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Bu proje Avrupa Birliđi ve Trkiye Cumhuriyeti tarafından ortak finanse edilmektedir.



GHG Emission Trends and Projections for Waste Sector

Aynur TOKEL
GHG Inventory Expert

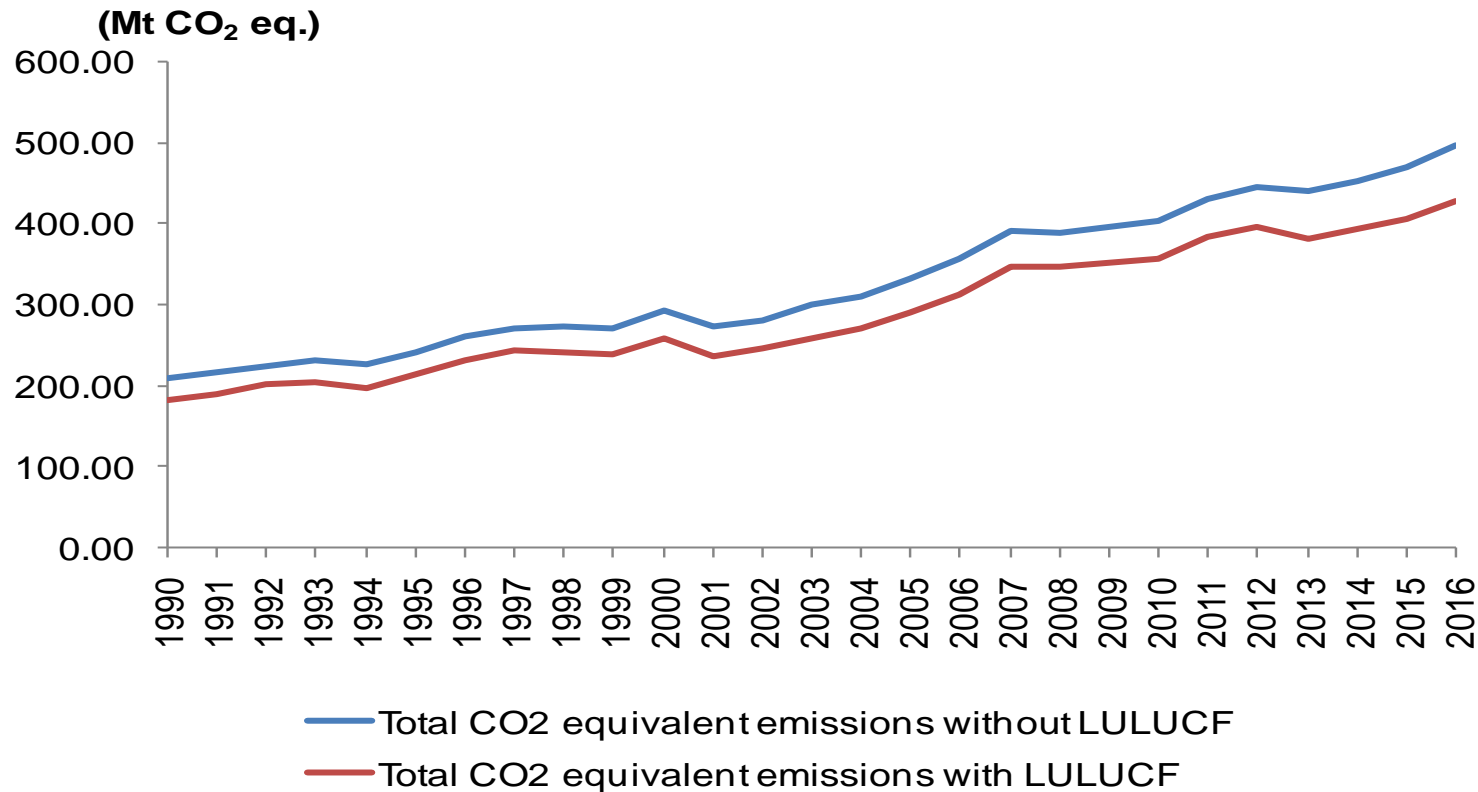
***Component 1 Dissemination Workshop
22 May 2018, Meyra Palace Hotel, Ankara***





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GHG Emissions



GHG emissions without LULUCF;

in 1990 : 210.7 Mt CO₂ eq.

in 2016 : 496.1 Mt CO₂ eq.

135.4% increase as compared to 1990 level

Source: UNFCCC National Inventory Submissions 2018



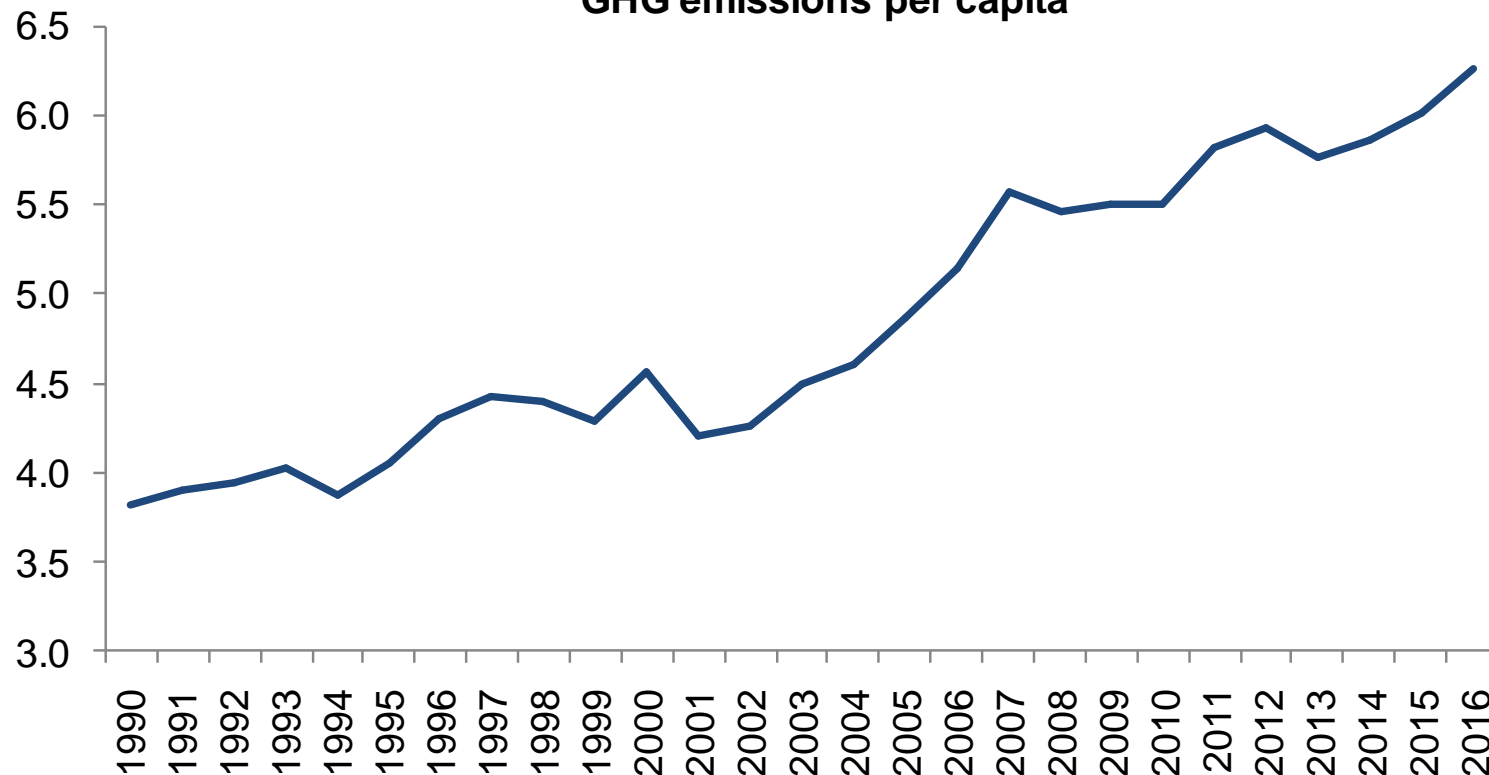


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GHG Emissions

(tonnes CO₂-eq./capita)

GHG emissions per capita



GHG emissions per capita;

In 1990 : 3.8 tonnes CO₂
eq/capita

In 2016 : 6.3 tonnes CO₂
eq/capita

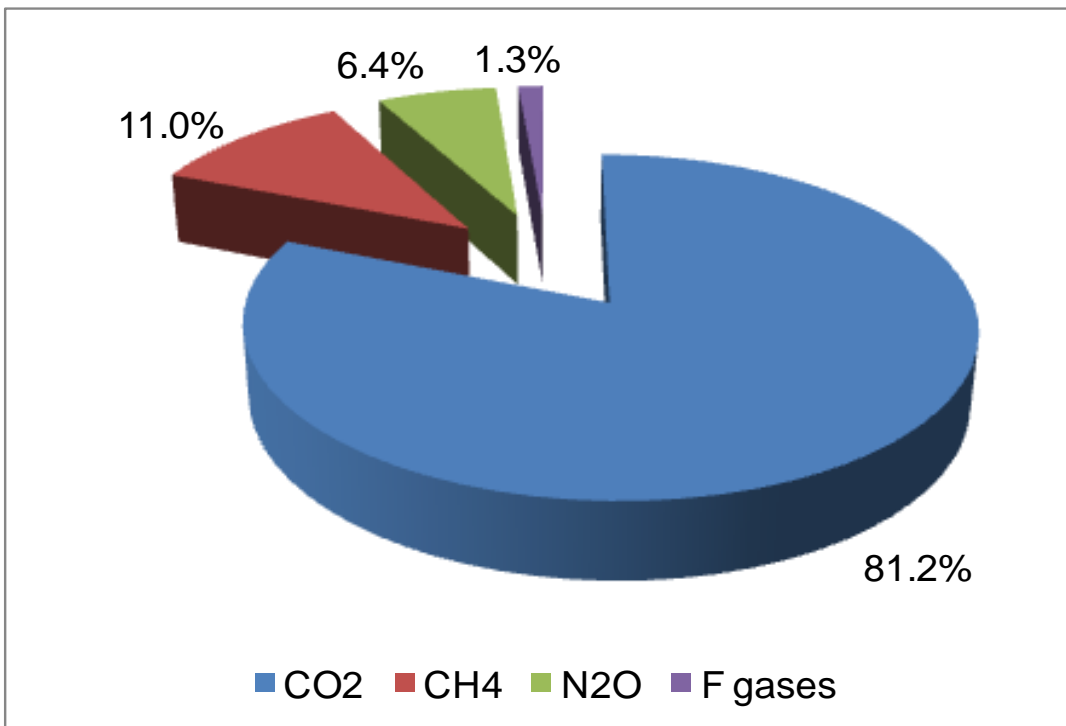
Source: UNFCCC National Inventory Submissions 2018





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GHG Emissions

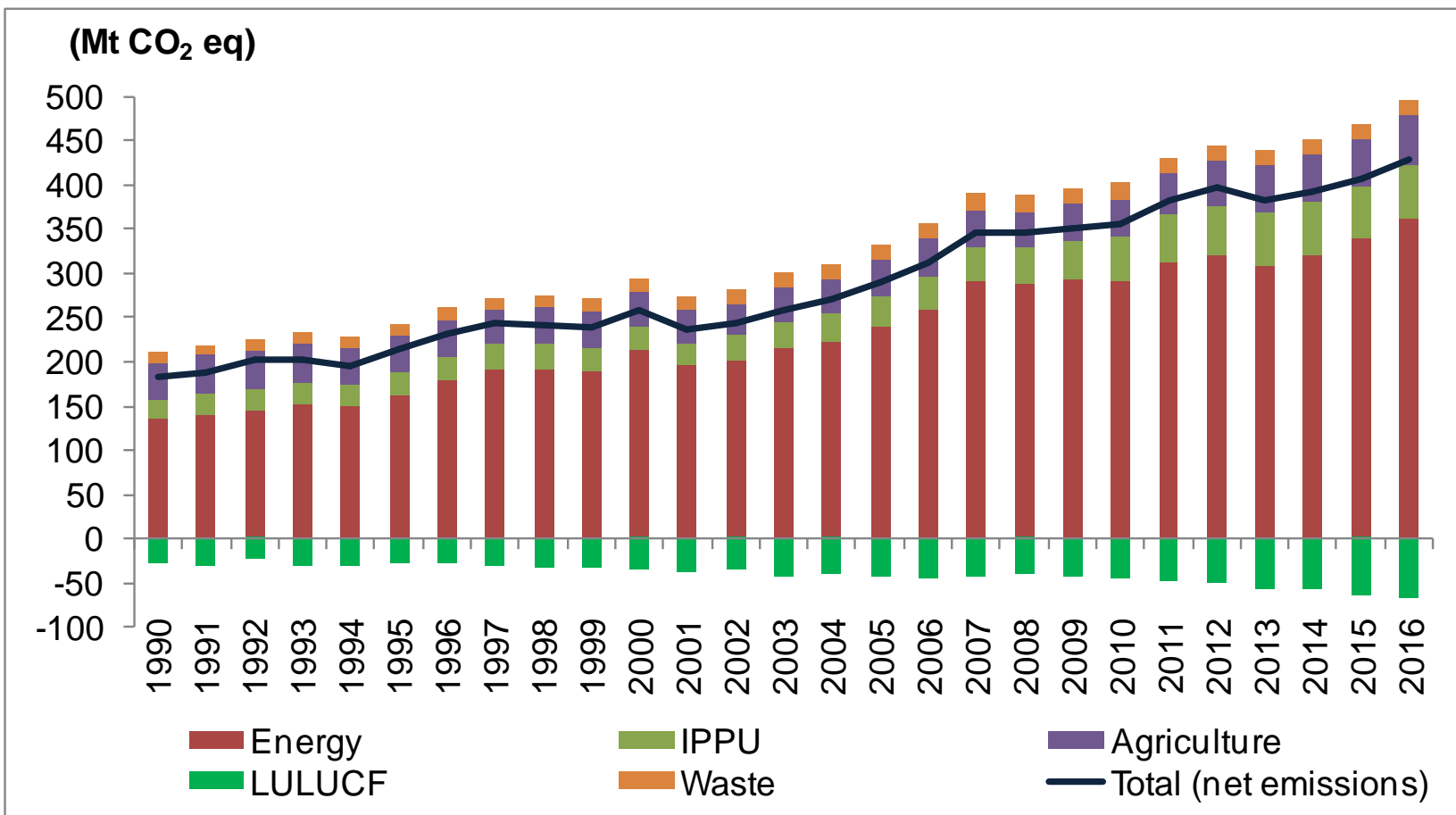


	CO ₂	CH ₄	N ₂ O	F-gases
Energy	86.1	18.6	12.1	-
IPPU	13.6	0.03	3.8	100.0
Agriculture	0.3	55.5	77.6	-
Waste	-	25.8	6.5	-



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GHG Emissions



In 2016 sectors contribution total GHG emissions;

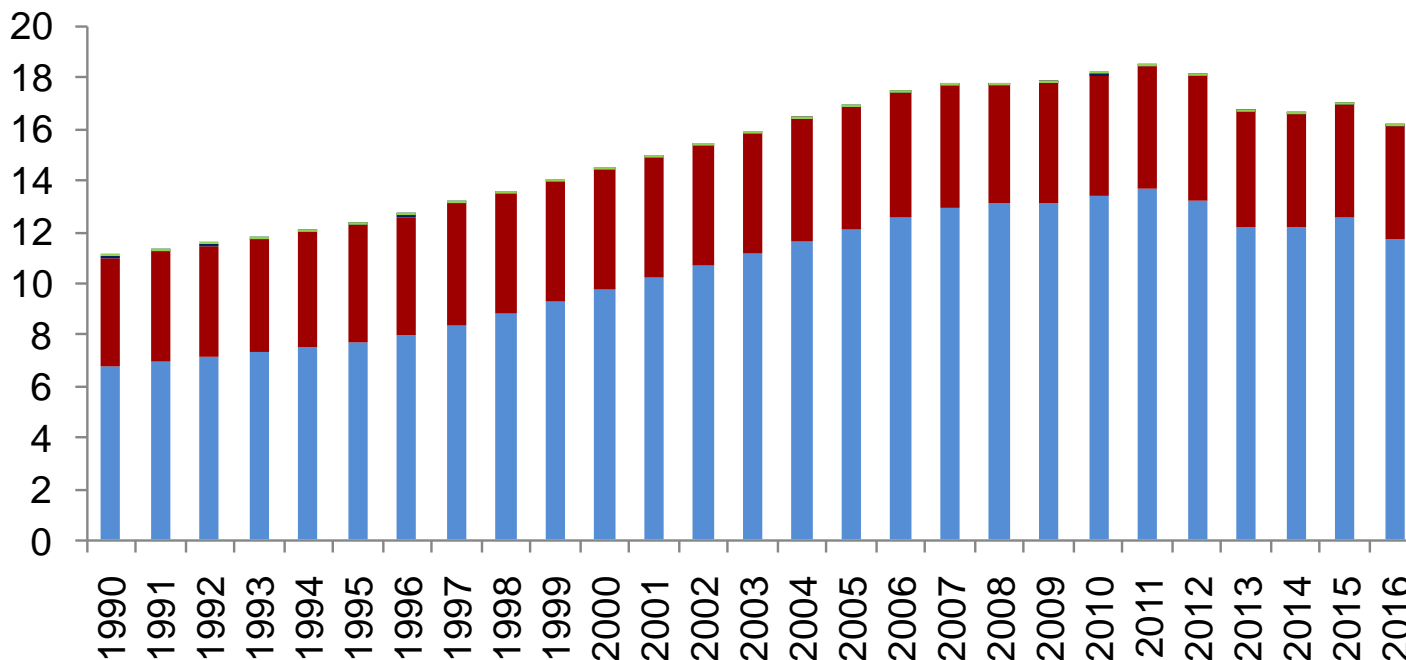
- Energy: %72.8
- Industrial Processes and Product.Use (IPPU) : %12.6
- Agriculture : %11.4
- Waste : %3.3



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GHG Emissions Waste Sector

(Mt CO₂ eq)



- Solid waste disposal
- Waste water treatment and discharge
- Incineration and open burning of waste
- Biological treatment of solid waste

GHG emissions from waste sector;

In 1990 : 11.1 Mt CO₂ eq.

In 2016 : 16.2 Mt CO₂ eq. (45.9% increase as compared to 1990 level)

In 2016 ;

CH₄ : 87.2%

N₂O : 12.8%

Waste disposal: 72.2%

Wastewater treatment and discharge: 27.7%

Open burning of waste: 0.02%

Biological treatment of waste: 0.1%

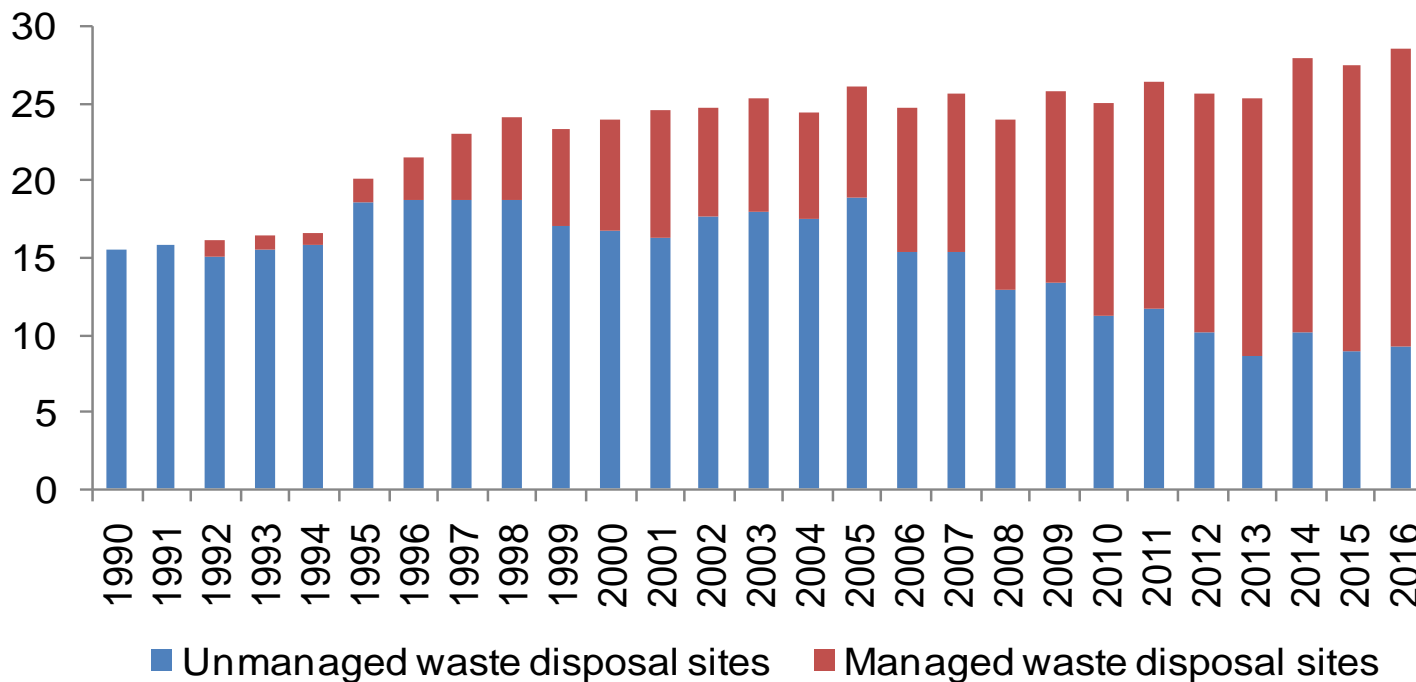


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GHG Emissions Waste Sector

(Mt)

Waste disposal at waste disposal sites



Annual waste disposal;

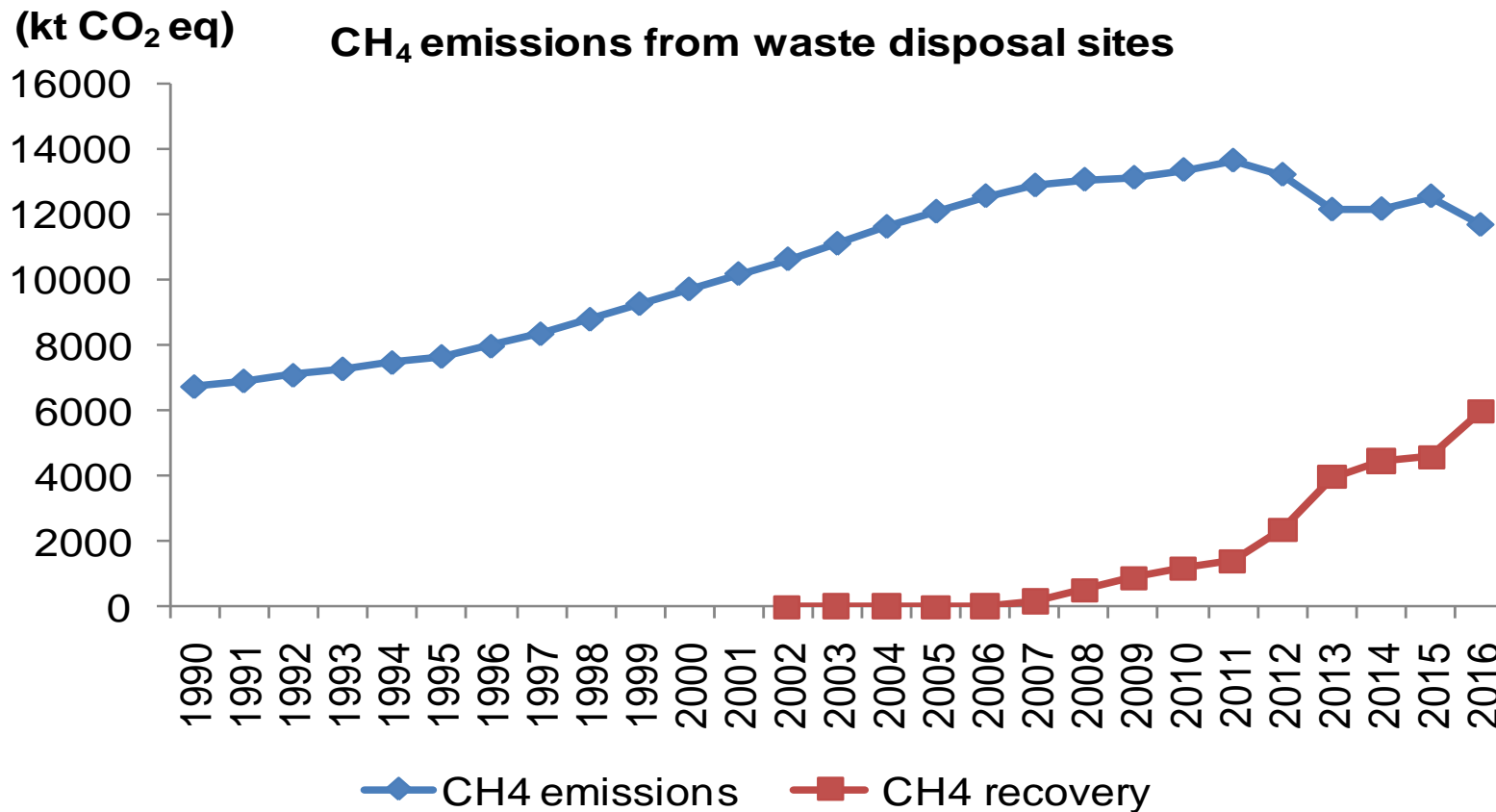
In 1990 : 15.5 Mt
(100% unmanaged)

In 2016 : 28.5 Mt
(68% managed)



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GHG Emissions Waste Sector



CH₄ emissions from waste disposal sites;

In 1990: 6.7 Mt CO₂ eq.

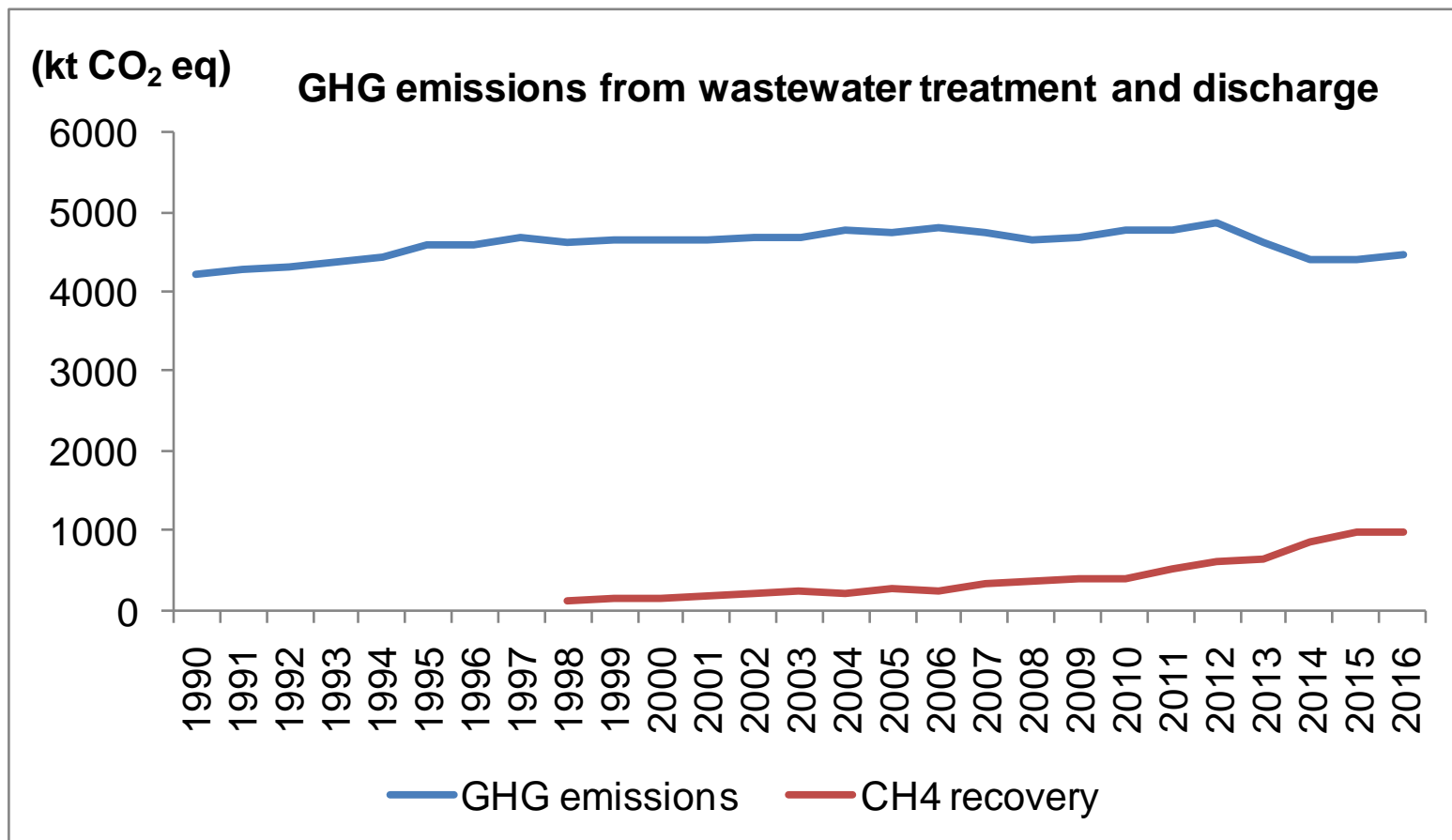
2016 yılı: 11.7 Mt CO₂ eq.

Methane recovery in 2016;
6 Mt CO₂ eq.



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GHG Emissions Waste Sector



GHG emissions from
wastewater treatment and
discharge;

In 1990: 4.2 Mt CO₂ eq.

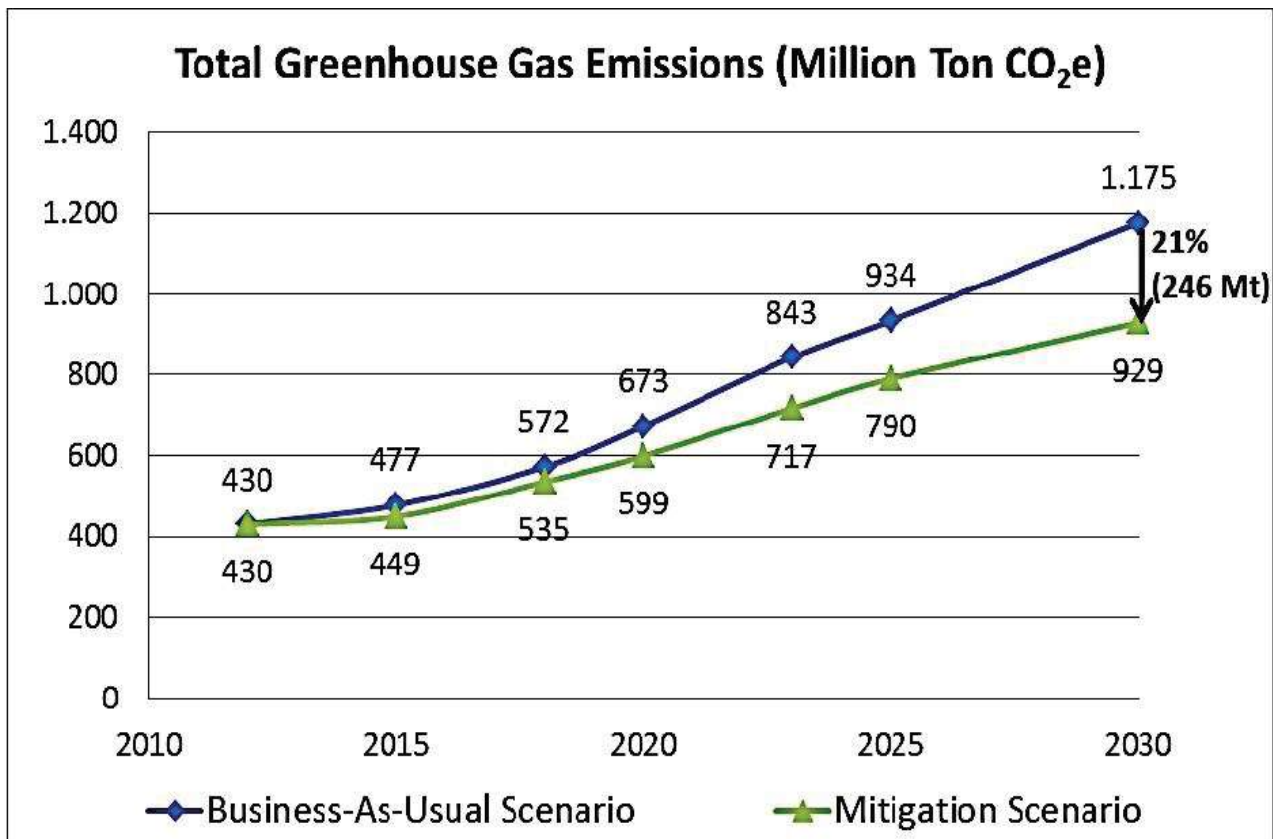
In 2016: 4.5 Mt CO₂ eq.

Methane recovery from
wastewater treatment in
2016; 1 Mt CO₂ eq.



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GHG Emission Projections



Turkey Government's official
INDC GHG target until 2030;
2030 yılında seragazi
emisyonları (AKAKDO dahil) :
With BAU scenario;
1175 Mt CO₂ eq.
With measures scenario;
929 Mt CO₂ eq.

Source: Turkey's 6th National Communication





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GHG Emission Projections

	GHG emission projections without measures scenario		GHG emission projections without measures scenario		Decrease in emissions	
	(kt CO ₂ eq)		(kt CO ₂ eq)		(%)	
	2020	2030	2020	2030	2020	2030
Energy	538 887	943 547	499 336	738 266	-7.3	-21.8
Transport	101 190	136 513	101 113	135 994	-0.1	-0.4
Industry/industrial processes	94 750	169 754	94 785	169 754	0.0	0.0
Agriculture	51 557	59 278	51 557	59 278	0.0	0.0
Waste management/waste	27 900	40 900	23 610	31 400	-15.4	-23.2
Forestry/LULUCF	-40 193	-38 698	-70 036	-69 710	74.2	80.1
Total with LULUCF	672 901	1174 781	599 252	928 987	-10.9	-20.9
Total without LULUCF	713 094	1213 479	575 642	897 587	-19.3	-26.0

Waste sector GHG emissions mitigation projection

By 2020 yılı: 4.3 Mt CO₂ eq.
(15.4% decrease)

By 2030 : 9.5 Mt CO₂ eq.
(23.2% decrease)

Source: Turkey's Third Biennial Report





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Thank you for your attention

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