Badra and 20 year operating right for Siba and Mansuriya Gas Fields in 2010.

Also, TPAO through our subsidiary TPIC won an auction for 45 wells owned by Iraqi National Oil Company SOC, in Rumalia field. Also subsidiary TPIC continues drilling operations in Gonzalez and Maria Conchita blocks.

The position of TPAO among the top 10 companies in global crude oil and natural gas sector with the data of 2009;

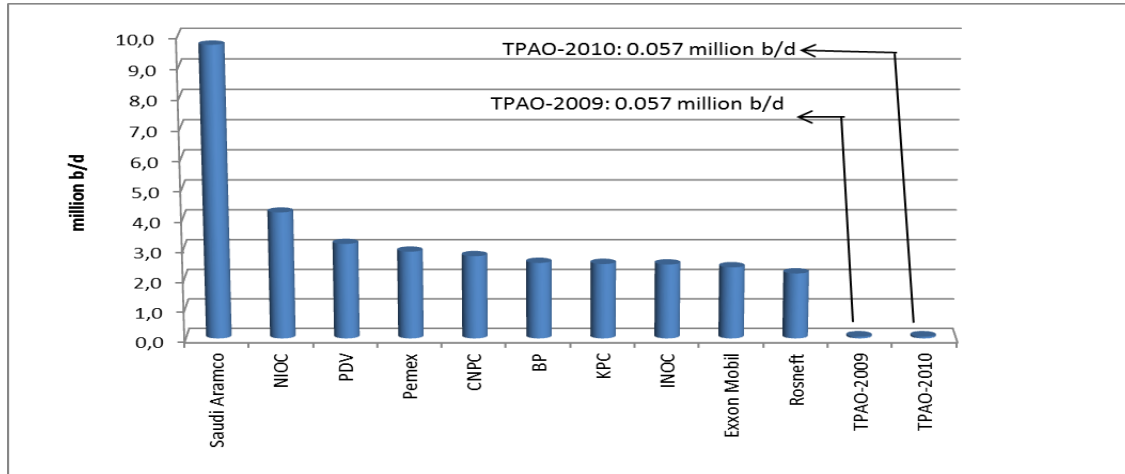


Figure 23. Top 10 companies and TPAO in daily Crude Oil Production in 2009[23]

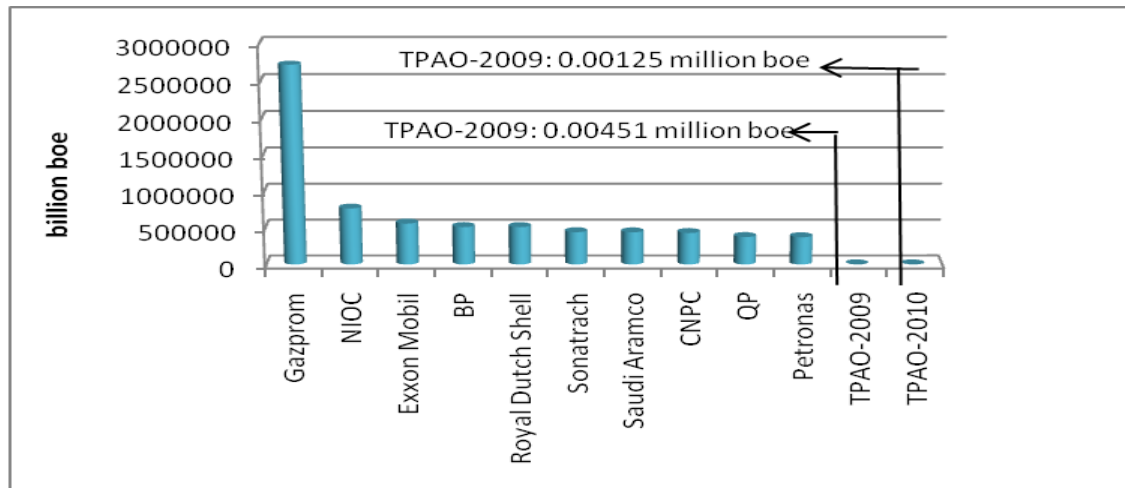


Figure 24. Top 10 companies and TPAO in daily Natural Gas Production in 2009[23]

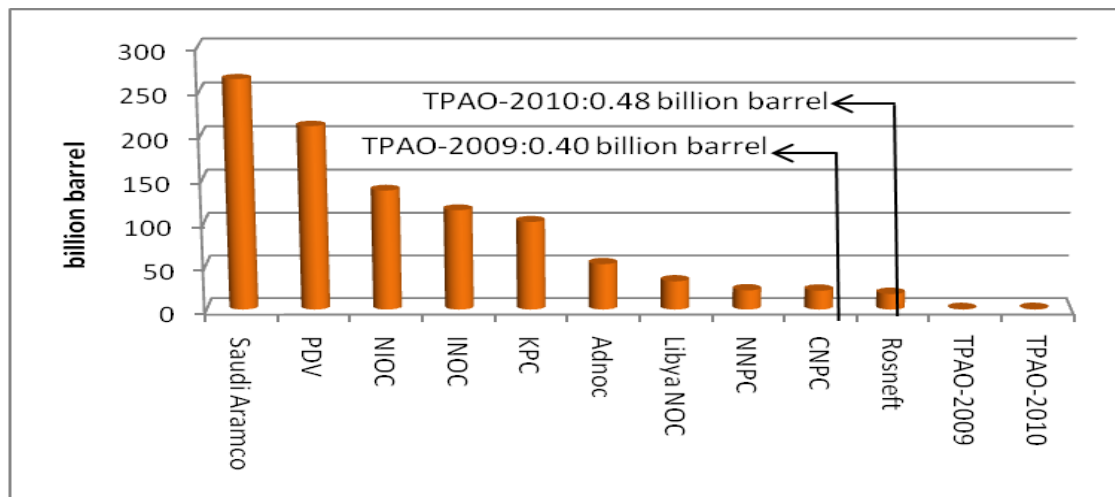


Figure 25. Top 10 companies and TPAO in Crude Oil Reserve as of 2009 year end[23]

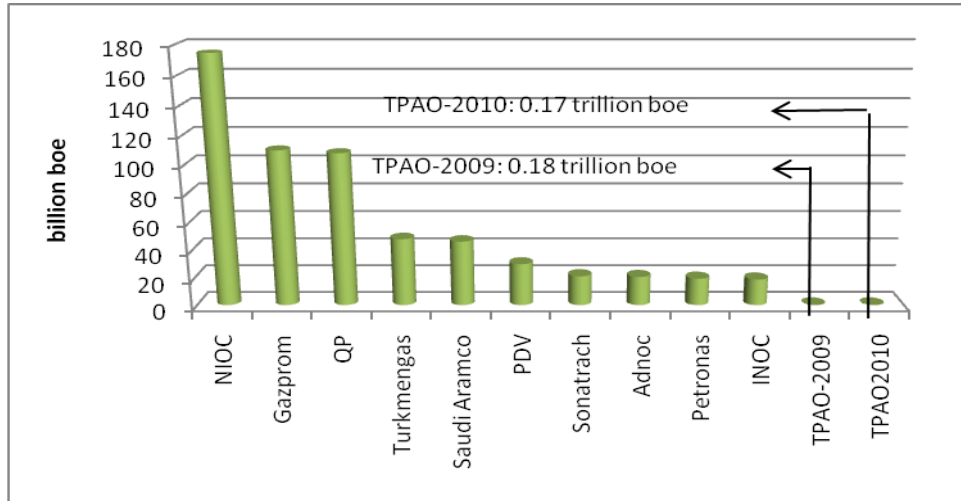


Figure 26. Top 10 companies and TPAO in Natural Gas Reserve as of 2009 year end[23]

Turkey's energy demand highly correlated with the increase in global energy demand, economic growth and prosperity. Until 2023, Turkey's oil and natural gas imports would be expected to pay invoice over 560 \$ billion[24]. TPAO continues her activities towards reduction the sum of the bill and provide security of energy supply.

Besides onshore fields TPAO, has focused on exploring offshore fields for determination, production and contribution of current oil potential to the national economy.

With the rise of oil and natural gas prices, declining cost of production by developing technology, oil companies have become the focus of attention in Black Sea Basin. Amount of seismic activities in offshore fields in the last 7 years is more than the amount of seismic activities achieved in offshore fields in 57 year-history of TPAO.

Because of the high risks in investments of offshore exploration, TPAO continues its activities with other companies by sharing these risks. In this context, first deep water drilling of Turkey (Hopa-XI) was completed in 2006 within the framework of the activities of TPAO-BP partnership. In this activity TPAO gained her first experience about deep water drilling and is still one of the 12 companies in ultra deep water drilling in the world.

Moreover partnerships with international giants Petrobras, ExxonMobil and Chevron were established, Sinop-1 (operator Petrobras), Yassihöyük-1 (operator TPAO) and Sürmene-1 (operator TPAO) were drilled within the mentioned partnerships. In 2010 181,000 meters drilling activities in 92 wells were conducted in shore and also farm-out works in Mediterranean Sea were started.

Within the activities to put Akcakoca fields into production, Akcakoca production platform going to produce 360,000 m³/d, is lined up and natural gas is produced. In 2010, 75% of total crude oil production which was 2,5 million m³ in Turkey was produced by TPAO.

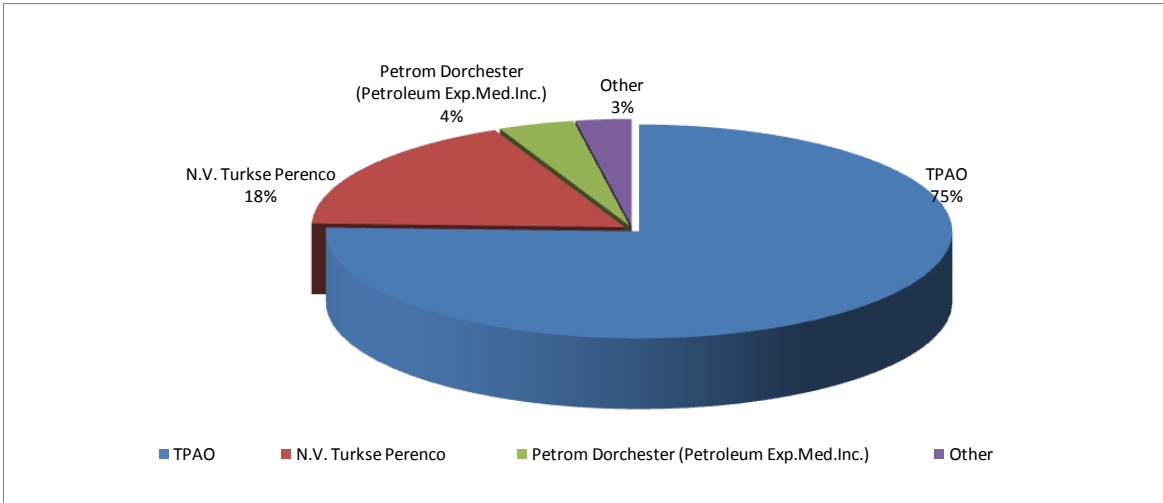


Figure 27. Company Based Crude Oil Production of Turkey in 2010[22]

In the last decade decline of 2,2% in oil production was observed. With result of the activities for the improvement in oil production in Batman region by TPAO after especially 2003, TPAO prevented decline in oil production and increased by 4% (yoy) in 2010.

In 2010 natural gas production recorded as 726 million m³, 36% of which performed by TPAO.

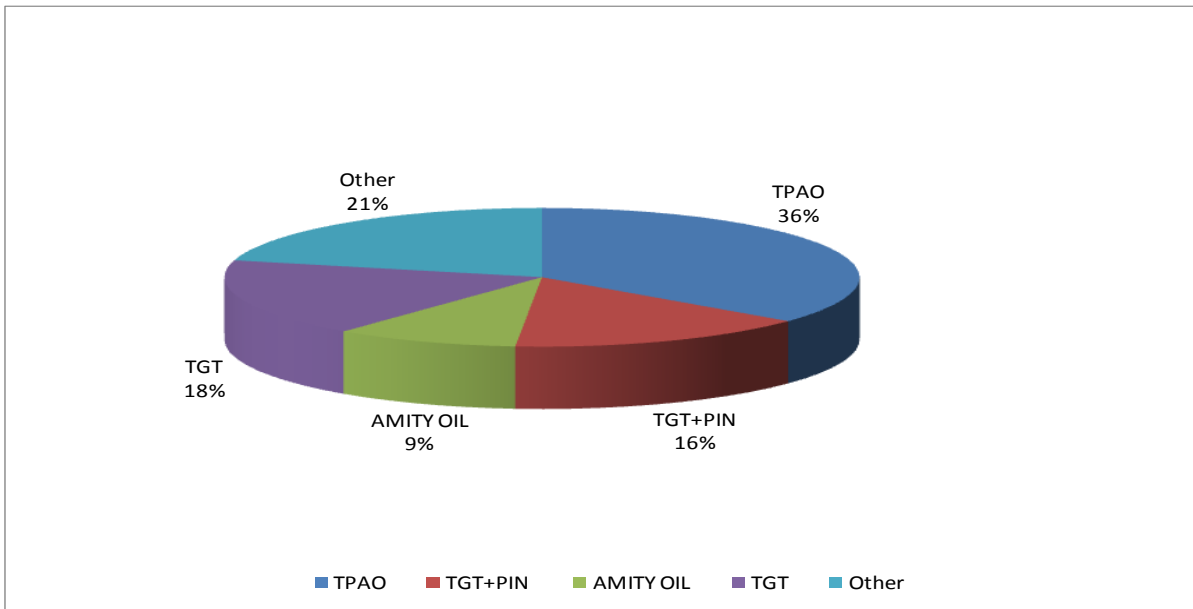


Figure 28. Company Based Natural Gas Production of Turkey in 2010[22]

As in the countries where natural gas is commonly used, Turkey's natural gas demand also depends on the seasons; in winter demand can be twice as summer. For this reason, natural gas storages where gas surplus in summer season can be stored and then can be brought into use to meet the increasing demand in winter has been needed for so long.

On the other hand, according to the Natural Gas Market Law No.4646 dated 18.04.2001 natural gas importing companies should have contract with the storage companies to store an amount corresponding to 10% of the natural gas to be imported every year, in the national territory.

In this regard, activities for Silivri Natural Gas Project, the first underground gas storage project of our country with total -both onshore and offshore- capacity 1,6 billion m³, were started by TPAO in 1998 and in 2007, stored natural gas was reproduced. Natural gas storage capacity reached 2,66 billion m³ in 2009. There are studies to increase this figure to 2,84 billion m³ and daily reproduction to be 25 million m³ in 2013, and 50 million m³ in 2016 from 14 million m³.

The bidding for 1 billion m³ capacity natural gas storage facility in Saline Lake by BOTAS is in the final stage[25].

Also Calik Energy has initiated underground natural gas storage activities in Saline Lake with a capacity of 1,4 billion m³. This project's engineering part has been completed in 2008 and Environmental Effect Assessment is currently continuing[26].

2.2 Refinery Sector

In Turkey there are four refineries owned by Turkish Petroleum Refineries Corporation (TUPRAŞ) in Izmit, Izmir, Kırıkkale and Batman, ATAŞ refinery which had operated since 1962 put an end to refinery activities and has operated in the field of storage since July 2004. Total refinery capacity of Turkey declined from 32 million tons/year to 28.1 million tons/year when ATAŞ refinery put an end to refinery activities[27].

Table 4. Processing Capacities and Capacity Utilization Rates of Refinery Sector [27]

Refinery	Processing Capacity ve CUR* (mton/year and %)	Years			
		2007	2008	2009	2010
İzmit	Capacity	11	11	11	11
	CUR	100	94	75	81
İzmir	Capacity	11	11	11	11
	CUR	97	93	67	82
Kırıkkale	Capacity	5	5	5	5
	CUR	63	58	62	57
Batman	Capacity	1.1	1.1	1.1	1.1
	CUR	71	72	58	79
TOTAL	Capacity	28.1	28.1	28.1	28.1
	CUR	91.1	86	69	77

CUR*:Capacity Utilization Rate

In 2010, 2.1 million semi-finished products and 19.6 million tons of crude oil were processed; in addition to that 20.6 million tons of oil products were produced in our country[27].

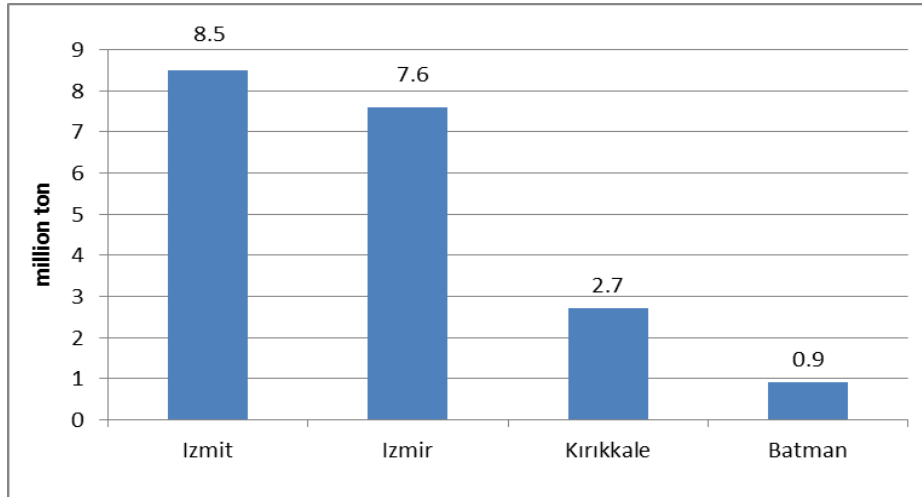


Figure 29. Amount of Processed Crude Oil based on Refinery. in 2010[27]

Production of oil products in 2010 was realized as 18.8 million tons, increased by 15% compared to the year 2009.

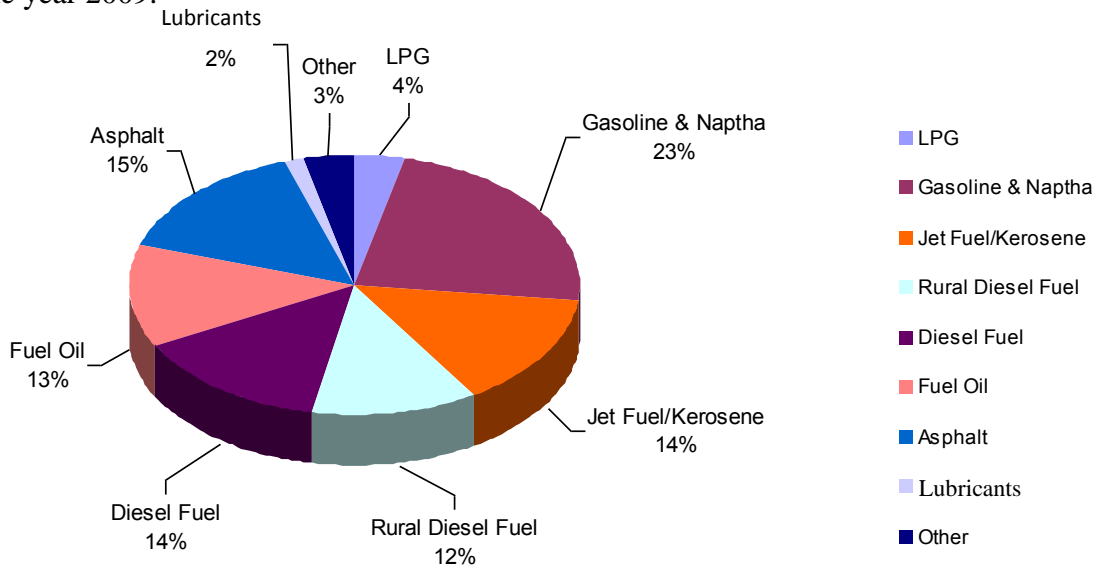


Figure 30. Distribution of Oil Products in Turkey in 2010 [27]

Currently in addition to granted refinery license to Doğu Akdeniz Petrokimya ve Rafineri Sanayi ve Ticaret Anonim Şirketi in 2007 by Energy Market Regulatory Authority in 2010 a refinery license is granted to Socar & Turcas Rafineri Anonim Şirketi, This project is expected to be done in the second half of 2014[28].

In addition to four refineries of TUPRAŞ; Besides accepted license application of companies and send license applications of companies to Energy Market Regulatory Authority, it is planned to invest to Ceyhan for a new refinery costs 15 billion \$.

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