Executive Summary About Milk

1. Milk and dairy products, along with being a rich protein source occupying its place in daily diet, a basic raw material in food industry. Milk is obtained from primarily cattle but from cattle, sheep and water buffalos and therefore milk and dairy products value chain includes many actors from stockbreeders to consumers. The first link of the chain is stockbreeders. Raw milk is collected by either milk collection centers or directly factories from stockbreeders, pasteurized and processed and then the processed milk and dairy products are brought to the consumers through wholesalers, retailers and open markets. Milk powder is also produced from a portion of the milk in order to be used in food industry.

Milk and Dairy Products in the World

- 2. Milk production in the world is predominantly from bovines and has been increasing in the past 20 years. Milk is produced from bovines (84%) followed by water buffalos (13%) and cattle (3%). Leading countries in bovine milk production are EU27, India, the USA, China, Russia, Ukraine, Pakistan, Turkey and Australia while India and Pakistan are leading in water buffalo milk production. It is observed that Asian countries play an important role in the 2% increase in milk production in the last 20 years.
- 3. Since 1980, milk and dairy products trade underwent important changes. Until 1980 butter and cheese trade and since then milk and dairy products like ice cream, milk powder and yoghurt gained importance. More than half of the milk produced today is for industrial means.
- 4. Milk consumption per capita in 2010 is 103 kg. Although total amount consumed increased, per capita numbers relatively stayed the same over the years. This indicates milk consumption is changing with regards to population changes. Countries consuming the most amount of milk are India, EU27, Pakistan, China and the USA. The region having the highest consumption is Southeast Asia (38%). The EU consumes 30% and North American countries consume 13% of milk.
- 5. Turkey's consumption per capita is way behind the world mean with 21 liters. In the EU countries, this number is between 60 and 170 liters.
- 6. Fresh milk is not a commodity that is traded intensely, although dairy products such as milk powder, cheese and butter are traded intensely. In most of the countries milk is considered as a strategic good. As it has a high domestic demand, is hard to transport when the appropriate conditions are not met and spoils fast, milk trade is cumbersome.
- 7. The biggest share of milk and dairy product export belongs to cattle breeding countries such as EU 27, New Zealand and the US. Germany has the first place in the EU.
- 8. Milk prices in the world remained relatively stable except seasonal fluctuations since 1999. Interpreting the price changes in milk from three biggest producers, prices in the EU and the US had been higher than New Zealand prices although since 2009 New Zealand prices have caught up and passed the prices in the EU and the US.

- Turkey is one of the important actors in the world in milk and dairy products. According to 2010 data, Turkey is 15th biggest producer in the world. In 2010 Turkish production increased by 8.5%, reaching 13.6 million tons.
- 10. Parallel to the global trend, cow milk has the highest share in production (91,7%).
- 11. Turkish production increased parallel to the increase in bovine productivity since the 90s although Turkey is behind the major producers with 2.847 kg/cattle. In the EU the number is 6.188 kg/cattle.
- 12. There is a significant difference in productivity between the west and the east parts of Production is made with crossbreeds with relatively lower productivity in the eastern parts although the western parts use purebred Holsteins.
- 13. Turkish milk and dairy producers are mainly SMEs and spread throughout the country. Enterprise scale increases from east to the west. As milk spoils easily and has special transportation requirements directed the producers to settle to places that the raw materials are easily attainable and target local customers.
- 14. Cheese and curd cheese has the highest share In Turkish dairy production with 37.6% followed by yogurt and milk cream. The reason cheese having such a high share is affected by cheese being easily preserved and transported.
- 15. The growth rate in milk and cream production is more than cheese and yoghurt. The main reason behind this is the shift of demand from villages to cities and the increase in transportation capacity of fresh milk with cold chain.
- 16. Milk and dairy product share in total foodstuff spending is 18.5%. Consumers prefer mostly cheese and butter. Cheese consumption is high in all income brackets. In high income brackets milk is consumed more. As the income level decreases, milk is subsidized by yoghurt. Besides, low income brackets prefer unpacked cheese products.
- 17. Farm gate prices of Milk and dairy products increased 57% between 2003-2011 but this increase is lower than the increase in consumer prices. So profitability of the sector has decreased. The biggest increase in consumer prices were in pasteurized milk, cream and white cheese. Turkish prices had been below EU and the US prices until 2005 but raised over both regions.
- 18. Despite the increase in milk prices, profitability in milk sector continues to decrease in Turkey. Profitability is measured by milk/fodder parity. While the parity was 1.6 in 2002, in 20111 it decreased to 2011. This parity is over 2.5 in the US and Canada. As milk spoils easy and hard to store profitability is affected greatly.
- 19. Milk products occupy 0.2% of Turkish exports. The main reasons behind this are low productivity, protective policies in the sector and high standards in foreign markets.
- 20. Cheese leads the Turkish dairy product exports with \$144m. Although milk powder is second in exports, rapid increase of this commodity indicates its increasing importance in years to come.
- 21. While export partners of Turkey are mostly Middle Eastern and North African countries, Turkey mostly imports from developed countries. Biggest export partner of Turkey is Iraq while Turkey imports the most from Switzerland. Butter and cheese have the highest share in Turkish imports.

- 22. Konya is near the top in Turkish milk and dairy production. Konya holds 9.8% of milked cattle and produces 506.739 tons of milk. Milk productivity per cattle is 3.875 kg in Turkey whereas the number is 3.993 kg for Konya. 60 % of the milk is used for milk production. The share of milk used for yoghurt, butter and milk powder is 25% and cheddar is 15%.
- 23. Prices of milk in Turkey are lower than world average and prices in Konya is lower than that.
- 24. The largest expense item of milk producers in Konya is raw milk, followed by interest and logistics costs. 40.4% of producers obtain milk from small producers and 18.9% obtains from large farms in Konya. Milk collection centers are used by 17.2% of the producers. Although 60% of the milk produced in Konya is obtained from local producers, large area of Konya and milk being a product that spoils quickly as well as the producers being spread out throughout the province increase logistics costs.
- 25. In Konya there are both village based traditional enterprises and big and qualified producers. Capacities of KTB (Konya Trade Exchange) are higher than average capacity.
- 26. The largest share of production items are cheese and yoghurt in Konya
- 27. Milk and dairy production sector is inclined towards clustering. Producers obtain their machines, equipment, spare parts and maintenance from Konya (84%) and sell their goods in local markets (68%)
- 28. The biggest problems of milk production for Konya is unfair competition stemming from the shadow sector, raw milk quality, price and hygiene. These problems are followed by fodder prices and cold chain infrastructure issues.
- 29. Sectoral enterprises have higher export shares (40%) than Turkish average. All of the milk powder producers are exporting companies. The firms which are not exporting report that they can't export because they wither see the local markets as sufficient or their lack of information and resources about the foreign markets.
- 30. Unutilized capacity is an issue in the sector. Capacity utilization ratio is 72%. Among the reasons are the lack of capital and/or inability to recover debts (75%) and seasonality in raw product markets (25%).
- 31. Although public incentive bonuses in the sector are seen positive by the producers, 61.5% of them see them as insufficient. Producers state the bonuses should reduce retail expenses and increase consumption. Incentive bonuses for milk powder cannot be utilized by raw milk producers.