



CURRENT SITUATION AND OPPURTUNITIES OF TURKEY IN ENERGY SECTOR RELATED TO CLIMATE CHANGE

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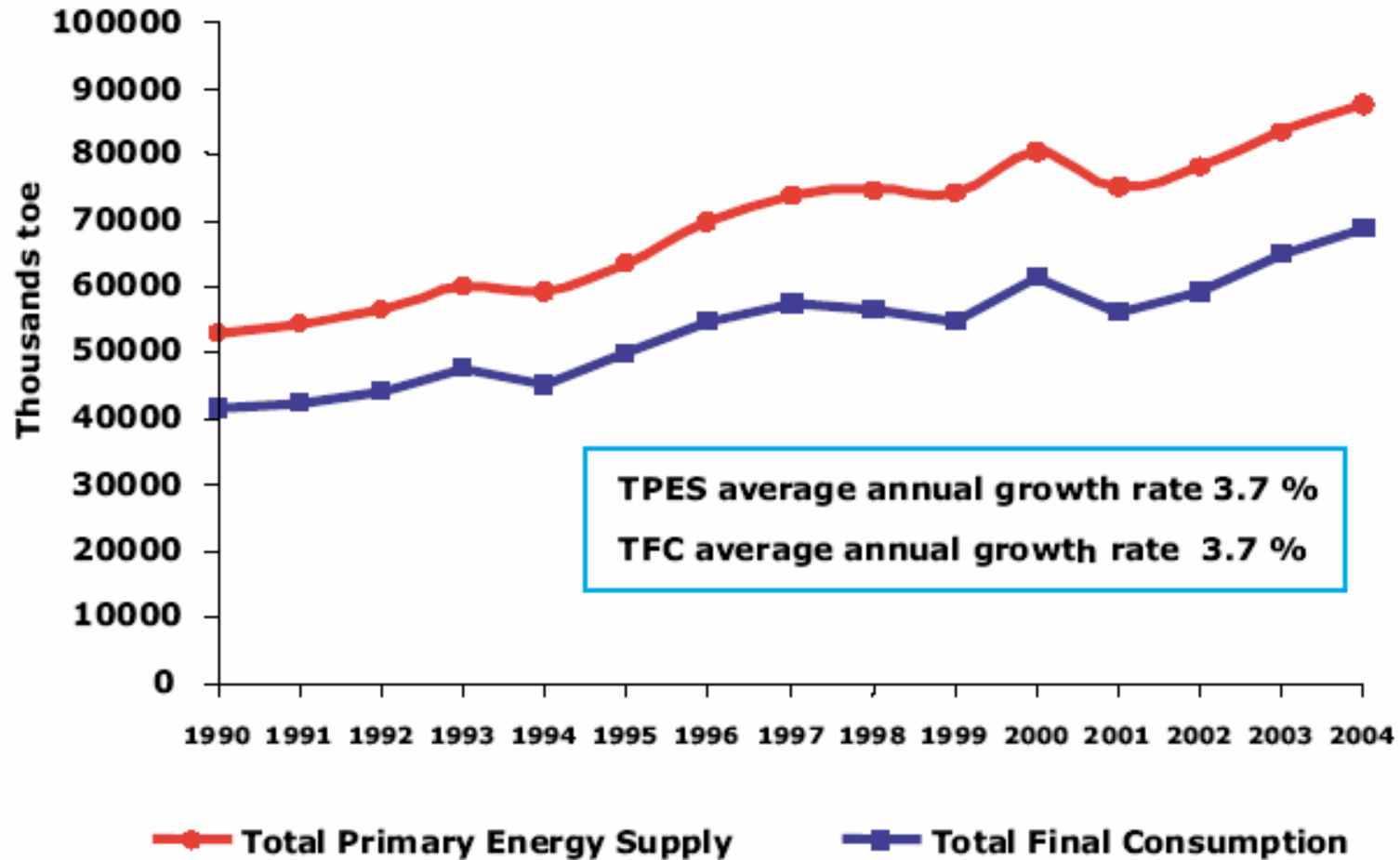
09 November 2007, Kiev

Current situation of Turkey

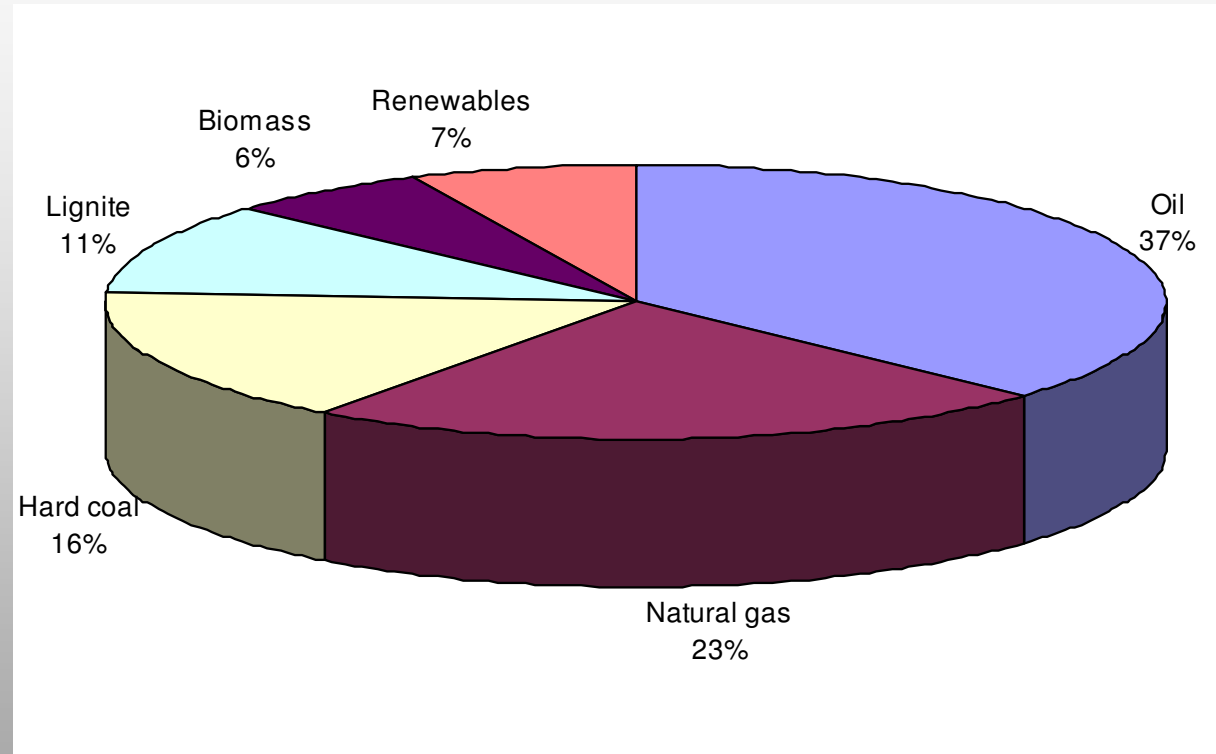
- Turkish energy demand related to electric consumption has been growing up at an annual rate of 7.2% for last two decades.
- This increase caused the energy demand rise up to 87.8 mtoe from 53 mtoe over the period 1990-2004.
- Energy sector is the indicator for the changing structure of the Turkish economy and the significant change in this structure is the increase of fuel consumption.
- For the overall greenhouse gas emissions in Turkey, the proportion of energy sector is the highest one due to burning of fossil fuels.



Historical trend of energy use



- Oil accounted for the largest share of this demand with 37%; and is followed by the natural gas with 23%, hard coal with 16%, lignite with 11%, biomass with 6%, and renewables with 7%.

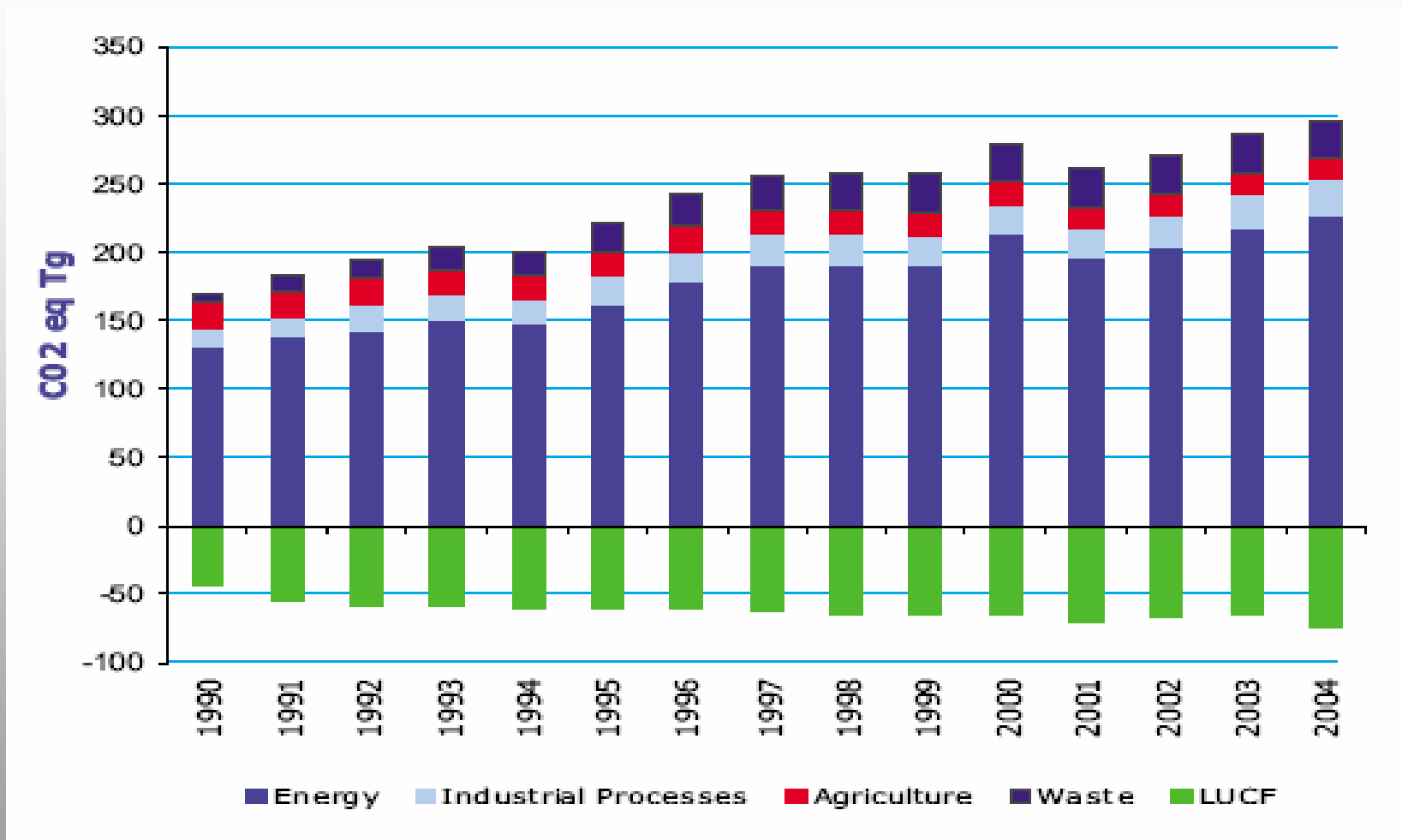


GHG emission inventory of TURKEY

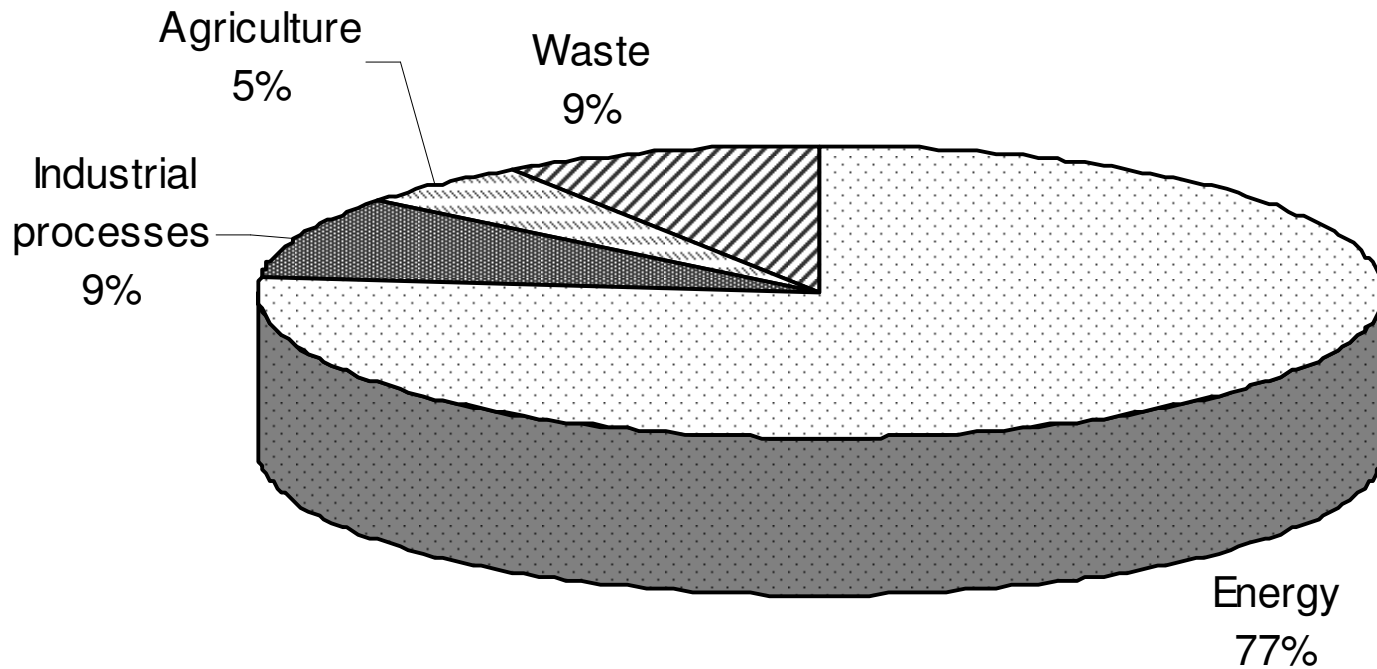
Turkey's total GHG emissions excluding LUCF rose from 170.1 Tg to 296.6 Tg CO₂ eq between 1990 and 2004.

	1990	1995	2000	2004
CO ₂	139.59	171.85	223.81	241.88
CH ₄	29.21	42.54	49.27	46.29
N ₂ O	1.26	6.33	5.74	5.49
HFCs	-	-	0.82	2.23
SF ₆	-	-	0.32	0.70
Total	170.06	220.7	280.0	296.6

GHG emission inventory of TURKEY



GHG emission inventory of TURKEY



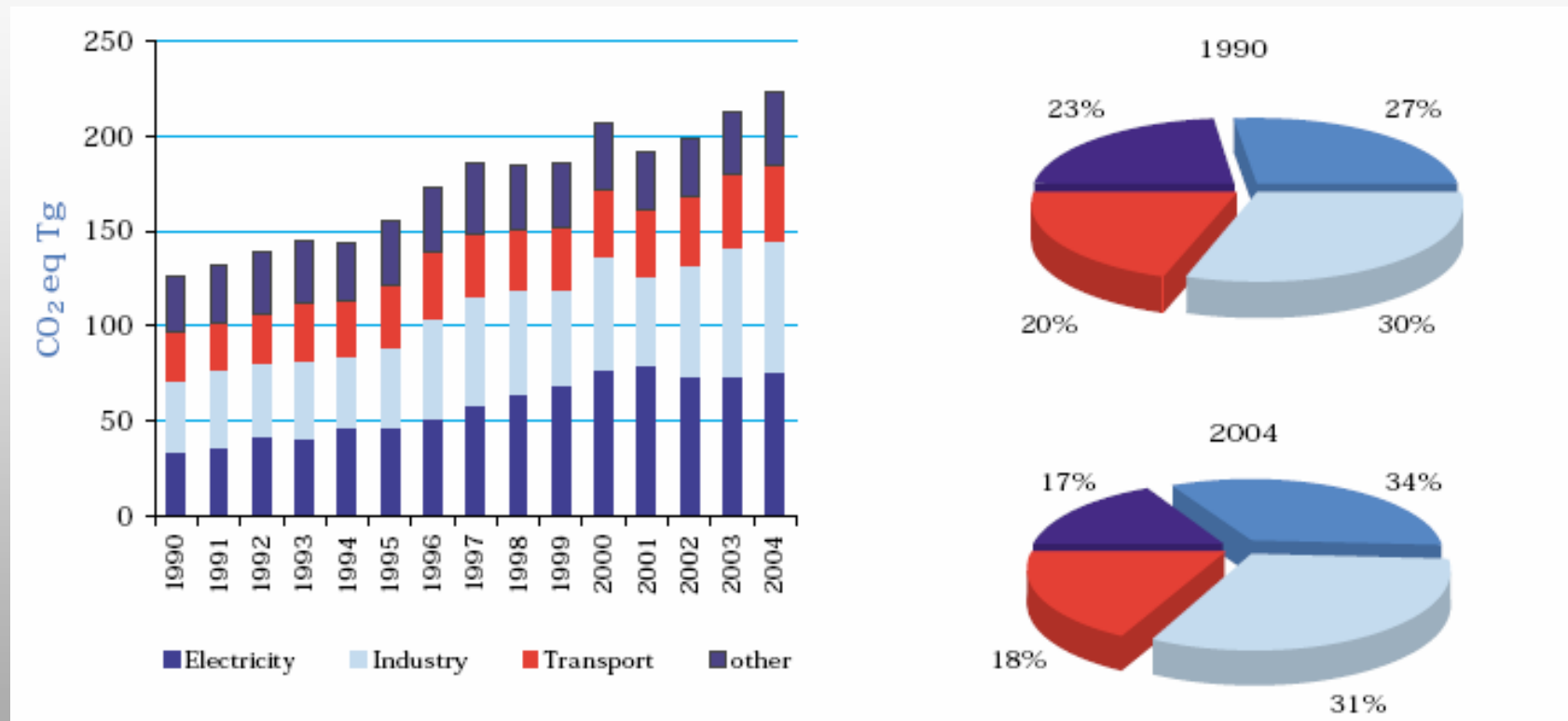
Sectoral GHG emissions



- The energy sector showed the highest emission increase between 1990 and 2004.
- GHG emissions related to energy sector rose up to 227.4 Tg CO₂ from 132.1 Tg CO₂.
- The total CO₂ increase in 2004 is 75.4% compared to 1990.



Aggregated CO₂ emissions from Energy sector



Climate change and TURKEY

- Turkey was a party to UNFCCC.
- As a member of OECD, Turkey was included in the Annexes I and II of the Convention.
- Compared to the other OECD countries, Turkey is still regarded as a developing country on the basis of economic indicators.
- Being a developing country, Turkey was excluded from Annex II countries because of its special circumstances and its own demand.



CO₂ emission indicators for TURKEY and relative parties of UNFCCC

	CO ₂ emissions (Tg)	CO ₂ / per capita (ton)
EU-15	3,447	9.0
EU-25	4,064	9.0
OECD	12,780	11.1
Annex I countries	14,289	12.2
World	24,983	4.0
Turkey	231	3.3

Climate change and TURKEY

- The fossil fuel based CO₂ emissions per capita of Turkey is 3.3 tones in 2003, which was the lowest among OECD countries whose average is 11.1, the world average is 4.0 and the EU25 average is 9.0.



Climate change and TURKEY

- Turkey is not a party to the Kyoto Protocol yet.
- But Turkey has been attempting to minimise energy-related GHG emissions through measures aimed at:
 - improving energy efficiency and encouraging conservation measures,
 - increasing the share of renewable energy sources in its energy supply,
 - allowing for fuel switching from high carbon to low carbon fuels,
 - implementing measures to encourage emission reductions.



THANKS

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