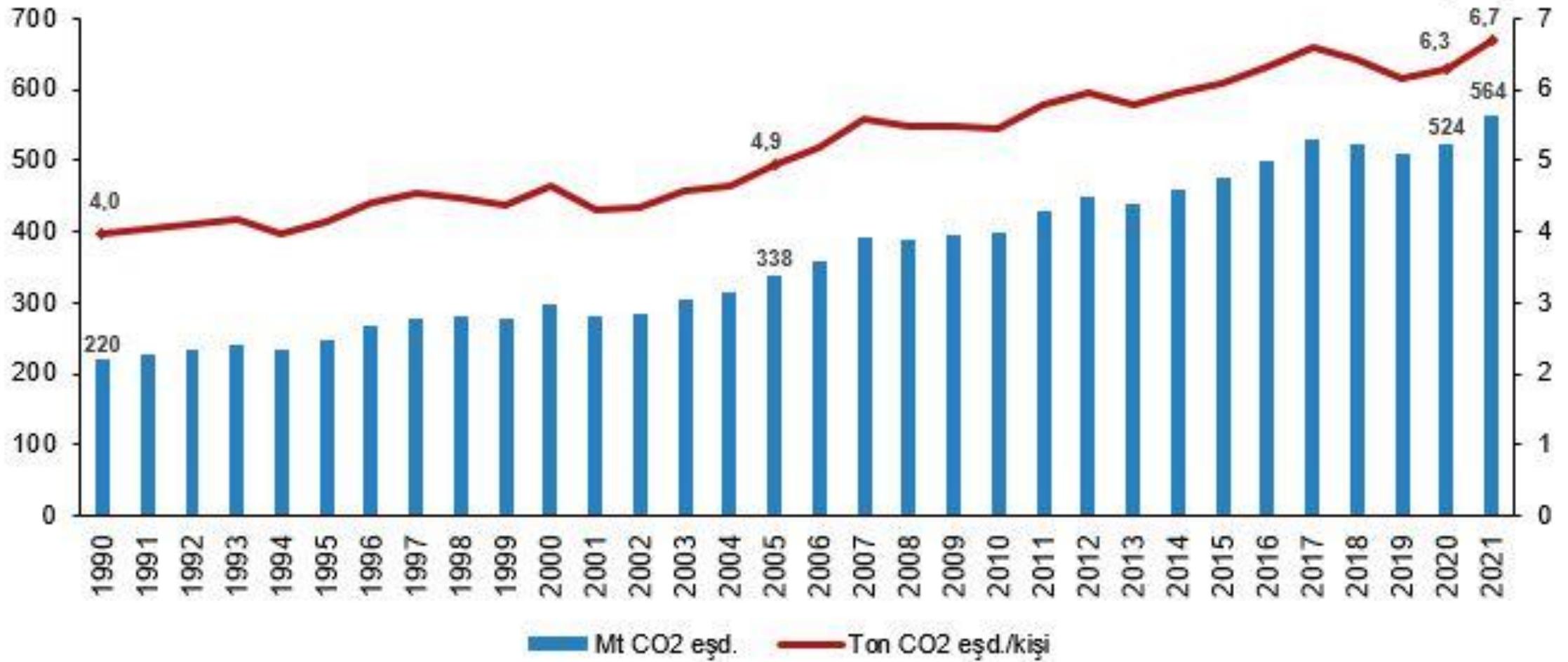


# Climate policy in Turkey and possible additional indicators

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Sabancı University  
Istanbul Policy Center

(Mt CO<sub>2</sub> eşd.)

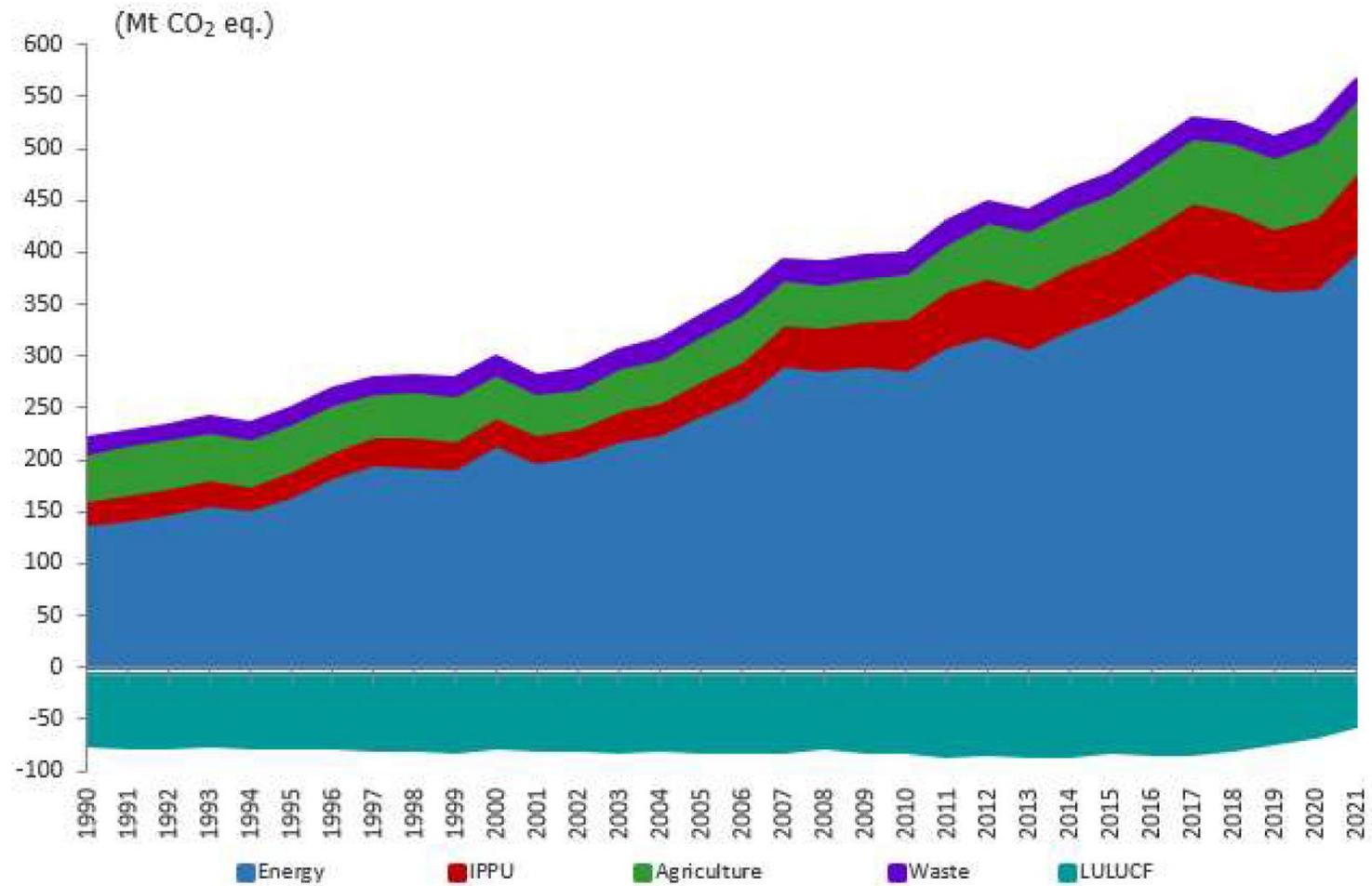
(Ton CO<sub>2</sub> eşd./kişi)



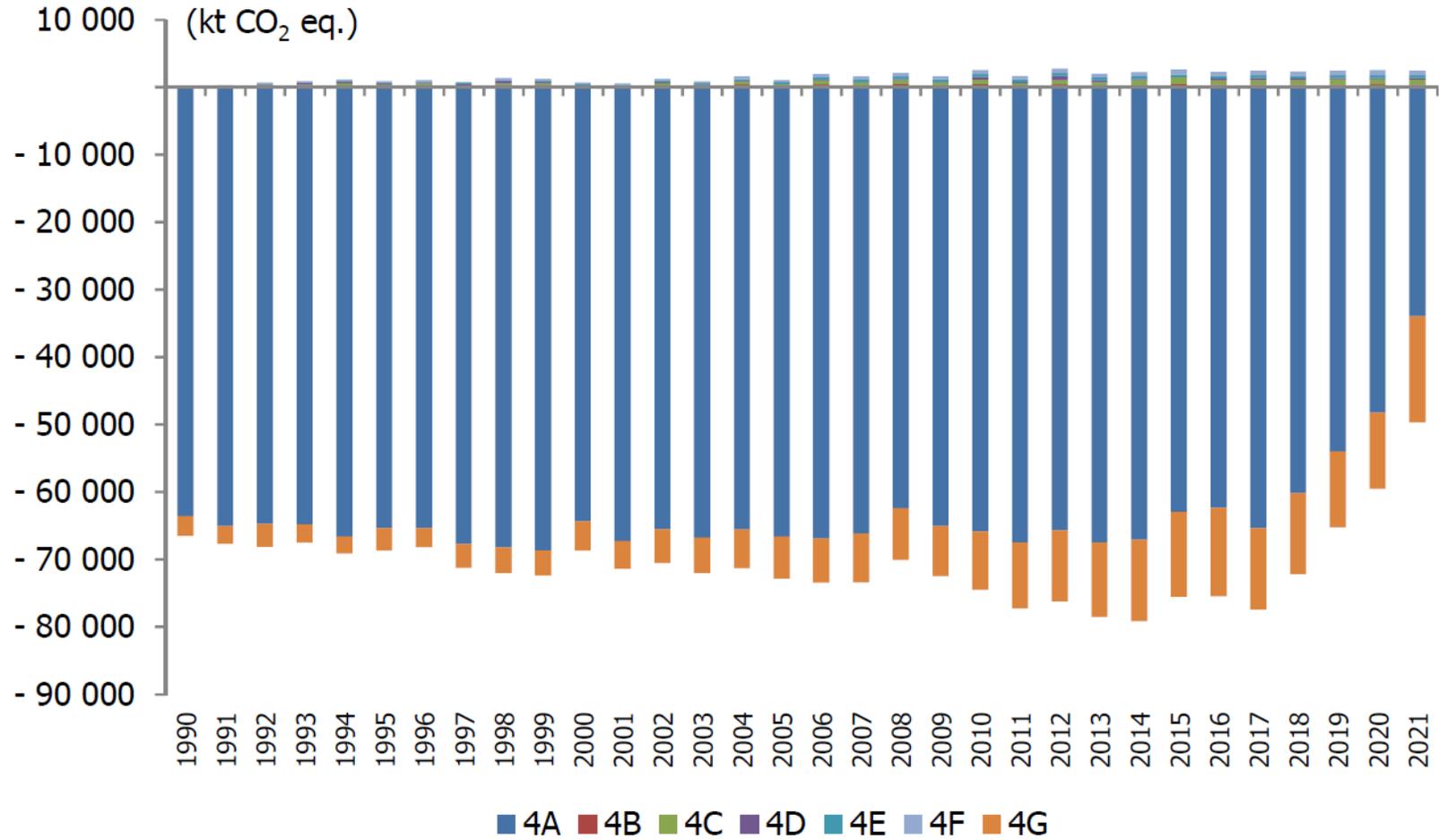
**Table ES 1 Greenhouse gas emissions, 1990-2021**

	<b>1990</b>	<b>2000</b>	<b>2010</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Total emissions (Mt CO <sub>2</sub> eq. excluding LULUCF)	219.5	298.9	398.8	475.0	501.1	528.6	523.1	508.7	524.0	564.4
Change compared to 1990 (%)	-	36.2	81.7	116.4	128.3	140.8	138.3	131.7	138.7	157.1
Net emissions (Mt CO <sub>2</sub> eq. including LULUCF)	153.0	230.9	326.9	402.2	428.0	453.6	453.4	446.0	467.0	517.2
Change compared to 1990 (%)	-	50.9	113.6	162.8	179.7	196.4	196.3	191.5	205.2	238.0

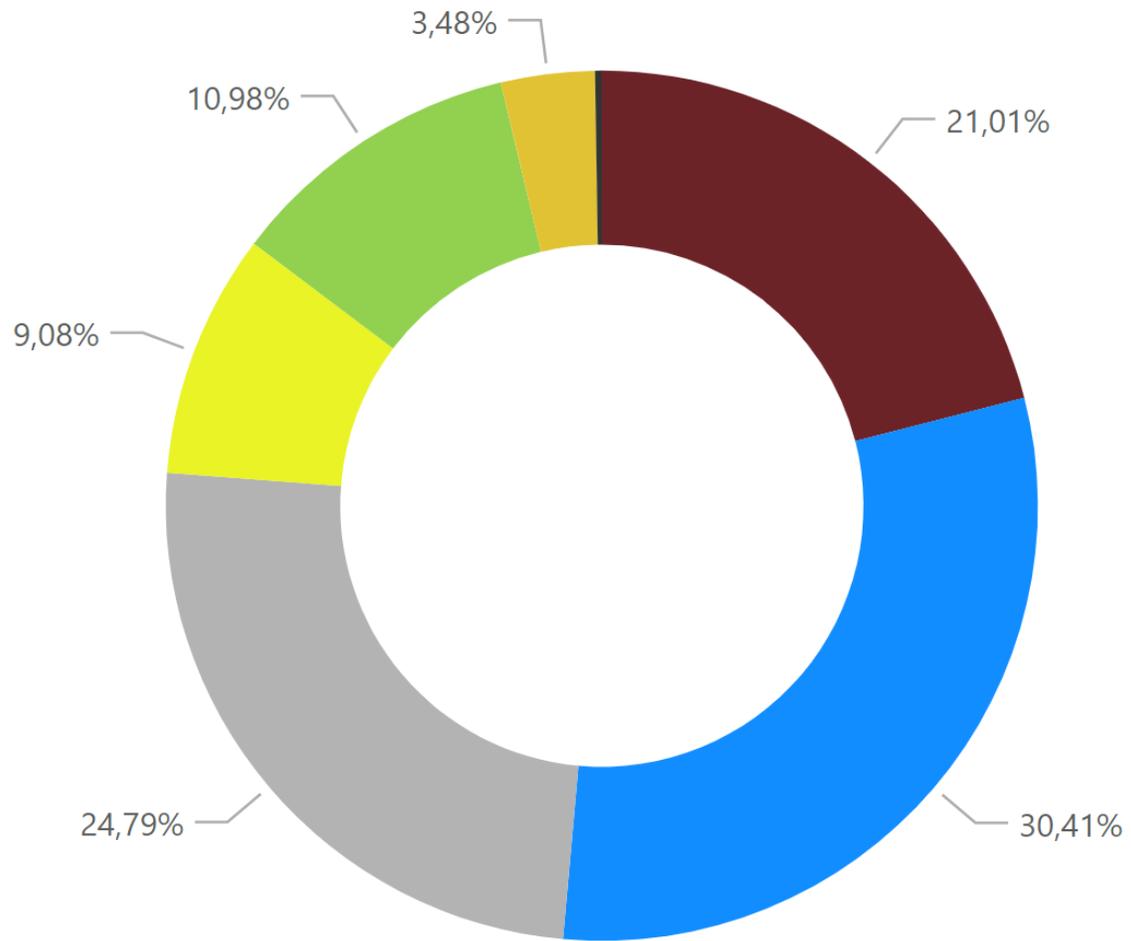
Figure 2.3 GHG Emissions and sinks by sector, 1990-2021



**Figure 2.14 Trend of total emissions from the LULUCF sector, 1990-2021**



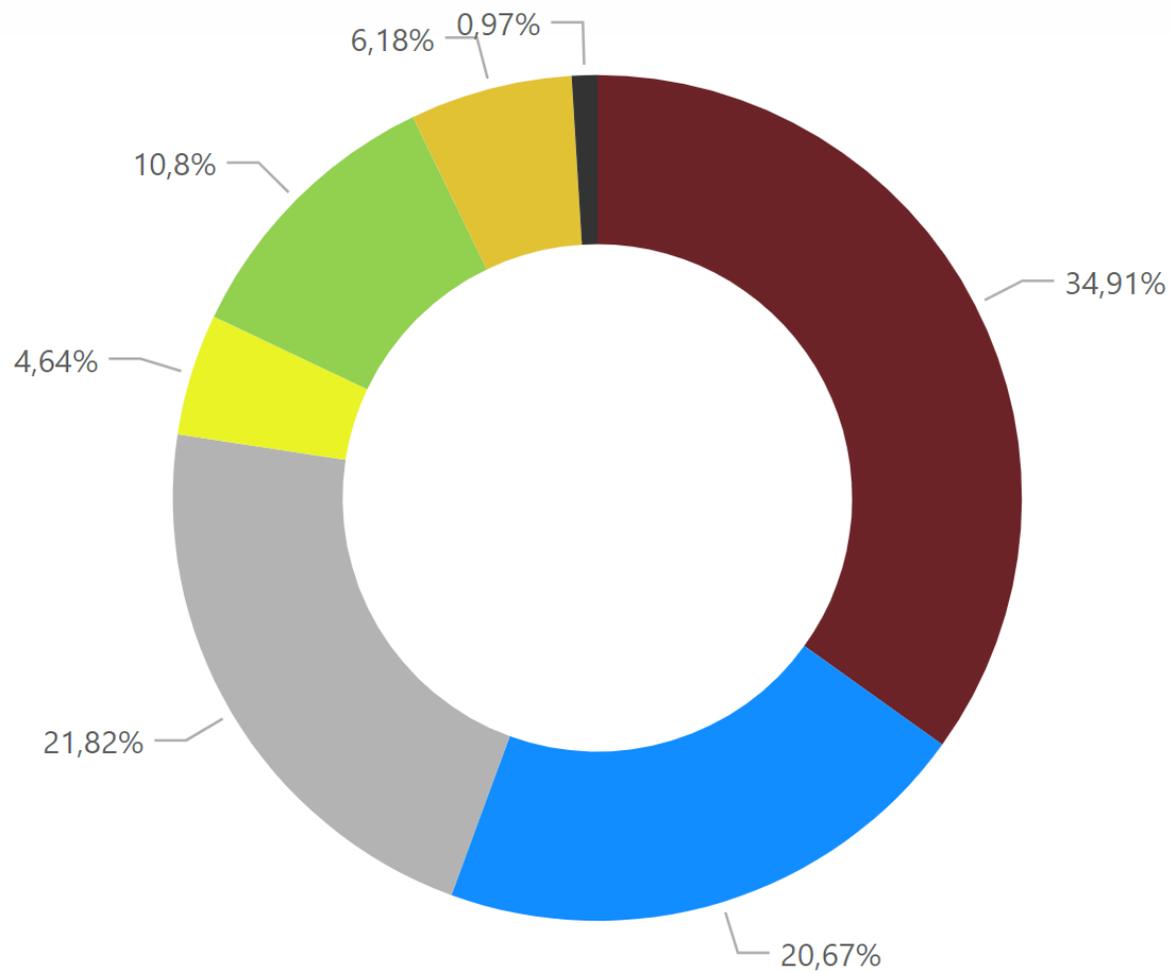
TOTAL INSTALLED POWER



Resource Groups

- Coal
- Hydropower
- Natural Gas
- Solar
- Wind
- Other Renewable Energy Sources
- Other Fossil Fuels

## TOTAL ELECTRICITY GENERATION



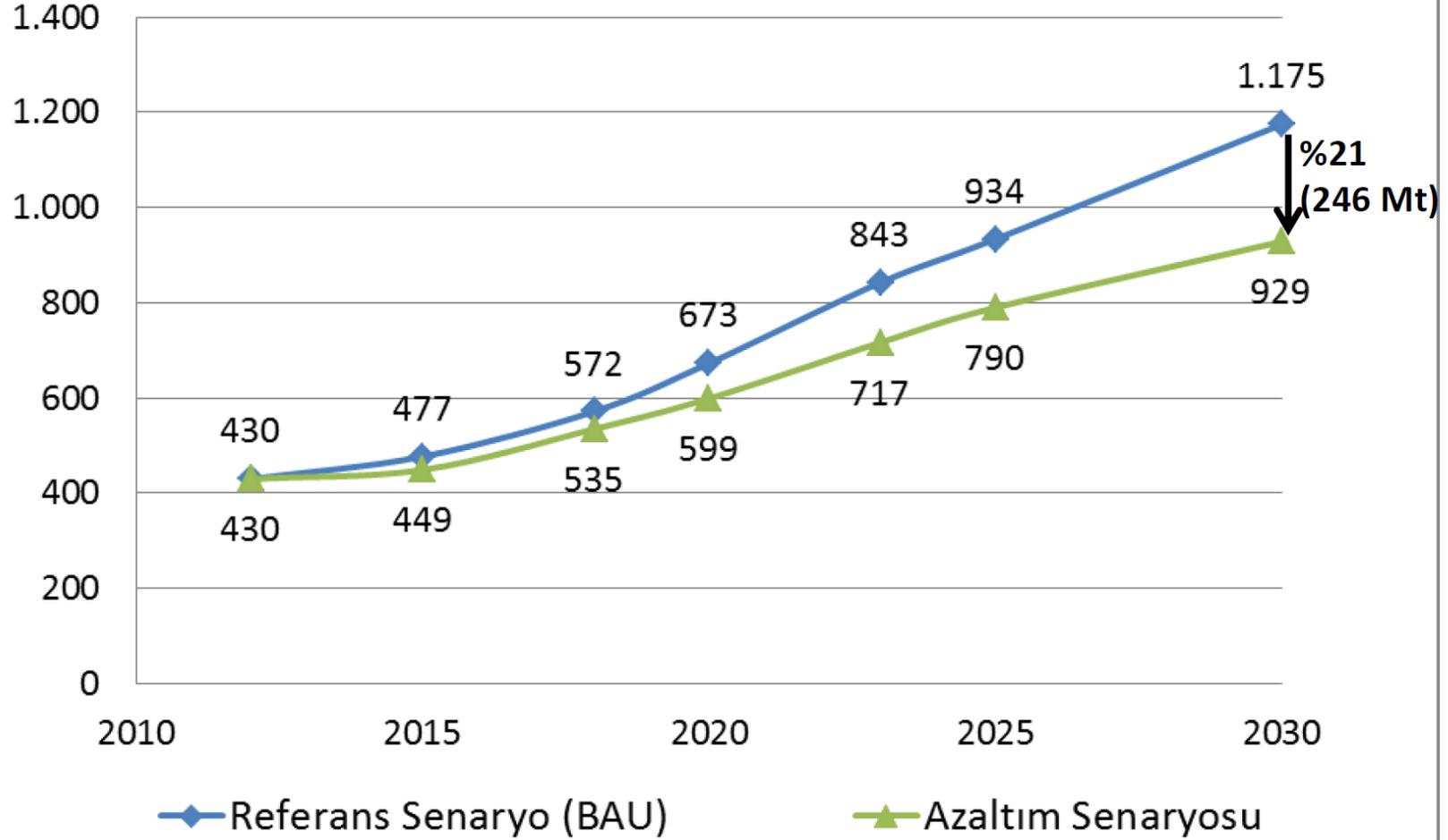
### Resource Groups

- Coal
- Hydropower
- Natural Gas
- Solar
- Wind
- Other Renewable Energy Sources
- Other Fossil Fuels

# Climate Policy in Turkey

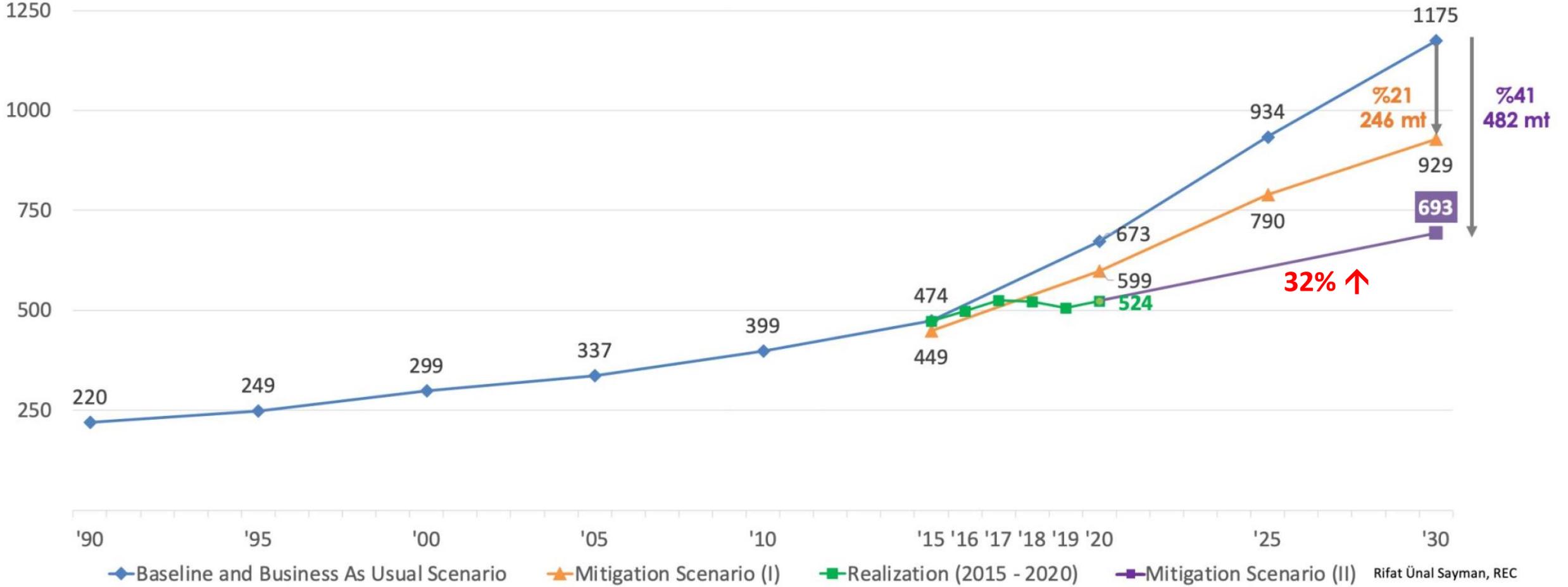
- UNFCCC ratified in 2004 – Annex I country (not Annex II)
- Kyoto Protocol ratified in 2009 – no emissions reduction commitment
- First INDC in 2015 before COP 15
- Paris Agreement ratified in 2021
  - 2053 net zero emissions pledge
  - Ministry of Environment, Urbanization, and Climate Change
  - Updated NDC in 2022
    - 41% GHG emissions reduction from BAU
    - 2038 peak year
    - Renewable energy targets
    - New railway targets
    - New ETS system

## Toplam Sera Gazı Emisyonları (Milyon Ton CO<sub>2</sub>e)



# Total GHG Emissions

million ton CO<sub>2</sub>e



# National Energy Plan Targets

## by 2030

- 33 GW of solar (9.4 GW in 2022)
- 18 GW of wind (11.4 GW in 2022)
- 35 GW of hydroelectric (31.5 GW in 2022)
- 4.8 GW of nuclear (0 in 2022)
- 2.1 GW battery and 1.9 GW electrolyzer capacity (0 in 2022)
- 20.4% REN in primary energy consumption (16.7% in 2020)

# Indicators, additional indicators

- Provincial or regional targets – difficult
- Overlooking national emissions reduction – a possibility
- Cobenefits – an important leverage
- Possible additional indicators:
  - Fossil fuel imports
  - Green investments
  - Number of new green jobs
  - Climate finance flow
  - Forest area (and other land use?)