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## About the Report

In our second Corporate Responsibility Report, the first of which was published in August 2008, we have made several improvements in terms of reporting scope and context.

In respect to the understanding of accuracy and transparency, our main intention to realize these reporting engagements is to provide our stakeholders with a clear and balanced portrait of Tüpraş operations including not only strategic decision making and implementation processes but also performances achieved and future goals. Our goal is enabling our stakeholders to spot Tüpraş's progress from past to present and its position intended to be in future. In line with this intention and this goal, we have restructured our reporting activities according to previous experiences and feedbacks that we have received.

Primarily, we have seen that one year reporting period can be inefficient for demonstrating performance outcomes of a developing corporation that operates in refining sector which runs long-termed projects. For that reason, we have decided to shift our annual reporting period as indicated in our previous report to biannual reporting period just like many peer companies in our sector do. In this way, we believe that we can share our performance outcomes more accurately. Thus, this Tüpraş Corporate Responsibility Report covers operation and performance data of two calendar years between 01.01.2008-31.12.2009.

For us, our first reporting engagement was an important learning process. As a matter of fact, reporting boundary was designed in order to reflect the company as a whole but also limited within the necessary quality measures for reporting. In this period, we have shared our learning with all our operation bases. In this vein, we have included performances of all Tüpraş refineries as promised in our previous report. In order to reflect Tüpraş's corporate integrity, there are introductory information about our subsidiaries Opet Petrolcülük A.Ş. and Ditaş, although their performances are not covered within this report.

We have also improved our reporting practices in terms of content. In this reporting period, we have considered possible changes, especially as a result of the economic crisis encountered, in expectations of our stakeholders particularly those who are our intended audience; namely investors, employees, customers, business partners, and media. Thus, we have revisited Tüpraş's corporate responsibility priorities. In this report, we aimed to provide a sustainability portfolio in a more holistic manner including social, economic, ethical and financial aspects of our material issues and also our activities in general.

The primal communication objective of our first report was to explain to our stakeholders how we manage our operations and to share Tüpraş's inner face that they have not met before. Accordingly, we had disclosed information on our material issues on the basis of operational pro-

cesses. In this reporting cycle, we have also improved our disclosure practice and shifted to material issue based reporting rather than process based disclosure.

The methodology of our reporting is based C level reporting principles of the GRI G3 Guideline. We have also considered UNGC reporting initiatives to which Koç Holding is a party. For the cases in which GRI and UNGC were not sufficient to disclose performance data in sector specific issues, we used corporate performance indicators.



## Message From the Chairman

Dear Stakeholders,

The most important issue in the agenda of the years 2008 – 2009 was the global economic crisis. All economic activities, primarily in oil & gas sector, were affected severely by these unfavorable circumstances. Even though crisis periods bring along various issues and risks, for a responsible corporation, main focal point must be solution strategies to bypass these negative impacts rather than problems themselves. As a matter of fact, economic crisis is not a legitimate reason for leaving our responsibilities before our stakeholders aside. Moreover, for the organizations that consider their assets from a wide perspective, crisis periods provide an opportunity for testing how sustainable and solid their strategic decisions, systems and processes, human resources qualities, stakeholder communications are in challenging circumstances. Companies that foresee market conditions can embrace various opportunities for improving their performance in production processes, products and generally their business conduct.

The period we have passed, was not offering an ideal economical climate for Tüpraş. However, years 2008-2009 have made their mark in our corporate history as a term in which the profitability has been ensured, corporate targets have been achieved, and a performance over the Mediterranean market averages which we operate in, has been realized despite all the turbulences that oil and gas sector has faced in global scale.

Tüpraş, as one of the most rooted industrial corporations in Turkey, has gained a new identity through its privatization in 2006. Both financially and operationally, Tüpraş has reached a stronger level thanks to refineries' multiplicity of processes structured responsively according to product demands and to the investments realized in various fields such as operational efficiency and business continuity. Besides all these, we have restructured Tüpraş's way of business conduct in line with modern management principles and tools via improvements and investments in human resources, health and safety, environment, operational reliability, R&D and corporate governance. Through these activities, we aimed to become a corporation which is not only more reliable in terms of environment, safety and continuity but also financially stronger and which has high adaptation skills against market condition changes and a corporate citizen which can build mutual, transparent and accountable relationships with all its stakeholders and which is also responsive to societal concerns.

In these efforts, our main objective was empowering Tüpraş for becoming an efficient and reliable player in global petroleum industry, admired for its performance and human resources. During this turbulent period, we had an opportunity to test our strategic vision, corporate reflexes, breakthroughs that we have realized in order to discover how accurate, consistent and effective they are in terms of shifting our organization to a more sustainable stage. Our results prove that, in every aspect, today Tüpraş

is more reliable, robust and sustainable than ever before.

Tüpraş takes sustainability in priority due to its responsible management approach. Our understanding of sustainability is making certain of profitability and organizational development in order to respond various demands without compromising high-end safety conditions, operations producing minimum environmental impacts, commitment to ethical norms and constructive stakeholder relations based on accountability and transparency especially with our employees. Our main responsibility against our stakeholders is continuously improving our corporate sustainability performance, realizing this, is a fundamental duty of Tüpraş management including primarily the Board of Directors.

In a period that many refineries in OECD countries terminated their activities, we have succeeded in supplying Turkey's petroleum products demand without compromising our goal of creating value for our stakeholders by playing a pioneer role in our sector while keeping our profitability and improving our operational performance. For example, thanks to the strategic moves that we have accomplished in this reporting period, we have increased quality standards of our products, improved our environmental performance especially in terms of energy efficiency and CO<sub>2</sub> emissions reduction; structured our R&D unit and we have also obtained cost advantage. Moreover, in terms of health and safety, we have achieved a performance beyond our targets. Apart from that, continuing our ongoing projects and investments was a significant achievement. Considering this picture, we may tell that we have enjoyed significant and perpetual achievements despite temporary losses.

Behind our sustainable success, lie our reflexes of "multi-dimensional examination on facts that we encounter and rapid adaptation according to the recent conditions". By this means, we ensure the capacity of developing actions on our operational units in line with current conditions.

Our talented and motivated human resources are the true enablers of our success. For this reason, we consider our employees as our most valuable assets; we thank every one of them for mobilizing their valuable labour, knowledge and skills for Tüpraş's success. Furthermore, we offer our most sincere gratitudes to our suppliers, business partners and their employees for playing a major role in our activities; to all our customers, shareholders and investors for their loyalty, trust and support. We would like to reassert our commitment to Tüpraş's future sustainable progress in every domain and circumstance.

Sincerely,  
Ömer M. Koç

## Message From the General Manager



Dear Stakeholders,

Realizing business strategies and policies in order to fulfill Tüpraş's sustainable progress which is our main responsibility for our stakeholders, was at the heart of our practices during the period 2008–2009. In this period, Tüpraş has achieved in securing its financial power and profitability, increasing its operational performance despite the adverse effects of the global economic recession. In realization of our achievements, we observe the positive impacts of exhibiting a more effective attitude in communications with our stakeholders, namely our employees, business partners and customers.

In 2008, with the very first traces signaling that the issues in American economy would turn into a deep global crisis, as Tüpraş management, we have made a sound analysis on the impacts of increasing negative circumstances on our sector and on our company, and we have restructured all our business strategies and policies according to the current conditions. Our aim was to increase product efficiency by reducing costs as much as possible while ensuring an optimization in crude oil charges, production and sales. First of all, we have decided on more efficient management methods in order to reduce inventory risks and we shared our decisions with our organization. By this means, we have improved our financial capacity against a possible increase of operating capital need. On the one hand we have optimized sales and crude oil supply; on the other hand we have diversified our supply sources in order to secure crude feeds. We have secured sales amounts as much as possible by more proactive sales operations despite of market shrinkage. Plus, we promptly transformed current market conditions into opportunities. For example, when semi-finished product prices, compared

to crude oil, became more profitable, we steered for decreasing capacity utilization for crude processing and converting heavy semi-finished products into white products - for which demand is more - by operating conversion units in full capacity. By this means, in our product portfolio, we have succeeded in increasing the proportion of white products which are more profitable. We have ensured our production on a most profitable level by optimization between refineries. By this decision that we have rapidly put in practice, in 2008, we have increased our gross refinery margin by 51% up to 10,90 US dollars/barrel level. In 2009, we kept our loss by 15% in 9,2 US dollars/barrel limits and achieved our goals while average Mediterranean gross refinery margin decreased by 65% to 1,95 US dollars/barrel level.

Basic principle of Tüpraş management for defining business strategies is "preparing long-term action plans by analyzing possibilities within a wide perspective and providing flexibility necessary for fast adaptation to contemporary status changes". Investments and improvement projects that we have already accomplished by this principle, have contributed a lot to realize our strategic measures for crisis period. For example, thanks to our conversion unit investments accomplished before, we have increased our white product production capacity and that is why we could improve our product performance during the reporting period. Besides that, thanks to our investments in order to improve logistic capacities between refineries primarily on railways, during the crisis period, we could optimize production among refineries in such a manner that enabled us to respond to regional demands. Furthermore, Tüpraş's proximity to both crude oil and product markets has provided us with a significant advantage for this performance.

We acquired a surplus value of 17,7 million US dollars in 2007, 146,3 million US dollars in 2008, 79,8 million US dollars in 2009, totally 243,8 million US dollars in these 3 years, thanks to 80 projects that we have realized within the scope of operating excellence program that started in 2007. We have realized a significant reduction in our energy consumption via various projects accomplished by our energy management unit, organizational structure of which was built in 2007. Within this period, Tüpraş has improved its performance not only in natural resources consumption, most definitely in water use but also in carbondioxide emissions through environmental impact reduction projects. During the previous 2 years, we have reduced our energy consumption by 11,9 million GJ and CO<sub>2</sub> emissions by 650 thousand tons via other studies. In 2009, we used 3 million m<sup>3</sup> less water compared to 2008. Besides, in 2009 we increased the proportion of recycled water in our total water use up to 36% when it was 33,7% in 2008.

Technical safety and reliability of operations are considered as Tüpraş's top priorities by all our employees. We continuously improve our health, safety and environmental norms and also undertake performance building measures in order to prevent that our stakeholders, especially our direct and indirect employees, are exposed to an adverse effect as a result of our operations. Within the scope of 5 year plan schemed in 2007, we have improved our health and safety performance

assessment system by 2008. We have begun to measure data related to employees of our contractors together with Tüpraş employees while those were measured separately before. By the positive effects of our improvement activities, in 2008, accidents occurred at a frequency rate of 3.6 which is a better performance compared to our target 5.5. In keeping our performance progress in 2009, we have improved our performance by 1,1 and reduced accident frequency rate to 2,5 although our target was 3,5. Thus, by 2009, we have already achieved our performance target for 2012 which is set in our five year plan. Reducing accident frequency rate is one of our targets for upcoming periods.

Despite all the difficulties brought by the crisis atmosphere, we continued on our investment program. We have consolidated our ongoing projects and in this period, we have realized their relatively low cost stages such as detail engineering. Among all our projects, most important is the Residium Upgrading Project (RUP). Main aim for this project is to produce 3,5 million tons of white products and 800 thousand tons of petroleum coke which generate more added value and less environmental impact, out of 4,2 million tons of black products, primarily fuel oil and atmospheric deep products, added value of which is in decline. These units, which will operate integrated to Izmit Refinery, will be built and put into production by 2014 as a result of 2 billion US dollars of investment. As a complementary of all configuration investments we have realized up to the present, when we put this investment into production, Izmit Refinery will become one of the most complex refineries in Europe and will generate over 400 million US dollars of additional EBITDA.

In 2009, we also improved our organizational structure. We gathered our R&D activities which were carried out since 2006 on subject basis by speciality units, under a single roof. R&D Unit started to carry our product and process development projects in the context of university – industry cooperation.

For Tüpraş, supporting community development is a major activity field. Within defined materiality context, we carry out various activities in order to contribute to development of communities that we operate in, especially for education, health, socio-cultural life, environment and infrastructure. In the field of education which is crucial for local development, in 2008 we have launched "The Umbrella Act" in Batman and in 2009 we continued this project by enlarging its scope to İzmit and İzmir regions. We carried out various activities on local basis in order to raise environmental awareness.

During 2008 – 2009, both operational and corporate successes of Tüpraş were evaluated and appreciated by many institutions. In this period, we have secured our long term leader positioning in Top 500 Industrial Corporations researches. We have improved our performance compared to previous years and have been awarded with second prize in Accountability Rating 2008 Turkey Research which was realized by an independent organization, the AccountAbility in cooperation with CSR Institute Turkey. In 2009, our compliance rating note for Capital Markets Board of Turkey Corpo-

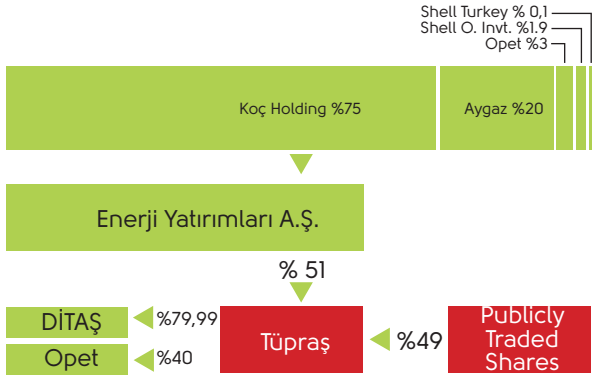
rate Governance Principles was revised and elevated from 8,20 to 8,34 on a ten point scale. By the end of 2009, international credit rating agency, Fitch Ratings elevated Tüpraş's foreign currency long-term rating from BB to BBB- which is also the country rating ceiling.

Together with our employees who embrace our visionary approach on Tüpraş's sustainable growth, we press forward in our quest of being an operationally high performing company which is sensitive to environment and human existence, and a value generating corporate citizen for all its stakeholders. We thank to all our stakeholders who offer us their trust and support in our journey.

Best Regards,  
Yavuz Erkut

# Tüpraş by Highlights

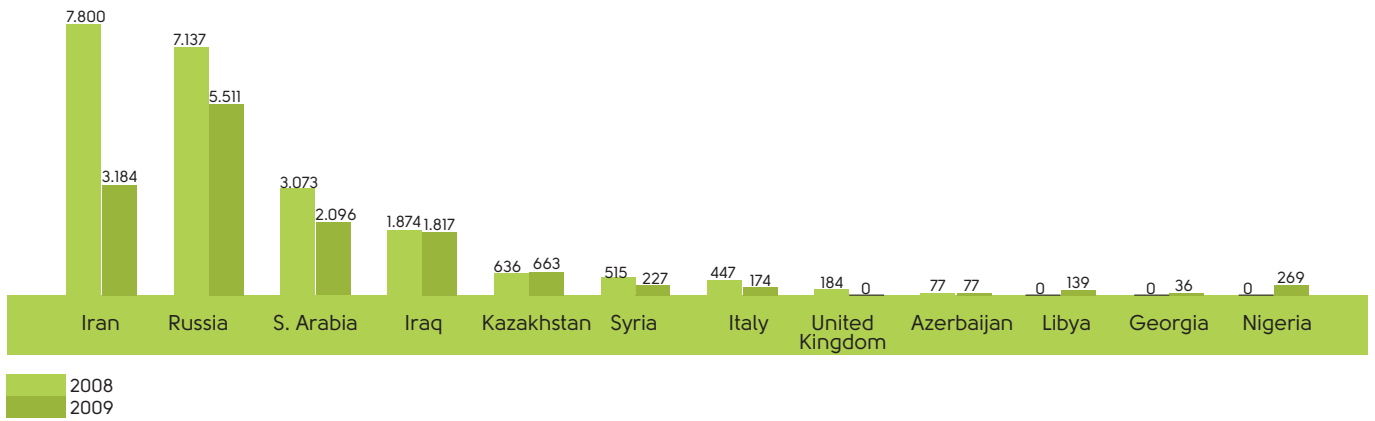
## Partnership Structure



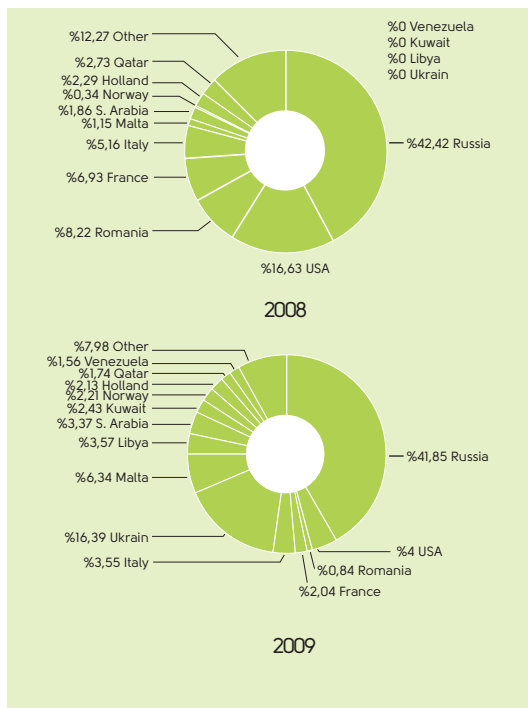
## Shareholder Structure (TRY)

Shareholders	Capital (TRY)	%
Enerji Yatırımları A.Ş.	127.713.792,22	% 51
Other Shareholders (Publicly Traded)	122.705.407,77	% 49
Privatization Administration	0,01	% 0
<b>Total</b>	<b>250.419.200,00</b>	<b>% 100</b>

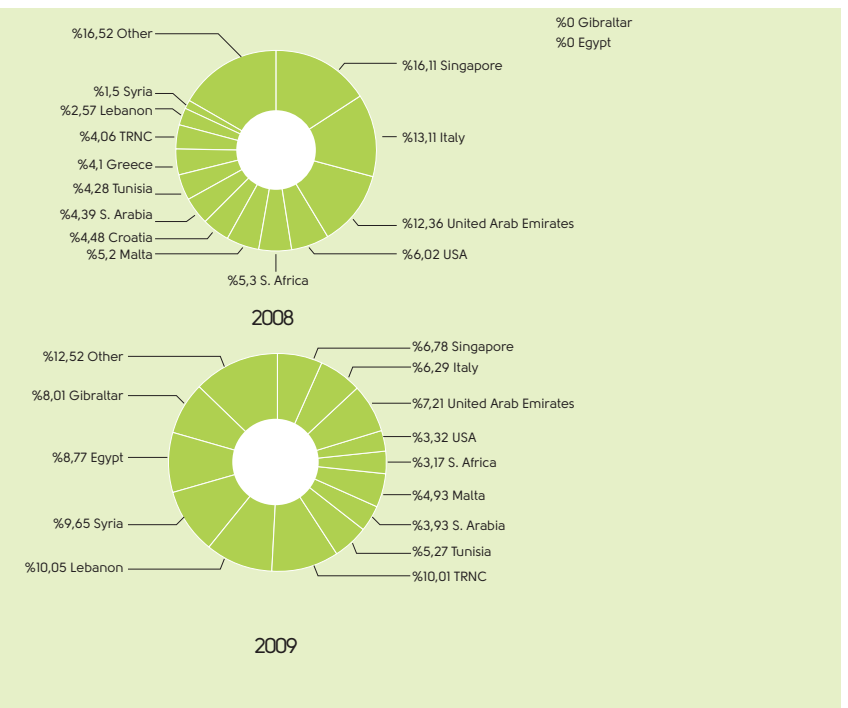
## Crude Oil Supply Sources (thousand tons)



## Imports by Country

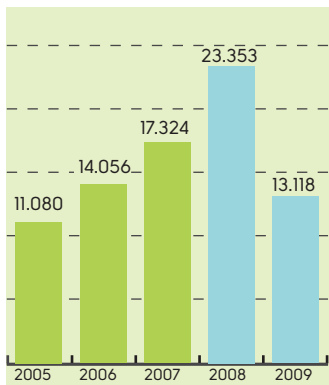
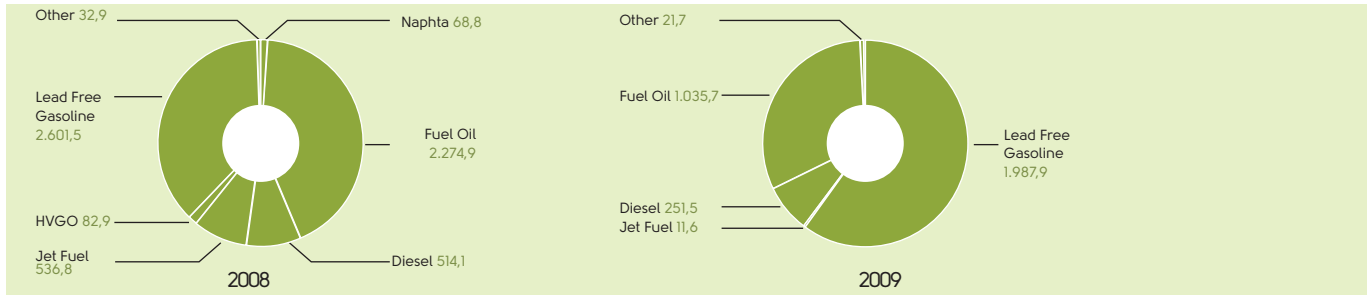


## Exports by Country

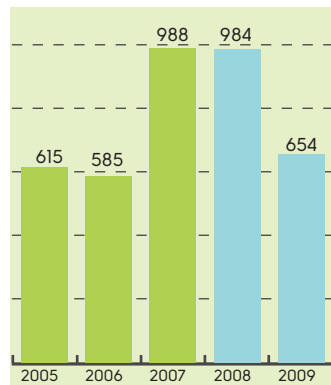




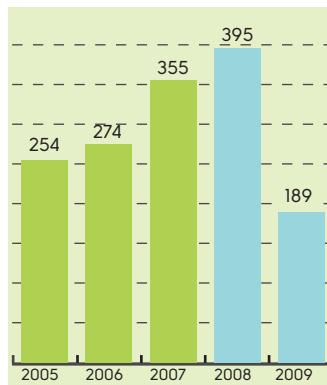
## Export Quantity by Product (thousand tons)



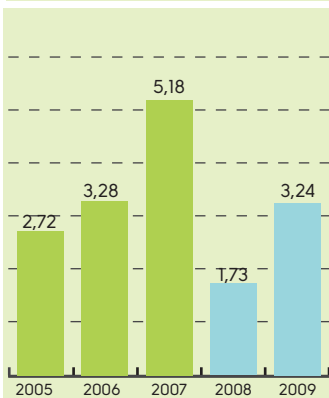
**Net Sales (USD Million)**  
In 2009, due to the drop in oil and product prices sales stood at USD 13,118 million.



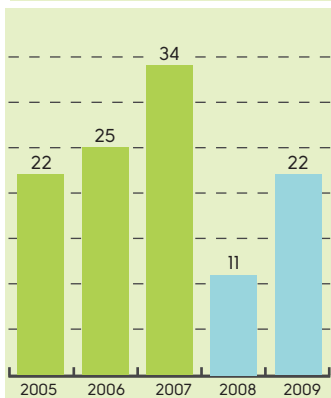
**Operational Profit (USD Million)**  
Despite the fall in refinery profit margins due to the global crisis, Tüpraş implemented apt strategies and has reached the highest profitability level in the sector in 2009.



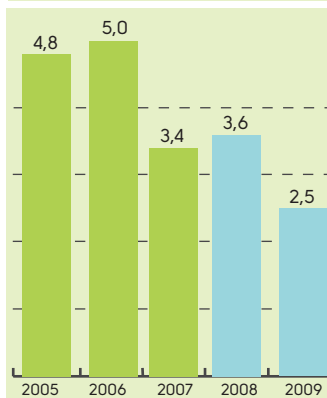
**Investment Expenditure (USD Million)**  
In the four-year period from 2006 to 2009, Tüpraş engaged investment expenditures of USD 1 billion 212 million.



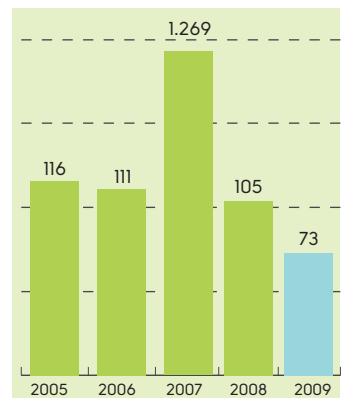
**Profit Per Share (TRY)**  
Profit per share grew 87% over the previous year, from TRY 1.73 to TRY 3.24.



**Return on Equity (ROE) (%)**  
Tüpraş's return on equity has increased two-fold since 2008, reaching 22%.

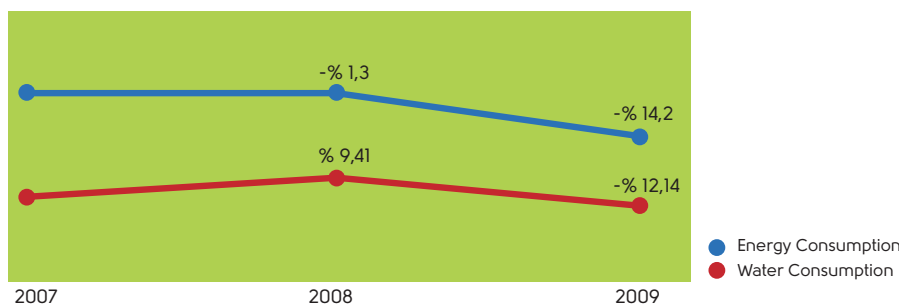


**Accident Frequency Rate**  
(Number of Incidents x 1.000.000 / person x hour)  
the 2009 accident frequency rate target was originally set at 3.5; however, due to safety policies in place and measures taken, Tüpraş was able to attain an even lower figure of 2.5.



**Severity Rate** (Days Lost x 1.000.000 / person x hour)  
In 2009, the severity rate stood at 73, lower than initial target of 80.

## Resource Utilization Trends





Year of Establishment : 1961  
 Refining Capacity : 11 million tons  
 Storage Capacity : 1,97 million m<sup>3</sup>  
 Nelson Complexity : 7,78  
 Number of Employees : 1.373

## Izmit Refinery

Izmit Refinery which possesses 11 million tons annual refining capacity, produces Euro V standard products meeting EU norms. Izmit Refinery, which entered amongst the Mediterranean high complexity refineries thanks to configuration investments, provides logistic advantage through its easy access to open sea and terrestrial markets and its proximity to major consumption locations.



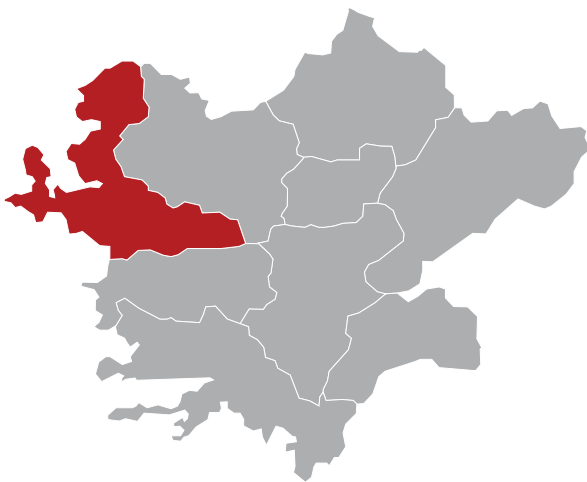
	2008	2009
Production	9,8 million tons	7,7 million tons
Sales	11,8 million tons	9,9 million tons



## Izmir Refinery

Year of Establishment : 1972  
 Refining Capacity : 11 million tons  
 Storage Capacity : 2,51 million m<sup>3</sup>  
 Nelson Complexity : 7,66  
 Number of Employees : 1.206

Izmir Refinery which possesses 11 million tons of annual refining capacity, produces Euro V standard products meeting EU norms. Izmir Refinery has a competitive advantage for its high complexity, connection to open sea and market location in tourism region.



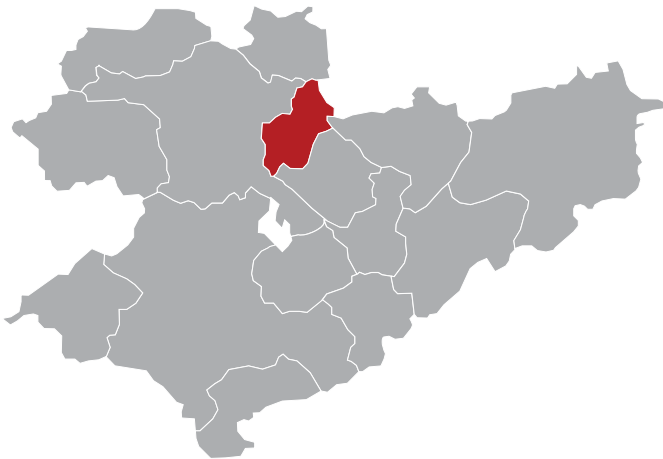
	2008	2009
Production	9,6 million tons	6,9 million tons
Sales	10,3 million tons	7,9 million tons



## Kırıkkale Refinery

Year of Establishment : 1986  
 Refining Capacity : 5 million tons  
 Storage Capacity : 1,25 million m<sup>3</sup>  
 Nelson Complexity : 6,32  
 Number of Employees : 911

Kırıkkale Refinery, which possesses 5 million tons of annual refining capacity, became one of the Mediterranean mid-level complexity refineries thanks to configuration investments. Kırıkkale Refinery which is connected to crude oil sources by pipelines and to other Tüpraş refineries by railroad, possesses a logistic advantage through its close location to terrestrial markets to which it can supply products confirming EU standards. Kırıkkale Refinery which possesses the biggest fuel truck filling facility in Turkey, has its 100.000 m<sup>3</sup> asphalt storage capacity.



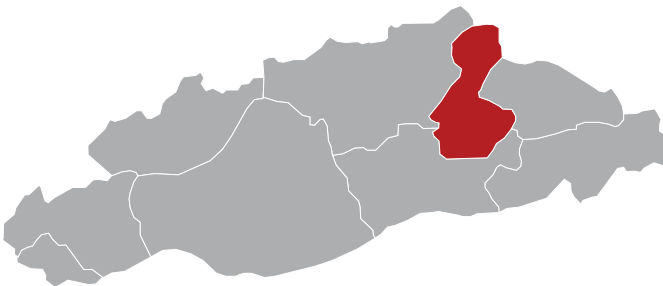
	2008	2009
Production	2,7 million tons	2,8 million tons
Sales	3 million tons	2,8 million tons



## Batman Refinery

Year of Establishment : 1955  
 Refining Capacity : 1,1 million tons  
 Storage Capacity : 221.000 m<sup>3</sup>  
 Nelson Complexity : 1,83  
 Number of Employees : 429

Batman Refinery which possesses 1,1 million tons of annual refining capacity, is the first refinery in Turkey. Batman Refinery which is connected to domestic and international crude oil sources with pipelines, ensures its competitive advantage by serving to internal market with EU standard products which are supplied from İzmit and Kırıkkale Refineries besides its own production.



	2008	2009
Production	753.000 tons	614.000 tons
Sales	859.000 tons	871.000 tons

# Opet Petroleum Co.



Opet Petroleum, 40% shares of which is owned by Tüpraş, was founded in 1992. Opet is involved in the production of mineral oils and the international trading of petroleum products, while retailing and wholesaling in the fuel distribution sector. It has gained a substantial position in this sector, by consolidating its sales in ship and aircraft fuels through the THY-Opet Aviation Fuels Company founded in 2009 with Turkish Airlines partnership. Increasing its market share in comparison to 2008, by the end of 2009 Opet has become the third largest fuel distribution company with its 16,6% market share in white products, and the second largest with its 26,3% market share in black products.

Carrying out its sales in total of 1.324 stations, 798 of which are branded as Opet, and 526 of which are branded as Sunpet; by the end of 2009, Opet Petroleum has the second largest storage capacity following Tüpraş. Opet has increased its storage capacity to 1,129 million m<sup>3</sup>, as it continued its infrastructure enhancement practices in 2009. Utilizing Opet's storage facilities for its own sales, Tüpraş acquires a crucial logistic advantage.

Marmara Opet Terminal  
Storage Capacity  
723.000 m<sup>3</sup>

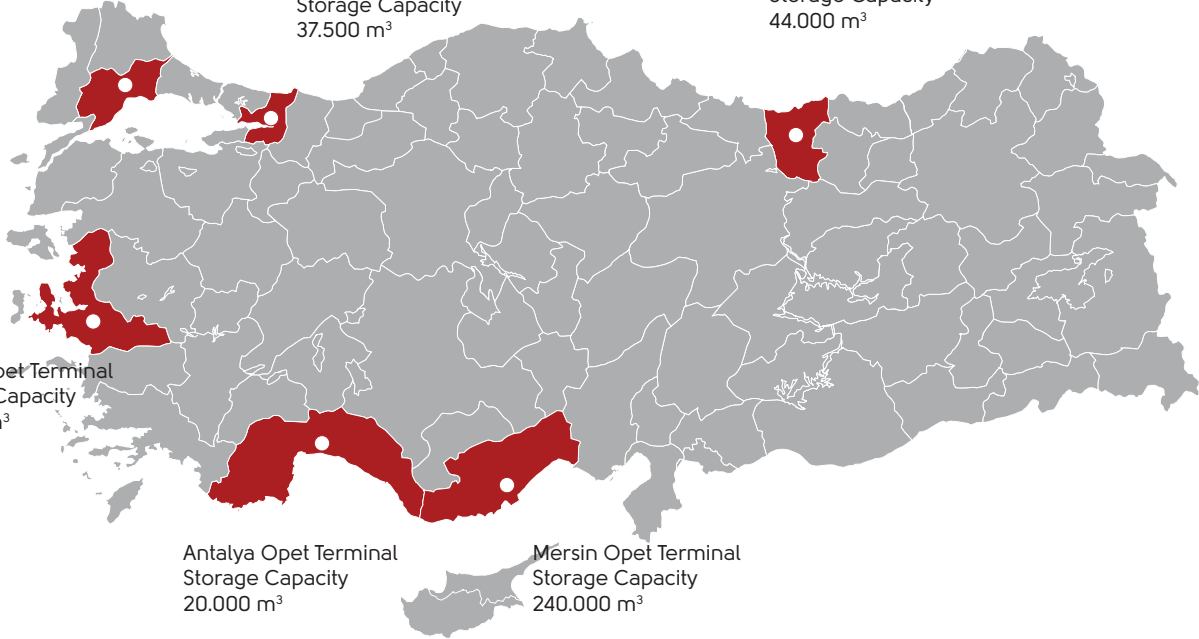
Körfez Opet Terminal  
Storage Capacity  
37.500 m<sup>3</sup>

Giresun Opet Terminal  
Storage Capacity  
44.000 m<sup>3</sup>

Aliağa Opet Terminal  
Storage Capacity  
64.000 m<sup>3</sup>

Antalya Opet Terminal  
Storage Capacity  
20.000 m<sup>3</sup>

Mersin Opet Terminal  
Storage Capacity  
240.000 m<sup>3</sup>



Differentiating itself in the sector with innovative, eco-friendly products and services such as Adblue, Opet Petroleum has been rewarded many times for its "Green Road Project" and "Clean Toilet Campaign", which have been adopted repetitively by various companies, as they highlight corporate and societal benefit with a responsible management understanding. Besides, Opet continues to support local economic development, and social development with its "Respect for History" and "Exemplary Village" projects. With all this effort, Opet Petroleum has been preserving unceasingly the first place it attained in the Turkish Consumer Satisfaction Index, coordinated by the Turkish Quality Association, since 2006.

You can reach detailed information on Opet Petroleum's corporate social responsibility performance, through the social responsibility reports published on the website [www.opet.com.tr/en](http://www.opet.com.tr/en).

## Ditaş

Ditaş was founded in 1974 to buy, make built, or rent tanker ships with different tonnages and qualities, that will be used in the domestic and international marine transportations of crude oil and petroleum products. With Tüpraş holding a %79,98 of its shares, Ditaş has improved its activities over the years.

According to the needs of Tüpraş, Ditaş has been conducting crude oil transportation operations, which constitute 95% of all its marine transport activities, with owned tankers, or with tankers that have been rented according to time and sailing requirements.

Ditaş, which offers product transportation services to Petkim, Opet and other fuel distribution companies alongside Tüpraş, also provides pilotage and tugboat services in the marine terminals of İzmit and İzmir refineries, with the 11 tugboats and 7 mooring boats it owns. As well as managing port and strait agency for its own ships, and for the ships rented on behalf of Tüpraş; Ditaş also intermediates between ship owners and, crude oil and petroleum products exporters and importers, via renting domestic and foreign ships as part of its activities. Besides, in addition to the "freight operation captain" service that has been in offer since 2009, with an aim to increase safety during the operations of the ships that arrive at the Tüpraş marine terminals; conformity checks for arriving ships will also be conducted by Ditaş in 2010.

Ditaş activities provide Tüpraş with a great advantage in operation and cost. This way, Tüpraş acquires the flexibility needed for a transmission that would take place in case of a possible change in the refining operations, with a lower cost; and thus, it can cope with the changes in the supply program, required as a result of the fluctuations in the crude oil and product prices.

Conducting its activities within high safety and environment norms, Ditaş has a great number of accreditations that are valid in these fields. Performing its central activities in accordance with ISO 14001 Environmental Management and ISO 9001 Quality standards, Ditaş also owns the TMSA 2 (Tanker Management Self Assessment) system, which is considered an important reference for tanker management, and requested to be used by petroleum companies.

Ditaş gives great importance to the fact that owned and rented ships meet the highest level of safety and environment norms, as well as the commissioned personnel meeting the necessary qualifications. All tankers in use have the ISM (International Safety Management) and ISPS (International Ship and Port Facility Security) Code certificates, and accreditation by member institutions of the OCIMF Sire system. In order to sustain navigation safety, all ships keep the essential number of equipments and personnel with the required qualities, according to the standards developed by the IMO (International Maritime Organization) and the ILO (International Labor Organization). All ship workers are provided with vocational training programs, necessitated by company management procedures, alongside the trainings required by the ISM, SOLAS and STWC. Ditaş workers have been trained for 6.035



hours in 2008, and 8.391 hours in 2009.

### Overview of Ditaş Tankers

#### M/T Cumhuriyet

Tanker Type: Crude Oil  
Year of Production: 2001  
DWT: 164.859 tons

#### M/T Gönül

Tanker Type: Petrol/Chemical  
Year of Production: 2009  
DWT: 10.983 tons

#### M/T Sevgi

Tanker Type: Petrol/Chemical  
Year of Production: 2008  
DWT: 10.983 tons

### Tankers Rented for Tüpraş Transports

#### M/T Beşiktaş Dardanel

Tanker Type: Crude Oil  
Year of Production: 2005  
DWT: 163.750 tons

#### M/T Hacı İsmail Kaptanoğlu

Tanker Type: Petrol/Chemical  
Year of Production: 2005  
DWT: 40.500 tons



# Our Achievements & New Objectives

## Health, Safety and Environment

The years 2008 and 2009 were a term of success in which we achieved our objectives and even performed much better than we have intended in key domains, besides enhancing our performances on the issues of health, safety and environment. Some of the significant objectives of the reporting period were the inclusion of contractor companies' HSE statistics in Tüpraş Performance Evaluation System and putting Contractor Company Health Safety Environment Management System into practice. In both of these works, we have reached our objectives. Positive impacts of these applications may be observed in the HSE performance, primarily in the accident frequency rate and accident severity rate. During the reporting period, in these indicators we have performed high above our objectives. We have renewed our processes of technical audit and reached our objective of auditor training within the period. We will continue our trainings in the periods ahead. We have new targets for the forthcoming periods to increase performances regarding energy and CO<sub>2</sub> emission management, waste management, as well as improving HSE competences and management.

### Our Objectives for the Reporting Period

- Renewing the İzmit Refinery emergency intervention plans, ●
- Execution of the İzmit Oil Pollution Emergency Intervention Exercise, ●
- Building teams for disaster intervention in the refineries and executing awareness raising activity on the subject, ●
- Starting the sales of products on Euro V Standards, ●
- Reducing the energy consumption via energy efficiency practices, ●
- Analysing underground water, ●
- Maintaining works on Residium Upgrading Project, ●
- Reducing accident frequency rate, ●
- Implementing Contractor Company Health Safety Environment Management System, ●
- Including the statistical data of our contractor companies to our data on safety and environment, ●
- Starting to incident reporting according to the OSAR guide and relevant standards; generating the necessary software infrastructure and the communication plan, ●
- Renewing the technical auditing procedures and training the auditors accordingly, ●
- Completing the Bow Tie Analysis Training, ●
- Embedding health, safety and environmental responsibilities to job descriptions of all employees; handling out booklets covering definitions of those responsibilities. ●
- Preparing the Health, Safety and Environment Performance Monitoring and Reporting Guide, ●
- Implementation of HAZOP trainings, ●
- Implementing awareness raising programs to reduce possible risks on health issues and building collaboration for prevention, ●
- Tracking the potential dangers in all refineries, starting to implement the Bow Tie Analysis for dangers defined as high risk. ●

● Realized

○ Unrealized

### New Objectives

- Putting the Energy System Optimization Software into use,
- Continuing energy consumption reduction studies,
- Continuing CO<sub>2</sub> and other emissions reductions studies,
- Switching to Tier-3 approach for emission calculations,
- Preparing Tüpraş Greenhouse Gas Emissions Calculation and Reporting Standard,
- Implementation of flare gas treatment project,
- Implementation of flare gas recovery project,
- Implementation of Waste Management Program,
- Maintaining afforestation activities,
- Implementation of Change Management Application,
- Implementation of HSE Competence Management Process,
- Renewing the Work Permission System until 2014,
- Initiating the necessary practices to reduce the risks that have been designated as a result of Health Risk Evaluation.



# Our Achievements & New Objectives

## Human Resources

We have accomplished all our objectives on human resources that were determined in the previous reporting period. Among these objectives, organizing a new occupational training program was probably the most significant one. We have reached this goal regarding enhancement of the occupational knowledge and skills of our human resources. Our main goal regarding the prospective term is to start implementing this program.

### Reporting Period Objectives

- Maintaining the improvements that were planned according to the result of work life evaluation survey through stakeholder engagement, ●
- Creating opportunities in order for local communities to benefit more from job openings, ●
- Realizing advanced practices to improve and embrace motivation and rewards systems, ●
- Increasing internship possibilities, ●
- Preparing a new occupational training program via building a training team, ●
- Putting the Refinery Experience Bank into effect. ●

- Realized
- Unrealized

### New Objectives

Starting the Refinery Technical Training application.

## Management Systems and Quality

Besides accomplishing all the objectives regarding our management systems and quality performances, we have implemented various new practices during the reporting period. Actualizing the business continuity system, customer portal and Enterprise Resource Planning System and combining our quality certifications were objectives we accomplished during the reporting period. We rapidly actualized the applications to improve these objectives. In that vein, Customer Relations Management System is a work that improves our customer portal practices. One of our principal objectives is to increase the number of users in Customer Relations Management. Furthermore, practices to enhance our risk management system are the primary implementations in the prospective terms.

### Reporting Period Objectives

- Gathering multiple HSE-Quality documents of all refineries under corporate certifications, ●
- Putting the Laboratory Information Management System into practice, ●
- Putting Enterprise Resource Planning System reporting tool into practice, ●
- Putting Business Continuity System into practice, ●
- Improving supplier satisfaction ratio, ●
- Putting Customer Portal into practice. ●

- Realized
- Unrealized

### New Objectives

- Publishing the Risk Management Standard,
- Increasing the number of users in Customer Relations Management application to 100 customers,
- Improving the quality management performance via employee trainings,
- Doing preparatory work to implement ISO 16001 Energy Management Standards,
- Enhancing the data security systems against changing external threats.

## Our Achievements & New Objectives

### Corporate Responsibility Management

The basis of corporate responsibility management consists of systematic development and stakeholder engagement practices and relevant performance evaluation practices. Various developments that affected our corporate responsibility management targets took place during the reporting period. One of our significant objectives during the reporting period was to initiate work to generate the stakeholder engagement model. As a result of our analysis, we reached the conclusion that the economic crisis environment could have a deterministic effect on the relationships with all stakeholders. Moreover, current expectations could misguide us. For these reasons, while focusing on developing our communication with our stakeholders in the application level, we attempted to generate a management model to be handled in the near future. Another objective of ours was to publish our Code of Conduct document and carry out works on our ethical principles for our stakeholders. We carried out internal work to prepare our Code of Conduct. However, due to the start of a similar work in Koç Holding, which is our parent company, we have decided to conduct our internal studies in line with Group level studies. We identified the good practices regarding the Global Compact and informed our employees.

#### Reporting Period Objectives

Renewing the Corporate Responsibility materiality practices by improvements; determining the potential spheres of impact, ●

Working on the ethical principles to be recognized and embraced by all stakeholders; improving the communication system to monitor all the relevant processes, ○

Providing support for voluntary work on human rights, informing the employees on good practices regarding the Global Compact, ●

Ensuring that the principles in our Code of Conduct are embraced by all the stakeholders after these working principles are determined, ○

Ensuring that the members of the CSR Working Group share the information they adopted during their training with their teammates, ●

Initiating practices to generate the Tüpraş Stakeholder Engagement Management Model ○

Providing support for suppliers and contractors to comply with Tüpraş's working principles and relevant work criteria, ●

Increasing the number of customer visits of sales personnel. ●

● Realized

○ Unrealized

#### New Objectives

Publishing the Code of Conduct document,

Initiating joint R&D practices with research institutions,

Carrying out joint practices with education institutions,

Enhancing the representation among NGO's,

Systematization of the procedures of corporate responsibility reporting,

Evaluation and benchmarking of sustainability management performance.

## Our Achievements & New Objectives



### Community Development

Despite the negative impacts of the financial crisis during the reporting period, we maintained and improved our practices on community development. We have continued our support to vocational training improvement projects MLMM and MEGEP; proceeded Umbrella Movement launched in 2008 by enlarging its extent; launched Our Energy is Our Strength Project. Besides our infrastructure investments and local procurement operations, we have donated and sponsored, 13,67 millions TL in 2008 and 7,84 millions TL in 2009, NGOs and their projects for education, healthcare, culture, arts and sports. We evaluated our objectives and other potential fields with regards to the necessary resources and the expected outcomes.

As a result of evaluation process of our intended projects on breast and cervical cancers, we reached the conclusion that our findings on the subject were insufficient to acquire a clear projection. With regard to this, we concluded that the financial resource we planned to allocate to this project would not be sufficient to produce the expected effects. Therefore, we put this project forward until the time we acquire qualified data. We decided to start field work at the point when we will be able to handle the subject in an integrated manner and by preparing the necessary financial program.

### Reporting Period Objectives

- Making the TEM crossroads safer by renewing them together with TCK, ●
- Increasing the number of works focusing on education and community development, ●
- Informing the NGOs which operate in our material issue areas, on Tüpraş CR strategy and implementation frame; planning the necessary cooperation, ●
- Improvement and extensification of community involvement practices via measuring their efficiency, ●
- Launching and distributing the book "My name is Izmit, here is my Image",
- Working on awareness raising on breast cancer , putting the cervical cancer screening project into practice with `Cancer Early Diagnosis, Screening and Education Center` . ○

● Realized    ○ Unrealized

### New Objectives

- Increasing the ratio of domestic manufacturing and local procurement in supplying operations,
- Maintaining community development investments,
- Standardizing the decision making and implementation procedures of community projects.

## Refining Sector in 10 Questions (\*)

We come across frequently, and use various petroleum products in our daily lives, fuels being in the first place. Yet most of us are not aware of how these products are produced or how a refinery functions. To make the strategic considerations, system, process and performance, that we render in this report, more clear to our stakeholders; we have decided to outline the general properties of the refining sector in 10 questions.

### 1 What is the general structure of the petroleum industry?

The petroleum industry is mainly composed of 3 business segments: Crude oil research and production, refinery, product distribution and sales. In this industry, when talking about petroleum researching and producing, the term "upstream"; and when talking about refinery distribution and sales, the term "downstream" are used.

Before, companies operating in the sector used to integrate vertically, and operate in all business segments in dependence with each other. Nowadays, petroleum companies have embraced a model of independent business segments. This way, for each business segment, profitability is maximized.

Tüpraş operates in the refining sector through its refineries, and in the distribution and sales sector via its subsidiary Opet. Save that, Tüpraş and Opet are administered according to their own profitability targets. Neither could Opet have a privileged position amongst Tüpraş's other customers; and nor could Tüpraş have a more privileged stand for Opet than other suppliers, because of its capital structure.

Crude oil and petroleum products are bought and sold in specific market, that are located in regions where refineries are concentrated. Major markets of our day are the Mediterranean, Europe, US Gulf Coast, US East Coast, Far East, and Singapore markets. When evaluating between refineries, these regional generalizations are employed. For example, Tüpraş operates in the Mediterranean market.

Crude oil prices affect petroleum product prices most distinctively. Crude oil; being a finite resource, difficult and expensive to research for and extract, is a highly valuable product due to the high demand. Even though production costs take an important place in the determining of crude oil prices, the real impact belongs to the supply/demand equilibrium.

Conditions, such as natural disasters, the global and the regional economic conjuncture and political problems, which could hinder with the production and transportation, affect crude oil prices by changing this equilibrium.

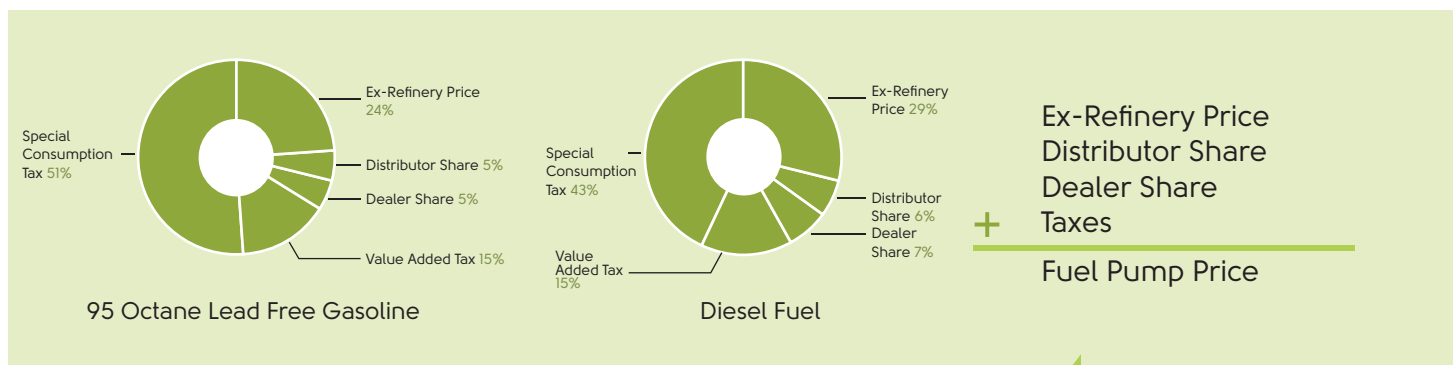
Like crude oil, petroleum products are also traded on specific international markets. Refineries price the products according to those markets' supply and demand equilibrium. Because all markets are connected to each other through commercial network, no immense price gap is observed between them. The pricing of petroleum products have direct effects on national economies. Consequently, states regulate and control the domestic market for petroleum products. In Turkey, the Energy Market Regulatory Authority (EPDK) has taken on this duty. According to the EPDK regulations, all oil companies in Turkey must ground their product pricing on the Mediterranean market pricings, as per "closest international market" criterion. For refineries, pricing is one of the most strategic decision-making processes. Although the key frame is drawn by international markets, various different factors are influential for pricing too. One of the most important amongst them is affordability. While deciding on prices, a responsible company should be able to calculate profitability, without ignoring the affordability equilibrium.

Being Turkey's only refinery and holding a substantial power in its region, Tüpraş executes its pricing processes meticulously; both towards its corporal goals and market expectations. One of the most important determinants of the pricing which is a complex and dynamic process, is affordability. This feature necessitates overseeing the consumers' demands and purchasing power together with the overall market dynamics.

# Refining Sector in 10 Questions

Refining companies have a limited influence on decision of the pump prices, which effects our daily lives concerning petroleum products the most. While it differs between countries, the gap between the ex-refinery price and the pump price are substantial in our country. This is due to the tax liabilities on petroleum products.

Components of Final Turkish Fuel Product Prices by 31 December 2009 %



Refineries form the basic connection between the crude oil and product markets. What is expected from a refinery is to convert the processed crude oil into products on an optimum level of variety, quality, and quantity, according to the market demand. This operation contains processes that are more complex than told. Achieving profitability depends on the constant observation and optimization of multiple variables.

For refinery corporations, investment into a refinery business is a never ending process. Refineries continuously invest to ensure operational continuity and safety, and to structure process configurations that will meet product expectations. Cost of each investment can reach up to the extent of building a new refinery. Moreover, refining is a sector in which legal and sectoral regulations are intensive both on domestic and international scales. Thus, refineries are expected to actualize very high levels of operational norms. Therefore, refining is an utterly capital intensive sector. While the installation of even the simplest refinery requires billions of dollars of investment, as much capital is needed for the endurance of its operability. In order to meet the capital need, the business must be appealing to the investors and provide the shareholders with a satisfying profitability.

Profitability of refineries is dependent upon the difference between the value of the products produced and crude oil purchasing costs as well as fixed and variable costs. This difference is called the refinery margin. Using this net margin, providing the shareholder with a gratifying profit, and the business with a capital power to actualize the necessary investment is vital for the continuity of the business. Corporations that cannot fulfill this necessity will not survive.

Even during the economic crisis, Tüpraş maintained its profitability with a margin greater than the average of Mediterranean Refineries. Especially in 2009, when many refineries in the region were temporarily or permanently shut down due to the margin losses experienced across the sector, Tüpraş continued with its investment programs, and preserved its principle of dividend distribution as a listed company, traded at ISE with a high quotation rate.

What are the expectations from a well run refinery? How is the profitability of a refinery defined? **3**

## Refining Sector in 10 Questions

### 4 Which factors determine the competitive edge of a refinery?

A competitive refinery is one that has positioned at the optimum juncture for four major indicators. These indicators are size, location, process configuration and performance.

Refineries are capital intensive investments. As large the refinery capacity for crude oil processing is, as small will be the average investment and fixed operating costs per crude oil being processed. This has a significant role in the augmentation of refinery margin.

For its competitiveness, a refinery's location and logistic capacity are significantly important particularly in terms of ensuring the supply and reducing the transportation costs. A locational advantage for a refinery is proximity to crude oil and product markets. Additionally, connection to pipelines, access to deep water ports and the presence of all means of product transporting to various internal market regions, especially railways, are significant superiorities. Since the transportation of products from the coastal refineries to the inland regions is a difficult and costly operation, inland refineries form a great advantage if their logistic capacities are advanced.

Tüpraş has excellent locational and logistic opportunities. Its proximity to both the Middle Eastern and Russian crude oil sources, make a variety of supply opportunities available. Also the fact that Tüpraş owns two coastal and two inland refineries which are directly connected to the crude oil sources and domestic market customers via pipeline and sea route, and that railway and pipeline connections make product transfers between refineries possible; make up the ideal locational and logistic advantages denied to many other refineries.

### 5 What sorts of products are obtained from petroleum? Do all refineries produce the same products?

Fuels such as gasoline, diesel fuel, and types of fuel oil are the petroleum products that we come across most commonly. Yet, contrary to the general idea, crude oil is not the raw material only of fuel. Even though we are not aware of it, many of our daily products are byproducts of crude oil. For instance, LPG is produced by refining petroleum. Bitumen, one of the products that emerge out of refining, is used to produce asphalt and roof insulation materials. Petroleum is the raw material for many products such as mineral oils that we use in our cars and other machineries, waxes and paraffin. Also as petroleum products undergo chemical processes, plastic derivative products and fiber, which is used as a raw material in various sectors are produced. Together with its derivative products, petroleum holds a larger place in our lives than we assume.

The conversion of crude oil into commercial products necessitates the separation of different hydrocarbons it contains within, via various processes; which is done by refineries. Products are the outcomes of processes applied on crude oil. Even though the type and quantity of products differ, LPG, gasoline, diesel fuel, jet fuel, heating oil and fuel oil are produced by all refineries. For the production of other commodities, refineries are required to perform more complex processes; and those which can are called complex refineries.

No refinery converts crude oil into a single product. Following various processes, refineries end up with a yield of products. The proportions of products within this yield are determined according to the type of the crude oil and the complexity of the refinery. For example, when processed, Russian crude oil puts out more fuel oil type products, than the North Sea crude oil. Also while heavier products come out of basic refineries, when the same type of crude oil is processed in a complex refinery light and middle distillate products are acquired more.

## Refining Sector in 10 Questions

The most fundamental refining process is the distillation. With this process, hydrocarbon molecules that compose crude oil are broken into various fractions, according to their boiling points. From heavier to lighter, these fragments are LPG, naphtha, kerosene, atmospheric gas oil, vacuum gas oil, and vacuum residues. Each fraction is used to produce different types of products. The hydrogen content of the product increases as it gets lighter, and the carbon content increases as it gets heavier.

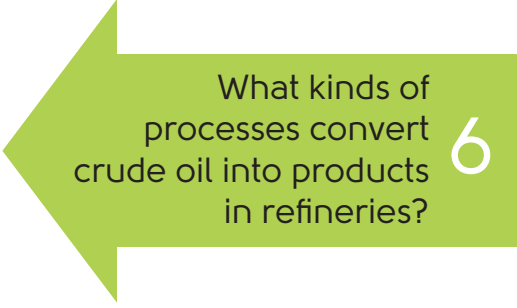
While the product composition that will come out by distillation of one unit of crude oil is constant, product demand is determined by market conditions. For instance today, the demand for light products (e.g. gasoline) is much more than the demand for heavy product (e.g. fuel oil). Thus, in order to meet the market demand, refineries have to produce more of the light products. But what come out of the distillation process is mainly heavy products. That is why more complex process units, which can convert heavy products into light products, are installed.

Product quality has great importance too. Each petroleum product has defined specifications. These specifications, which have undergone great changes in time, appoint the levels for products' various qualities such as, the sulphur content, combustion properties, volatile organic compound (VOC), density, freeze point, etc. For instance, while before sulphur-rich products were acceptable by the market, today products with lower sulphur levels are demanded. Thus, in order to meet the market expectations, an increase in the proportion of low sulphur products within the yield, and special units to decrease the sulphur content of products are needed.

Refineries can apply 4 basic processes during the conversion of crude oil into commercial products. As achieving such operational capability requires different units for each process, not all refineries possess all units, since it would lead to high investment costs.

1. Separation process: Composed of crude oil distillation, vacuum distillation, and solvent extraction operations, this process separates crude oil into various fractions without any chemical reaction. Resulting products' proportion in the portfolio is dependent upon the quality of the processed crude oil.
2. Treating Process: Composed of various operations, this process improves the quality of petroleum fractions distilled in order to meet the specifications for finished products. For example, via the isomerization and reforming operations, naphtha that cannot be used as fuel is upgraded into gasoline. Via hydrotreating, products' sulphur content and other contaminations are removed.
3. Conversion Process: Via the thermal cracking, catalytic hydrocracking and coking processes, low market value heavy products are converted into valuable light products. For example, catalytic cracker units convert vacuum gasoil or residue into gasoline, gasoil and LPG, while hydrocracker units convert vacuum gasoil or residue into gasoil, kerosene and naphtha. The products acquired at the end of conversion processes are once more subjected to distillation and treating processes.
4. Transformation Process: Composed of alkylation and etherification operations, this process is utilized to produce new components. For example, with these processes LPG could be transformed into gasoline blending components.

The process unit configuration Tüpraş owns exceeds the European refinery average, and continuously enriches with new investments.



What kinds of processes convert crude oil into products in refineries?

6

## Refining Sector in 10 Questions

### Tüpraş Installed Refining Processes

		İzmit Refinery	İzmir Refinery	Kırıkkale Refinery	Batman Refinery
Seperation	Crude Oil Distillation	●●●	●●	●●	●●
	Vacuum Distillation	●●●	●●	●●	●
	Solvent Extraction	-	●	●	-
Treating	Reforming	●●	●●	●●	-
	Isomerisation	●	●	●	-
	Hydrotreating	●●●	●●●	●●●	-
	Sulphur Extraction	●●●	●●●	●●●	-
Conversion	Thermal Cracking	-	●	●	-
	Catalytic Cracking	●	●	●	-
	Hydrocracking	●	●	●	-
	Coking	2014	-	-	-
Transformation	Alkylation	-	-	-	-
	Etherification	-	-	-	-

Every mark stands for an installed unit. The units within the investment process are addressed with the installation date.

Refinery complexity is a term that we frequently come across. This term refers to the measurement technique employed to evaluate a refinery's process unit configuration. Because it was initially suggested by the famous petroleum engineer Nelson, it is called the "Nelson's Complexity". According to this methodology, each unit type owned by a refinery has its complexity factor. The complexity factor is calculated with the ratio between the amount of investment needed to install a refinery unit to the amount of investment needed to install a crude oil distillation unit of the same capacity.

As refineries own complex units, they acquire the ability to diversify the product yield and to increase the amounts of products with high demand. Thus, high complexity brings a refinery flexibility to adjust to changes in market demands and a significant competitive advantage.

Holding an important place amongst the Mediterranean refineries, Tüpraş's complexity is 7,25. With the completion of our ongoing investments, Tüpraş's complexity value will increase up to 9,9 in 2014.

Following process configuration and location advantages, the highest impact on a refinery's profitability comes from its managerial performance. The performance of a refinery is determined on the basis of four fundamental indicators. These are cost control, energy consumption, reliability and yield performance.

While the size of the refinery has a great effect on costs, due to the generation of an economy of scale, the most significant determinant of cost control is operating performance. Especially the optimization of costs for operations and raw material supply can be achieved through well specified systems and processes, a correct strategic approach and a foresighted management.

Refining is an energy intensive production sector. As the complexity of the refinery increases, so does the energy consumption. Thus, the reduction of energy consumption per crude oil processed plays an important role in the increase of operational performance, as well as of profitability. Besides operating costs, refinery managements have been sensitive about energy efficiency, due to the emerging importance of the subject of climate change. In addition to these, a high performance in energy

7

What is refinery complexity?  
Why is it important that a refinery is complex?

8

Which factors determine the refinery's operating performance?



## Refining Sector in 10 Questions

efficiency will bear crucial advantages for the refineries in the carbon market, which has been developing in the recent years.

Mechanical and operational reliability means that operational units are constantly available to produce, and that the negative effects of the operation on human health and the environment have been minimized. Only a production that has been planned in a refinery with a reliable operational and mechanical unity, can be run on time and safely. But this is not sufficient enough either. Sometimes units might produce with a lower productivity than their process configurations, or quantity and quality planings. Thus, for the operating performance, an ability of problem solving is necessary to go with process configuration and planning. Refineries have engineering teams that work for this purpose.

What must be taken into account for the actualization of all 4 of these factors is the human resources of refineries. A refinery's operating performance is closely linked to its highly educated, vocationally trained and motivated human resource. While the equipment of refinery employees with the vocational experience and knowledge is a time consuming process, the composition of a qualified human resources portfolio is a difficult task. So it is no coincidence that corporations with an impressive performance view human resources as an important investment field.

To maximize its operating performance, Tüpraş carries out investment, improvement, system and process development works. You can find detailed information on the subject, in the following sections of this report.

European refineries are generally positioned near crude oil sources and product markets. The lack caused by the decrease in the crude oil production of the North Sea is covered by the Caspian and Russian crude oils. While they have a significant average in complexity, European refineries are becoming more and more insufficient to meet market demands with their capacity and process configurations. The general process configuration delivering high levels of gasoline and fuel oil output cannot meet the European market's increasing diesel fuel demand. European refineries' unit capacity for deep conversion is low; and the increasing demand for white products, especially for diesel fuel, has made hydrocracker refineries more profitable than FCC refineries throughout Europe.

As an important actor in the European refining sector, Tüpraş had foreseen the market dynamics and started actualizing its short, medium and long term investment plans according to them. With the units that are already integrated and with those that will be integrated soon, Tüpraş has began to acquire a stronger position in the European refining sector.

The main challenges before the European refining sector arise from process configuration problems and environmental impact matters. Unit investments necessitate long periods of time and high amounts of financial resources. Because of the fact that the market demand for white products will increase faster than investment timetables, process configuration will cause problems for many European refineries in the short term. Especially in this crisis period when the markets are shrinking, this problem is coming to light and many refineries are losing their profitability. A related subject that also has different peculiarities is the issue of environmental impacts. Particularly with global warming, a need has arisen for investments that will lower environmental impacts for both the business and the products. Especially the following period will reveal a greater need for clean energy resources. These two subjects will create new opportunities for refineries that will be proactive in adjusting to the ecosystem.

What are the general properties of European refineries?

9

What are the challenges before the refining sector?

10

### Developments in Global Economy

Due to the positive atmosphere of the global economy from 2001 to 2006, investors, corporations and customers did not apprehend the seriousness of the risks they constantly brought by expectations of high return. Proportion of derivative markets in the financial system and the risk they posed reached to significant extents. The rapid decline in the housing prices due to the loss of trust triggered off a major financial crisis with strong indications in 2007. Nonetheless, markets preserved the positive atmosphere until the 3rd quarter of 2008. However in the last quarter, the rapid major global crisis took place as the economic indicators were reversed due to the collapse of strong financial institutions one by one.

While the negative impacts of the financial crises on the real economy could be observed towards the end of 2008, severe effects of the crisis could be felt in 2009. In the first quarter of the year, USA, EU and Asia had a global fight with the recession via immediate measures taken and recovery packages. The economic value of the measures taken during the period reached 25% of the world economy which is 57 trillion US dollars.

The severe economic crisis experienced in a group of countries including some EU members with unbalanced financial situation during the struggle with crisis and the high rates of unemployment raise concerns regarding the permanence and strength of recovery. Furthermore, there is an ongoing concern over the sustainability of the recovery from the global crisis without the present support from the governments. Therefore, decreasing the preventive liquidity and supportive measures by world's leading central banks against the global crisis starting from the last quarter of the year and the timing of the signaling of interest rate hike in order to end the loose monetary policy will be the main determining factors in the course of the global economy of 2010.

### Reflections on the Turkish Economy

Despite the favorable position it maintained due to new regulations and control mechanisms established after the crisis of 2001, Turkey, too experienced the severe effects of global crisis.

While the Turkish banking system was protected from the crisis via high capital adequacy ratio, the severe effects were seriously felt in the real economy. The underlying reason for this is the fact that Turkey's export market was affected from the 12% contraction in global volume of trade; the decrease in export due to the decreasing foreign demand. With an increase in the negative expectations, investment and consumption expenditures were postponed which led to the slowing of economic activity. During this period, Turkish economy shrank for four quarters consecutively, exchange rates increased and the unemployment rate reached 13%.

Similar to the global trend, there was an economic recovery in the Turkish economy in the 2nd quarter of 2009. During this period, besides the interest rates reduction policy of the Central Bank and the economic stimulus packages, reduction in tax in the consumption sector, with the white goods and automotive sectors being in the first place, had positive impacts in the real economy.

The shrinking in the export market and the insufficiency of the domestic demand together with the ongoing uncertainty will continue limiting the high capacity utilization and investment expenditures. In these circumstances, strengthening of the real economy in 2010, increase in profitability and recovery in employment conditions will take a long time and recovery in economic performances will take place with a slow and graded tendency.

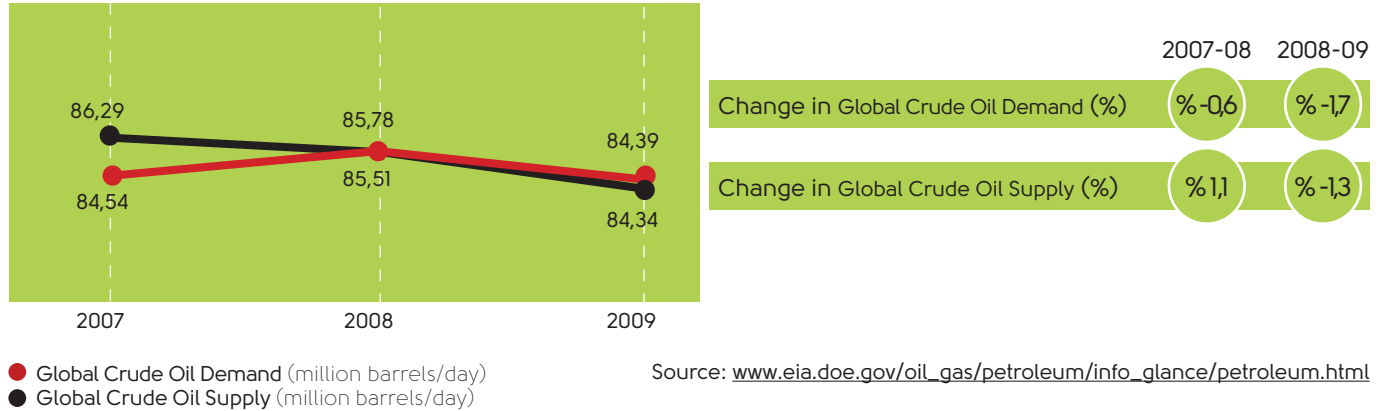
### Developments in Global Crude Oil Market

In the last decade, 2008 was the year in which volatility in crude oil was most serious. The upward trend observed in the crude oil prices throughout 2007 and the positive atmosphere, despite the crisis signals received in the first three quarters of 2008, continued, due to the production problems and political unrest experienced in several countries which produce crude oil.

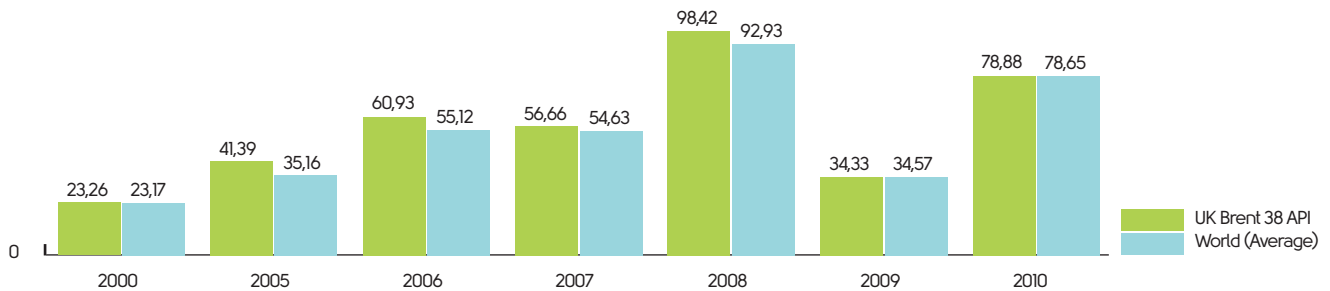
Dated Brent crude oil price which was 96,94 US dollars per barrel in 2008, reached the peak in July with 143 US dollars. After this period, prices started to decrease. At the point in which it was clear that the crisis which started in USA would get deeper, demand rapidly decreased and the downtrend of crude oil prices increased. OPEC's

## Economic Outlook, Petroleum Products Sector and Tüpraş

production interruptions twice in the last quarter, remained insufficient, thus the crude oil prices were in regression to the point of 33,66 US dollars per barrel in the last week of December, 2008. Crude oil demand was in degression in 0,6 % compared to 2007 and supply of crude oil increased in 1,1 % resulting in excess supply due to the reduction in demand in the last quarter of 2008.



### Crude Oil Prices by the First Week of the Year (US dollars/Barrel)



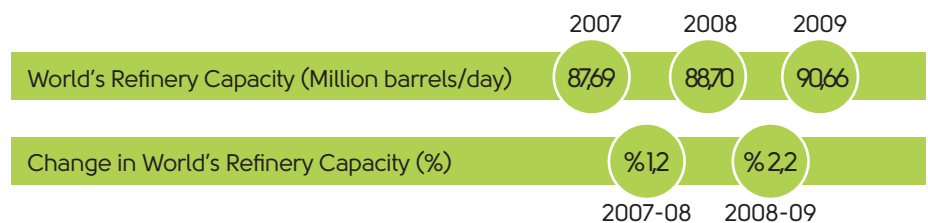
2009 was a year in which decisions of petroleum producers mattered and a year in which the supply and stock level of petroleum gained significance. The crude oil prices which were USD 40-50 in the first quarter started to recover via weak position of US dollars and OPEC's serious production interruption measures. 2009 was a year that we observed a significant decrease in the supply and demand of crude oil. Compared to 2008, world's crude oil demand decreased by 1,7 % to 84,34 million barrels per day and supply decreased for 1,3% to 84,39 million barrels per day. Despite the rise in demand in China, India and Middle East, demand in crude oil and petroleum products decreased by 1,7% in 2009 due to the decrease in demand in developed countries. As a result of definitive judgement of OPEC to implement the cut off of 4,2 million barrels throughout the year, low exchange rate of US dollar compared to other currencies because of expanding supply of money and the recovery of the world economy starting from the second half of the year, petroleum prices which were around 40 dollars in the beginning of 2009 increased until the end of the year. Dated Brent as the acknowledged crude oil of Europe, was closed with 77,7 US dollars per barrel at the end of the year and remained 61,51 US dollars in average.

## Developments in Global Petroleum Products Market

For refining sector, 2008 has been a year with a peak point for performance in terms of profitability and efficiency for the first three quarters and a year where the focus during the last quarter was to protect existing gains in the global crisis and recession environment. In September, the impact of the global crisis in the petroleum products market came in view, with the decrease in the demand of gasoline and the related decrease in gasoline prices. In the same period, the diesel and jet fuel prices together with the fuel oil prices- affected from the demands of storing heating fuel and the demands of the refineries for byproducts-have maintained their relatively high prices compared to that of crude oil, despite the recession. For this reason, the Mediterranean refinery margin has reached 5.54 dollars/barrel level in 2008, with a 4.1% increase compared to 2007.

The 2007 refinery capacity which was approximately 87,69 million barrels per day reached 88,70 million barrels per day in 2008. As of 2009, world's refinery capacity increased 2,2% compared to the year before and reached 90,66 million barrels despite the postponed projects due to the financial crisis.

The increase in crude oil prices in 2009 was not reflected upon the product prices due to the decrease in the demand for products. New refineries in Asia and the low consumption trend in US led to regional unbalances in product trading during the year. As a result of all these negative impacts, 2009 was a difficult year for the refinery sector.



In countries in which domestic demand is low in crisis period, exporting refineries with low complexity had to reduce and even stop their production. Primarily in refineries with low productivity and which have lost profitability due to the loss in export market of developed countries, there were temporal and definitive shutdowns, thus the production reduced by 1,2 million barrels during the year. Nonetheless, because of the increase in production by 2 million barrels via new refineries and the decrease in the consumption of petroleum products by 1,3 million barrels, there was an excess supply and the refinery margins were affected negatively by this impact. The increase of prices in heavy crude oils in relation to the light crude oils due to the interruption of production of OPEC and the shrinking of the demand for middle distillates, caused the Mediterranean refinery margins to decrease to USD 1,95/barrels per year from USD 5,54/barrels in 2009 compared to the last year.

The growth in global economy after the economic shrinkage, the expected increase in global energy and middle-distillate demand, the probability that OPEC will release production cuts to meet this demand will cause the refinery margins to increase a little compared to 2009 despite the new refineries. Low capacity usage and demand-oriented production strategy without stock will continue unless we observe clear improvements in demand.

## Petroleum Products Sector in Turkey

Turkey's Petroleum Products Sector Data	2007	2008	2009	Change (%) 2007-2008	Change (%) 2008-2009
Turkey' Supply of Crude Oil (million tons)	25,54	23,91	16,43	-6,4	-31,3
Turkey's Petroleum Product Production (million tons)	24,33	22,83	18,04	-6,2	-21
Turkey's Petroleum Product Sales (million tons) Refinery (1)	19,94	19,85	18,21	-0,5	-8,2
Turkey's Petroleum Product Sales (million tons) Distributer (2)	18,1	18,16	17,54	0,3	-3,4
Turkey's Import of Petroleum Products (million tons)	2,12	2,71	3,67	27,8	35,4
Turkey's Export of Petroleum Products (million tons)	5,69	5,86	3,22	3	-45,1

- (1) Amount of sales in domestic market realized by licensed refineries. This also includes the military and mineral oil sales.  
 (2) Composed of the sales that are realized by the distribution license owners to dealers or end user license owners.

Economic upheaval experienced globally had various negative impacts on Turkish petroleum products sector. With the upheaval struggled through in the third quarter of the year, in 2008 the consumption of petroleum products in Turkey remained as it was in 2007. In this period, while the consumption of gasoline decreased by 9,7%, jet fuel consumption increased by 12,1% and the diesel fuel consumption increased by 0,9% due to the increase in tourism and domestic airline transport.

As a results of the effects of the global financial crisis that from 2008 onwards and the recent developments that occurred in relation to the crisis, 2008 and 2009 were tough years in our sector. The fact that Turkey's gasoline consumption fell by 10% in 2008 and that the automotive fuel consumption fell by 2,3% compared to the year before indicate the significance of this crisis environment.

Tüpraş undertakes an important role in this sector, as it is planned as an organization to serve the whole country in respect of the location and the capacity of its refineries. We see that Tüpraş has reached the EU standards and is far beyond the neighboring countries in terms of the service and the quality of the products served in the market. Besides, the new investments made together with the technical improvements, enhance the trust in Tüpraş. For all these reasons, we believe that Tüpraş will continue to serve as the pioneer of the sector in the future as it does now.

Ali Rıza Akçay, Association of Fuel Distributor Corporations

Besides the negativities they bring by, crisis periods constitute the time to examine the structuring power and market reflex. Leaving aside the economic negativities, the reflex of Turkish petroleum sector is positive and contrary to the general perception, competition environment and the free market conditions work better than in the European countries. To sum up, 2008 reflects a year of maintenance and preservation of economic power rather than of progress and growth.

How do you evaluate the Petroleum Products Sector and Tüpraş in the period 2008-2009?

## Economic Outlook, Petroleum Products Sector and Tüpraş Petroleum Products Sector in Turkey

2009 had more negative impacts than the year before. In relation to the shrinking down of the Turkish economy more than 5% in average throughout the year, the consumption of the fuel products in total decreased by 7,6%. In 2009, gasoline consumption continued to decrease and regressed by 2,7% to 2,3 million tons compared to the year before. Marketshare loss of gasoline against LPG which benefits a price advantage due to the special consumption tax, is one of the reasons for this reduction. For the first time, in 2009, auto LPG production was more than the gasoline consumption; thus, LPG consumption reached 3,6 million tons with an increase of 4%.

Throughout the year, the highest decrease in consumption was of the products which are most sensitive to the economic growth, namely the diesel fuel and fuel oil. Due to the pricing of natural gas, heating oil consumption decreased by 16,7% and fuel oil consumption decreased by 32,7% contributing to the ongoing decrease in black product consumption. In 2009, shrinkage of black product market has reached to the greatest extents of the last decade by 30.5% of decrease.

The consumption of diesel fuel which continues to increase throughout the last 5 years, decreased for the first time in 2009. Throughout the year, the total consumption of diesel fuel products fell to 13,5 million tons with a decrease of 3,9%. This decrease derived from the reduction in rural diesel fuel consumption by 9,4%. During the same period, the consumption of low sulphur diesel fuel, increased by 17,3% and reached 3,4 million tons; thus its share in the total diesel fuel consumption rised from 20% to 25%. In 2009, jet fuel consumption increased by 16% compared to 2008. In 2009, compared to 2009 total transaction size in fuel sector decreased by 10% to 51,4 billion TL; from 68,9 billion TL to 63,1 billion TL when LPG is included.

Throughout the year, the amount of special consumption tax was rearranged by the Ministry of Finance and there was an increase in product-based variation. Hence, indirect tax revenue including the special consumption tax and value added tax generated from fuel consumption was raised to 29,5 billion TL with an increase of 4% in 2009. If the revenue generated from LPG consumption is included to these numbers, the total indirect tax revenue reaches 35 billion TL. With this implementation, tax rates reached a high level compared to that of Europe. This situation led to the spreading of products out of specification like smuggled fuel or mineral oil no 10 and thus leading to tax revenue loss. The insufficiency of the audits is the primary reason of increasment in the accessibility of these products in the market. Moreover, the unbalance between the products caused by the rearrangements has a negative impact in gasoline consumption. Another problem caused by the implementation of special consumption tax is the different interpretations of special consumption tax exemption in fuel oil sales from the refineries by the Petroleum Market Law and tax legislation.

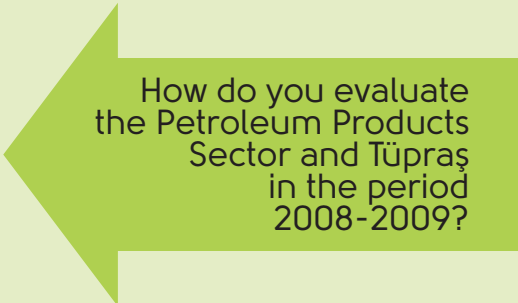
In 2009, while the implementation of price ceiling in the refining and distribution sector limited the free market conditions determined by the law, the definition of unit profit margin as fixed rather than percental for the distribution sector had a negative impact on the whole sector.

The most significant issues for sectoral improvement in the forthcoming period are the prevention of the usage of rural diesel fuel in the cities via determining the fuel specifications and constituting the legal regulations on alternative energy resources and biofuels. The fact that new refinery certifications are given in order to constitute competitive and free market conditions in domestic market is important. However, acceptance of the demand and market conditions as determined by the regulators while giving license and preserving decision procedures from domestic and international political influence constitute significance to develop a healthy market economy.

## Economic Outlook, Petroleum Products Sector and Tüpraş Petroleum Products Sector in Turkey

We anticipate that 2010 will be a tough year as well due to the global economic crisis that had negative effects starting from the second half of 2008 and the sectoral arrangement made in 2009. During this period, one of the two most basic issues that will affect the petroleum sector, is the effects of tentative structural changes in the distribution sector on the market after the decision of the Competition Authority. The other issue is composed of unfair competition, unlawful practices and existence of counterfeit fuels. Tüpraş which has the biggest refineries of the country and of the regional geography and which has reached the EU standards of fuel quality and production techniques via its investments has an unquestionable role and significance in the petroleum sector. The logistics of the refineries in Turkish geography and the storage-terminal capacity enhance this significance. For these reasons, it is possible to anticipate that Tüpraş will have an important and determinant role in the petroleum sector in the forthcoming periods.

Erol Metin, Petroleum Industry Association



How do you evaluate  
the Petroleum Products  
Sector and Tüpraş  
in the period  
2008-2009?

# Economic Outlook, Petroleum Products Sector and Tüpraş

## The Position of Tüpraş

The phenomenon which has left its marks on the years 2008-2009, was the global crisis. However, for companies which are able to project for long terms, which have clear strategic perspective and which are able to implement this perspective in current conditions, crisis periods bring along opportunities. Companies which adopt responsible management models, do not have high losses during crisis and may reach the position to have advantage against competitors in the medium and long terms. 2008-2009 may be named as the tough years which have also brought about long term gains.

Tüpraş has entered the crisis period with a solid financial structure. While the units we have built within our investment plan, have provided production flexibility, the specification investment undertaken in 2008, have enabled us to produce EU norm, Euro V products 6 months before becoming an obligation. Together with the first signals of the crisis, we have defined a projection regarding the point that the economic crisis might reach and adopted an action plan accordingly. While generating this program, our priority was "never compromising uninterrupted and complete supply of petroleum products that the Turkish economy needs." The forthcoming picture required optimization in production and crude oil supply procedures. We adopted a policy to process optimum level of crude oil by maximum usage of conversion units in order to increase the productivity in the white products which preserve the refinery margin.

For refineries, the most significant reflection of the long term price reduction experienced throughout 2008 was the losses due to the inventory and rise in exchange rate. Global liquidity problem and reduction in encashing caused the rising of operating capital needs during September and October. Against this negative situation, we gradually reduced the inventory amount to the minimum level from 3 million tons to 1,7 million tons until the end of the year.

In this way, we reduced the possible inventory value loss by half while enhancing our liquidity power. During this period, most of the European refineries faced huge inventory value loss varying between 570 million US dollars and 8,1 billion US dollars.

In 2008, we produced 22,8 million tons of petroleum products with 86,1% capacity usage. We increased our white products share to 68,7% which was 67,5% in 2007. Our gross refinery margin which was 7,22 US dollars per barrel in 2007, increased by 51% and reached the level of 10,90 US dollars per barrel. In this way, the difference between our refinery margin and the Mediterranean refinery margin increased from 1,90 US dollars/barrel to 5,36 US dollars/barrel. Our turnover was over 23 billion US dollars and our EBITDA was over 1 billion US dollars as a result of our operations in 2008.

2009 was a challenging year when the refinery sector margins reached to the bottom level in global scales, competition increased and heavy crude oil prices were in rise; however product profitability fared below previous year's. Despite the disruptive impacts of the the crisis, Tüpraş relied on its operational and financial flexibility to adapt to changing conditions. Thus, we achieved to be among the refineries which show a positive outlook during the crisis.

In 2009, we pursued production and sales optimization policy. In relation to this, we optimized the inventory and crude oil supply practices. Thanks to our units with the capacity to process various crude oil types and in order to distribute risk in the supply chain and obtain advantages in prices and freight charges, we strived to diversify our crude oil purchases by type and country of origin.

In 2009, we pursued to enhance our white product productivity by differentiating our practices which we had started in 2008. Being more cost-efficient throughout the year, semi-finished

product prices, compared to crude oil, provided opportunities to us due to our upgrading units. Despite the reduction in demand, we attained a 60,4% of crude oil based capacity utilization. When we took the semi-finished products processed in our conversion units into account, this rate was raised to 69,1%. Pre-planned maintenance activities of the Kırıkkale and Batman refineries were carried out during the first quarter of 2009, when the crisis' full impact was felt and when demand was relatively weak. Regional demands were met by products transported by land or railroad from other refineries and thus, production and sales were optimized among Tüpraş refineries. Together with these practices, Tüpraş maintained production and sales optimization inbetween the refineries, thus decreased the production of black products and increased the white products share to 73,6% in 2009 which was raised to 68,7% in 2008. In 2009, while the Mediterranean refinery margins were decreased by 65% to 1,95 US dollars per barrel compared to 2008, Tüpraş's gross refinery margin were 9,2 US dollars per barrel with a decrease of 15%. In this way, the difference between average Mediterranean refinery margin and Tüpraş's gross refinery margin was raised from 5,36 US dollars per barrel to 7,25 US dollars per barrel in 2009.

In 2009, we reduced our exports by 46% which had a lower profit rate compared to 2008. Consequently, we exported 3,3 million tons of products with a value of 1,8 billion US dollars. Despite the meltdown of domestic consumption, together with the 18,2 million tons of domestic sales, our total sales were 21,5 million tons in 2009 and our net profit was 811,3 million TL, above our objective.

We maintained our profitability and kept reduction in margins at minimum level by our tactical decisions. The flexibility and technical capacity to implement these decisions depend on long term strategic planning and right investment decisions. Investments in units provided



## Economic Outlook, Petroleum Products Sector and Tüpraş

### The Position of Tüpraş

us the opportunity to have rapid response to the fluctuations in demand. Thus, we did not stop our projects despite the negative impacts of the crisis period. We rapidly put some of them into action. We maintained the continuity of our long term investment projects, particularly the Residium Upgrading Project, which are significant for Tüpraş's future projections, by bringing the processes which will be actualized with relatively low cost and, internal means like detailed engineering to the fore. Thus, we realized these without pushing on our financial resources.

During the term, besides the long term projects, we rapidly implemented projects providing cost advantage. We actualized a total of 80 projects by foregrounding efficiency projects that were chosen in the framework of "Operational Excellence Program" which was started in 2007. The most significant aspect of these projects is that their returns can be observed in short terms and the value created is long lasting. Through these projects which most of them focused on energy efficiency, we generated a total of 244 million US dollars in the last 3 years by generating 80 million US dollars surplus in 2009.

Other subjects that enhance our performance are the HSE practices and asset management that maintain our operational reliability and continuity. Thanks to these systems and processes, we could actualize all our tactical decisions without any interruption, neither any quality or non-compliance problems nor causing risks on human health or environmental safety. With our advanced systems, we performed high above our objectives in many issues, particularly in employee health and safety.

Crisis periods are tough times in which the investors have to make difficult decisions and where the trust in the companies are tested. As Tüpraş, we preserved the trust of our investors by upgrading our corporate management and working principles. And through higher performance we have delivered compared to our competitors, we ensured that they preferred Tüpraş for investment decisions. In 2009, Tüpraş's rating for compliance to Capital Markets Board Corporate Governance Principles has been recently revised upwards from 8.20 to 8.34. At the end of the year 2009, our achievement confirmed also by Fitch Rating, the international credit rating agency, which raised Tüpraş's foreign currency long term rating from BB to BBB(-) which constitutes the country ceiling.

It is not possible for Tüpraş as a company in refining sector to fully isolate itself from the crisis. Throughout this time course, the most significant point for us is to keep the negative impacts low and within the period, while maintaining our permanent gains at high levels. Our flexibility to adapt to the current conditions and the accuracy we maintain in our investment and action plans and strategic decisions, have significant role in carrying interests. Responsible, farsighted and eager works of all Tüpraş employees who are in the position to take or implement decisions by mobilizing their knowledge, experience and labour, have generated this success.

## Climate Change, Energy Sector and Tüpraş

### Climate Change and Energy Sector:

As the effects of climate change have been revealing themselves, more devastating consequences are expected to be seen in the near future. While the disruption of natural balance will endanger human life in the long run, in the medium term it will cause serious problems in the socioeconomic structure. According to the predictions made, if effective measures are taken the currently rising greenhouse effect will start showing a downward trend in 2020, and despite various problems, transition to a recovery period will be possible in 2050.

The greatest deal of anthropogenic greenhouse effect is due to the emission of gases, such as CO<sub>2</sub>, that are resultant of energy production and consumption. The great dilemma here is the significance of fossil fuels in the fulfillment of global energy demand. According to the reports of International Energy Agency, compared to today, a 45% increase is expected in the global energy demand by 2030. Same predictions state that just like today, in 2030 also, 80% of all energy demand will be supplied by fossil fuels, with petroleum being in first place. In our day, renewable energy resources such as the solar, geothermal, and biomass energies and wind power make up only 13,1% of all energy need, and 17% of all electric power production. In 2030, while it will only be possible to provide 25% of total electric production through renewable energy resources, their contribution to the energy supply will increase very little, and be around 14%. Also, the studies of the European Renewable Energy Council indicate that only half of the global energy demand could be supplied by renewable resources in 2050, if sound strategies are employed. This picture shows that while we fight against climate change on the one hand, on the other hand, currently used energy sources will remain important in the supply of energy demand, for a long time.

Since it is one of the countries that will experience the impacts of climate change intensively, Turkey should also approach this problem with a proactive attitude in generating solutions. Although it produces much smaller amounts of emission in comparison to developed countries, still Turkey is amongst the countries that have a rapid increase in greenhouse gas emissions proportionally. Since the beginning of year 1990, the CO<sub>2</sub> emission in Turkey has increased around 73%. In Turkey's total greenhouse gas emissions, energy related activities have a share of 76,7%. Industry, agriculture, construction, transportation, and especially electricity generation have an important role in the formation of greenhouse gases.

Starting with the states, all societies must take steps against climate change, together. At this point, as industries consume the most energy, they should take greater responsibility. What should be stressed is that the impacts of climate change over the economic life will be much greater than the cost of any work done to fight against greenhouse gas emissions. According to the studies conducted by the German

Institute for Economic Research, unless precautions against greenhouse gas emissions are actualized, by 2100, the annual economic damage will meet 20 trillion US dollars on a global scale. However, it is possible to reduce this damage by half through carrying out certain measures. Those who find these numbers exaggerated should be reminded that the natural disasters of 2005 had damaged the global economy with 220 billion US dollars; and Katrina Hurricane caused 135 billion US dollars of cost on the world economy in general, affecting particularly the energy sector.

As in others, the issue of climate change produces a variety of risks for the petroleum sector. Possible physical risks vary from the halt of petroleum supply, to the extinction of water resources needed for production. Petroleum companies are amongst the sectors that are effected most by the legal regulations concerning climate change, due to their production, and the effects of their products. As the effects of climate change rise up, the parallel increase in the legal regulations of operating conditions and product specifications will most probably cause a rise in product prices too. Also legal compliance will acquire importance as regulations proliferate. Today, as the brand and reputation have gained incredible importance in evaluation of companies, expectations to carbon footprint in product and producing processes have greatly increased in terms of consumer behavior and public sensitivity. Corporations should no longer ignore this subject. In the near future, risks that derive from climate change will be as important as other financial and operational risks that threaten corporations' existence and development.

For the companies that can perform risk management successfully, new terms emerged as the result of climate change present important competitive advantages. With the necessary precautions taken, industrial companies will ensure long term sustainability; while also attaining opportunities that can boost their operational efficiency as well as their commercial and financial performance in the short and medium runs, against their competitors. For example, via energy efficiency projects, which is a fundamental practice aimed at lowering the CO<sub>2</sub> emissions, corporations gain huge cost advantages. Through conducting innovative studies that aim at decreasing the environmental effects of products, corporations differentiate in the market, and acquire a competitive edge compared to others. In addition to this, greenhouse gas emission decreasing measures create their own economy. "Emissions Trade", which is composed of "clean development mechanism" (CDM), and "certified emission reduction" (CER) instruments; together with other technology cooperations that work to decrease CO<sub>2</sub> emission and increase efficient use of renewable energy sources; and joint actions for preventing forests from further extinction, promise important opportunities for industrial corporations.

## Climate Change, Energy Sector and Tüpraş

### Climate Change and Energy Sector:

Greenhouse gas emissions, causing climate change are 90% anthropogenic by source. Thus, taking every precaution to solve this problem is our responsibility to our planet, and all the creatures living on it. The greatest help for this mission is provided by the forests which have been the key players in balancing out the greenhouse effect. In order for the planet to regain its ability to form this balance, in addition to the implementation of certain precautions, we must also work to regain the forest lands, which we caused their extinction.

### Climate Change and Tüpraş

The matter of climate change is evaluated in two dimensions by Tüpraş; to effect and to be effected. For both conditions three fundamental studies are conducted: Assessment of risks and opportunities, forming cooperations and the informing the community.

In order to understand the risks posed by climate change in wide perspective, and manage them effectively, we work and invest on research and development, system, process and product improvement. For example in 2009, we formed a multifunctional workgroup to further identify the risks directed towards the corporation. This way, the analysis works that used to be done unit by unit, are unified to make up an integrated perspective. Our works to fight against climate change will be elaborated on the basis of the results driven by this workgroup. At the moment, energy efficiency is the most intensely elaborated subject for us. We ensure the active attendance of employees to the studies coordinated by the Energy Management Unit, through various channels. The dozens of projects, put out as a consequence of the synergy we have reated within the corporation, managed to reduce CO<sub>2</sub> emissions substantively while providing significant profitability in 2008 and 2009. Established in 2009, our research and development unit focuses on fighting against the impacts of climate change, as one of its fundamental work subjects. We conduct a variety of projects in diverse fields, from energy efficiency to product development. Because of the fact that climate change impacts present regional differences, we tend to shape our projects from general to particular, without disregarding the characteristics of all four regions we operate.

While we take risks into consideration regarding the issue of climate change, we also keep track of the opportunities which are to emerge. As the projects and investments we actualize at the moment provide protection from the physical harms of climate change, in the future we will gain a crucial competition edge. Because, even under the harshest work conditions that might come up, we will increase our operational continuity and profitability, both in terms of legal compliance and adjusting to physical conditions as a result of current practices. Also we observe the carbon trade markets up close and looking for the opportunities this sector will present in the future. We are increasing our ability to produce products with less environmental effects. For this purpose, we invested in process units in the past years, and we continue with many others. Thanks to these process units, we can supply markets

with low-sulphur products with less environmental impacts by processing crude oil as well as by converting high-sulphur content products. The most important research fields of our newly established R&D Unit are improvements aiming environmental impact reduction and development of new and more environmental friendly products. Renewable energy is another investment field in which we are interested, initially to supply our own energy need. In this context, we have already initiated our wind power investment into the İzmir Refinery. We also conduct feasibility studies for the use of renewable energy, in our other refineries.

Climate change is too big of a problem to be solved with the will of a couple of pioneer companies. Organized, collective works should be put out; and multistakeholder cooperations should be established between the state, industries, NGOs and universities. We support many initiatives concerned with climate change, and join cooperations for this reason. For example, as we have been contributing to the activities of public agencies, and non-governmental organizations, we have also been actively supporting the project named Enver, since the first day it was mentioned by the Ministry of Energy. We are an active member of the Private Sector Climate Working Group, formed with the alliance of the Ministry of Environment and Forestry, State Planning Organization, UNEP Turkey and Turkish Industrialists' and Businessmen's Association. Our R&D unit also works to increase university – industry collaboration in its activities, as a part of its main working principles.

No matter whether we look at it from a corporate or societal benefit perspective, success in the management of the climate change problem comes with society-wide informing. A community which is rich in information and awareness will demand generation of active solutions, from the stakeholders of the problem. This will also present the corporations with a responsible management understanding, opportunities to differentiate in the competition. For this reason, we conduct societal projects, composed of works that are generative of responsible behavior. In addition we work on our communication means to let our stakeholders learn about our efforts on combatting climate change. Thus, corporate responsibility reporting forms the basis of our communication channels with them.

# Energy and Emission Management

Due to the intensity of consumption, energy management holds great importance for the refining sector. In financial terms, energy consumption is the major expenditure item in this sector. Besides, due to its source, energy consumption is also important for business continuity in the long run. Because most of the energy need is supplied via petroleum derivative primary sources such as final products or semi-finished products. However, these limited resources can be put up for sale or used as raw material, but rather they are used to supply the energy need of production itself. This situation is of utmost importance in terms of a possible shortage in raw material supply in the future.

Energy consumption has a major proportion in the environmental impact management. Climate change, being one of the greatest risks standing before the global economy, is mainly caused by the CO<sub>2</sub> emission that follows energy consumption. This is why, emission management has to be thought together with energy management.

Tüpraş energy management was given its own organizational structure, since 2007. The subject is represented by the energy management directorate within the headquarters, and by energy management chiefs and chief engineers within the refineries. To improve their professional skills and competences, all employees responsible of energy management have been supported with expert trainings both domestic and abroad. They have also been certificated after completing the trainings on industrial energy efficiency, which are also legally required. To increase efficacy of energy management, since 2008, various softwares have been developed for operation processes.

## Energy System Optimization

One of the most important practices we have developed during the reporting period was the project for monitoring and optimization of the energy systems in İzmit and İzmir refineries, which has a strong software unit beneath. First initiated in September 2008, we have passed to installation process by September 2009. Beginning its field applications in January 2010, this system will receive hourly updates from the energy systems on real time, and make sure that the planned production will be realized with optimum energy use. With the installation of this system, our energy costs will decrease about 2% to 5%, and we will prevent a minimum of 15.000 tons of fuel consumption annually. Compared to 2008 data, this saving will also result a financial contribution of 16 million TL per year.

While the system provides optimization, it also takes environmental criteria into consideration. For example, this program observes the CO<sub>2</sub> and SO<sub>2</sub> emissions of furnaces and boilers, and if it detects a possibility of transcending of emission limits, it halts emission increase by shifting the fuel type employed from liquid to gas. This implementation will have a huge contribution to the reduction of CO<sub>2</sub> emissions. Through the fuel saving and minimum 2% in fuel cost that will be actualized with this implementation; we are expecting 20 thousand tons less of CO<sub>2</sub> emissions per year. A 5% efficiency per year will correspond to a decrease of 50 thousand tons of CO<sub>2</sub> emission. The correspondance of these numbers to our daily lives can be explained with a simple example. Every three grown sapling planted can offset 1 ton CO<sub>2</sub> emission per year<sup>2</sup>. With such calculation, contribution of this software implementation to the environment will equal the benefit of the planting of 60 thousand to 150 thousand grown saplings.

2 Approximate value employed by TEMA Karbonmetre software. [www.tema.org.tr](http://www.tema.org.tr)

Main functions of our energy management organization are;

- Defining of energy demand, control and observation of consumption values.
- Configuring systems, improving processes in order to enable efficiency in energy consumption. Assessing equipment and behavioral change needs and implementing.
- Contributing to energy efficiency related R&D studies and developing cooperations for this end.
- Assessing opportunities and designing projects in order to employ renewable sources to supply the energy demand.

In terms of energy management, Tüpraş focuses on key improvement subjects such as insulation and reduction of the loss of compressed air, waste-heat recovery, efficient illumination, process improvement, efficient combustion in boilers and kilns, modernization and changes for energy efficient equipment usage, energy system optimization, thermal integration, electric line heating, equipment-unit maintenance and increasing renewable energy. Most of the implementations realized are, concentrated in these strategic fields.

# Energy and Emission Management

## Illumination with Daylight in the İzmit Refinery

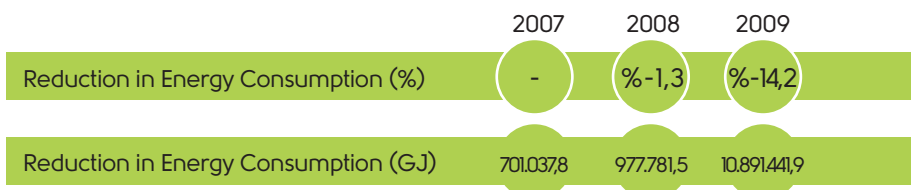
Through sunlight collectors installed in July 2009 on the roof of the İzmit Refinery's Metal Mechanics Workshop, luminaires were used 2.100 hours less in one year, thus 113,4 GJ electrical energy was saved, and 16,2 tons CO<sub>2</sub> emissions are prevented.

## Renewable Energy Use in Production

Refineries are energy intensive businesses and energy demand is supplied mainly through production by primary sources and the rest is purchased from electricity distribution companies. As a result of the studies we conducted to compensate refineries' electrical energy demand with more eco-friendly systems, in the first step, we decided on the implantation of a wind power plant in the İzmit Refinery. The wind power plant that will feed the refinery energy production systems, will be constructed with a capacity of 8MW and the surplus energy will be sold to electricity distribution company. For the construction of the plant, necessary licence application to EPDK has been made and the licencing process is still ongoing.

In our facilities other than the İzmit Refinery, we continue with studies on renewable energy use potentials. For this purpose, we are following all energy technologies and preparing feasibility studies on possible implementations. The fact that renewable energy technologies are improving day by day, our belief in greater amounts of our electric energy demand will be supplied through more eco-friendly sources is supported.

During this reporting period, we had great achievements in increasing energy efficiency. With the 80 projects we actualized over two years, we managed to lower our total energy consumption by 11,9 million GJ. This success is a result of our effective energy management structure, as well as the high level of awareness our employees have on energy efficiency. Through employee engagement processes such as recommendation, recognition, appreciation and reward systems, one of the main fields of evaluation of which is energy efficiency, we achieved significant results.



Besides our efficiency enhancing projects, our energy management carries on work to develop collaborations and cooperations. Tüpraş is represented in Koç Holding Energy Efficiency Work Group. The main objective of this work group is to bring synergy among Koç Holding companies in terms of improvement planning, to generate joint projects and to form a platform to share best practices. Tüpraş supports activities of subcommittees which work on alternative fuels, renewable energy, illumination, air leakage, frequency convertors, behavioral change and audits.

In terms of energy efficiency, Tüpraş plays an active role in many initiatives outside the company as well. For instance, we support ENVER project which was generated under the leadership of Ministry of Energy and Natural Sources since the beginning and participate in project competitions organized by related institutions. In 2008, we received two jury's special reward via Batman Refinery electric engines' frequency convertor applications and feeding pumps' frequency convertor applications and we were awarded with a plaquet via İzmit Refinery steam and power optimization project in project competition on Energy Efficiency in the Industry initiated by Ministry of Energy and Natural Resources. In 2009, we participated Energy Efficiency in the Industry SENVER Competitions initiated by General Directorate of Electric Power Resources Survey and Development Administration via various projects. Batman Refinery won the first place in SENVER-10 category by single boiler and electricity optimization project and Izmir Refinery won the third place by improving steam trap, fuel saving in units, chemical washing in kiln and reduction of LP steam in degasifier.

## Energy and Emission Management

Energy Efficiency Law adopted in 2007, paved the way for government promotion practices for energy efficiency projects. The first practices carried out by General Directorate of Electric Power Resources Survey and Development Administration (EİE) started in 2009. Tüpraş has a total of 6 efficiency improvement projects including 2 in Izmit Refinery, 2 in Kırıkkale Refinery, 1 in İzmir Refinery, 1 in Batman Refinery among 17 projects chosen by EİE for promotion. 552 thousand TL composing 20% of the total investment cost of 2.8 million TL for 6 projects is covered through EİE's support.

Emission and energy managements are in close relation due to the energy consumption holds the greatest share in GHG emissions. However, for the efficient management of GHG emissions, a broader perspective is needed.

The management of CO<sub>2</sub> and other greenhouse gases that emanate from Tüpraş activities are managed by the Safety, Environment, Quality (SEQ) Unit. The unit works include the measurement and tracking of emissions, determination of their reduction possibilities, and the execution of related precautions. Beside the SEQ Unit, Energy Management Unit also plays an important role in emissions reductive field applications; and the R&D Unit participates in development of emission reduction solutions.

In terms of emission management, just as all Koç Group companies, decisions and directives of Koç Holding Environment Coordination Committee and the Group Environment Committee determine the basic trends for Tüpraş. In this way, due to the decision of Group Environmental Committee, we calculate all of refineries' greenhouse gas emission values through Intergovernmental Panel on Climate Change (IPCC) Tier-1 approach. We continue our improvement works on this issue. In order to enable calculations according to Tier-3 approach, which is the most accurate level, our refineries make the necessary analyzes in their accredited laboratories. We realize these works in collaboration with Scientific and Technological Research Council of Turkey (TÜBİTAK).

All our refineries have group A emission license and their emission values are reported periodically to the Provincial Departments of Environment and Forestry due to legal regulations. Besides these, in stacks of all refineries' continuous measurement devices are in place. These devices, measure and report the stack emissions at real-time. The results of continuous measurement devices in Izmit Refinery and Batman Refinery are monitored online by the Provincial Department of Environment and Forestry. The results of İzmir Refinery and Kırıkkale Refinery are reported to the Provincial Department of Environment and Forestry periodically.

	2007	2008	2009
Emission Reduction (tons equivalent CO <sub>2</sub> )	55.195	106.870	542.253

Because of the fact that it is the most mentioned gas type, thinking that CO<sub>2</sub> is the only gas causing greenhouse effect is a common mistake. Especially CH<sub>4</sub> and N<sub>2</sub>O and many other gases also cause the greenhouse effect. In addition, the volatile organic compounds (VOC) present in the emissions also contain environmentally harmful substances. Another false perception is that greenhouse gas emissions come out of chimneys only. In fact, as industrial plants may have chimneys that emit water vapor only, there are also greenhouse gas emissions that do not need a chimney to come out of.

Within the framework of Tüpraş emission management, in addition to the emission measurements done by accredited institutions due to regulations, we measure and monitor emission values of the three major greenhouse gasses, CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O including the direct and indirect sources, on a monthly basis. We monitor the other air contaminating parameters by continuous measurement devices on hourly basis. We carry on improvements to reduce all these values. For instance, product tanks are the units in which volatile organic compounds (VOC) emission could occur. In 2009, against VOC emissions, we equipped the product tanks in all our refineries with double impermeability systems. In two of our refineries, we covered the top of API separators to capture VOC emissions. In the other two refineries, we use the water mist method for this process.

We conduct projects to reduce NOx ve SOx emissions. In 2009, we reduced the emission to the lowest level by installing low NOx burners to refinery boilers. In 2010, we decided to generate a project that will reduce all the VOC, NOx ve SOx gasses. In the framework of this project, we plan to develop an innovative solution to purify VOC, NOx and SOx gasses from flare gas emissions through luminescence technology. Preparatory studies of the project were accomplished. R&D phase will be started in 2010 by our R&D unit in collaboration with Turkish Atomic Energy Authority Sarayköy Nuclear Research and Training Center (SANAEM) and if there are promising results, the first implementation will be realized in Tüpraş.

# Energy and Emission Management

Sludges collected in treatment units produce various gasses. We implement certain techniques to remove emissions in these processes. More detailed information on this subject is presented in waste management section.

Beside measurement and calculation activities, most of the work we do for emission reduction are energy efficiency projects. Emission is a natural outcome of energy consumption. Thus, when energy consumption is reduced, so will be emission. Yet, as long as there is energy consumption there will always be a certain amount of emission. That is why, we are conducting projects that will prevent GHG emission to the atmosphere. In the refinery sector, the basic field to conduct such studies is flare gas recovery. In 2009, we initiated a project aiming for the flare gas recovery. With this project, which will be activated within the third quarter of 2010, a substantial amount of flare gas emission will be prevented. As flare gas is recycled, the natural gas found in the content will also be recovered. For this reason, this project has both energy efficiency and financial outcomes

## Flare Gas Recovery Project

Flare gas is the natural outcome of the refining operation and it contains multiple combustibles as well as greenhouse gases. The flame that comes out of chimneys which is sort of the symbol of refineries, is formed with the combustion of flare gas. A certain level of this flame indicates to the healthy functioning of a refinery. Yet today, the reduction of flare gas emissions is one of the fundamental goals. So in Tüpraş, we have also started a project with this objective, in 2009. The core aim of our project is to recover flare gas in certain amounts to avoid its emission and to reintroduce this recycled gas into production.

With this project scheduled to be commissioned in the third quarter of 2010, we aim to recover 3 tons of flare gas per hour. This way we will prevent 54.340 tons of GHG emission; increase energy efficiency and decrease resource utilization through, bringing in 20.148 tons of natural gas into production per year.

## Green IT Implementations

Information technology implementations possess a bidirectional property concerning environmental impacts; first and foremost, energy and emission management. As information technology implementations became widespread, the energy consumed for this purpose showed a substantial increase. Experts state that by 2020, the emissions of services for website hosting might exceed that of the airline transportation sector. This situation increases the importance of green practices in information technology implementations. On the other hand, corporations can manage to lower down their own environmental impact substantially, by utilizing information technology effectively. Tüpraş keeps both aspects in mind for its own IT applications.

Servers consume high levels of energy due to their working intensity. Moreover, due to the fact that servers necessitate certain climatic conditions in the rooms they operate, the air conditioning systems employed consume more energy than the servers themselves. To be able to continue with its activities, Tüpraş needs many servers for different purposes. Yet, we have minimized the physical server usage during the reporting period via system virtualization within the scope of business continuity planning. This way, we managed to use much smaller system rooms and decreased electric consumption. During the purchase of new equipment, we have considered energy consumption levels as a criterion for preference. We are planning to virtualize all of our servers in the upcoming periods, hence to eliminate such energy need.

Also, due to the fuel consumption, business trips increase energy consumption as well as greenhouse gas emissions. We intend to decrease this expenditures as well, via IT solutions. We support the teleconference technology to lessen business trips. For this purpose, the necessary infrastructure has been built and brought into service. Renewal of the technology according to the possible necessities, that would emerge during the application is among our objectives for the upcoming period.

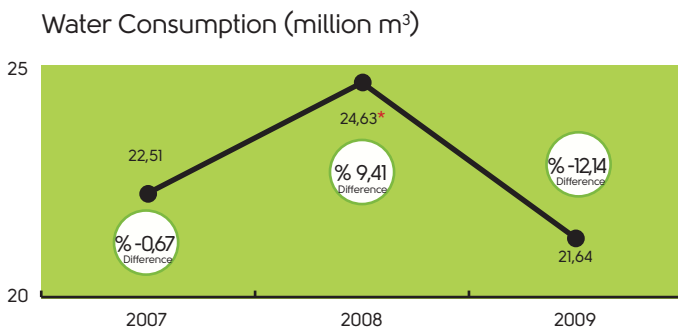
Tüpraş functions seven days, and 24 hours with shift system. Even though employees are transported to and from workplace by shuttle busses, sometimes they need to access the system outside of working hours. In such occasions, instead of coming to the workplace, they access the system through the VPN application, which prevents unnecessary energy consumption.

Some of our management support systems provide benefits of lowering environmental impacts, in addition to sustaining energy efficiency. For example, the QDMS which is used for the management of permission, quality, and operation standards; or the EBA, which is used for managing the workflow and the Enterprise Resource Planning System, help decrease paper consumption besides energy saving.

## Water and Waste Management

Water is the most fundamental need for all live creatures and the most important natural resource of our day. Even though Turkey has a significant amount of water resources, the belief that it is rich of them is quite wrong. It is a fact that clean water resources are decreasing due to intensifying droughts and other humane reasons. Additionally, we have to recognize that water extinction could turn into a serious risk as the effects of global warming increase. Since refining activities necessitate great amounts of water, we have to act smart and responsible in terms of water consumption.

In order to protect water resources, we first actualize improvements that will target a reduction in water use. Our water consumption decreased significantly in 2008 and 2009. Compared to the year before, in 2009, water used for our processes dropped 12,14%. With a 2,2 million m<sup>3</sup> per year, the highest amount of reduction took place in İzmir Refinery. The highest proportional reduction on the other hand, was realized in the Batman Refinery, with a 25,1% performance.



\* In 2008, water consumption increased due to the completion of fuel improvement projects in İzmir Refinery, diesel sulphur removal and reformer modernization projects in Kırıkkale Refinery.

Diversification of water sources, is an important work area of ours in terms of water management. Water source diversity guarantees supply and avoids the overuse of a single source. Each of our refineries has a main water source where they meet their water need. For example, İzmit Refinery uses the Sapanca Lake, İzmir Refinery uses Güzelhisar Dam, Batman Refinery uses the wells that belong to the Turkish Petroleum Corporation (TPC), and Kırıkkale Refinery uses the Kapulukaya Dam, to meet their basic water need. Yet we still develop projects and implementations to diversify our water sources.

Recycling and reuse are the two most efficient methods in the reduction of fresh water use. With these methods, while environmental impacts are reduced, substantial advantages in cost are also gained. For actualization of these processes, advanced waste water treatment and water recycling systems must be installed.

## Waste Water and Solid Waste Management in Tüpraş

In Tüpraş, we realize our environmental management in accordance with ISO 14001 standard. Yet for each subject and process, we also have corporate standards complying with ISO 14001. Tüpraş Standard for Solid and Hazardous Waste and Tüpraş Standard for Fighting Sea, Stream and Land Pollution are internal standards developed for the management of waste and waste water. For the auditing of environmental issues, we use the Tüpraş Health, Safety, Environment and Quality Audit Standard.

It is our principle that quality performance of water discharge should be beyond the parameters in discharge permissions addressed by public authorities in order to ensure the environmental safety at a maximum level. According to the Water Pollution Control Regulation and Aquaculture Regulation, the indicators are periodically controlled in accredited laboratories and audited by the relevant public institutions.

Our fundamental principle for waste management is primarily to reduce waste volume to sort solid, hazardous or medical wastes at source and to dispose non-recy-

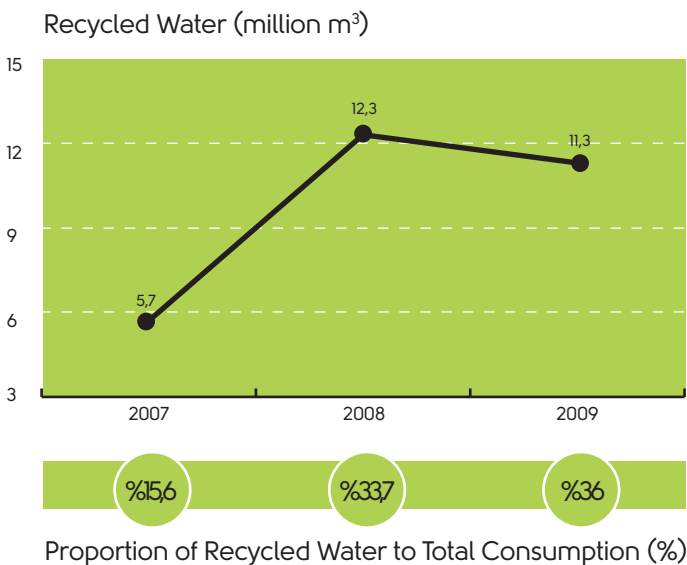


## Water and Waste Management

cable, non-recoverable wastes according to their types via licensed and controlled companies. Waste disposal operations are strictly regulated, complex and expensive processes, that necessitate administrative and operational employees. For example, the total amount we have paid only for hazardous waste disposal in 2009 is 7,6 million TL.

In 2009, we started the development of a Waste Management Program that will integrate into our Enterprise Resource Planning System. Thanks to this program, sorting at source in accordance with related standards, labeling and marking of wastes, distribution to different disposal locations by type, preparation of legal forms, documents and internal audit reports will be easier. Also benefiting from the Waste Management Program, it will be possible to identify the vehicles and drivers of the licensed companies, prevent any misconduct, and send the waste to multiple elimination centers according to their types. On top of it, cost optimization enabled with this system will make waste management processes more efficient. We are aiming to begin using Waste Management Program by the first months of 2010.

By spending a total 5,9 million TL to the İzmit Refinery in 2008 and 2009, we realized waste water recycling unit investments. Following this, in 2009, we improved the existing waste water unit in the Kırıkkale Refinery, where we built a preliminary treatment unit for a water purification unit there. We managed to increase the water treatment performance of the Kırıkkale Refinery with our investments which costed 745.000 TL.



Comparing our 2009 recycling results to that of 2008, we can see a decrease in amount, but an increase in proportion. The main reason for this is the decrease in our general water consumption in 2009. In addition to this, as the recycling proportion increased as a result of the investments put into water treatment; the overall percentage of the recycled water in total water consumption has increased too. This is the indication of a healthy performance growth in water management. Recycled water is used as cooling water, fire fighting water, boiler feed water or in steam production.

Non-recoverable waste water is discharged after going under a series of physical, chemical, and biological treatment processes; as the legal regulations demand. İzmit Refinery discharges into the Marmara Sea, İzmir Refinery discharges into the Aegean Sea, Kırıkkale Refinery discharges into the Kızılırmak River and Batman Refinery discharges into the Iluh Stream. Waste water quality values are periodically tested and controlled in accredited laboratories. Results of the measurement are constantly checked by Provisional Department of Environment and Forestry, and inspections are conducted if found necessary. In terms of waste water quality values, for all our refineries, we aim better performance than legally expected. The fact that our 2008–2009 waste water treatment results have been exceeding our performance expectation, shows that we have attained progress in our systems and processes.

### Recycling Oil and Water in İzmir Refinery

In 2009 we conducted a project in the İzmir Refinery, aiming to decrease waste volumes. With the project, we processed waste water sludge into decalcer and dehydrating systems and reached to maximum dryness ratio. Thanks to these systems, since sludge had remained in the bed for the minimum time, emission was minimized as well. By dehydrating 13,8 tons of waste sludge, we recovered 3,3 tons of oil.

### Recovery of Contaminated Soil

For an efficient waste management, primarily waste creation should be prevented. If this is not possible, then it should be recycled via treatment applications. Disposal should be thought of as a last solution.

For the treatment and recycling of contaminated soil in the Batman Refinery, we initiated a pilot application in 2009. Through this implementation, the cleansing of 2.000m<sup>3</sup> contaminated soil has been accomplished via the production of bacterias that can decompose hydrocarbon content in the soil.

For this work, an impermeable area was built and the contaminated soil was placed in it. While the bacteria and viable environment within the soil were produced; soil to bacteria proportion, moistness, and oxygen levels were constantly checked, as well as the level of reduction in contamination. In July 2009, contamination reduction proportion was 75%. We will continue with this process in 2010.

Soil improvement work via bioremediation was an exemplary implementation for our refinery as well as for Turkey where such applications are rarely observed. The alternative practice -disposal method- would not have recovered contaminated soil, and would have produced harmful emissions during the process. Plus, it was seen that compared to disposal costs, this application is more advantageous for enterprises.

## Biodiversity

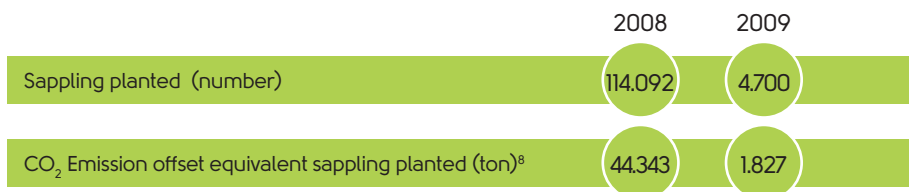
It is our responsibility to eliminate possible impacts regarding our activities on natural areas and species neighbouring our operational locations. For this, we have to assess possible risks, take effective precautions against them and constantly measure and control environmental effects. There are no 1st degree natural protected areas, special environmental areas, wetland or any areas with a special status such as RAMSAR areas, within the physical impact areas of Tüpraş refineries. When making a physical investment, proximity to such areas is an issue that is particularly taken into account.

The İzmit and İzmir Refineries are coastal. In these refineries, possible impacts on the sea and the marine life are kept under a strict control. Technical measurements on water discharges are performed frequently and controlled by public institutions. All our measurements are lower than the legal and regulatory limits. In addition to this, to minimize the effects to the marine life, in cases of an emergency, we take high level measures, procure the necessary equipment and train our employees to interfere in such cases. You can get more information on our emergency management works, in the Business Continuity section.

Our major stakeholders in preventing the possible harms to biodiversity, that could generate from our activities or due to emergencies are the local administrations, Provincial Department of Environment and Forestry, neighboring corporations and the local community. Other than the audits they realize, we also conduct joint works with public authorities to preserve nature and wildlife. Tüpraş takes the lead role especially within the initiatives taken with the participation of neighboring corporations.

Being a responsible corporate citizen, we believe that our responsibility is more than just not harming or preserving the natural life, but also helping its improvement. Afforestation practices that we have realized for this purpose, have resulted in a significant amount of forest land over the years.

Primarily, we afforest our facility sites. In addition to this, we take the opinions of expert NGOs like the TEMA Foundation, local administrations, provincial department of environment and forestry, employees and the local community, on issues of land designation, technical knowledge, and human resources. We especially try to motivate our employees and the local community to participate in the activities, to form individual awarenesses.



<sup>8</sup> TEMA Foundation Carbonmeter Program is the basis for calculations. For each sapling, it is assumed that 0,38866 tons CO<sub>2</sub> emission is removed. [www.tema.org.tr](http://www.tema.org.tr)

The scope of the project "For My Country", which was initiated by Koç Holding in 2006 and which is organized annually over a selected theme, was afforestation for 2008. For it was very poor in plant cover, we chose West Raman for this campaign, which is in proximity of Batman Refinery. During the campaign, we planted 100.000 cypress saplings. Tüpraş employees and volunteering students from the TEMA Foundation participated in our planting activities. For this project, Koç Holding companies planted 700 thousand saplings over the 7 regions of Turkey, in 2008.

### Kırıkkale Refinery Afforestation Activities 2008

In 2008, Kırıkkale Refinery planted 12.092 new saplings in different regions. 10.800 of these saplings were planted in the Hasandede Tüpraş Forest, as part of afforestation campaign initiated by the Municipality, Provincial Department of Environment and Forestry and TEMA Foundation.

We see stakeholder engagement in planting studies as a performance increasing constituent. Starting with our own employees, we tend to make use of every opportunity that will motivate people to plant a tree. For example, we use special days as a tool of motivation. A great proportion of the 1.442 saplings we have planted in 2008, in the Tüpraş Forest that is located in the University of Kırıkkale, were planted by our employees and their families, on special occasions such as the mothers' day, or valentines' day and various excursion activities.



While conducting planting studies, existing trees must be preserved as well. For example, whenever we make a physical investment project in a refinery site, if there are plants, we transfer them to a different lot. Since 2008 we have relocated 150 grown trees into forestry land.

In 2009, Tüpraş İzmir Refinery has started to plant trees along the 20 kilometers long highway between Menemen and Bergama with the collaboration of District Governership of Aliağa, Forestry Operation Directorate, and General Dictorate for Highways. When the project is completed, around 4 thousand saplings will be planted. In addition to this, in İzmir Refinery facility site, 700 pine saplings supplied by TEMA foundation were planted in 2009.

## Governance

Taking the lead on the Turkish economy since its foundation, Tüpraş owns a rooted administrative tradition. Tüpraş which was a state owned enterprise, embraced the identity of being a private sector corporation with the privatization in 2005; and realized fundamental changes in its corporate structure. Due to the fact that Koç Holding, to which Tüpraş is affiliated, is an exemplary company with its corporate governance in Turkey; Tüpraş's management culture has also developed during this transition process.

	2007	2008	2009
Corporate Governance Rating	7,91	8,20	8,34
Fitch Ratings Foreign Currency Long Term Rating	BB (Stable)	BB (Stable)	BBB- (Stable)
Fitch Ratings Local Currency Long Term Grade	BBB- (Stable)	BBB- (Stable)	BBB- (Stable)
Fitch Ratings National Rating	AAA (Stable)	AAA (Stable)	AAA (Stable)

49% of its shares being traded in the ISE and in foreign stock exchange, Tüpraş is one of the companies with the highest free float rates in Turkey. Forming a modern, visionary and reliable governance model that will generate a strong financial structure and high levels of operational efficiency, is Tüpraş's responsibility before all of its stakeholders and especially before its investors and shareholders.

The fundamental aim of Tüpraş's governance structure is to ensure sustainable development; and to form a positive communication channel with its stakeholders based on transparency, accountability, mutual trust, and stability, while providing them with maximum benefit. As a result of the effort we have put into strengthening our governance structure, in this reporting period, our corporate governance and credit ratings have displayed an increase, as it did in the previous years.

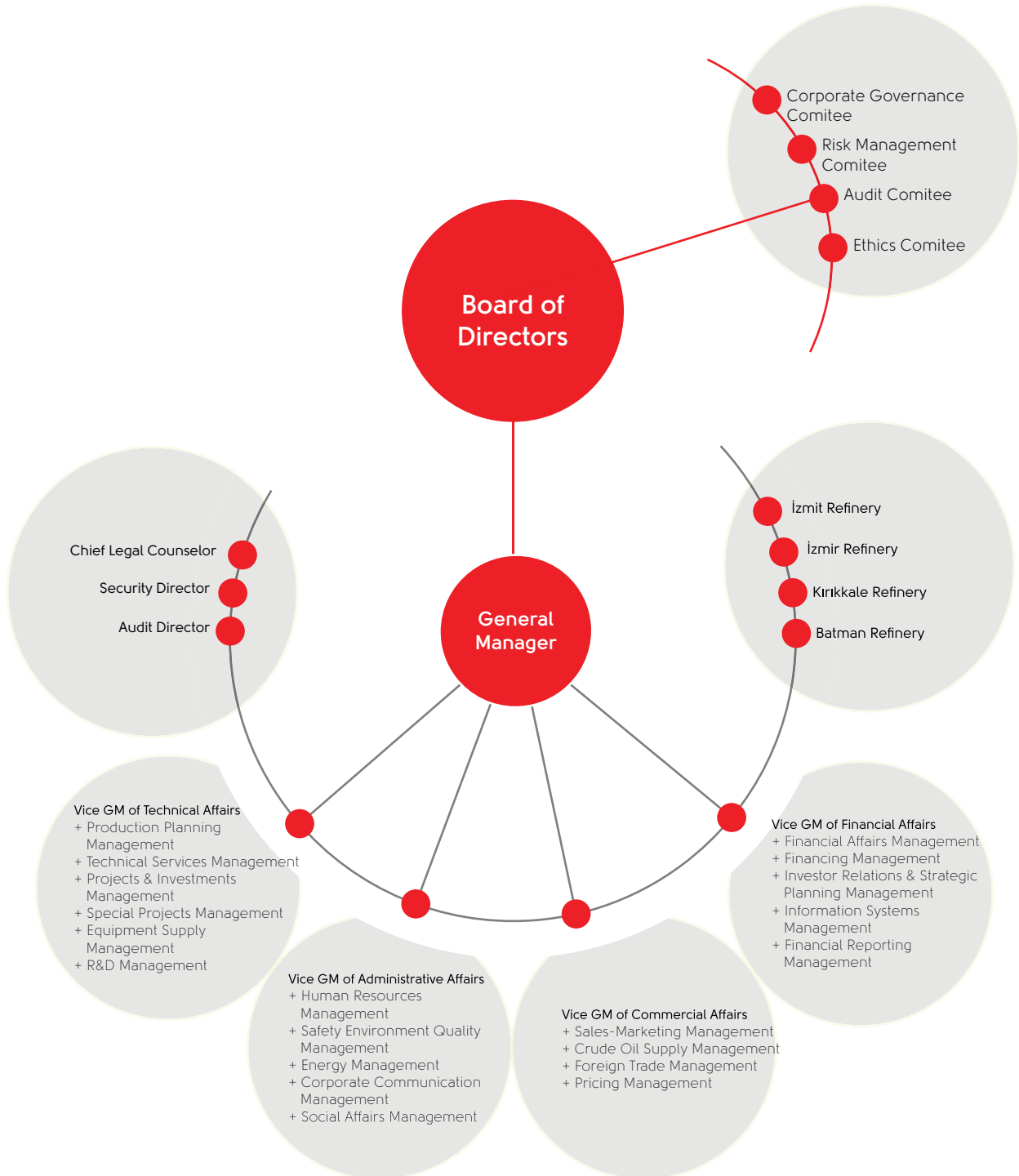
### The Board of Directors Sub-committees Membership Structure

	Executive Members	Non-executive Members
Audit Committee	-	2
Risk Management Committee	1	3
Corporate Governance Committee	1	2
Ethics Committee	1	2

In Tüpraş, the offices of Chairman of Board and General Manager are held by two different persons. The Tüpraş Board Of Directors is composed of 7 members, and except for the General Manager, all members have a "non-executive member" status. For the Board of Directors to execute its duties and fulfill its responsibilities; Audit, Risk Management, Corporate Governance and Ethics Committees have been formed.<sup>4</sup>

<sup>4</sup> While there are no independent members amongst the members of the Tüpraş Board of Directors, and the Subcommittee, executive and non-executive status are defined as described in the Capital Markets Board (CMB) regulation.

## Governance



Within the organizational structure of TÜPRAŞ, all duties and responsibilities are distributed amongst various specialized units, according to their competence. As in all performance fields, social, economic and environmental issues are also managed by the specialized units and TÜPRAŞ General Manager is responsible of their management performance directly before the Board of Directors. With the consciousness of being a TÜPRAŞ employee, all our employees carry the same responsibility within their own sphere of authority and duty. You can access more detailed information on TÜPRAŞ's corporate governance structure, activity and performance and Subcommittee Members, in the Annual Report and Compliance to Corporate Governance Principles Report available at, [www.tupras.com.tr/masterpage.en.php](http://www.tupras.com.tr/masterpage.en.php)

## Governance

Economic activities are actualized in a physically and socially active environment. Many variables that compose this atmosphere create complicated effects on production factors and license to operate. These effects can bear risks and opportunities for corporations. For a corporation that is run cautiously, an effective risk management perception is necessary to transform risks into opportunities. Tüpraş's basic view on risk management is shaped by securing assets and license to operate, ensuring operational reliability and continuity, and maintaining corporate sustainability. Our aim is to be able to forecast, observe and effectively manage the potential risks on all fields, and create basic activity plans for them.

Risks that Tüpraş could be exposed to are categorized under five main and seventeen sub-titles. In order to actualize an efficient risk management, there are early warning systems and proactive management methods targeted at each of these detected risk areas. You can get more information on Tüpraş's risk management methodology, through the 2009 Annual Report, posted on internet at [www.tupras.com.tr](http://www.tupras.com.tr).

Tüpraş Summary Risk Map



Because of our understanding of transparency and accountability, which are our fundamental responsibilities towards our stakeholders, auditing is indispensable for our corporate governance. Auditing activities are held by experts of internal audit units. Following a proactive methodology, which is comprised of International Internal Auditing Standards and Tüpraş Ethical Principles, audits are run on the domains of finance, operation, risk, process, legal compliance, business ethics and misconduct; and on issues and processes that are defined annually. In all of Tüpraş's operating sites, basic audits are held twice a year, and thematic audits determined upon the work period are done at least once a year. In addition to these, the realization of activities that improve our auditing applications and processes is among the duties of the audit units.

When Tüpraş runs its activities, it embraces domestic and international legal compliance as its work principle. Moreover, our liabilities towards the initiatives that we are directly or indirectly party to, are evaluated in this regard. The most basic example of this is formed by the United Nations Global Compact. All the business conduct norms defined by UNGC to which our parent company, Koç Holding is a party, are binding principles for us. This is why the compliance to the UNGC is carefully examined during internal audits.

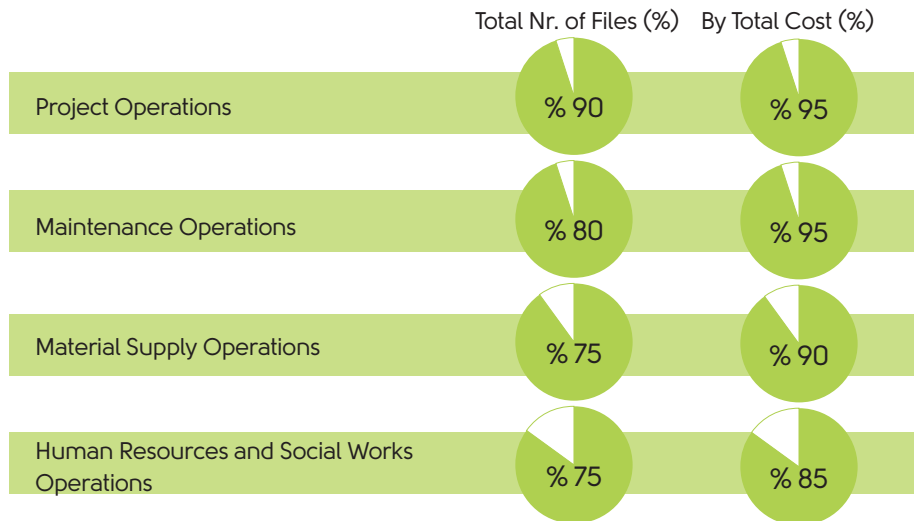
We actualized many auditing operations and new applications during the reporting period. Alongside the fundamental audit proceedings, we have created a real estate database for the effective controlling of the management of Tüpraş's assets; in addition to a contract database, built to improve the tracking of legal risks. Furthermore, we also adopted a more developed legal risk management system named LERIMAN, which is implemented by the entire Koç Holding.

During the reporting period, we carried out audits in various subjects and processes alongside the fundamental audit activities. For example, in 2008, we have inspected all the product and service purchasing transactions individually. National Marker is an implementation that prevents the circulation of illegal or counterfeit products, by determining all the processes from transpor

## Governance

tation to storing, according to legal regulations. In 2008, we also added this risk issue to our auditing activities, and after some improvements, in 2009, we expanded its scope from the refinery to the whole of Tüpraş.

### The Auditing Ratio for Purchasing Transactions (%) (2008 – 2009)



Opet, of which we are a 40% shareholder, is also a business partner of ours where from we purchase storing and shipping services. In 2009, we audited Opet terminals, regarding their working conditions and the service processes. Likewise, we audited our transportation providers. Moreover, our inspection unit carried out a unit-price comparison amongst the refineries, to achieve a more effective cost fiscal control. Thanks to this practice, we had the opportunity to work on questions such as which refinery is more cost efficient in which items, how this advantage is attained, and how it could be provided for other refineries.

Tüpraş Ethical Principles are the pillars of our audit processes, and they have been opened to the knowledge of all our employees and business partners. The development of our ethical principles is provided through the constant monitoring of emerging needs and advances in global applications. The most important resources of this endeavour are the evaluations of our experts and the suggestions of our employees.

Being one of the fundamental working principles of Tüpraş, the struggle against bribery and corruption holds a significant place in internal auditing as well. Bribery and corruption are never indulged and disregarding its scale, no possible misconduct is tolerated in Tüpraş. As a principle, Tüpraş only works with business partners that share the identical ethical norms. Their stand against bribery and corruption form the ground for an opportunity to cooperate and work together. All business partners of Tüpraş are informed on our working and ethical principles, as well as the measures that will be taken in case of any non compliance.

None of the processes, business units or business partner activities audited in 2008 were found to be in conflict with our work norms concerning ethical principals, bribery and corruption. Concerning these issues, no legal action was taken against our corporation or employees, and no proceeding was instituted. Yet, during the 2009 audits, for an operation belonging to one of our business partner, a doubt on misconduct came up. Detailed investigation and interviews were held with all parties by our audit experts and it has been determined that the business partner had attempted to abuse Tüpraş financially. Due to the non-compliance with our work principles, all relations with the company in question were terminated and all the damage was compensated.

In addition to managing the inspections of Ditaş, our business partner in transportation, which Tüpraş owns a large share of; we aim to start preparing the Tüpraş Risk Management Standard, to improve our own risk management processes in 2010.



## Business Continuity

In the relevant legal regulations, strategic corporations like Tüpraş are defined as “even a temporary interruption in their operations has negative impacts on community life”. The interruptions in operations cause significant financial losses to the companies. Besides, interruptions in the product supply have deep impacts on the community since petroleum products constitute one of the fundamental and nonsubstitutable consumption products both for industrial corporations and for individual consumers. Hence, business continuity of Tüpraş is significant for the company itself as well as for the strength of Turkish economy and even the national security. For this reason, assuring the business continuity constitutes one of the top priorities before our stakeholders in order to fulfil our duty of providing the necessary petroleum products for the Turkish market without any interruption.

Supplying process is the primary process to guarantee business continuity. The supply of all the raw materials, and primarily the crude oil and semi-finished products we use in production, should be secured to assure that business continues without any interruption.

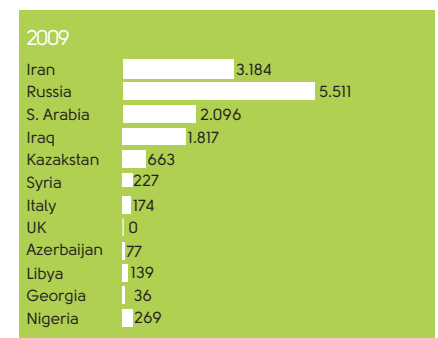
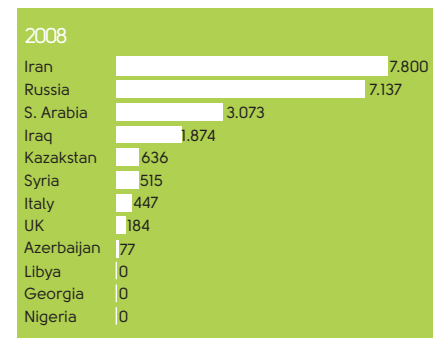
The supply operations of Tüpraş have three pillars. The first one is the crude oil supply operation that is actualized by its own professional unit. The main policy we pursue in crude oil supply is the supply of crude oil of the right type and quality in necessary amount and in the required period which will provide Tüpraş with the maximum profit after the processing that is in. We have various decision processes and business support systems to fully comply with this policy which carry variables that have huge impact on Tüpraş’s operational continuity and profitability. In the simplest sense, in predetermined time intervals, Tüpraş supplies crude oil in determined quality and amount that were determined as a result of the studies of production model and optimization that is being realized with the data our production planning experts obtain from all the units. However, in order to assure this, the supplying sources should also be secured.

The supply of crude oil is responsive to various issues, primarily the climate conditions and the political situations that the producer countries are in. For this reason, we diversify our supplier sources and prevent dependence on any country or region for our supply operation. In the current situation, due to its advantages in terms of logistics and economy, Tüpraş purchases crude oil from three main geographies, namely Middle East, Mediterranean and Black Sea in order to diversify the supply sources. However, in cases of profitability, Tüpraş also purchases from other crude oil production sources such as North Sea and Africa. Due to the legal liabilities, the whole of crude oil that is produced in Turkey, should be processed in Turkey; hence Turkey’s only refinery Tüpraş, purchases all the crude oil produced to be processed. However domestic purchase constitutes only a small portion of our crude oil supply operations. For instance, domestic crude oil supply is 2.2 millions tons in 2009 and constitutes 18% of our total supply.

Although the numbers may vary from year to year, we purchase 55-60% of the total crude oil from the producer companies which we have signed long term agreements with and the rest 40-45% of it by spot transactions. In this way, we assure a large body of the necessary crude oil for production and also gain the flexibility to make choices to maximize our profit in the smaller body.

Another significant requirement regarding our supply operations is maintaining the physical security. Due to the fact that crude oil is a product with risks on safety and environment, we also work to maintain the safety of marine transport. In spot transactions, our suppliers are responsible of the transport. Despite this fact, transport safety constitutes a significant criterion in supplier selection. The ships which are not approved by us can not pursue transporting operations. For approval, the ships should comply with “ISPS” Code (International Ship and Port Facility Security Code) and have this certificate. Ships without this certificate are not allowed to transport or edge in with. On the other hand, we check whether the ships comply with approved provisions and whether any significant petroleum companies have confirmed these ships to transport. For transactions by long term agreement of which transportation responsibility belongs to Tüpraş, we use ship of our subsidiary Ditaş, which comply with all necessary provisions.

Crude Oil Supply Sources  
(thousand tons)



## Business Continuity

The optimum charge and stock policy we implemented during the reporting period which was a period of crisis, caused timing factor to gain significance in our crude oil operations. By making arrangements in the periods of our supply operations, we prevented a great amount of inventory value loss by acquiring crude oil in the right amount and in the right quality without being kept in the stocks till the time of production.

The conventional method pursued in crude oil purchases is the procedure in which the average value of the price of crude oil constitutes the purchasing price during the time intervals varying according to the agreements made when the crude oil is loaded on the ships. This situation has negative impacts on the profitability of the refineries at times when there are fluctuations in prices. From 2008 onwards, we have reduced the negative impacts of the fluctuations in the crude oil prices in our spot purchases by generating a new pricing methodology with our suppliers. With this new method that we have implemented in nearly half of our spot purchases, we set the pricing of the crude oil that we purchase according to the different time levels in which the product reaches the refinery and the time that it is processed.

### Crude Oil Supply Security and Product Supply Relation

Production continuity in the refinery sector primarily depends on the security of crude oil supply. However, crude oil supply can be very nonstable against some situations other than economic conditions. Political problems and the negative effects of the severe changes in climate especially in the petroleum producer countries and regions may affect the crude oil supply and thus the continuity of the production. In order to prevent the negative impacts due to the supply problems occurring beyond our sphere of influence we stock products as "national reserve" as required by the legal responsibilities. In Tüpraş's storage units, there is a national reserve of petroleum products to last for 20 days. The storage infrastructure of Tüpraş and the terminals of its affiliate Opet, constitute 3/4 of total capacity of Turkey and can store in 10 different storage points. Thus, product supply is under guarantee not just against production interruptions but also against regional physical problems.

Another supply operation of Tüpraş is the importation of semi-finished and final products. Thanks to its upgrading units, Tüpraş can upgrade heavy products into white products with high profitability. In some market conditions, the prices of final product and semi-finished products can be more profitable than the supply of crude oil. Under these circumstances, our foreign trade unit supply semi-finished or final products. We upgrade semi-finished, heavy or high sulphur products and convert them into white products with low environmental impact and increase our profitability by supplying them to the market. Due to the low demand in the market, during the reporting period, the prices of semi-finished products have reached a more profitable point compared to the crude oil. In order to make use of this profitability, after processing them in the upgrading units, we released the semi-finished products supplied by our foreign trade unit.

Supply of Crude Oil and Semi-Finished Product	2007	2008	2009
Import of Semi-Finished Product	61.417	162.958	1.984.342
Crude Oil Supply	25.536.558	23.909.729	16.429.745
Total	25.597.975	24.072.687	18.414.087
The Share of Semi-Finished Products Import in the Total Supply (%)	0,2	0,7	10,8

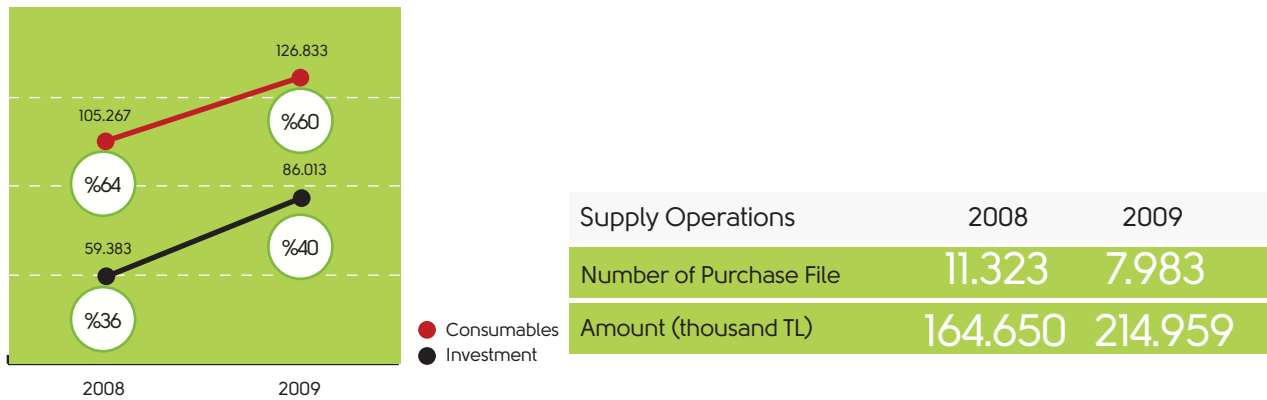
## Business Continuity

The supply of all materials except crude oil, final products and semi-finished products, is held by our material supply unit in accordance with Tüpraş Material Supply Standards. Supply security for items which are significant for production is maintained by long term agreements and storage practices. The stock amount for these products is constantly monitored by automation systems and thus a certain amount of storage is assured by automatic purchase.

Our material supply source is the "Tüpraş Supplier Pool" composed of companies that adopt similar working principles with Tüpraş and that can provide the expected high quality, production and logistics norms. Supply is realized from the companies which can provide best price and delivery terms amongst other companies included in the pool which is composed according to a multidimensional selection method with various criteria such as human rights, safety and environmental impacts. The requirements for product-based terms of delivery may vary. Most of the products we supply include chemical substances that may pose risk in terms of environment and safety. Thus we determine the norms to carry and protect these kinds of products and ensure that our suppliers definitely comply with these norms. Accordingly, we ensure and control that these kinds of substances are carried definitely by licensed companies with trained and licensed drivers in vehicles that are controlled. Throughout 2008, we implemented the Enterprise Resource Planning (ERP) System for the management of material supply procedures. Through this system which has been generated at the end of an improvement process in which various sectoral implementations were evaluated together with Tüpraş's supply practices, we enhanced our supplier selection criteria. We manage all the processes from the procedure of material demand to its delivery to Tüpraş via this system.

Based on the criteria, such as product quality, human rights, work conditions, safety and environmental impact management, 90% of our foreign procurement is realized by EU countries while 8% is realized by USA and the remaining 2 % is from the other countries. However, in order to ensure the permanence of supply, Tüpraş is careful not to be depended on any supplier group. During the reporting period, imports constitute about half of the supply operations while domestic supply operations constitute the other half on average. In order to contribute to the development of local economy and to maintain supply security, it is our constant objective to increase the share of local supply among all supply operations especially for the producers located in refinery regions. You may find information on the contribution of our supply operations to the local economy in the Community Development section.

### Supply Operations by Domains (thousand TL)



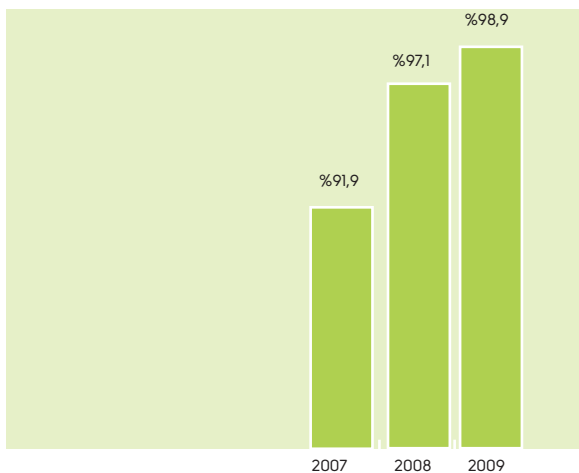
We expect superior quality and work conditions from our suppliers. In order to ensure the expected quality norms, we apply quality tests for every product purchased according to its specifications. Moreover we expect our suppliers to comply with standards of quality, safety and environment such as ISO 9001, ISO 14001 and OHSAS 18001 and expect them to comply with basic human rights norms such as abolition of child labour and forced labour. In order to check how much our suppliers meet these expectations, we make audit visits. We control several issues including safety, environment, security, ethics and human rights by two procurement specialists, together with one technical safety specialist and one internal auditor.

During the reporting period, we actualized the REACH pre-registration of the products of all our additive material suppliers. With the consolidation studies we have done during the term, we reduced our supply items by 11%. Thus we improved both the operational and financial performances of our purchasing operations. Besides, during the reporting period, we actualized the comparison of all the refineries' supply expenditures and implemented the centralized supply practice for the common necessary items. In the next reporting period, we aim at initiating new practices to improve our supply operations and enhance our current performances. We aim at increasing the share of our local purchase with especially the locally produced items throughout the whole supply operation in the next term. Besides, we will start generating a new supply policy together with Koç Holding and its affiliated companies.

## Business Continuity

It is not applicable to expect the necessary implementations which are to sustain material supply continuity to be unilateral. It is tremendously important for us to maintain our relations with our suppliers and preserve the structure of our relations based on mutual benefit. For this reason, we pay attention to have close relations with our suppliers. In our professional relations, we treat our suppliers' main expectations equally. We pay great attention to our suppliers' main expectations regarding the payment schedules. All Tüpraş suppliers are informed about the payment amount and due dates as soon as the purchase contract is drawn up. Payment procedures are carried out by automated systems unless there is a breach of purchase contract. Moreover, it is important for us that our suppliers are pleased to be a Tüpraş supplier and thus, we eliminate conditions that will prevent this satisfaction. To pursue this objective, we carry out supplier satisfaction survey every year and according to the results, we carry out practices to enhance the performance. As a result of this sensitivity, our suppliers' satisfaction gradually increased every year and reached the highest level.

### Supplier Satisfaction (%)



Mutual value generation is the principle we take as the basis for our relationships with our contractors and suppliers which have a significant role in our achievements. The most significant value generated is the mutual learning. Working in Tüpraş's operations site provides an important learning opportunity for many of our suppliers. We support the development of our contractors by transferring our knowledge and experiences on how to improve the model system and behaviours in various issues of work life such as employee health and safety and environment management. We sometimes see that the new systems we develop may be perceived as problems for our stakeholders. However, it is clear that these implementations bring about benefits for both sides as soon as they are included in the way of doing business.

Another significant issue to ensure business continuity is to preserve the mechanic unity of our units in order to maintain the production in planned form, amount, quality and time. Refineries are composed of non-stop operating units. Maintaining this continuity is vital but not enough in terms of making profit. Yet, it is tremendously important that the unit produces in the expected amount and quality within a certain time. This can only be realized by unit-improvement practices besides the measurement, control and maintainance of the units. Refinery units are in fact reconstructed continuously by engineers professionalized on this issue. For this reason, the fact that our production continues within high quality and management norms, generates significant costs. We completed the improvement projects that we initiated in 2007 in order to enhance the performance of these processes within the scope of asset management. Through the implemented projects, the maintainance and repair processes of the refinery units have become more efficient and our performance of availability for production has been improved.

# Business Continuity

## Unit and Facility Investments

Continuous investment practices constitute the main character of refinery sector. Investments on modern technological support of facilities, increase in the production flexibility, product specification and process quality improvement, are determined and implemented with strategic tendencies. These investments are indispensable for long term business continuity performance. Within this perspective, besides investments on units to implement strategic plans, Tüpraş also aims at implementing the investment program which has been generated to improve specification and to bring new technologies to enhance product and process quality into process structuring. During the reporting period, despite the economic difficulties experienced at sector level, Tüpraş has continued to its investment program and also made new investment decisions for the future. You may find detailed information on Tüpraş's unit and facility investments in the annual reports in [www.tupras.com.tr](http://www.tupras.com.tr)

- Modernization of the Kırıkkale Refinery's Diesel Desulphurization and CCR Reformer Unit
- İzmir Refinery's Gasoline Specifications Upgrading Unit
- Upgrading Unit for İzmir Refinery's Gasoline Aromatic Value
- Installation of the DCS Controlled Gauge System in the İzmit Refinery's White Product Sales
- İzmit Refinery Crude Oil and Jet A-1 Tanks Unit
- İzmit Refinery Wagon Charge-Discharge and Tanker System
- İzmit Refinery Boiler Burner Modernization
- Construction of New Product Storage Tanks at the İzmit Refinery
- İzmit Refinery Residium Upgrading (Fuel Oil) Project
- Modernization of the Instrument Electricity System at the İzmit Refinery
- İzmit Refinery Gasoline Upgrading and Oxygenate Tank Unit
- Rehabilitation of the İzmit Refinery Road Tanker Filling area and the Initiation of the Gauge System
- İzmit Refinery Kerosene Treating Unit Facility
- İzmit Refinery Second Kerosene Treating Unit Facility
- Modernization of the HP Blending and Sales System at the İzmit Refinery
- Kırıkkale Refinery New Energy Production System (TPP) Project
- Batman Refinery Energy Santral Modernization
- Batman Refinery Crude Oil Charge Furnace Unit
- İzmit Refinery C3/C4 Splitter and Selective Hydrgeneration Uni Facility
- Building Aluminium Dome Roof for the Gasoline and Jet A1 Tanks in İzmit Refinery
- İzmit Refinery A.G. and O.G. Electricity Distribution System Modernization
- İzmit Refinery Gasoline Blending System Unit
- İzmit Refinery Modernization of Wastewater Discharge Unit
- Kırıkkale Refinery Solid Waste Field and Hazardous Waste Storage Building Facility
- Batman Refinery Steam Boiler Facility

Investments Accomplished in  
**2008**

Investments Accomplished in  
**2009**

Projects in Progress

Investments to be  
Implemented in  
**2009**

## İzmit Refinery Residium Upgrading Project

In the last several years the decrease in the fuel oil demand and the widening of the price gap between white products and black products to the advantage of the former have created an important opportunity for Tüpraş to implement "İzmit Refinery Residium Upgrading" project and increase its competitiveness and leading position. As part of the process proposed for residium upgrading, Vacuum Distillation, Coker, Hydrocracker, Hydrotreater and Hydrogen (Steam Methane Reformer), Desulphurization and auxiliary units will be established and the high sulphur fuel oil will be transformed into more valuable white products. When the investment is completed,

## Business Continuity

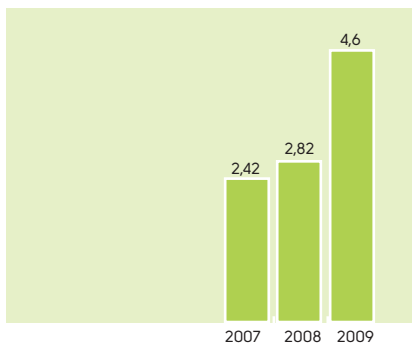
the predicted capacity increases will yield around 2.5 million tons of diesel/jet fuel, 770 thousand tons of gasoline and 200 thousand tons of LPG, which amount to a total of 3.5 million tons of white products, as well as 800 thousand tons of petroleum coke. Initiated in 2008 and set to be finished in five years, the planned project is expected to decrease black products by 50% and to increase total white product productivity by 83%. This investment almost amounts to the construction of a new refinery, taking into account the amount of white product to be generated and the value added created for Turkey. The İzmit Refinery's Nelson complexity will rise from 7.8 to 14.5, with alternatives. The environmental impact assessments including social and environmental evaluation and stakeholder engagement practices necessary in order to begin to Residium Upgrading Project, has been completed and concluded with a favorable Environmental Impact Assessment (EIA) report on April 24, 2009. Units have been completed and the contract for the completion of the basic engineering package was signed. We aim to complete the project within 54 months.

In our refineries, we aim at preventing all emergency situations. In cases when prevention is impossible, we implement policy, system and process to reduce the impacts to the minimum level. We make emergency action plans, train all our employees accordingly to develop the necessary behaviours in these situations and keep them ready for emergency situations.

The Emergency Plans that we prepare according to risk assessment and bow-tie analysis are controlled, audited and improved continuously. These plans are for preventing risks such as work accidents, fire, earthquake, floods, terrorist attacks and sabotage and they include safe release operations. In order to implement these plans in necessary situations, we have professional personnel. All of our employees participate in training about the procedure of this plan and their roles in emergency situations. Employees also participate in unplanned or planned drills to control and improve the preparations.

Cases which can be defined as emergency situations may lead to risks such as fire, explosion, leakage and flood that pose danger to human health and environment. In order to cope with such a situation, the right and sufficient equipment is necessary besides the trained personnel. Every year, Tüpraş allocates an important share of investment budget to improve the system, vehicles and equipment, to employ cutting-edge technology and to ensure periodic maintenance.

Investments for Safety and Emergency Situations (million TL)



	2007	2008	2009
Total Number of Incidents with Environmental Impact	4	2	3
Number of Spills	20	24	12

All the spills that took place during the reporting period were incidents that could be cleaned with minor interventions and had no impact on environment. For incidents with environmental impacts, we take regulatory and preventive measures to prevent their reoccurring. Technical infrastructure and trained personnel are ready for 24 hours in case of such an incident.

We assess all types of emergency situations independent of the type and impact in case they take place. We report these cases and take preventive measures even against the smallest impact. As a result of the preventive measures we have taken, there is a decrease in the number of incidents, with environmental impact, as well as in number and amount of spills. We aim at sustaining this decreasing trend.

## Business Continuity

In case of any emergency situation that could occur in ships which moored to in our refinery ports for filling, we are responsible to provide the safety of people, environment and assets within the refinery area, the port and nearby areas. However in cases when human and environment safety are at risk, we do not hesitate to mobilize our personnel and fleet whether the area is within our responsibility or not. Our environment is not limited with our refineries.

We lived through such an incident on the 29th of September in 2009 at 7.20. About the time the filling cranks were tied in order to fill fuel product into the Sena 3 tanker owned by Selay Denizcilik to transport to our customer Petrol Ofisi, our employees realized that there was fire on the ship. At that time, these employees took the responsibility to unfasten the cranks and separate the ship from the port. Our Safety Environment and Quality Unit went by crisis management and decided that the personnel should switch to fire fighting and crisis situation immediately. At 07.25, they continued fire fighting while the ship was taken to the mooring zone field determined by Izmit Port Authority by our tugboats. Against the risk of explosion, fifteen ship personnel were evacuated. The first medical intervention was realized in Tüpraş Health Center. Refinery Safety, Environment and Quality administrators took on the responsibility of towage and quenching until Izmit Port Authority arrived at the scene and take over the command. While quenching went on floating barriers were deployed on the scene against any product spill. The fire was extinguished at 13.30 after 6 hours of work. After an hour of observation for safety, the tanker was delivered to Izmit Port Authority. A disaster that could have caused danger to human life, pose risk to environment safety and cause severe economic losses was prevented as Tüpraş employees intervened early with their attention and initiatives.

Viewed as an economic value by the society, refineries are highly protected and strategic facilities with operations that affect social life and even national security. Thus, they are protected against terrorist attacks, sabotage and other public security risks. For this reason, in all our refineries, there are special security zones determined by the legal regulations. Besides the facility area itself, the responsibility of Tüpraş security system includes the area that is in the special security zone which is near the outward boundaries of the facility on land and on sea. From the supply point to its arrival at the refinery, the national marker which is defined as valuable product is under security procedures during the transportation. The security of the supply to the national marker is maintained with fully equipped Tüpraş private security personnel and with special permissions obtained from the related authorities. Through vehicle tracking system and continuous communication, Tüpraş controls whether the vehicles move according to their transfer plans or not. It is vital to support the physical security systems in the field where marker is there for supply practices with electronic support.

The main path for eliminating public security risks is the Tüpraş Security Management Standard that is prepared according to the current legal regulations and revised in 2010. The work systematic prescribed by this standard is protection of our security zone with advanced technology and licensed, professional security personnel, continuous control and audit for personnel and the system and implementation of frequent drills to be prepared for emergency situations. Real situations and drills are observed simultaneously in the crisis centers of headquarters and refineries. When necessary, administrators and professionals intervene before the incidents get serious. During the reporting period, Tüpraş's security was enhanced through technological investments, employee development and trainings. Tüpraş refineries are on four different geographies with various physical and demographic factors. Thus, we take distinct security measures according to different security considerations for each of our refineries within our general perception of security.

In all our security practices, we respect to human right principles, assort to corporate profile, comply both to national and international security norms. We sustain production without compromising safety and provide the feeling of safety among the employees and third parties by our security system and personnel, which are open to amendment, trained, devoted, conscious and always ready. In addition to those principals determined by Tüpraş Security Policy, we also work in coordination and cooperation with the relevant public institutions and neighbouring corporations in order to realize a modern security management.

## Business Continuity

The drills realized are significant to make sure employees perceive the significance of safety and security and to keep this perception alive, to be always ready for emergency situations and to ensure the efficiency of measures taken and to guarantee the operability of the equipments. Planned and unplanned drills' results are evaluated by the experts to take necessary measures.

Every year, we make drills for security, evacuation and fire in our refineries. In the scenario of the fire drill, there is also the matter of civil defense. Besides these, we carry out ISPS CODE drills in coastal refineries. Hence, every year, in every Tüpraş refinery we carry out at least 11 drills. Moreover, we carry out unplanned excersises with various scenerios throughout the year. Especially in every security directorate, we carry out at least one unplanned exercise with different scenario. Thus, also in the reporting period, we carried out planned and unplanned exercises that are specified under all drill categories.

Drill Category	Scheduled Repetition (year/site)	Total Scheduled Repetition
Security	4	16
ISPS Code	1	2
Fire and Civil Defense	6	24
Evacuation	1	4
Total	1	4

In the reporting period, during the operations of transferring national marker and in the working and social life areas of Tüpraş, no security violation took place against Tüpraş workers and their relatives. No public security problem was experienced that would affect the operational areas, the security of valuable equipment or the continuity of the production.

Another element to shape our business continuity is preserving the quality of operational excellence, business process, and the quality of product and services. We believe that managing processes within predetermined and developing behavioural patterns according to defined situations enhances these performances in terms of business continuity. Within this perception, we perform the management of all our business processes according to the standards of Quality, Environment, Work Safety and Security Management System. During the reporting period, we raised the number of Tüpraş Work Standards from 79 to 99 which we use actively in all our performances. Besides the operational domains, these standards define business conduct in social, economic, environmental and ethical issues such as health, safety, environment, security, human resources and audit.

Besides complying with internal standards we also comply with widely accepted external standards. Within this scope, Tüpraş complies with ISO 9001 Quality, ISO 14001 Environment, OHSAS 18001 Occupational Safety and Security Standards. Moreover, laboratories connected to our refineries comply with ISO 17025 General Requirements for the Competence of Testing and Calibration Laboratories. We continue to perform in accordance with EFQM Excellence Model since 2006. Throughout the reporting period, we held the "Competence at Excellence Certificate" which we recieved a result of our accomplishment in performing the EFQM Model.

During the reporting period, we realized all of our objectives regarding the improvement of quality management. One of the most significant objectives was to start a common quality certificate management. Until 2008, each of our refineries had separate quality certificates. During the reporting period, we improved this practice by using a common quality certification for all our refineries. By this means, we maintained the balance between implementing standards in our refineries while simplifying our quality management processes. Our quality system practices are periodically audited externally and internally. As a result of this work, all our quality certificates are renewed until 2012. We aim at improving our quality system practices through employee trainings in the future.



## Business Continuity

Information systems have two significant roles in terms of business continuity. Firstly, all our operations including the production processes are carried out by computer aided systems. Secondly, in terms of business continuity, most of the management support systems are carried out by information system. For this reason, it is important to have a developed IT infrastructure and to ensure the operability of these systems.

The most significant information systems for production process are Crude Manager, PIMS and Prosteam. With the Crude Manager program, we calculate the quality and amount of each product to be produced from crude oil or other feedstocks programmed to be purchased or in stock already, according to the demand and estimated prices. With the PIMS production modelling program, we maintain the optimization between product items to reach the most profitable range of products in order for meeting the internal and external demand. With the Prosteam program that we started to implement in İzmit and İzmir refineries in 2009 we aim at realizing the whole product plan with optimum energy consumption.

There are various management support systems that are used to maintain the operations outside production processes. Among these systems, the one with the largest implementation field is the Tüpraş Enterprise Resource Planning Systems which has a modular design to support almost all our process management from supply to sales and to logistics. Other management support systems that we use are Humanist for human resources processes, EBA for workflow processes, QDMS for management of work permits, quality, environment, employee health and safety documents and the management of Tüpraş standards, BOYS for the maintenance and repair processes and Bardes for personnel presence control.

## Data Security

Data security has become a significant issue to be managed together with the development and the common use of IT systems. There resides customer and contractor data in Tüpraş databases, besides the company information that should be saved within the scope of business confidentiality. For our stakeholders, it is our responsibility to ensure the privacy of these data for both business and company reputation. Thus, we take measures to maintain the operability of corporate databases and systems that our stakeholders access and to prevent attempts to access databases.

The basis of data security practices is to limit the unauthorized access to all company networks whether wireless or not, to limit the file sharing on the system and to save all the email correspondence and file sharings unalterably.

We aimed at improving the data security by fundamental changes throughout 2008 and 2009. By implementing SSL/VPN system and OTP, we made remote access possible for our employees and customers by single use only passwords. We implemented IDM identity management system to provide employees' access to all the necessary systems within their assigned position by single use only passwords. In the next reporting period, we aim to improve our data security system and enhance security against information theft attempts.

## IT Ethics

The contradiction in the data security practices is the fact that while the systems depend on the access and usage limitations, IT experts are allowed to access this system and data. By definition, system administrators shall not attempt to abuse these data or to use them for reasons outside their responsibilities as this is an ethical principle that must be complied.

Tüpraş anticipates that information technology employees work with professional ethical understanding like all other Tüpraş employees. In the recruitment process of information technology employees, applicants are informed on expected behavioural conduct and moreover detailed articles on data security are added to their employment contract. System administrators are not allowed to access the private data of the employees or their e-mails unless there are legal obligations or they are instructed by their responsible manager for auditing or internal control processes. In order to keep this under control, all the activities of system administrators are saved inefaceably and cross checked by other system administrators.

## Business Continuity

We utilize our information systems in order to maintain our business continuity, during emergency management and situations alike. Within this scope, as it was targeted, we implemented our DRBCP (Disaster Recovery & Business Continuity Program) project in 2008 which was designed by Tüpraş engineers in 2007. With this practice, all Tüpraş database is virtualized, thus secured against any disasters, infrastructure problems, physical or online attacks on any operational site (headquarters or refineries). In emergency cases that put the database under risk, the system continues to operate on different centers so effectively that the users do not even recognize.

Even before the completion of DRBCP project, the possibility that the practice can be further developed was recognized by Tüpraş engineers, and necessary project design was prepared. The first practice within this objective was the building of "disaster site" and "bunker site". With this project, Tüpraş built alternative crisis management centers in case that the operation sites lose their availability in emergency situations. The operability and the readiness of this implementation for emergency situations are being tested periodically and improvements are made.

The reliability of our information systems in terms of hardware and software is constantly controlled and supported by audits. Within this scope, experts from Koç Group Information Systems Coordinatorship audit our IT system once a year. Moreover, within the annual external audits, information systems are audited besides the data security practices. Our information technology experts make benchmarking studies in order to control the efficiency of existing IT infrastructure or the systems that are going to be installed. For that purpose, Gartner product performance benchmarking studies are followed. Besides these, we launched an information risk analysis study in 2009. Tüpraş IT infrastructure is being assessed by an expert company in terms of risks that might arise from hardware and software. The assessment is intended to be completed by the following reporting period. The results we will be obtaining from this assessment will constitute our objectives for future improvements.

All the systems and processes that we have implemented are oriented to ensure the supply of petroleum products in the quality and amount demanded by the market. Tüpraş has accomplished this duty since its establishment. We will enhance our business continuity performance with our investments and our endeavour for continuous learning.

## Health and Safety

Supplying Turkey's demand for petroleum products safely and in a reliable manner is our main principle that we make no concession. Providing a healthy, safe, secure and clean workplace to our employees and contractors, and providing service to our customers in high safety norms, ensuring that the local community and all the other stakeholders in our physical zone of influence receive no harm due to the operations of Tüpraş are our main responsibilities. With this awareness of responsibility, we make the commitment to constantly enhance our work conditions and performances and to enhance our administrative and technical means.

Our main assurance in the management of health and security issues, is the Tüpraş HSE-Q (Health Safety Environment and Quality Policy). Realization of our operations without making concessions on this policy depends on the responsibility of every employee from the General Manager to the employees at any level and seniority. Health and safety objectives occupy a significant place in the evaluation of employees' performances. Performance on the issues of employee health and safety is undertaken by Safety, Environment and Quality Unit. Studies and practices on emergency situations are carried out by SEQ Unit in coordination with the Security Unit.

Tüpraş performs all its operations in compliance with ISO 9001, ISO 14001 and OHSAS 18001 standards. Besides these standards, in order to meet the requirements of quality, environment, health and safety on the operational and process basis, Tüpraş carries out its operations according to 105 internal standards.

Providing a safe workplace has many indicators. It is vital to enhance performances via continuous learning and effective risk assessment systems since every new situation brings changes on these indicators. Risk Assessment Table (RDT), Danger and Impacts Management Process (TEYS), Incident Classification, Research and Reporting (OSAR) are the main systems we use in order to ensure operational safety. These systems are learning practices which are to determine and eliminate safety risks, generating and controlling the conditions of safety during work and assessing and reporting in case there are incidents. Many sub projects and techniques are put into use for realizing these objectives. Specifically during the safety risk assessment processes, several techniques like bow-tie and fault-tree analysis are used to reduce the risks.

Developing the top quality systems and processes and using cutting-edge technology may sometimes remain insufficient to eliminate risks. Human factors constitute the primary reason for this insufficiency. For this reason, we aim to make everyone who are present in Tüpraş's operation sites for work or for various reasons, primarily our employees and contractors, aware, informed and competent on health, safety and security issues. On this basis, everyone present in Tüpraş's operation sites are obliged to receive an extensive training. Tüpraş has training programs based on this issue. These programs can be categorized in three groups as introductory trainings, awareness-raising trainings and competence-based trainings. Employees repeat these trainings periodically according to their duties and responsibilities.

	2008	2009
Total Health, Safety Environment Training (man-hour)	46.708	33.389
Total Health, Safety Environment Training (average hour per employee)	%10,7	%8,1

Awareness-degree should always be kept high in order to enhance safety performance. Accordingly, at the beginning of every work, work-danger analysis is implemented to determine the safety risks, measures to be taken and responsibilities. The results of these analyses are discussed together with the employees during the talks before work. Thus measures are taken together and responsibilities are allocated for efficient control.

### Safety-Awareness



The most efficient element in the embracement of work safety awareness among the employees is active engagement and visible leadership. In the Employee Health and Safety Bodies, decisions on health and safety on the refinery level are taken. Head representative of the Union elected by blue collar employees attend in these bodies besides refinery administrators and safety experts. Other than this, safety and security constitute one of the main headings considered in Tüpraş Suggestion System. Via this tool, our employees communicate their performance enhancing suggestions to the managers.

We have various implementations for providing communication between business units and workers, sharing our knowledge and experiences and producing a common idea on the issue of safety. On this basis, monthly meetings on the issue of safety are realized among the refinery managers. On the refinery level, talks on safety are made among the Tüpraş employees and its contractors. Besides this, Safety, Environment and Quality Unit publishes weekly and monthly safety bulletins. Through these bulletins, employees are informed on the events and chosen subjects. When an incident with high risk occurs in the refineries, Document on Taking Lessons from Incidents is prepared and all the employees receive information about this. Following that, a meeting on "How Could Have We Prevented This Incident?" is held with the participation of employees who experienced the incident, the managers, all the relevant employees of Tüpraş and its contractors. With this meeting, we aim at implementing the right and applicable measures through the participation of our employees. Moreover, all Tüpraş administrators attend periodic safety tours. Through this activity which aims to realize visible leadership, we keep issue of safety on the agenda, while risk points and preventions are determined by various viewpoints.

We apply periodic HSE Culture Tests on our employees to control the level of our safety culture. We also organize various social events for development and embracement of the HSE awareness. For this purpose, every year, we celebrate the safety week with various activities.

In the reporting period, we had many new implementations to enhance health and safety performance. Among these implementations, the most significant one is the inclusion of contractor employees' data to the safety performance assessment studies as off 2008. In that vein, in 2009, we carried Contractor HSE Management Standard into effect.

How Contractor HSE Management System Standard published in 2009 has contributed to your work?

In addition to the works done by Safety, Environment, Quality Unit, with the implementation of Contractor HSE Management System Standard both Tüpraş and the contractor company acquired new task definitions and thus the business was rendered as to work faster and more safely. Proactive measures are taken against possible accidents through HSE plan and work danger analysis. As a result of the company assessments required by the standards, identification of our successful and insufficient sides contributes to our improvement. Moreover, making use of these assessments in the determination of contractor companies, ensures that the best company is preferred.

M.Cengiz Kara  
Esman Construction Systems Ltd.

Employee health and safety and environmental protection practices constitute one of the material issues in Tüpraş's operations. Within these issues, Tüpraş always aims at the highest performance. For us, the performances of our contractors constitute a significant part of our safety and environmental performances. In 2008, we started to assess employee health and environmental performances in Tüpraş by including the performances of the contractors. In order to ensure that our contractors reach more qualified working conditions, we initiated Tüpraş Contractor HSE Management

## Health and Safety

System in 2009. The contribution of this standard to the performance increase within the period is of undeniable nature. We aim to enhance the Employee Health and Safety and environmental performances of our contractors in the future as well. This learning process will contribute to their performances in their business life as a whole and will enhance their work outside Tüpraş as well.

Accident Frequency Rate (number of incidents x 1.000.000/man x hour)	2007	2008	2009
Objective <sup>5</sup>	4,75	5,5	3,5
Performance	3,4	3,6	2,5
Accident Severity Rate (lost days x 1.000.000/man x hour)	2007	2008	2009
Objective	-	-	80
Performance	1,269	105	73

<sup>5</sup> Since the safety data of contractor employees are assessed together with Tüpraş employees in 2008, the accident frequency rate raised a little in relation to the year before. However, due to the successful results obtained throughout the year, 2009 accident frequency rates decreased significantly compared to the previous years.

We have determined 3 new fields to work on in order to realize our objectives on health and safety for the next period. First of all we plan to implement a change management practice in 2010. With this change management practice, related units will be rendered to do risk assessments and to rapidly implement adaptation studies when there occur changes in the organization, processes, employees, equipment, procedures or legal regulations. Another study to be implemented in 2010 is the HSE Competency Management Process. Through this work, all the Tüpraş employees, primarily those in key functions, will be assessed for their training and awareness level. Thus employee's need for training will be determined. Moreover, until 2014, we aim at renewing Work Permit System and improving the preparation for emergency situation management.

## Employee Health

Tüpraş takes preventive and awareness raising measures in order to protect the employees' health; especially for occupational diseases. All workers primarily go through health screening. These screenings are deepened according to different age and risk groups. Health units in all refineries have the advanced technical equipment and personnel to respond to health problems. The medical personnel organize periodical information meetings and presentations to protect employees from various diseases and health risks.

Throughout 2008 and 2009, all our employees received training on ergonomics, flu, common cold, hydrogen sulphur poisoning, first aid, cardiovascular diseases, fungus diseases, viral hepatitis, early diagnosis on cancer, nutrition, cancer and smoking, working in shifts and protecting oneself from H1N1 influenza. Through the training programs and measures taken at right times, we dismissed the negative impacts of the risks related to H1N1 influenza during the reporting period.

In 2009, we initiated the Health Risk Assessment project to avoid occupational health risks and acute and chronic health effects. With this project, we aimed at determining, analyzing and controlling the health risks. With this purpose, risk identification works are conducted in the refineries by project teams in 2009. To reduce the identified risks, we aim at implementing the necessary practices in 2010.

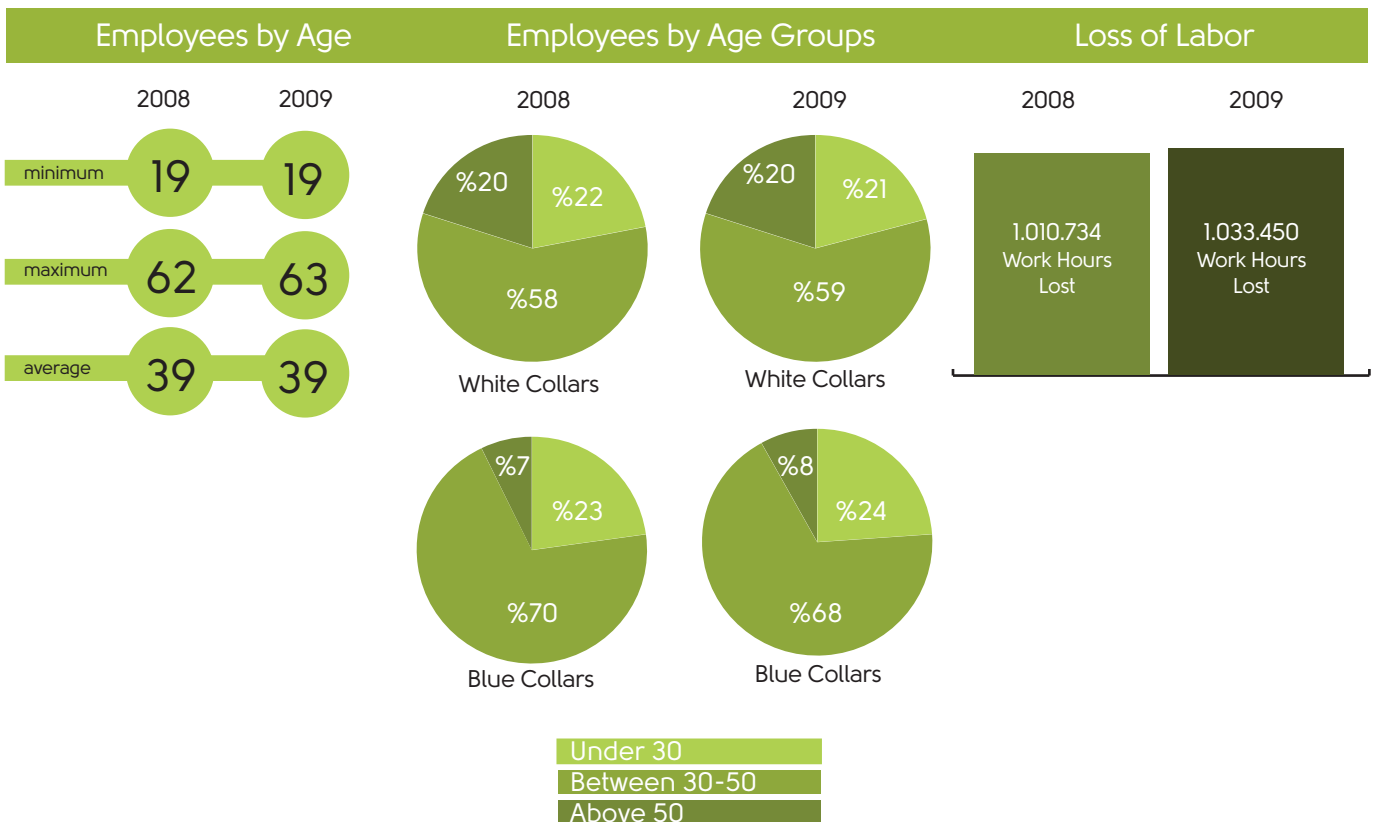
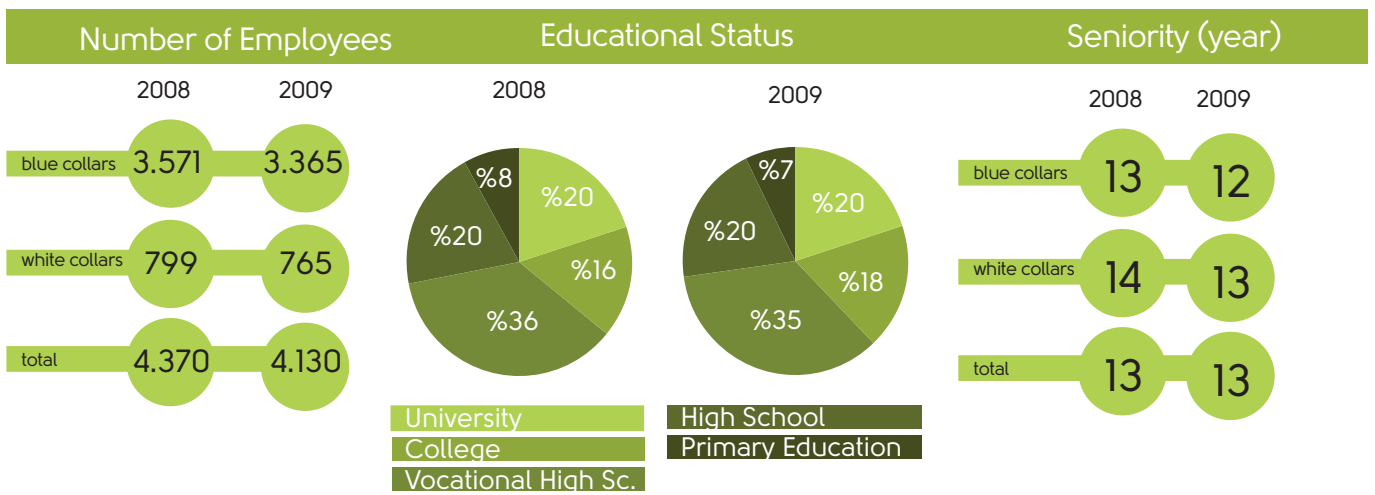
# Workplace and Human Rights

“Our most valuable asset is our human resource”

Vehbi Koç

## Our Goal in Human Resources Processes:

The Right Person for the Right Job,  
 Performance and Competence Based Wages,  
 Merit Based Assessment,  
 Continuously enhance our labor force and make it our permanent superiority in the global competition by adhering to the principle of equal opportunities for all and providing a healthy, safe and peaceful work environment for all employees.



## Workplace and Human Rights

In the refining sector, employee training takes time. We believe that the importance of qualified, experienced and well-trained employees, which bear utmost importance for us, is of great significance for a profitable, productive and safe operation of companies in the refinery sector. Therefore, we describe our employees as our most valuable assets and stimulus for our success. We aim to develop the employee portfolio continuously in terms of qualification and attain lasting advantage in the competitive environment by making our largest investment on human resources. At the bottom of attaining this goal lies providing a healthy, safe and reliable atmosphere to all our employees, as well as creating a social environment with highest standards of human and labor rights and respect for human dignity.

Our fundamental principles in the establishment of relations between the employer and employee rest on mutual respect, equality, fairness, open communication and participation. Compared to the sector, we provide our employees with best salary and fringe benefits; support their personal and career development; and help them to achieve success in their career without compromising their private lives.

Protection and promotion of human rights is an important value of humanity and a prerequisite for the establishment of a sustainable human resource portfolio. Tüpraş complies with universal human rights in all its operations and activities, never becomes a party of human rights abuse and always supports the enhancement of human rights in its impact area. Tüpraş's stance on this issue is based on the United Nations Global Compact signed by Koç Holding. All our principles comply with the work norms recommended by the UN Global Compact. We expect the same understanding from our suppliers and business partners and we particularly care about this point within our business relations.

## Security and Human Rights

As a part of the system, trained and certified private security staff is employed in providing Tüpraş security. The operation procedures for private security staff have been specified by law no. 5188 and conditions such as the use of firearms, arrest and the use of force have been subjected to certain conditions. In order to prevent the abuse of human rights during the use of such authority our private security staff undergoes on-the-job training in which conduct and the limits of jurisdiction are taught. In the certification process all private security personnel are trained in a total of 18-hour program on private security law, human rights and effective communication. Other than these, periodical training programs are being provided within the company on the same subjects. In 2009, 186 of our security personnel completed the effective communication training program. In 2010, our aim is to give refresher training to 50% of our security officers on human rights. Also a handbook clarifying the law and regulations specifying conduct has been commissioned and has been distributed to the entire security staff. Within this framework the same training and documentation pack is provided to the private security staff who has recently started to work.

Employees' freedom of collective bargaining, unionization and association constitute their fundamental right with regards to the practice of human rights in the workplace. Within this scope, we support our employees' rights of unionization, association and collective bargaining. All of the people working as blue-collar employee at Tüpraş are members of Petrol-Is Union (Union of Petroleum Chemical and Rubber Workers of Turkey).<sup>6</sup>

Tüpraş is one of the companies with the highest rate of unionization in Turkey. By the end of 2009, 81% of our employees are union members. All employees of Tüpraş are full-time employees and we do not have part-time or temporary employees. Also, people not registered in Tüpraş are not employed in the main activities of Tüpraş, except for the personnel of contractor or consultancy companies; also, seasonal personnel do not exist due to the nature of the sector. All of the white-collar employees are covered by "Indefinite Contracts of Employment" and blue collar employees by the "Collective Bargaining Agreement". Within the scope of the right to association, not only Tüpraş employees do not need to ask for permission to be founders or members of any non-governmental organization or initiative founded in a legal framework, but also their efforts are supported.<sup>7</sup>

6

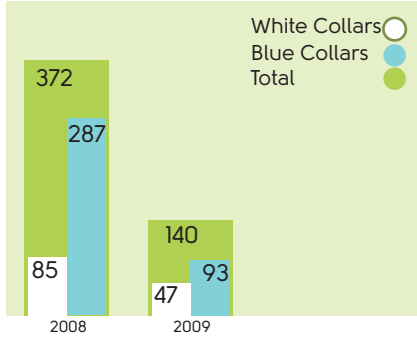
The last Collective Bargaining Agreement was signed on 1 May 2009, valid between 1 May 2009 – 31 December 2010.

7

Tüpraş does not have any policies or regulations to prevent its employees from being members of political parties. However, our employees in executive positions hold the responsibility of representing Tüpraş, as a matter of duty. Hence, their membership of political parties may be perceived as the corporate perspective of the company. For this reason, membership for political parties of our employees in senior executive positions is not preferred, although not forbidden. As a corporation Tüpraş subscribes to no political ideology and does not directly or indirectly support any political movements.

# Workplace and Human Rights

## Recruitment



The existence of practices such as forced or compulsory labor, child labor or cases that can be associated to these practices is not possible within the impact area of Tüpraş. Also adopting these principles is obligatory for our partners and suppliers. These provisions are designated in the service and material purchase contracts. We monitor our suppliers by conducting field visits. Furthermore, our employees cannot be forced to change their work units. Workplace changes covered by the rotation system are also managed through this perspective. We respect the preferences of our employees. The time needed for the employees to start working at their new appointments is determined according to the needs of the employee and the company. Except when required by the work, employees are given the time they require to begin their work and all moving costs belonging to the employees and their families are met. For our employees to make assignment preferences other than their current positions, we are planning to implement the internal job posting method next term. We plan to cover all job postings from Tüpraş, Koç Holding, and other affiliated companies in this application. Thus, we will be able to provide our employees with broader preference opportunities.

8 The related law and provisions of the Collective Bargaining Agreement are taken as basis with regard to the minimum notification periods in the case of severances. Employees that have worked for less than 6 months are given 4 weeks of prior notice, those who have a seniority between 6 months and 18 months 6 weeks, those with a seniority between 18 months and 3 years 12 weeks, those between 3 years and 5 years 16 weeks and those who have worked for more than 5 years are given 18 weeks prior notice.

The right to work is viewed within the scope of basic human rights. By offering employment opportunities, companies essentially carry out the most important responsibility towards ensuring this right. Contract cancellation, however, is a fact although it is not preferred. In Tüpraş, contract cancellation policy is framed according to objective criteria' and is regulated by labor law and collective bargaining agreements. We also take financial and non-financial measures, where necessary, in order to support our discharged employees socially and economically.<sup>8</sup>

Recruitment (%)	2008	2009
Blue Collars	9%	11%
White Collars	12%	9%
Total	11%	9%

## Leaves

By Employee Status	2008	2009	By Gender	2008	2009	By Age	2008	2009
Blue Collars	435	295	Female	39	29	-30	19	12
White Collars	74	85	Male	470	351	30-50	354	242
			Total	509	380	50+	136	117

Tüpraş ensures equal treatment to its stakeholders and it is out of question to go beyond this principle in the processes and applications regarding our employees. We manage all issues regarding our employees according to objective criteria' starting with the recruitment process. We provide equal opportunities to all our employees regardless of gender, age, religion, ethnicity or any other attribute of the employee. We take preventive measures for discrimination. Due to our strict standing on this issue, in the reporting period or before no complaints were filed to the management regarding discrimination and no lawsuits were filed against Tüpraş or its executives on this matter.

Due to cultural and structural differences, discrimination issues in business life vary from country to country. We think that the essential problem with discrimination in Turkey is the undervaluation of female labor. When this issue combines with the structural features and work conditions of refinery sector, among employees achieving gender proportion level close to the

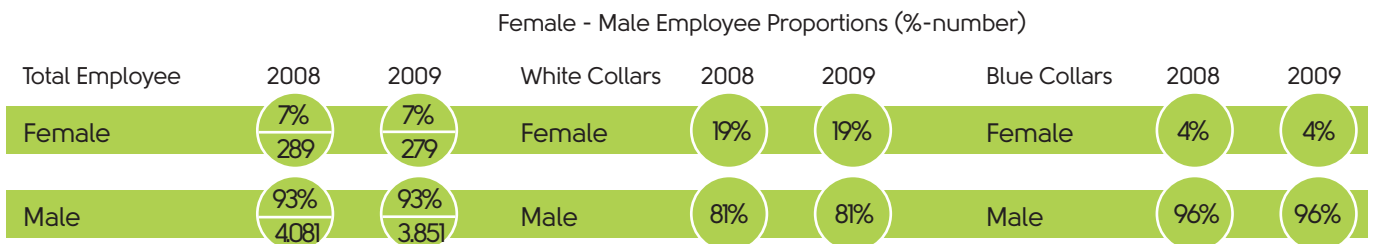
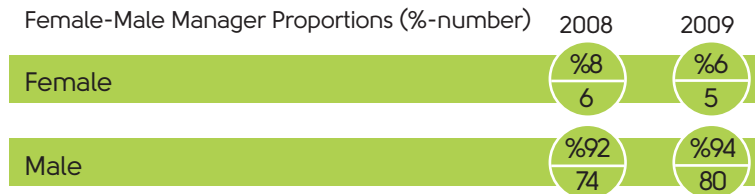


## Workplace and Human Rights

male-female ratio in the population becomes rather difficult. Tüpraş manages this issue by preventing discrimination and encouraging women to use their preference in vocational training on the refinery sector. There is no discrimination between male and female employees.

A competitive wage policy within the equal pay for equal work principle, independent of title and function model, based on the HAY work evaluation and ranking systematic, is applied in Tüpraş. Therefore, all Tüpraş employees are paid equally as long as they perform the same work.<sup>9</sup> The HAY market research and the results of the performance evaluation system are consulted for increase in salaries. According to information obtained through annual wage researches, the general level of wages in Tüpraş is above market average. Besides that, legal regulations regarding promotion of female employment can be applied widely if favorable for female employees. For instance, maternity leave periods can be used more flexibly depending on demands from our female employees.

<sup>9</sup> This rate may change due to payments such as overtime, premium etc.



We perceive the development of our human resource as both a contribution to our corporate performance and a right of our employees, because we think that personal and career development opportunities provided by corporations are an important part of motivation for work. Measurement and evaluation of performance, finding rational and sustainable responses to the question on how to form a more efficient "work environment" are the very first steps of increasing productivity in our business. Therefore, we evaluate annual performance of our employees according to indicators designated with objective criteria' through our multi-dimensional scorecards and similar applications. Besides that, we use the 360 Degrees Competence Evaluation applications in order to evaluate the competence progress of our employees. The outcome is evaluated by our experts and the senior management. They determine current performance of our employees, their potential for progress and what tools to use in order to achieve progress. These findings are also evaluated with the employees in order to support the performance evaluation and career planning of them. Thus, our employees participate in the decision making process and designate their field to focus in their future business life. The same method is used in the promotion process. Therefore, by using performance and competence as the sole basis for promotion, we prevent discrimination.

One of the most important components of organizational development is to increase the knowledge and skill of employees through training. A company providing its employees with access to advanced training opportunities both develops the labor skill and increases the social performance of the corporation. Thus, this creates increase in motivation for work and contribution at both individual and corporate scales, while benefiting personal career development. From 2008 on, training and development planning of our white collar employees is being evaluated by the Koç Academy software used in all Koç Group companies under the light of implications based on the performance and competence evaluation process. The 2 years plan prepared in 2008 have been realized substantially. In 2010, after certain enhancements on the software, we aim to carry out training and development plans by using this system also for our blue collar employees.

## Workplace and Human Rights

We offer our employees a training portfolio comprised of two components. The first one includes vocational training packs which are to enhance technical knowledge and skills of our employees. The second one on the other hand, goes beyond the requirements of duty and offers our employees personal development trainings aiming to enhance behaviors and attitudes as well as leadership skills and understanding of quality. These training programs cover a variety of issues including health, safety, environment, corporate responsibility and community investment. Besides, we offer our employees training packs in order to enhance their personal areas of interest. These subjects are usually determined according to the preferences of our employees.

An orientation training, which varies according to the requirements of the positions, is given to all recently recruited personnel. While this training lasts 2 days for the headquarter staff and 3 days for the administrative personnel, the orientation training of the technical personnel lasts approximately 1 month and all newly recruited personnel receive a 3-day basic training. The training pack is comprised of first aid, health, safety, environment, standards and refinery applications subjects. Also this training is reinforced through regular refresher trainings. The refresher trainings are once every year for blue collar employees and once every three years for white collar employees.

One of our current practices is the Refinery Technical Training. The program started in 2007 and continued in 2008, covering a pilot implementation of a 3 years program composed of 20 different one-week courses. After the positive outcomes, we decided to spread the program among all our white collar and blue collar employees. For this reason, we needed to translate the program which was in English, and necessitated internal trainers. This need was met by a team of employees who attended the pilot trainings. Translation of the content started in 2009. We plan to launch the first training program in 2010.

Another training program we launched in the reporting period was the Integral Developmental Training. For years, we have been attending the two-week Monitor Upbringing– Monitor Development trainings provided by Ministry of National Education in Ankara, in order to provide our blue collar employees with behavioral development tools. Although we were obtaining useful results, we were in search of a more efficient and short-winded alternative to be presented in the refineries. After significant effort on our training and personal development planning, as well as focus group discussions conducted by our managers and employees, we developed the Integral Developmental Trainings together with the MESS Training Foundation. The implementation of trainings started in 2008 and continued through 2009, reaching a total of 1.208 participants. Due to positive outcomes, we are planning to extend the scope of the training program to cover all our employees.

### Post Graduate Programs

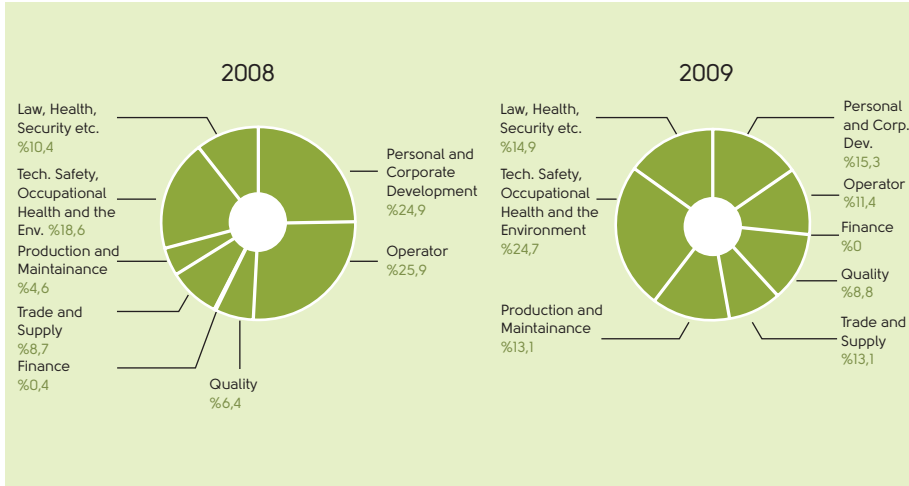
In the reporting period, we started to support the post graduate programs in Boğazici University, Middle East Technical University (METU) and Izmir Institute of Technology, in order to raise qualified staff members for our sector and especially to support participation of Tüpraş employees, primarily our young engineers. Fuel and Energy Technologies MS Program in Bogazici University focuses on conventional and new energy resources. The Engineering Management Program in METU focuses on business economics and finance, whereas the engineering program of Izmir Institute of Technology combines the areas of energy technologies and business economics. In 2008, 10 employees from our Kırıkkale Refinery engaged in the post graduate program in METU. In 2009, 8 employees from our Izmir Refinery started to study in Izmir Institute of Technology, and 9 employees from Izmit Refinery were engaged in the post graduate programs in Boğazici University. In order to support our employees to participate in these programs, we meet  $\frac{3}{4}$  of the program fees together with transportation and accommodation fees.

# Workplace and Human Rights

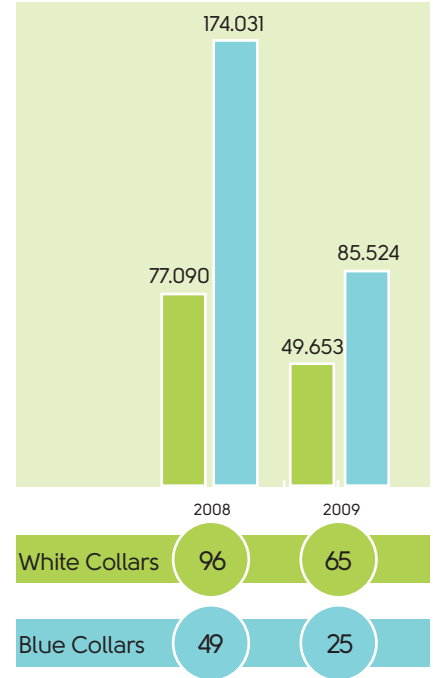
## Distribution of Training Activities According to Fields

In 2008, Tüpraş employees have undergone a total training of 251.121 hours. In 2009, this figure reached a total of 135.177 hours.

Distribution according to fields (%)



Total Training Hours



## Social Security and Supplementary Pension System

The scope and efficiency rate of the social security is an indicator of a developed society. Tüpraş has proved its exemplary position within the social security system from past to the present and was widely acclaimed for its attitude on this issue. In 2009, Tüpraş was rated as the 10th company with regular highest premium payment within private and public enterprises. Also, in 2008 and 2009 Kırıkkale Refinery was ranked as the 1st within all companies operating in Kırıkkale.

Tüpraş employees (including their spouses and children) benefit from a health insurance and Supplementary Pension System offered in addition to the public social security system. Thanks to this system, managed by Koç Holding Pension and Support Fund Foundation, member employees, when retired, can receive their savings as whole or as monthly payments; can benefit group health insurance, including their family. Every member employee pay a regular contribution determined according to their salary, and Tüpraş equally pays the same and contributes employee savings. Foundation assets are invested in financial markets and thus, members receive annual returns above the inflation rate.

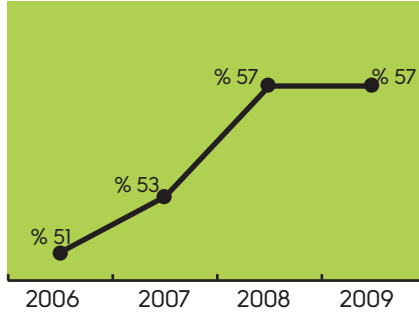
Tüpraş adopts "working with the best" as a principle. According to us, quality of an employee does not solely depend on education and work experience. Success in social life is a significant feature of a qualified employee, as much as education and working life. For this reason, we emphasize the optimum balance between business life and social life of our employees as much as their vocational and personal development. The most important parameter to achieve this goal is having enough time for their families and social life and being able to afford it. Due to sectoral constraints, we have pre-determined working hours and do not have flexible or optional working hour practice. For this reason, we provide social activities and services for our employees to help them use most of their time for their family and social lives. Within this scope, in addition to lodging, shuttle services, and social facilities, we provide our employees with activities and services for their children such as baby-sitting services, training, summer camping, etc. We organize different social activities and support the participation of our employees and their families with the purpose of enriching their social lives. In addition, we provide our employees with the opportunity to enhance their social lives in their own areas of interest. While providing these opportunities, we expect initiative and voluntary support from them. The most specific examples of these efforts include community investment initiatives, projects implemented by the voluntary participation of families, and efforts of the social activity clubs.

### Tüpraş Social Activity Clubs

On February 2009, Tüpraş employees founded the social activity clubs with their own initiatives with the support of the directors of the company. With the participation of 600 volunteers, the clubs are founded on 8 essential areas: nature activities, photography, scuba diving, sailing, music, theater, sightseeing and gourmet, search and rescue. Within the first year of their foundation, members of the clubs reached a number of 1.200 and organized 57 activities within 4 refineries with the participation of 2.337 people.

### Employee Satisfaction

Employee Satisfaction



We developed different practices in order to ensure the employee satisfaction with their work environment, work conditions and benefits. As a result of these practices, satisfaction rate of our employees raised constantly in the last years. We also started to get a positive outcome from our corporate culture and commitment policies. Our commitment to our company and responsibility towards our business resulted in initiatives of our employees to achieve a better way of doing business.

Last year "Quality Voyagers" task group was formed through the voluntary efforts in Izmit Refinery in the reporting period. In 2008, Batman Refinery responded with "Synergy Initiative." The Synergy Initiative was established by a group comprised of safety, environment, and quality experts representing all shifts. The initiative is a voluntary activity where experts come together out of working hours and produce solutions to enhance business processes which they find necessary during their work. Participants start with the problem solving techniques and quality trainings; report their findings and recommendations; and present them to the executives and employees of the company. The effort was awarded in the category of "Successful Project Teams" within the framework of recognition – appreciation systems.

### Tüpraş and Sports

We believe in the significance of sports in maintaining mental and physical health. For this reason we work on to increase awareness in the significance of sports both for our employees and the community. We believe that regular sportive activities of our employees support their personal development as well as their understanding of team spirit.

We organize many events where our employees represent Tüpraş in addition to the activities they perform individually. One of the most important of these activities is the Koç Group Sports Festival 21st of which will be held in 2010. Tüpraş employees represented our company in different branches. In the 2008-2009 season, we participated in the basketball tournaments supported by Turkish Basketball Federation. Our players competed with 27 teams representing companies, however, succeeded to play in the finals.

Sports create close relationships and increase the quality of communication. Therefore, we organize events cooperating with our stakeholders in order to enhance communication between our employees and stakeholders. Football tournaments in İzmit, Kırıkkale, and Batman Refineries with the Petrol-Is Union (Union of Petroleum Chemical and Rubber Workers of Turkey) exemplify these efforts.



## Workplace and Human Rights

KoçMyFamily Program provides Tüpraş employees, as for all Koç Group employees, special concessions on Koç Group companies' products and services as well as extra privileges during offers made for a limited time. In addition, KoçMyFamily Program provides employees opportunities to take part in various social responsibility projects and social activities promoting group employee awareness.

With its social facilities and KoçMyFamily Scheme, Tüpraş does not only target its current employees and their families but also its retired employees and their families. Within this scope, all retired personnel continue benefiting from the social facilities provided by the company and from the KoçMyFamily Scheme. Also with the activities held once a year on the anniversary of establishment, retired and current employees are brought together with the aim of transmitting the corporate culture and values to new generations.

Employees of contractor companies also become part of our family at certain times. For this reason, employees of contractor companies can also benefit from services such as social facilities and various activities as long as they remain within the body of Tüpraş.

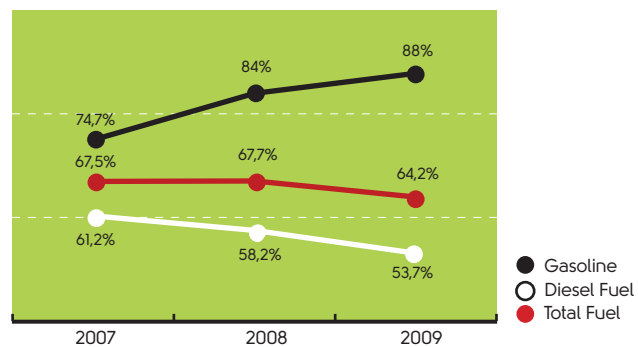
## Product and Service Responsibility

The principles of our product responsibility vision includes providing Turkey's petroleum product needs with products ensuring high environmental and quality norms in demanded amount and location by safest way possible and being a close, fair and transparent business partner highly responsible to customer demands.

Sales operations of Tüpraş include domestic sales and foreign trade operations. Our goal in sales operations is primarily meeting Turkey's petroleum needs and trade the excess demand in foreign markets.

Tüpraş provides the supply of 36 kinds of petroleum products throughout Turkey. Our customers to which we carry out direct sales of products are fuel, LPG and mineral oil distribution companies certified by the Republic of Turkey Energy Market Regulatory Authority (EPDK), the petrochemical industry, the dye industry, the tire industry, the Directorate General of Motorways, municipalities, and contractor companies approved by these institutions, and the Ministry of Defense in behalf of the Turkish Armed Forces. You may obtain more detailed information on our products from <http://www.tupras.com.tr/detailpage.en.php?redirect=products.en.php&lRedirectPageID=1145>

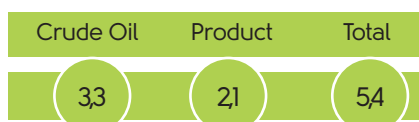
Tüpraş Market Shares (%)



Tüpraş also works to fully meet its customer demands. Our top priority is to create value for our customers; to respond promptly to their expectations with quality. Firstly, being the only refining company of Turkey, Tüpraş, is obliged to hold a "national reserve" at an amount specified by legal regulations. Thanks to its keeping of this reserve, Tüpraş will succeed in appeasing the effects that a shortage in petroleum products for whatever reason may have on Turkish economy. Even this single example is enough to demonstrate Tüpraş's importance in the country's economy. In the reporting period, despite the decrease in the refinery margin due to the economic crisis, we maintained our profitability and met the needs of our customers thanks to our strategies.

Tüpraş product and crude oil storage capacity comprises approximately 60% of the total storage capacity of Turkey. Storage capacity of Tüpraş and Opet together form 68% of the total storage capacity of Turkey.

Tüpraş Storage Capacity (million m<sup>3</sup>)



One of our responsibilities to our customers is the accessibility of the products. We can transfer our products to the locations of demand easily via our refineries in 4 strategic points of Turkey, storage terminals of Opet of which we are a shareholder and our logistics facilities. We supply the demands of our customers via Izmit Refinery, Opet Körfez and Marmara Ereğli Terminals in the Marmara Region, İzmir Refinery in the Aegean and West Mediterranean regions, Opet Mersin Terminal in the Mediterranean and Kırıkkale Refinery in the Central Anatolia Regions, Opet Giresun Terminal in the Black Sea Region. We supply customer demands in East and South-eastern Anatolia regions, primarily via Kırıkkale and Batman Refineries but also via Opet Giresun Terminal. Besides, we meet the regional demands with the most efficient product combinations by making production optimization through transportation means between the refineries. Our extensive logistics capacity contributes a great deal to our competitive power.

## Product and Service Responsibility



### Product Transportation

We use pipelines, maritime transport, roads and railroads to transfer our products between refineries and customer locations. In 2009, our sales were conducted through pipelines by 29 %, maritime transport by 42%, and road and railroad transport by 29%. Railroad transfer, as an alternative way, provides a more efficient, safe, and environment friendly transportation compared to the other methods. 1 loading railroad car carries the amount of 27 fueltankers capacity. This way, transportation of hazardous substances is decreased, and CO<sub>2</sub> emission is prevented through fuel saving.

The biggest obstacle in the more efficient use of railroad transport between the refineries and customers is the lack of infrastructure. Starting from 2007, we have been putting development efforts on railroad network where convenient; and made new investments on railroad car. In 2007, we started the railroad transfer with 68 cars. By means of this investment, in 2008, we increased the proportion of our railroad transport into % 22,3, and in 2009 to % 57,1. In 2008, we transferred approximately 250 thousand tons of fuel by railroads, and in 2009 these figures rose to about 750 thousand tons. Therefore, we contributed to a safer and greener transport with the removal of 30 thousand fuel tankers from roads. We are planning to raise the proportion of railroads in our transport system by increasing the number of our railroad cars to 151 in 2010. 11 of these cars are transferred from the PND Company, while 72 of them are new purchases. In 2010, we are aiming to transport 1.2 million tons of fuel via railroads, and in 2011, we are planning to reach 2 million tons. This way we will be conducting operations by railroads and removing 83 thousand tankers from roads.

We decrease the proportion of road transport in our logistics operations. Despite the decrease in supply distance, road transport will remain important in our customers' logistic operations. Although providing safe road transport is under direct responsibility of our customers, we have applications on this matter. First of all, we have high standards for filling operations. We do not work with drivers who do not meet the standards, or who do not have the necessary trainings or corporate accreditations. We take even more precautions in our own logistics operations, going beyond conditions set by legal regulations. We work with experienced drivers who are trained according to the European Agreement Concerning the International Carriage of Dangerous Goods by Road.

## Product and Service Responsibility

Tüpraş customers trust our products, because they know that Tüpraş's goods are produced with the highest standards and specifications. Due to the trust Tüpraş has within the sector since its foundation; we have achieved continuous customer satisfaction and loyalty. Tüpraş's products meet all conditions identified in the specifications. However there are various product specifications. Although they meet the quality standards, occasionally, efficiency of some products may be low, and their environmental effects may be significant. To prevent this, large-scale unit and specification investments are needed. However, these investments have high financial burdens.

Tüpraş has been investing billions of dollars for years, in order to use the most advanced product specifications. While doing our investments plans, first we specify the needs of our customers. As early as 2008 – 6 months earlier than expected - we have released our products which are in line with the EURO V standard and which have lower environmental impacts, whereas the European Union expected us to produce these products in 2009.

### Euro V

According to the Decree made by the European Union, the EURO V Standard for gasoline shall be adopted in gasoline as of 1 January 2009. Turkish authorities have also decided to adopt same specification due to the necessity of conformity to EU product norms for fuels consumed in Turkish market. The difference between the EURO V Standard and the current practice is the offering to the market of products the environmental impacts of which are reduced through improvements to be made in the compositions of gasoline such as decreasing sulphur, benzene and aromatic content.

Tüpraş has adopted the EURO V Standard much earlier from the time European Union expected, through the implementation of its adaptation efforts via the unit investments and specification change decisions. Tüpraş was ready for production in the EURO V Standard as of 1 June 2008, and announced it officially on 20 November 2008. At the end of the transition period, on April 2009, all gasoline products in the Turkish market were complying with the EURO V Standard. By consuming Euro V compliant products, CO<sub>2</sub> emissions decreased 700 folds.

### Product Labeling

It is our responsibility to provide accurate and detailed information on the content of our products to the customers. The basic application we execute to achieve this goal is the labeling of products. An information form is prepared for each product covering data on content composition, environment, health and safety as well as topics on intervention methods in cases of emergency. These forms, also called MSDS (Material Safety Data Sheet), are sent to all our customers. Also, our experts respond other questions of our customers. In 2008 all existing MSDSs were revised, our product information was updated, and presented to our customers. For our stakeholders as well as customers to be able to obtain information, we publish MSDS forms on our web site. With the same purpose, in 2008 we completed the pre-registration of our products in scope of the European Union Regulation on "Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)".

We establish trust-based, fair, transparent and close communication with our customers and we work to meet their expectations. Principles of customer information confidentiality and equal treatment are essential for us. That is why we make the best of the information technologies offered. Thanks to their objective systems, we provide efficiency, continuity, confidentiality and equality during the sales and supply processes for both Tüpraş and customers. For instance Tüpraş realizes the delivery of the products according to a yearly demand on a monthly basis. In these operations executed by information systems, we stay loyal to the allocated amounts and prevent an unfair competition among customers.

During the reporting period, we put many improvements and new applications into practice in the customer relationship management process. We increased the usage of the customer portal; additionally we launched a new Customer Relations Management application.



## Product and Service Responsibility

### We Listen to Our Customers, Respond to Their Demands

Petroleum products are produced within the specifications determined by authorized institutions. Hence there is a limited product development opportunity, yet some features of the products can be modified according to the customers' needs. That is why we closely follow the users' expectations and try to meet these expectations. Within the scope of this effort, we started to produce winter diesel in 2007. During winter in many areas of Turkey, due to cold climate there has been a threat of fuel freezing especially for the cars that use diesel. As a result of the increasing number of queries coming from automotive producers about the freezing issues of the fuel products, we started to produce winter diesel oil, resistant to -25 C. With the positive feedbacks received, we enhanced this process during the reporting period and planned the whole production and sales operation accordingly.

One of the essential duties of our R&D division, which we launched in 2009, is the enhancement of the current products and working on the implementation of new products. The R&D focuses on the development of fuel with lower environmental impacts and conducts pilot works on this topic in cooperation with the speciality units.

### Tüpraş Customer Portal and Customer Relations Management Application

In 2007, we initiated the use of the Customer Portal application in order to give a better service to the customers during the sales process and to inform them instantly. Initially, this application was prepared for LPG and fuel distribution companies. Using that platform our customers were able to monitor and financially control their purchasing transactions daily. As of 2009 we expanded the scope of this application; adding mineral oil, base oil and asphalt distribution companies to the program's user base. As of 2009 the number of customers that follow their transactions by using customer portal, reached 116 in terms of company number and 284 in terms of user number.

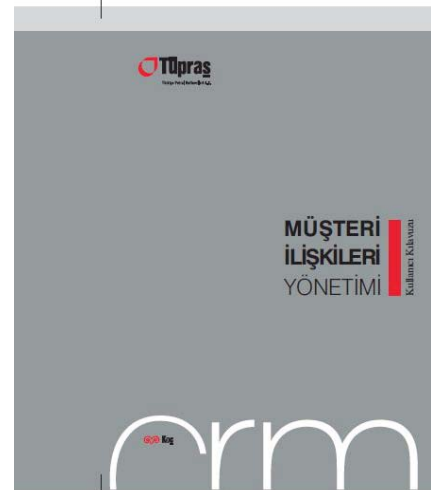
Customer portal was useful for informing our customers about financial processes, product allocations and supply amounts of the sales operations. Thinking that a similar application about physical processes would increase the efficiency both for Tüpraş and our customers, we launched a new Customer Relations Management application on October 2009. Using this application our customers are now able to order online and to check all the operational information. Thus, all the former problems reaching to the refineries are solved. The application also decreases the number of the processes that Tüpraş employees are involved in.

The Customer Relations Management Application has been started as to include 16 fuel, LPG, mineral oil, and asphalt customers. Our target for 2010 is to increase this number to 100 with the incorporation of all LPG and fuel customers into the Customer Relations Management application. For that purpose, training courses and 24/7 technical support are offered by Tüpraş employees.

By means of these two applications, we provide equal information and service to all of our customers and with the usage of an objective system for customer service the principle of equal procedure is assured. Thanks to the infrastructure that uses advanced security protocol and application, users only have access to the information concerning their own companies.

Our target for the future is to merge the Customer Portal and Customer Relations Management applications so that the users will have the chance to login with the same username and password and shift between applications. Another target is to realize all the information and communication activities through these systems, thus replacing the current process that results in a considerable amount of paper consumption, with an environment friendly and efficient application.

Through our efforts during the reporting period, despite the crisis, we increased our customer satisfaction performance. In 2007, we reached to a customer satisfaction rate of 85,2%. In the reporting period, we increased our customer satisfaction rate by focusing on the areas that were scored as low during evaluations in the reporting period.



Customer Satisfaction (%)



## Community Development

As the largest industrial corporation in Turkey, Tüpraş uses its power to implement projects in order to reach millions of people for the development and welfare of the community living in this geography.

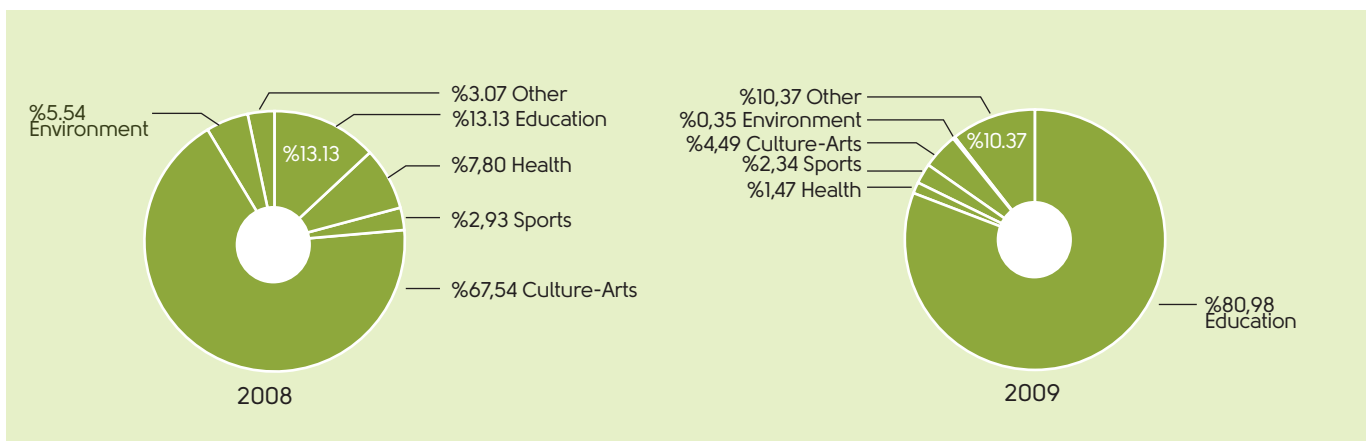
Tüpraş determines goals for community development, for local economic development as well as issues covering an integral part of the welfare of the community: education, health, sports, culture – arts and environment. On these areas and primarily on the operation areas, we financially or operationally run projects or support the on-going projects of other entities. By donating or sponsoring their activities, we support organizations which are active in the same working areas with us.

We look for some essential qualifications in the projects we support or execute in order to achieve the expected social outcomes. Due to its activity area, Tüpraş has a long project and investment past, with its experienced personnel structured decision making and implementation processes. We use our expertise in our social investments to solve problems, to decide which application models to use in order to achieve goals and to decide on the feasibility of the studies. We aim to standardize these habits of doing business in our next reporting period. In a nutshell, Tüpraş expects to form a specific strategic integrity, an efficient cost- benefit evaluation and engagement with related stakeholders in the field works that it supported or conducted. Our priority in the field works is to respond to the local problems in our operational geographies through the participation of our employees. Therefore, most of the field work we carried out, is designed and implemented by our employees.

### Donations and Sponsorships

Every year, we implement many field works on our material issues in order to support social development. However, sometimes it is not possible to produce an integral solution with the sources of the company. At times like these, we support the NGOs and public agencies or their projects and initiatives by donations or sponsorships. Most of our donations supports the Vehbi Koc Foundation which is mainly active on education, health, and culture-arts areas. In 2008, we donated 500 thousand TL to the Vehbi Koç Foundation. In 2009, we increased the amount to 6.07 million TL. Total amount of donations we made was 13.67 million TL in 2008, and 7.84 million TL in 2009.

Donations and Sponsorships by domains (%)



Besides corporate donations, we also support social welfare activities by the initiative and participation of our employees. For instance, since 2006, employees in Batman Refinery, support university students who study outside of Batman, away from their home, through a fund they have established. Our scholarship commission, founded by the initiatives of our employees, supports designated students, giving priority to women, for a period of 10 months. This fund was formed by the participation of 360 employees of Batman Refinery and provides scholarships to 50 students studying in 38 different cities and 31 different universities.

## Community Development

Our goal is to play a leading and effective role in sectoral and economic development, create value for our stakeholders and supply petroleum product needs of Turkey. We know that giving a good account of our work is our primary responsibility towards the community, thus we work for it. From the day we were founded to the present, we contribute to Turkish economy with all its sectors directly or indirectly and we provide Turkey its energy.

We are the biggest company of Turkey in the categories of sales from production, profitability and export. In the petroleum products sector which covers the 14% of the manufacturing industry index, we are the 8th biggest producer in Europe and the only producer in Turkey. With our annual 28.1 million tons of crude oil processing capacity, we supply approximately 70% of the petroleum product needs of Turkey; prevent dependence on foreign supplies and resource flow with our billions of dollars worth of added value. And every year we contribute millions of dollars to Turkey's national income by our export. As the biggest tax payer company of Turkey, our tax payments and other liabilities form a significant portion of Turkey's income. Also we contribute to the local administration incomes through our payments to the local administrations for respective liabilities where we are active.

	2007	2008	2009
Tax and Similar Liability Payments (million TL)	17.346	19.975	18.336
Rate of the Payments to the Turkish Public Administrations' Total Income (%)	9,11	9,53	8,53
Rate of the Payments to Turkey's Tax Income (%)	11,30	11,84	10,60

According to the figures in the end of 2009, Tüpraş provides employment for 4.130 people. Together with the affiliate companies, this figure rises to approximately 5.000 people. Considering employees of thousands of suppliers and business partners serving Tüpraş, the figures in the ecosystem we create reach tens of thousands of people.

A significant indicator of the development of a local economy is the increase in the average income level via local employment. As the number of employed people increases, income per capita rises, thus the consumption contributes to the growth of the local economy. Therefore, we prioritize satisfying our needs from local labor force sources. Almost all our blue collar employees and the majority of our white collar employees in 4 locations of Turkey are employed locally. However, in the recruitment process local employment is not a prerequisite, but a reason for recruitment among equivalent candidates. When a need of employment occurs, we announce the vacancies through printed or online publications, as well as media. Our experts evaluate the applications using objective criteria. Local applications are preferred only if they have equal qualifications amongst the best candidates.

Our supply operations contribute to the development of economy. Tüpraş conducts thousands of supply<sup>10</sup> operations worth millions of TL every year in order to ensure continuity in business. Local supply is an important determinate in purchasing. For this reason, instead of importing, we conduct the majority of our purchases through local suppliers. Within local supply operations, our primary preference is locally manufactured product supply. By preferring local suppliers near the refinery locations, we contribute to the local economies as well as Turkey's economy in general. Our goal for upcoming periods is to increase the proportion of locally manufactured goods in supply operations.

<sup>10</sup> The term local supply, stands for purchases from local suppliers without any foreign payments and local supply consists of all the local purchases and locally manufactured goods.

# Community Development

How do you evaluate Tüpraş's relationships with its suppliers?

Tüpraş has always been a model for its suppliers. By always working with fair price, preferring to work with companies that offer qualified work, imposing sanctions on companies that do not perform expected work properly, Tüpraş showed us the essence of fair treatment to our suppliers. Through these implications, Tüpraş raised many successful firms.

Tüpraş always supported local production and provided opportunities to manufacture and use local products in the refineries. For instance we were encouraged to produce high pressure valves. However, quality was not compromised to supply fully from the local sources. Meticulous controls also increased the quality of the producer. Tüpraş accustoms its suppliers to quality. As we frequently mention, as VANASAN A.Ş., we owe the most of our quality to Tüpraş.

SMEs like us, learn the patterns of institutionalized companies from Tüpraş, and have an idea about institutionalization. Also our deliveries to Tüpraş serve as good references both to domestic and foreign companies, and help us receive more orders.

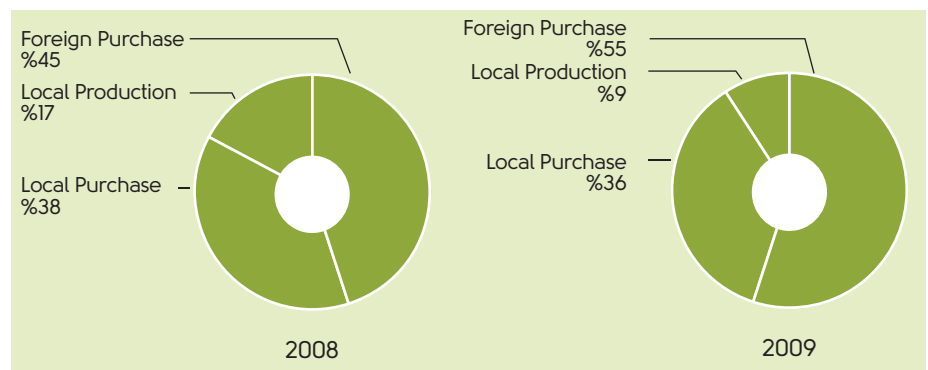
Muzaffer Dikeç  
Vanasan A.Ş.

We select our suppliers depending on tight standards that rest on objective criteria. We rely on the principles of honesty and fairness when making a decision on our suppliers. We expect from our suppliers in Tüpraş Procurement Portfolio to implement work standards and high-end applications for service quality and we support them in this respect. As in the past, we will continue to support our suppliers both on work performance, and range and quality of products and services in the future.

## Supply Operations

By Number of Purchase File	2008	2009	Ratio of Supplies (%)	2008	2009
Foreign Purchase	1.298	821	Foreign Purchase	73	117
Local Purchase	8.597	6.110	Local Purchase	64	78
Local Production	1.428	1.007	Local Production	27	19
Total	11.323	7.938	Total	164	214

## Proportion in Total Supply



# Community Development

## National Marker Practice

The National Marker Project is an implementation that was started by the public authority. This project aims to expand control on the fuel market and prevent unfair competition and the importation of contraband fuel to reduce the tax loss arising from such circumstances. The marker is produced in 2007 by TÜBİTAK but its use has required significant investment to be made by Tüpraş.

The National Marker practice spread widely in 2008 - 2009 and achieved success despite minor implementation errors which are mostly based on the definition of contraband petroleum as "fuel that does not include a specific amount of national marker determined by the Institution" made in the Petroleum Market Law no. 5015, may cause fuel - which is in accordance with law and technical regulations - to be defined as contraband because of miscalculation and/or technical reasons such as inconsistency between devices. Legal process besides the administrative sanction as a result of detection of contraband fuel in audits because of a technical mistake such as miscalculation, may lead to legally unrepairable results. In order to prevent this, definition based situation, the definition of "contraband fuel" based on single level and only on national marker level, should be amplified by an additional 2nd criterion such as non conformity of the fuel to the technical regulations.



Tüpraş uses its current infrastructure for the social benefit as well as for commercial activities. Therefore, Tüpraş expands the scope of its infrastructure efforts. In this respect, fire-fighting teams in all our refineries, tugboats in our Izmir and Izmit refineries and other equipments to fight fire and marine pollution, are utilized in the incidents occurring not because of Tüpraş activities, but within Tüpraş's activity zones. Also in order to ensure road safety around Izmit Refinery, Tüpraş has started to work for the rehabilitation of the infrastructure of the present highways, for the renovation of crossroads and for the construction of new byroads in cooperation with the Governorship of Kocaeli, the Kocaeli Municipality and other institutions. The project costed 20,45 million TL, 3,9 million TL of which is covered by Tüpraş, 10% by Kocaeli Municipality and the rest by other neighboring corporations. When the project is completed, in 2010 road safety and exit safety in cases of emergency will be ensured and the loss of time suffered by civilian cars travelling in the region will be eliminated. Through our investments in railway transportation, density of the traffic on the highways between the refineries will be reduced, thus, a significant contribution will be made for road safety.

Since its foundation, Tüpraş has enhanced and supported efforts of other organizations on social development, especially on education, health, sports, culture and arts. We prioritize local projects in our areas of activity, with the purpose of enhancing good neighborhood relations and filling the gap between different regions in Turkey. Therefore, in our efforts for development, we take local characteristics into consideration. For instance, in the region where Batman Refinery is located we focus on improving the opportunity and quality of education. However, in the Izmir Refinery region, where environmental problems caused by global warming are material, we invest in environmental issues.

### Corporate Cooperation in Education

Education, one of the major indicators of social development, is an essential community investment field for Tüpraş. In terms of education, Tüpraş performs multiple studies in diverse types and fields. Beside infrastructure development activities that we carry out in order for youngsters to reach qualified education possibilities, we also manage education projects aiming content development in various subjects, particularly in vocational education. Some of these activities are conducted through corporate initiatives, while some of them belong to the projects implemented in cooperation with public authorities, non-governmental organizations and educational institutions.

#### “Vocational Education: a Crucial Matter for the Nation” (MLMM)

In order to contribute to the solution of labor force problem that emerged in terms of both quantity and quality in recent years, we carry out the responsibilities to our share within the scope of the MLMM “Vocational Education: a Crucial Matter for the Nation” project that was initiated through the cooperation of Koç Holding and the Ministry of National Education in 2006 with the aim of meeting the need for qualified industrial personnel, which has become acute in recent years.

Within the scope of the project, in our refinery zones Izmit, Izmir, Kırıkkale, and Batman, we provide successful students with scholarships, internships and priority in employment and coaching which is an important part of the project, realized by voluntary Tüpraş employees (MeLek) who graduated from vocational school. Our voluntary vocational school coaches contribute to the personal development of the students by developing specific personal development modules for each class and implementing them in periodical meetings. This way, they also become role models for the students.

Since we have started the practices in 2006, new students enrolled in the program in the last 4 years. We will reach a total number of 569 students when the “Sapphires” graduate in 2013.

Region	Number of Schools	1. Group of Scholars: Turquoise 2006-2007	2. Group of Scholars: Ruby 2007-2008	3. Group of Scholars: Emerald 2008-2009	4. Group of Scholars: Sapphire 2009-2010	Total
Batman	2	3	18	19	30	70
Izmir	5	0	55	58	77	190
Izmit	4	13	27	47	56	143
Kırıkkale	4	29	47	43	47	166
Total	15	45	147	167	210	569

In 2008-2009, the MLMM Kırıkkale scholars became successful in different projects. In 2008, at the end of the competitions, 2 of our scholars were awarded by the Vehbi Koç Foundation (VKV) with a one-week training camp in Koç University. In 2009, the project named, “I cannot Hear but I can Talk” prepared by the scholars from Kırıkkale Vocational School for Girls made it to the finals within the last five in the World Bank Creative Development Ideas Competition. Also within the scope of the “Scholarship from Koç, Internship from Europe Project”, which is organized by Center for European Union Education and Youth Programs together with Vehbi Koç Foundation, 18 of the 33 MLMM scholars from Kırıkkale will go to Germany, 15 will go to the Netherlands for three-week internships in 2010.

In coordination with the Ministry of Energy and Natural Resources, Koç Energy Group conducts practices in order to increase awareness on the significance of energy efficiency in the community, especially within primary school students.

## Community Development

### Project for “Strengthening the Vocational Training and Education System” (MEGEP)

The protocol signed with the Ministry of National Education on 29 May 2007 within the framework of the Tüpraş Technical Training Program covers cooperation aimed at raising personnel in the Refining and Process branches that are within the Chemistry Technology field. The project covers Kocaeli Anatolian Technical High School, Technical and Industrial High School, İzmir Aliğa METEM, Kırıkkale Bahşili H. Hidayet Doğruer Multi-Program High School, which are vocational schools located in the cities where our refineries are situated. With the protocol signed on 11 June 2008, Batman province was also included in the project with Batman Industrial Vocational High School, Technical High School, and Anatolian Vocational High School. During their education, 11th and 12th grade students that will be admitted to the refining and process departments will be founded in the above high schools will attend applied classes three days a week in refinery operation units and laboratories. Also, the chemistry laboratories of these schools will be improved and supplied with suitable materials by Tüpraş, thus applied education will be provided.



### Umbrella Movement: 100 Smiling Faces in Batman

Tüpraş employees are young professionals who are sensitive to the problems in the region they live in and have skills to take initiatives to produce solutions. Through collaboration with the Governorship of Batman, the Provincial Directorate for National Education, and the Provincial Directorate for Health, as well as school principals, teachers, and local community leaders, Batman Refinery employees has launched Umbrella Movement in 2008. With this project, Tüpraş employees aim to support solution creating practices for a major problem, that they observe among students living in Batman suffering massive internal migration, which is the lack of social skills necessary for social cohesion. With the project Tüpraş reaches out to students in Batman who have poor social skills, and who have received deficient education coupled with insufficient parental care, which make it difficult for them to find their way; to parents who are unable to provide adequate psychological and emotional support to their children against financial problems, lack of awareness, poor intrafamilial communication and violence tendency rising in the society. Project also targets to support teachers of these at-risk children previously had limited access to resources to learn more about adolescent psychology and personal and professional development. In 2008, with the participation of 100 students and their families, 65 teachers, 5 chiefs of villages, and Tüpraş volunteers, we aimed to raise awareness of the parties, enhance social skills and communication methods of the students with their teachers, families, through various activities. These activities included: education seminars, discussion panels, film presentations and stage performances, musical performances, sports competitions, April 23 Children's Day activities, and picnics. Most of the participants attended in such an event for the first time in their lives. Letters we re-



ceived from the children together with the feedbacks of parents and teachers clearly indicated that we could make permanent changes in children's lives even with simple events. So we decided to broaden the scope of our projects. In 2008, the Umbrella Movement was entitled to the first prize in the category of Cooperation Developers of the Most Successful Tüpraş Members and the Most Successful Koç Members.

### The Umbrella Movement Expands: “100 Smiling Faces at Körfez”

In 2009, the “100 Smiling Faces” project implemented in 2008 in Batman is expanded to Körfez region where the immigrant population is high and where İzmit Refinery is located. Together with the District National Educational Directorate, school principals and teachers, families of the students and Tüpraş volunteers, we went to theaters with 100 of our students, made a trip to Rahmi Koç Industrial Museum and organized picnics. In the assessments made with the students, the expected benefits have been observed to a large extent.

The umbrella of Tüpraş is expanding. We expect that the umbrella will make 200 more students smile in Aliğa and Kırıkkale in the next year.

### Model Refinery and Application Laboratory



Batman Refinery TCC Unit was inactivated in 1994, and disassembled in 2007. With the recommendation of our employees, we decided to use the idle equipment to form a “Model Refinery and Application Laboratory” for the department of Refining and Petrochemistry in Batman University Vocational School of Higher Education. Protocol was signed with the support of the university administration, and employees of Batman Refinery. Employees volunteered to give practical lessons at school and refinery facilities. The model refinery and application laboratory were built on the area reserved by the Refinery and Petrochemicals Department in June 2009. With the project:

- A permanent laboratory was built with the equipments removed from the TCC Unit (Plant-200).
- The model facility became one of the most qualified laboratories, closest to the real ones.
- Volunteering of the Tüpraş employees and sharing of experience between them and university students ensured university-industry cooperation.
- Contributions were made to help students graduate with enhanced skills.
- Our Model Refinery practice won the first place in Cooperation Developers Category of “Most Successful Tüpraş Employees” and was also nominated for “Most Successful Koç Employees”



## Community Development

Tüpraş's contribution to the Refining and Petrochemicals Technologies Program of Batman University Vocational School of Higher Education has been continuing since its foundation. The last practice, "Model Refinery" application, was what we needed of for years.

This practice has been very beneficial both for the lecturers and students, and has become one of the best in examples of industry-university cooperation within our country, and maybe in the world. Therefore, students learn the working of refineries through real equipments. Lecturers transmit their knowledge on theoretical topics more easily with applied practices on field. We thank Tüpraş for its contributions to our program.

Tevfik Yıldız  
Batman University Vocational School of Higher Education  
Refinery and Petrochemicals Program

How did the vocational training support practices of Tüpraş contribute to your Institution?

Human resources from the alumni of the vocational school of higher education constitutes a large part of our portfolio. Thus, quality of the training programs is very important for us. Batman University Vocational School of Higher Education, Refinery and Petrochemicals Program raise qualified human resources directly for our area of work. By means of these programs we obtain the employee portfolio with the necessary qualifications we need in shorter period of time. In this perspective, we plan to carry out our cooperation on similar vocational training projects.

## Firefly Education Program

In terms of social development, education is our priority. Besides our own projects, we also support those executed by experts in their field. Hence we decided to sponsor The Educational Volunteers Foundation that proved its competency in its field and gained reputation publicly by developing projects for years. During 2008/2009 and 2009/2010 academic years we undertook operational sponsorship of 5 Firefly Education Units. Mobile education units of the foundation visit all over the country and give training to children in various fields. As a result of the negotiations with the project executives, we achieved to bring the mobile training units to the regions of Izmit/Korfez, Izmir/Aliaga, Kırıkkale and Batman where refineries of Tüpraş are located and we intended to provide social benefits to our regions. During the activities 17.646 children received education and in the pilot region Aliaga 450 children participated to the trainings. In 2010, we intend to reach 5.500 students in Kırıkkale, Aliaga and Batman.

Since our establishment we give support to the infrastructural needs of educational institutions and we try to provide internship opportunities for the students. In 2009, we donated 376 office furnishings that became redundant after renovations of buildings and offices, to 10 educational institutions that were in need. Accordingly, we both made use of the inert equipment and we supported the increase in the quality of education by helping to the infrastructural development of the schools. We also supported the modernization of the building allotted for the establishment of Advanced Interdisciplinary Industrial Research Laboratory at the Technopark of Kocaeli University. In 2009 we brought technology class to the Tüpraş Primary School, which we undertook the construction previously, and provided necessary hardware systems.

In order to share the knowledge and experience of our qualified human resource and our superior infrastructure with the society, we provide internship opportunities to thousands of students, particularly to the vocational high school students. In 2008, 235 high school students and 1.200 university students, making a total of 1.485 students completed their internships. In 2009, 504 high school students and 605 university students making a number of 1.109 students completed their internships at Tüpraş. We will keep providing internship opportunities to young colleagues for helping them to develop professional knowledge and skills.

## Community Development

### Support for Public Health

In 2009, we supported Turkish Family Health and Planning Foundation's operations in Eastern and Southeastern regions, which mainly aim to educate people in fields of sexual health, safe maternity, mother-child health, pregnancy, post-natal care, and teen sexual education. With the implementation of this project we aim to raise a generation that is educated on sexual health, to implement the sense of planned, healthy pregnancy and safe maternity, to prevent post-natal complications and to minimize the mother and infant mortalities/infirmities.

We sponsored Child Surgery Symposium arranged by the Kırıkkale University Medical School Department of Child Surgery. Additionally, Kırıkkale Refinery employees participated to the campaign of Turkish Red Crescent named "Seeking 1 Million Good People" and made blood donation. The Red Crescent authorities that visited the Kırıkkale refinery while taking blood, informed our employees about the benefits of blood donation.

### Development of Environmental Awareness

Protection of environment ranks amongst our top priorities. Besides our efforts as a corporate body, we support the projects aimed at increasing social awareness on that issue. To this end, we undertook the sponsorship of the ENVER project coordinated by the Ministry of Energy and Natural Resources and The General Directorate of Electrical Power Resources Survey and Development Administration. As a result of various activities and the nationwide organization during the celebration of the Energy Efficiency Week in 81 cities of Turkey, we made a contribution in emphasizing the importance of the energy efficiency. Also with the contribution of Tüpraş, within the scope of 15th anniversary events of TEMA Foundation, the world famous environmental analyst Lester R. Brown has lectured a conference in Turkey regarding the "Problems Resulting From Man's Demolition of Nature" aiming to create awareness in the community.

In 2009, we supported the NATURALIZMit Project organized under the topic European Union Youth Programs "Natural Approach to Global Warming" by Kocaeli Group of Higher Education Graduates. The project aims to increase awareness on global warming, particularly within youth in Izmit, therefore, enhance cooperation between non-governmental organizations, increase sensitivity for the efficient use of natural resources and expand the impact of the project in the other participant countries.



### Our Energy is Our Strength

Our Energy is Our Strength Project was launched in 2009, to give awareness raising courses to students in primary schools, high schools and universities and organizing workshops with the students, their families and teachers through establishing energy and environment clubs. Our aim with this project is to provide a different perspective on energy efficiency to our stakeholders in cooperation with public enterprises, companies, and non-governmental organizations as well as international experts.

In the projects university students from various countries have come together with their peers from various departments of the Batman, Dicle and İnönü Universities, Tüpraş employees' families and children and the teachers responsible for the Energy and Environment Clubs of 21 schools, to engage in activities for 15 days. Consequently, there was information exchange, cultural interaction and an opportunity to learn about different cultures and perspectives. In addition, the environment cleanup activities which have promoted awareness for appropriating our common historical and cultural heritage were carried out in historically significant locations such as Hasankeyf and Malabadi.

According to the project, a Waste Management System Council was established with participation of one representative among the prominent public figures from Batman and one from each stakeholder group. The Council has prepared a Waste Management Council Code to be able to function actively. Volunteers from various countries have organized open air activities in order to draw attention to environmental problems, thus, the project has reached a wider public. On June 5th, World Environment Day, all parties of "Our Energy is Our Strength" project came together for a "Respect for Nature" parade in the city center. Article written on Our Energy is

## Community Development

Our Strength Project by Nicholas Chang from USA, one of our project volunteers, was published on Volunteers For Peace (VFP) website ([www.vfp.org](http://www.vfp.org)) and shared with members all over the world.

The project was awarded the "Most Successful Project" of 2009 by the Tüpraş Awarding Scheme in 2009.



### Support for Sports

With the aim of promoting various branches of sports and raising sportman and sportwoman, we support many organizations. For this purpose, we contributed to 2 organizations in 2008. The first one was the World Offshore 225 Championship Kocaeli Seka Park Stage. One of the seven stages of the world's biggest organization took place with the name Tüpraş Grand Prix in Izmit. Through this organization, we promoted this sport in our region and our country while promoting Izmit and contributing to the local economy. The second organization, we contributed in was the Ankara Off-Road Championship's second stage named Kırıkkale-Hasandede.

### Support for Culture and Arts

Protection of cultural heritage and the appreciation of works of arts is an indication of society's development. For this reason, we carried out various works in order to increase the culture-art activities and to attract the attention of the local people in the areas where we operate. In 2008, we published Cemal Turgay's book, "My name is Izmit, here is my Image" that tells and illustrates the transformations Izmit has went through in the last 100 years. The preparation of the book was completed in 2007.

In 2007, in order to promote and develop a classical music culture, Tüpraş sponsored the Rhythm of Production concerts of the Kocaeli Chamber of Industry Chamber Orchestra that is established by 18 young musicians through the support of Kocaeli Chamber of Industry. The orchestra toured 8 cities including Tüpraş's operational regions, Izmir, Aliağa, Kırıkkale and Batman for free attendance concerts.

Tüpraş sponsored the First International Nuri İyicil Violin Competition organized by Mimar Sinan Fine Arts University State Conservatory and Turkish Educational Foundation in 2008 in order to recognize and support national and international talents. The competition was held in memory of Prof. R. Nuri İyicil, an invaluable faculty member of the Conservatory who passed away in 2005.

In 2008, in order to support sculptures of different cultures to carry their creativity

Tüpraş was the official sponsor of 11th International Istanbul Biennial together with Koç Holding Energy Group companies.



## Community Development



to the universal level through interactive relations, we sponsored the 2nd Kırıkkale Hasandede International Stone Statue Symposium. In 2008, Tüpraş also sponsored Rahmi M. Koç Museum to exhibit the famous artist Henry Kupjack's Miniature Rooms work which was displayed to thousands of people in many museums and galleries around the world.

In 2009, we contributed to the works of Geyre Foundation which supports scientific researches on the ancient city Afrodiasia in Geyre village in Karacasu District of the city Aydın. Geyre Foundation, also organizes courses and conferences and displays the monuments discovered in the excavations in Turkey and abroad. We also supported Gre Amer Archeological Excavations conducted by Koç University.



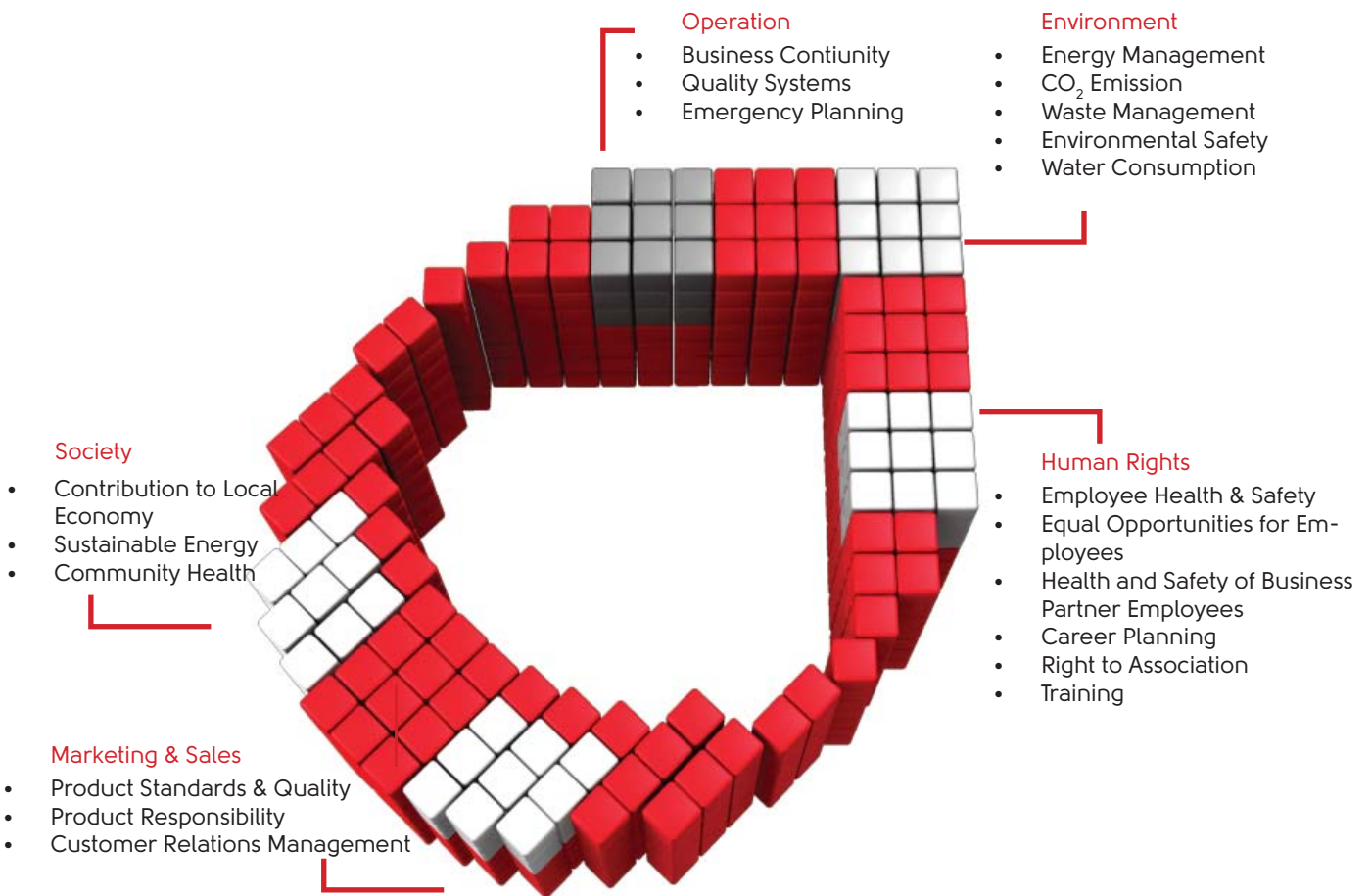
We contributed to the building of 32 meters high Kartaltepe Mehmetçik Monument as the tallest monument in Turkey to remember the Sakarya Pitched Battle with its significance in Independence War, to introduce to visitors of Polatlı and to keep the memories of soldiers alive.



# Corporate Responsibility Management

We believe that the essential responsibility of companies should be achieving sustainability. Therefore, our key goal for corporate responsibility management is sustainable development of Tüpraş. We explain our commitment in sustainability as our goal in profitability, operational continuity, as well as in protection and enhancement of social legitimacy. We believe in the significance of effective management of risk and responsibility on the areas of social, economic, environmental, and business ethics. Therefore, the scope of our corporate responsibility management is determined with our policies, strategies, organizations, processes and implementations on risk and responsibility areas. Demonstrating transparent, responsive and participatory management is our principle that shapes and directs our corporate responsibility management implementations.

In the reporting period, we evaluated the possible changes in the stakeholder expectations due to the economic crisis and renewed our material issues on corporate responsibility.



While determining our material issues, we use systematic methods. Besides, accountability performance assessment practices we conduct in every reporting period are major tools to demonstrate the necessary areas to focus. We will repeat our performance assessment practice in 2010, which we first launched in 2008, and reevaluate our development performance and potential. We define all the issues we handle according to the principle of completeness by accurate, comprehensive and generally accepted implementations, we establish strategic responses in order to meet the stakeholder expectations. Our guidance principals for creating response are honesty, leadership and innovation.

As a part of the participatory management understanding, in order to obtain stakeholder views and expectations on our material issues, we establish necessary learning tools and maintain progression of the learning processes. We inform the stakeholders on our implementations, in scope of the principles of transparency and responsiveness; thus we obtain their views on our strategic responses. We improve cooperation, and realize joint projects in accordance with our goals.

## Employees

- We work with the best and we try to render this synergy sustainable.
- We provide a safe work environment, provide human rights in broadest terms in work life.
- We implement participatory management tools, ensuring mutual respect, equality, justice, and open communication in our relationships.
- We encourage the professional and personal development of our employees.
- We ensure our employees' awareness in social, environmental and economic issues support their voluntary efforts.
- We employ all of our means to ensure that our employees are proud of being a part of Tüpraş. When deciding for practices, we never ignore this principle.

Driving force behind Tüpraş's sustainable development is our employees. Hence, it is our responsibility to provide them with the ideal work conditions. Besides, opinions and perspectives of our employees contribute to the improvement of our decision and implementation processes to a large extent. For this reason, we use certain communication tools to help us announce new management decisions and implementations, and learn about their opinions and recommendations on these.

Corporate Portal provides the employees with the tools to access all information about themselves on professional, personal and social basis. They can also access corporate information from Corporate Portal. Sometimes even separate communication channels are opened to meet specific communication needs in some essential areas. Tüpraş Corporate Responsibility Portal is a recent example for this. In the reporting period, with the updates of the databases on the portal, usage rates significantly increased. Especially, with the establishment of new pages for every division, employees share their knowledge and experiences within this portal, creating a huge mutual information sharing network. This way, the figures before 2008 increased in a large extent - from 150 thousands to 180 thousand visits per month in 2008, and 220 thousand visits per month in 2009.

Via weekly and monthly issued Technical Safety Bulletins, our employees are provided with information on the subjects of health and safety. The Rafine Journal, as an internal publication, is issued periodically and provides up-to-date information, particularly to our employees, on Tüpraş's corporate implementations.

First step to meet the expectations of our employees is to listen to them. In this scope, we create channels to connect our employees to their managers. Within the framework of visible leadership, beyond our periodical internal communication meetings and other implementations, every Tüpraş employee can reach any Tüpraş executive, starting with our General Manager, via official or unofficial methods. We also have more systematic applications in order to learn about the expectations of our employees. The existence of the elected Trade Union Chief Representative contributes to the transmis-

sion of expectations of the employees, especially on safety issues, to the senior executives to a larger extent. We also aim to achieve effective communication between our employees on professional matters. To achieve this goal, we founded a refinery databank, where our employees share their professional experiences and produce joint solutions to the problems.

Our employees contribute to the development of our projects and applications in a large extent. Within this contribution, Tüpraş Recommendation System "Refined Recommendations" and "Tüpraş Recognition Appreciation and Rewarding Scheme" play a major role. By means of these channels, our employees can transmit their recommendations on the projects and applications to senior management, hence can be rewarded. Thanks to these applications, many projects were brought to life. For instance, in the reporting period the projects on increasing efficiency were established in a large extent by this system. Employees are informed on recommendations and awards obtained through specific data bases prepared for this system. This way, transparency is achieved in the practices.

We aim to achieve employee engagement to solve the social issues as well as professional issues. Therefore, we prefer voluntary participation in our practices for the projects and applications we bring into practice. Another reason why we encourage voluntary participation is to support our employees to enrich their social lives with activities in their areas of interest. For this reason, in the reporting period, we brought many projects and social activity clubs into practice with the participation of our employees.

At the end of this process, Tüpraş commissions the "Worklife Evaluation Survey" in order to find out opinions of its employees, on its performance to meet their expectations and implements new applications according to those findings.

# Corporate Responsibility Management

## Shareholders and Investors

- We work to create high returns and sustainable value.
- We carry out the newest applications in our corporate management and reduce the social, economic, and environmental risks to a minimum degree.
- We work with high ethical standards within the framework of transparency and responsiveness.

As a company traded on Turkish and foreign stock exchanges, our relationship with the shareholders and investors rely on transparency and responsiveness. We use various tools of communication in order to inform our shareholders on time with accurate information. Our essential information source is our website. Besides that, we use road show, face-to-face meetings, analyst presentations and teleconferencing as communication tools. We periodically publish social performance reports on our corporate responsibility performance in addition to the financial reports and material disclosures in compliance with the case, form and periods defined by the Capital Markets regulations. In scope of our management systematic with a high level of performance, we guarantee the use of minority rights.

## Customers

- We respond fast to the emerging needs of the changing and developing market.
- We prioritize the satisfaction of our customers and keep our communication channels open where they can transmit their opinions and demands.
- We keep the confidentiality of information and treat all our customers equally.

Gaining trust and ensuring satisfaction of our customers and sustaining our business relationships constitute our primary goal. Therefore, we keep close relations with our customers and enhance them through dialogues and meetings. In addition, we carry out new implementations towards meeting the expectations and opinions of our customers firsthand via customer satisfaction surveys that we conduct every year. For instance, our Customer Portal and Customer Relations Management program, which we developed for sales operations, have been shaped according to the expectations of our customers.

## Business Partners and Suppliers

- We aim mutual benefits and adopt strategies focused on cooperation.
- We demand the same quality, safety, environment, and ethical norms with Tüpraş in product, service and work conditions of business partners and suppliers and promote their corporate development in this respect.

Our fundamental expectation from our business partners and suppliers is that they meet the minimum work standards that we define, especially on quality, safety, environment and ethics, at high-level work conditions while carrying out the products and services that form our relations. We lead our

business partners with the purpose of helping them to form their work conditions beyond predetermined standards and support them. We carried out many implementations in order to facilitate our business partners' adaptation to the work norms of Tüpraş, particularly on occupational health and environmental issues. We value meeting the expectations of our suppliers and business partners. For instance, payment plans for our suppliers and business partners are predetermined by automated systems and are being implemented without delay. In other areas, by conducting satisfaction surveys, we try to enhance our relations with companies from which we buy products and services.

Diversifying the crude oil supply is a crucial part of operational sustainability. Therefore, we endeavor to diversify our supply sources at an optimal level.

## Indirect Employees

- We acknowledge that our indirect employees are also within our area of responsibility. Thus, we provide them with the same work conditions and rights with Tüpraş employees.
- We pursue their expectations and needs.

In 2008, we also incorporated the performance of the contractor employees within Tüpraş Occupational Health and Safety Performance Evaluation System. We realized a significant increase in performance with this application which we started to enable the complete harmony of conditions of the contractors with Tüpraş Occupational Health and Safety System.

## Trade Unions

- We believe that labour unions and we work for a mutual goal and we can strengthen our relations with them through communication based on goodwill.
- We develop cooperation in order to protect the rights and benefits of our employees; and carry out joint responsibility campaigns.

We have constructive communication, which is based on mutual understanding with Petrol-İs Union of which all our blue collar employees are members. Our common goal is to increase work and life quality of our employees and to bring the most appropriate solutions. Hence we keep our close relationship during both Collective Bargaining Agreement process and daily work processes. On top of that The Chief Representative of Trade Union who is elected by our blue collar employees, involves in our decision making process particularly at the Employee Health and Safety Committee.

# Corporate Responsibility Management

## Public Authorities and Institutions

- We comply with all the legal regulations; inform public authorities about our practices within the legislative framework.
- We support the activities that contribute to the social and economic development of the regions where we operate and we develop partnerships.
- We build relationships based on cooperation and dialogue with local authorities.

Tüpraş runs its operations according to the legal regulations and provide necessary information to the public entities within the legislative framework. Additionally our operations are subject to periodical and instantaneous audits of public institutions. Besides, we support many projects and implementations related to our operations realized by public institutions and related to our operations. In line with its activities Tüpraş aims to establish close communication with the public authorities. However Tüpraş, in accordance with its work principles, neither engages in lobbying activities nor supports people or groups that engage in such activities. Besides that, Tüpraş has no political stand or aim, does not disclose any political stand or opinion, does not support political parties or initiative directly or indirectly.

## Non-Governmental Organizations

- We acknowledge NGOs' advocacy role of groups and individuals, support them to make their voices heard.
- We establish dialogue with the NGO's that have overlapping vision and targets with our corporate objectives, we follow their work and participate in their activities.

Non-governmental organizations are essential elements of a society. Tüpraş supports the practices of organizations that are active on professional or social fields; maintains dialogue with non-governmental organizations by creating joint projects; participates in vocational organizations. Our goal is to increase our engagement with NGOs through increasing our representations in professional organizations and expanding our relations with corporations with social interests.

## Educational Institutions

- We promote vocational training institutions at all levels and carry out joint projects.
- We conduct R&D practices, and support training programs with the purpose of enhancing the technological and human resources improvement of the refinery sector and increase human resource of the sector.
- We support vocational institutions in order to improve their infrastructure and technical capacity.

During the reporting period, we enhanced our relationships with educational institutions significantly. We continued our support for infrastructure and instructors increasingly. Besides, we started joint R&D practices in cooperation with the universities and research centers, and established sectoral expertise programs at graduate level. This way, we both help

the sector by providing human resource, where there is a significant need, and improve the skills of our employees by joining these programs

## Media

- We believe in the significance of the freedom to communication and respect to the right of media to inform and be informed.
- We believe in the benefit of open communication with the media institutions, therefore we maintain the quality of cooperation.

## Local Community

- We work to minimize any risk that can be caused from the activities of Tüpraş.
- We consider the economic, social, and cultural well-being of the local community within our sphere of influence as our responsibility.
- We respect to the right to information of the people living in our regions of activity, and aim to develop a healthy dialogue with them.

## Community

- We make contributions to reinforce sustainable development.
- We make investments in order to meet stakeholder expectations and eliminate their concerns on social, environmental and economic issues.
- We consider respect for human rights as a part of our corporate culture.



## Corporate Responsibility Management

Operational Performance Indicators	2007	2008	2009
Processed Crude Oil (thousand tons)	25.590,00	24.208,00	16.975,00
Refining Production (thousand tons)	23.994,00	22.780,00	15.968,00
Sales (thousand tons)	26.328,00	25.957,00	21.521,00
Product Exports (thousand tons)	6.391,00	6.112,00	3.308,00
Product Imports (thousand tons)	2.279,00	2.931,00	5.828,00
White Product Percentage in Total Production (%)	67,50	68,60	73,6
Capacity Utilization (%)	91,00	86,00	69,00

## Economical and Management Performance Indicators

Net Sales (million US dollars)	17.324,00	23.353,00	13.118,00
Operational Profit (million US dollars)	988,00	984,00	654,00
Profit Before Taxes (million US dollars)	1.240,00	421,00	653,00
Profit After Taxes (million US dollars)	998,00	331,00	522,00
EBITDA (million US dollars)	1.081,00	1.099,00	779,00
Net Debt (cash) (million US dollars)	(207,00)	215,00	(653,00)
Return on Equity (%)	34,00	11,00	22,00
Net Working Capital (million US dollars)	1.105,00	202,00	283,00
Investment Expenditure (million US dollars)	355,00	395,00	189,00
Profit per Share (TL)	5,18	1,73	3,24
Brut Dividend per Share (TL)	4,19	2,31	2,50
Net Dividend per Share (TL)	3,56	1,97	2,14
Paid Taxes (million TL)	14.202,00	19.975,00	18.336,00
Corporate Governance Rating	7,91	8,20	8,34
Fitch Ratings Foreign Currency Long Term Rating	BB	BB	BBB-
Fitch Ratings Local Currency Long Term Rating	BBB-	BBB-	BBB-
Fitch Ratings National Rating	AAA	AAA	AAA

## Environmental Indicators

Direct Energy Consumption by Primary Source (GJ)	76.982.511,00	76.432.075,00	64.418.637,00
Reductions in Energy Consumption (GJ)	701.037,80	977.781,50	10.891.441,90
Reductions in Energy Consumption (%)	-	1,30	14,20
Financial Outcome of Reductions in Energy Consumption (mil.TL)	11,15	19,40	50,50
Number of Projects Providing Energy Efficiency	11,00	36,00	52,00
Reduction in CO <sub>2</sub> Emission (tons equivalent CO <sub>2</sub> )	55.195,00	106.870,00	542.253,00
Total Water Consumption (million m <sup>3</sup> )	22,51	24,63	21,64
Changes in Water Consumption (%)	0,67	9,41	-12,14
Number of Sapplings Planted in Afforestation Activities	-	114.092,00	4.700,00
CO <sub>2</sub> Emissions Offset by Afforestation Activities (tons equivalent CO <sub>2</sub> )	-	44.343,80	1.826,70
Volume of Water Recycled (million m <sup>3</sup> )	5,70	12,30	11,30
Percentage of Water Recycled in Total Water Consumption (%)	15,60	33,70	36,00
Total Water Discharge (million m <sup>3</sup> )	10,30	9,90	10,30

	2007	2008	2009
Water Discharge – Suspended Solids Average Value			
– İzmit Refinery (legal limits/target/realized) (ppm)	60/50/16,7	60/50/22,1	60/50/17,5
– İzmit Petrochemical Plant (legal limits/target/realized) (ppm)	200/<80/22,1	200/<80/12,9	No Discharge
– İzmir Refinery (legal limits/target/realized) (ppm)	120/<30/15,6	120/<30/11,6	60/<30/7,5
– Kırıkkale Refinery (legal limits/target/realized) (ppm)	60/50/18,9	60/50/10,1	60/50/10,2
– Batman Refinery (legal limits/target/realized) (ppm)	120/<30/12,8	120/<30/7,7	120/<30/3,6
Hazardous Wastes by Weight (tons)	14.808,00	29.168,00	36.638,00
Non-Hazardous Wastes by Weight (tons)	6.430,00	6.420,00	9.668,00
Construction Waste by Weight (tons)	-	25.581,00	14.493,00
Wastes by Disposal Method – Landfill (tons)	3.481,00	11.562,00	10.008,00
Wastes by Disposal Method – Incineration(tons)	398,00	3.355,00	564,00
Wastes by Disposal Method – Recycling (tons)	17.359,00	20.671,00	35.734,00
Number of Recorded Environment Related Incidents	4,00	2,00	3,00
Number of Total Leakages/Spills	20,00	24,00	12,00

## Social Indicators

Accident Frequency Rate (number of incidents x 1.000.000/ person x hour)	3,40	3,60	2,50
Accident Severity Rate (lost days x 1.000.000/person x hour)	1.269,00	105,00	73,00
Number of Fatalities	0	0	0
Lost Time (work hour)	1.052.889,00	1.010.734,00	1.033.450,00
Lost Time (%)	11,79	11,00	12,00
Total Safety Expenditure (million TL)	2,42	2,82	4,60
Total Training (hour)	260.356,00	251.121,00	135.177,00
Total Training (per employee)	59,00	57,50	32,70
Turnover (%)	9,00	11,00	9,00
Total Number of Suppliers	25.295,00	8.758,00	12.993,00
Total Supply Budget (million TL)	210,00	186,00	257,00
Proportion of Local Procurement (%)	46,00	56,00	44,00
Production Locally Produced Material Procurement (%)	15,00	17,00	9,00
Local Procurement Budget (million TL)	110,00	77,00	140,00
Number of Audited Local Suppliers	14,00	19,00	63,00
Employee Satisfaction (%)	53,00	57,00	57,00
Customer Satisfaction (%)	85,20	86,20	86,70
Supplier Satisfaction (%)	91,90	97,10	98,90
Koç Holding Pension Fund Liabilities (million TL)	2,40	4,90	5,40
Donations and Sponsorships (million TL)	8,11	13,67	7,84
Total Number of Community Development Practices	10,00	18,00	14,00
Vocational Education: A Crucial Matter for the Nation Project Scholars	147,00	167,00	210,00

	Headquarters		izmit Refinery		izmir Refinery		Kırıkkale Refinery		Batman Refinery		Tüpraş Total	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Number of Employees	57	50	1.330	1.149	1.065	1.021	751	786	368	359	3.571	3.365
Blue Collars	157	161	242	224	197	185	129	125	74	70	799	765
White Collars	214	211	1.572	1.373	1.262	1.206	880	911	442	429	4.370	4.130
Total	428	422	3.144	2.746	2.521	2.413	1.659	1.717	960	928	8.740	8.260
Female	70 (%33)	67 (%32)	89 (%6)	77 (%6)	71 (%6)	71 (%6)	36 (%4)	41 (%5)	23 (%5)	23 (%5)	289 (%7)	279 (%7)
Male	144 (%67)	144 (%68)	1.483 (%94)	1.296 (%94)	1.191 (%94)	1.135 (%94)	844 (%96)	870 (%95)	419 (%95)	406 (%95)	4.081 (%93)	385 (%93)
Minimum	22	23	21	22	20	19	19	20	19	20	19	19
Maximum	62	63	60	59	59	59	59	60	58	58	62	63
Average	41	41	39	39	37	38	39	38	40	41	39	39
Average Seniority	13	13	13	13	12	11	12	11	13	14	13	12
Blue Collars	16	17	14	14	12	12	15	14	14	15	14	13
White Collars	14	17	14	14	12	12	14	13	14	15	13	13
Total	27	34	28	28	24	24	29	27	28	30	27	26
Work Hours Lost (hour)	37,866	35,479	426,717	386,441	283,941	294,947	173,332	205,162	88,879	111,421	1,010,734	1,033,450
Average (%)	8	8	13	13	11	11	10	12	10	12	11	12
Employees by Education %												
University	67	70	18	19	19	18	16	15	18	18	20	20
College	4	3	17	19	23	24	15	18	8	8	16	18
Vocational High School	4	4	43	40	37	37	31	33	31	31	36	35
High School	19	18	14	15	13	14	32	28	34	34	20	20
Primary School	6	5	8	7	8	7	6	6	9	9	8	7
Uneducated	0	0	0	0	0	0	0	0	0	0	0	0

Employees by Age (Nr - %)	Headquarters		Izmit Refinery		Izmir Refinery		Kırıkkale Refinery		Batman Refinery		Tüpraş Total	
	White Collars	Blue Collars	White Collars	Blue Collars	White Collars	Blue Collars	White Collars	Blue Collars	White Collars	Blue Collars	White Collars	Blue Collars
Below 30	26-%17	5-%9	49-%20	245-%18	45-%23	298-%28	36-%28	191-%25	16-%22	95-%26	172-%22	834-%23
Between 30-50	101-%64	51-%89	148-%61	961-%73	113-%57	721-%68	67-%52	544-%73	41-%55	211-%57	470-%58	2.488-%70
Above 50	30-%19	1-%2	45-%19	124-%9	39-%20	46-%4	26-%20	16-%	17-%23	62-%17	157-%20	249-%7
Recruitment												
2008	14	1	24	79	23	94	15	108	9	5	85	287
2009	12	0	12	10	11	5	11	77	1	1	47	93
Employee Leaves												
2008	14	49	18	117	20	98	9	139	13	32	74	435
2009	9	6	29	147	25	53	18	65	4	24	85	295
Employee Leaves by Gender												
2008	17	46	46	128	9	109	4	144	2	43	39	470
2009	4	11	11	161	7	71	2	81	1	27	29	351
Employees by Gender												
2008	%29	%71	%19	%81	%18	%82	%10	%90	%12	%88	%19	%81
2009	%30	%70	%19	%82	%18	%82	%10	%90	%13	%87	%19	%81
Blue Collars	%42	%58	%3	%97	%3	%97	%3	%97	%4	%96	%4	%96
2008	%38	%62	%3	%97	%4	%96	%4	%96	%4	%96	%4	%96
2009												
Female Managers	2 / %7	2 / %6	2 / %11	2 / %10	1 / %8	1 / %8	1 / %9	0	0	0	6 / %8	5 / %6
Male Managers	28 / %93	28 / %94	16 / %89	16 / %90	12 / %92	12 / %92	10 / %91	11 / %100	8 / %100	8 / %100	74 / %92	80 / %94

# GRI Index

GRI Indicator	Section	Page Number	Description	Reporting Level
Profile Indicators				
1.1	Message from the Chairman Message from the General Manager	5 6-7		Full
1.2	Message from the Chairman Message from the General Manager Our Achievements & New Objectives Economic Outlook, Petroleum Products Sector and Tüpraş Climate Change, Energy Sector and Tüpraş Corporate Responsibility Management	5 6-7 16-19 26-33 34-35 85		Full
2.1	Contacts	102		Full
2.2	Product and Service Responsibility		You may find more detailed information on our products and services from product information tab of the products section in our website <a href="http://www.tupras.com.tr">www.tupras.com.tr</a> .	Full
2.3	Tüpraş by Highlights Opet Petroleum Co. Ditaş Governance	8, 10-13 14 15 45-46		Full
2.4	Contacts	102		Full
2.5	About the Report  Tüpraş by Highlights	3  8	Tüpraş operates in Turkey. In the related sections, information on the countries in which we realize our supply and sales operations other than Turkey.	Full
2.6	Tüpraş by Highlights	8		Full
2.7	Tüpraş by Highlights Product and Service Responsibility	8, 10-13 70		Full Full
2.8	Tüpraş by Highlights Workplace and Human Rights Product and Service Responsibility Performance Indicators Annual Report 2009	8, 10-13 62 70 89-91 4, 38-39, 41-48, 88, 114-116	You may find more detailed information on Tüpraş's financial performance in investor relations section of our website <a href="http://www.tupras.com.tr">www.tupras.com.tr</a> .	Full
2.9	-		During the reporting period, no significant change in neither of shareholder, partnership structure and operational structures. You may find more detailed information in material information tab of investor relations section of our website <a href="http://www.tupras.com.tr">www.tupras.com.tr</a>	Full
2.10	Message from the General Manager Energy and Emission Management Community Development	7 37 78, 79, 83		Full
3.1	About the Report	3		Full
3.2	About the Report	3		Full
3.3	About the Report	3		Full
3.4	Contact Information	102		Full
3.5	About the Report	3		Full

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GRI Indicator	Section	Page Number	Description	Reporting Level
Profile Indicators				
3.6	About the Report	3		Full
3.7	About the Report	3		Full
3.8	About the Report	3		Full
3.9	-		For performance assessments, Tüpraş follows reliable systems and standards and uses internationally accepted information technologies. Independent organizations periodically assess Tüpraş's information technology infrastructure. All measurement parameters used within this report were provided by using reliable methodologies which comply also with GRI performance indicators. For the assumptions of trees corresponding to CO <sub>2</sub> emissions, approximate values of the Karbonmetre software -which can be found in <a href="http://www.tema.org.tr">www.tema.org.tr</a> - developed by TEMA Foundation, were employed.	Full
3.10	About the Report	3		Full
3.11	About the Report	3		Full
3.12	GRI Index	93-98		Full
3.13			Data presented in this report, have not been subjected to an independent assurance regarding this reporting engagement	Full
4.1	Governance	45-46		Full
4.2	Governance	45-46		Full
4.3	Governance	45-46		Full
4.4	Corporate Responsibility Management	86-88		Full
4.11	Governance	46-48	You may find more detailed information on risk management from the annual reports available in investor relations section of our website <a href="http://www.tupras.com.tr">www.tupras.com.tr</a>	Full
4.12			Tüpraş fully commits to comply with all articles of UNGC although Tüpraş is not a signatory party of UNGC Agreement but its parent company Koç Holding is. Articles presented within the UNGC Agreement are integrated as compliance factor in internal audit processes although it is not a legal requirement for Tüpraş. Koç Holding has signed UNGC Agreement in 30.03.2006.	Full
4.13	Corporate Responsibility Management	88		Full
4.14	About the Report Corporate Responsibility Management	3 86-88		Full

GRI Indicator	Section	Page Number	Description	Reporting Level
<b>Profile Indicators</b>				
4.15	Corporate Responsibility Management	85-88	As a part of its business, Tüpraş acts in interaction and communication with various stakeholders. We use systematic methods for identification of our stakeholders. In this reporting period, Tüpraş Corporate Responsibility Work Group, in which all business units are represented, has revisited the stakeholder list prepared in previous reporting period by a new identification and prioritization process; also decided to targeted audience for this report.	Full
4.16	Corporate Responsibility Management	86-88		Full
<b>Performance Indicators</b>				
EC1	Community Development	74-76	You may find financial outcomes in details regarding direct economic value generated by Tüpraş during this reporting period via annual reports published in investor relations section of corporate website <a href="http://www.tupras.com.tr">www.tupras.com.tr</a> .	Full
	Performance Indicators Annual Report 2009	89 104-105, 114-115		
EC2	Climate Change, Energy Sector and Tüpraş	34-35		Partial
EC3	Social Security and Supplementary Pension System	67		Partial
EC4	Tüpraş by Highlights Energy and Emission Management Annual Report 2009	8 37-38 147, 160		Full
EC5	Workplace and Human Rights	65	In Tüpraş, entry level wages are above the official minimum wages for all employee categories. Entry level wages for blue collar employees are approximately 2,5 folds, for white collar employees approximately 4 folds, greater than the official minimum wage.	Full
EC6	Community Development	75-76		Full
EC7	Community Development	75		Partial
EC8	Community Development National Marker Practice Corporate Cooperation in Education Support for Public Health Development of Environmental Awareness Support for Culture and Arts	74 77 78-81 82 82-83 83-84		Partial
EC9	Refining Sector in 10 Questions Recovery of Contaminated Soil İzmit Refinery Residium Upgrading Project Euro V Community Development	20-22 42 53-54 72 74-75, 79-81		Partial
EN1	Performance Indicators	89		Partial

## GRI Index

GRI Indicator	Section	Page Number	Description	Reporting Level
Performance Indicators				
EN3	Performance Indicators	89	In the current direct energy consumption portfolio mentioned by these figures, no renewable energy source is employed. Ongoing projects regarding use of renewables are disclosed in this report.	Partial
EN5	Message from the General Manager Energy and Emission Management Performance Indicators	6 36-37 89		Full
EN7	Energy and Emission Management	37-39		Partial
EN8	Water and Waste Management Performance Indicators	40 89		Partial
EN9	Water and Waste Management Biodiversity	40 43		Partial
EN10	Water and Waste Management Performance Indicators	41 89		Full
EN11	Biodiversity	43		Full
EN14	Biodiversity	43-44		Partial
EN18	Energy System Optimization Energy and Emission Management Performance Indicators	36 37-39 89		Full
EN21	Water and Waste Management Performance Indicators	41 89-90		Partial
EN22	Performance Indicators	90		Full
EN23	Business Continuity Performance Indicators	54 90		Partial
EN26	İzmit Refinery Residium Upgrading Project Product and Service Responsibility	53-54 71-72		Partial
EN27			Tüpraş has no packaged product.	Full
EN28	Annual Report 2009	148		Partial
EN29	Product Transportation	71		Partial
LA1	Workplace and Human Rights Performance Indicators	62-63 91-92	Tüpraş does not employ seasonal workers. For this reason, we don't experience a significant seasonal variation in our human resource portfolio.	Full
LA2	Workplace and Human Rights Performance Indicators	64 92		Partial
LA3			Tüpraş does not employ part-time workers.	Full
LA4	Workplace and Human Rights	63	Tüpraş's all blue collar employees which constitute 81% of total employment, are covered by collective bargaining agreement.	Full
LA5	Workplace and Human Rights	64		Full
LA6	Trade Unions	87	Tüpraş Health and Safety Committees are found in accordance with legal regulations and exercising their duties. In these Committees, representatives elected by employees such as Chief Trade Union Representatives are also in charge and effective in decision making processes. Thanks to this structure, entire management and workforce are represented in Tüpraş Health and Safety Committees.	Full



GRI Indicator	Section	Page Number	Description	Reporting Level
Performance Indicators				
LA7	Health and Safety Performance Indicators	59-61 90		Partial
LA8	Employee Health Workplace and Human Rights Support for Public Health	61 67 82		Partial
LA10	Workplace and Human Rights Performance Indicators	67 90		Partial
LA11	Workplace and Human Rights	66-67		Partial
LA12	Workplace and Human Rights	62	All Tüpraş employees receive annual performance reviews evaluated by systems based on objective criteria.	Full
LA13	Workplace and Human Rights Performance Indicators	62,65 91-92		Partial
LA14	Workplace and Human Rights	65		Full
HR2	Governance Performance Indicators	48 90		Full
HR4	Workplace and Human Rights	64		Full
HR5	Workplace and Human Rights	63	Association and collective bargaining rights which are seen as basic human rights, are secured and actively supported in all Tüpraş facilities. We have no operational unit where exercise of these rights are at any risk.	Full
HR6	Workplace and Human Rights	64		Full
HR7	Workplace and Human Rights	64		Full
HR8	Workplace and Human Rights	63		Full
SO1			Tüpraş works not only for elimination of possible risks on local communities in which it operates, but also for supporting their social, economic and cultural development. For this reason, Tüpraş realize various impact and perception researches. Tüpraş, executes environmental impact assessments for its significant investments which are defined by legal regulations. Besides the technical analyzes, these assessments contain stakeholder engagement practices which require direct interaction with local communities. Moreover, Tüpraş periodically executes societal perception researches in order to acquire views and expectations of local communities about Tüpraş and these outcomes are used to prepare community action plans.	Full
SO2	Governance	48		Partial
SO4	Governance	48		Full
SO5	Public Authorities and Institutions	88		Full
SO6	Workplace and Human Rights Corporate Responsibility Management	63 88		Full

## GRI Index

GRI Indicator	Section	Page Number	Description	Reporting Level
Performance Indicators				
SO7			Despite of being the only refinery corporation operating in Turkey, Tüpraş is not the only provider for petroleum products and related services due to free import of products. During the reporting period, no prosecutions filed, no other legal actions taken against Tüpraş by reason of monopoly practices, anti-trust or anti-competitive behavior.	Full
PR1	Business Continuity	51	For all of our products, health, safety and environmental impact assessments regarding their transportation, storage and usage have been carried out. These informations are communicated with our customers via MSDS forms. You may find our product MSDS forms in our corporate website <a href="http://www.tupras.com.tr">www.tupras.com.tr</a> . Besides, we have realized REACH preregistrations of all products; assured that our suppliers of additive substances have also completed REACH preregistration of their products.	Partial
	Product and Service Responsibility	72		
PR2			Petroleum products are produced according to specifications defined and strictly controlled by authorities. During the reporting period, no case of non compliance to product specifications including safety and environmental norms occurred due to products sold by Tüpraş. About these issues, no prosecution filed, no other legal actions taken against Tüpraş.	Full
PR3	Product and Service Responsibility	72	For all of its products, Tüpraş provides customers with information forms, conforming to related regulations. These forms provide information about potential impacts on health and environment, emergency precautions beside product content and technical qualifications. We have preregistered all our product according to REACH regulation, moreover, we also assured that our product additive material suppliers preregister their products.	Full
PR4			In the reporting period, no case of non-compliance to laws regulating product labelling practices occurred, no prosecutions filed, no other legal actions taken against Tüpraş.	Full
PR5	Product and Service Responsibility Performance Indicators	73 90		Partial
PR7			In the reporting period, no case of non-compliance about marketing communication practices occurred, no prosecutions filed, no other legal actions taken against Tüpraş.	Full
PR8			During the reporting period, no complaint received due to the customer privacy breaches or loss of customer information. no prosecutions filed, no other legal actions taken against Tüpraş concerning such matters.	Full

## Abbreviations

API	Oil and Water Separator
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CMB	Capital Markets Board
DCS	Distributed Control System
DRBCP	Disaster Recovery & Business Continuity Program
DWT	Deadweight Tonnage
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
EIA	Environmental Impact Assessment
EİE	General Directorate Of Electric Power Resources Survey and Development Administration
ENVER	Energy Efficiency Campaign
FCC	Fluid Catalytic Cracking
GRI	Global Reporting Initiative
HSE	Health Safety Environment
IDM	Identity Management
ISM	International Ship Management System
ISPS	International Ship and Port Facility Security
KETEM	Center of Early Diagnosis, Scanning and Training for Cancer
MEGEP	Vocational Education Development Project
MLMM	Vocational Education: A Crucial Matter for the Nation
OCIMF	Oil Companies International Marine Forum
OECD	Organization for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
OSAR	Incident Classification, Research and Reporting
OTP	One-Time Password
QDMS	Quality Documents Management System
RAMSAR	The Convention on Wetlands of International Importance
RDT	Risk Assessment Table
SANAEM	Sarayköy Nuclear Research and Training Center
SENER	Energy Efficiency in Industry
SOLAS	International Convention for the Safety of Life at Sea
SSL/VPN	Secure Sockets Layer Virtual Private Network
STCW	Standards of Training, Certification and Watchkeeping
TEV	Turkish Educational Foundation
TEYS	Danger and Impacts Management Process
TPAO	Turkish Petroleum Corporation
UNGC	United Nations Global Compact
VOC	Volatile Organic Compound

## Footnotes

Some of the data presented under indicated chapters have been acquired from external sources. You may find more detailed information from sources mentioned below.

Title	Sources
Refining Sector in 10 Questions	European Petroleum Industry Association (EUROPIA), Overview of the European Downstream Oil Industry, Presentation, <a href="http://www.europia.com">www.europia.com</a>
Economic Outlook, Petroleum Products Sector and Tüpraş	Energy Market Regulatory Authority, <a href="http://www.epdk.gov.tr">www.epdk.gov.tr</a> *Petroleum Market Sector Report 2008 *Petroleum Market Sector Report 2009 Turkish Petroleum Industry Association, <a href="http://www.petder.org.tr">www.petder.org.tr</a> *Sector Report 2008 *Sector Report 2009



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### Statement GRI Application Level Check

GRI hereby states that **Tüpraş Turkish Petroleum Refineries Co.** has presented its report "Tüpraş Corporate Responsibility Report 2008-2009" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level C.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines.

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Amsterdam, 19 October 2011

Nelmara Arbex  
Deputy Chief Executive  
Global Reporting Initiative



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