

Poland

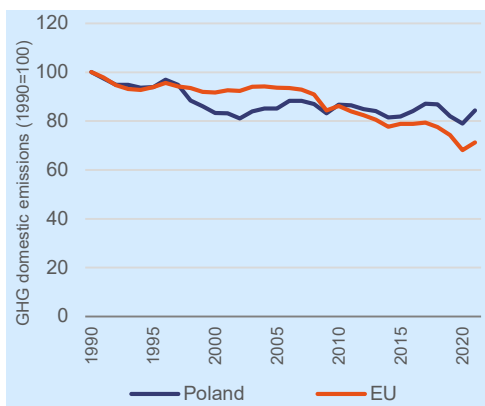
1) Key takeaways

- In 2021, GHG emissions in Poland were 2.7% above 2019 pre-pandemic levels.
- Over the same period, ETS and Effor Sharing emissions increased by 4.2% and by 0.3%, respectively.
- Net GHG emissions (i.e. including LULUCF) in 2021 were 20.1% lower than 1990 levels.
- The LULUCF sector removed 2.05 MtCO₂-eq on average per year from 2013 to 2020, based on accounting.

2) Greenhouse gas emissions



In 2021, approximated domestic greenhouse gas (GHG) emissions in Poland were 401.3 MtCO₂-eq, 6.7% higher compared to 2020 and 2.7% above pre-pandemic levels. Overall, net domestic emissions, including the Land Use, Land Use Change and Forestry (LULUCF) sector, were 20.1% lower than 1990 levels.



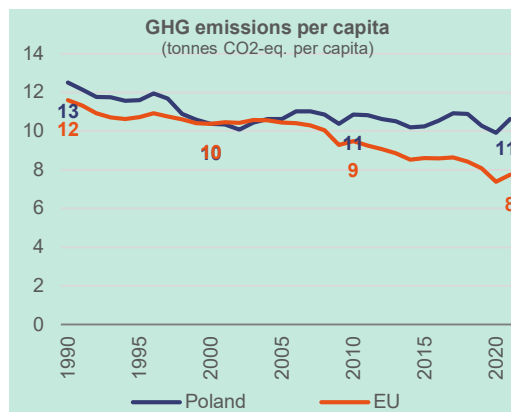
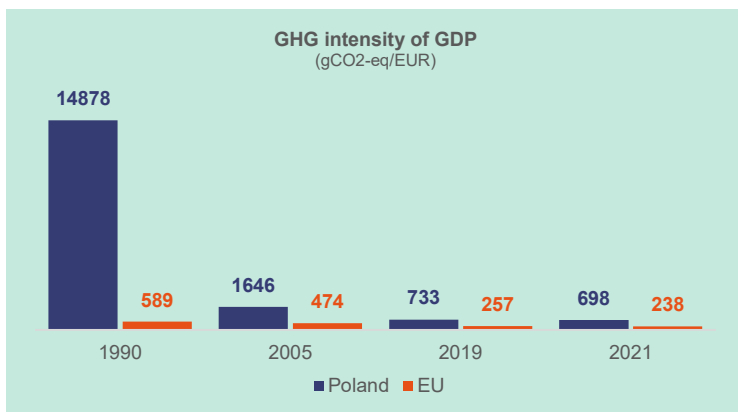
Total domestic GHG emissions

	1990 (MtCO ₂ -eq)	2005 to 1990 (% change)	2019 to 2005 (% change)	2021 to 2019 (% change)	2021 to 1990 (% change)
Poland	476	-15%	-4%	3%	-16%
EU	4847	-6%	-21%	-4%	-29%

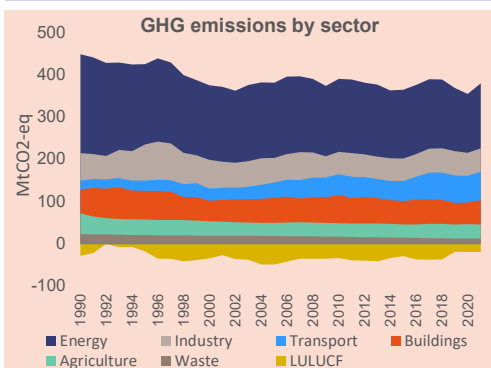
Total net domestic GHG emissions (including LULUCF)

Poland	446	-25%	-9%	-3%	-20%
EU	4633	-13%	-26%	-10%	-33%

Note: GHG emissions and removals for 1990-2020 are based on data submitted by EU Member States to the UNFCCC under Regulation (EU) No 525/2013. Figures may change following resubmissions. GHG emissions for 2021 are based on approximated GHG inventories.



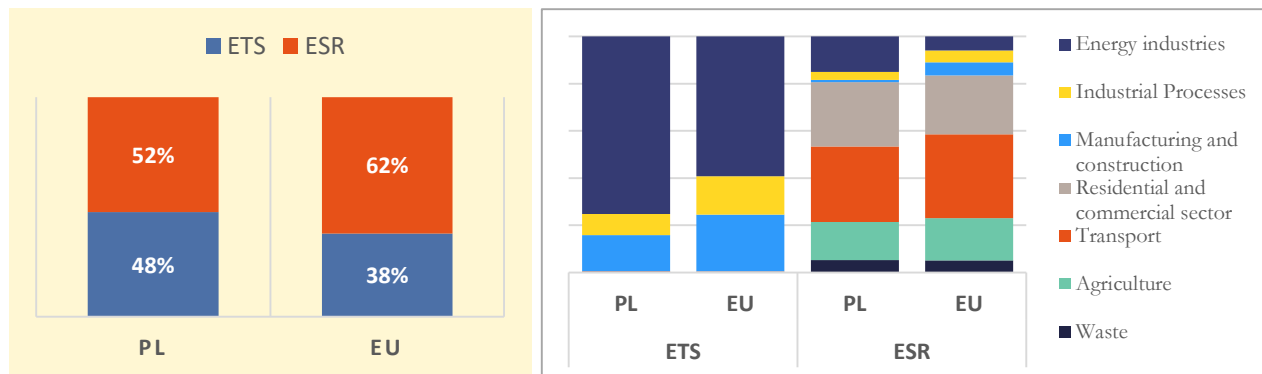
3) Greenhouse gas emissions by sector



	1990 (MtCO ₂ -eq)	2005 to 1990 (% change)	2019 to 2005 (% change)	2021 to 2019 (% change)	2021 to 1990 (% change)
Energy	235.4	-24%	-16%	3%	-34%
Industry	65.4	-10%	-3%	-3%	-15%
Transport	20.8	75%	82%	3%	229%
Buildings	56.9	4%	-15%	13%	0%
Agriculture	49.4	-35%	3%	3%	-32%
Waste	21.5	-22%	-31%	-3%	-48%
LULUCF	-30.2	66%	-59%	4%	-30%
International aviation	0.6	43%	249%	-58%	111%

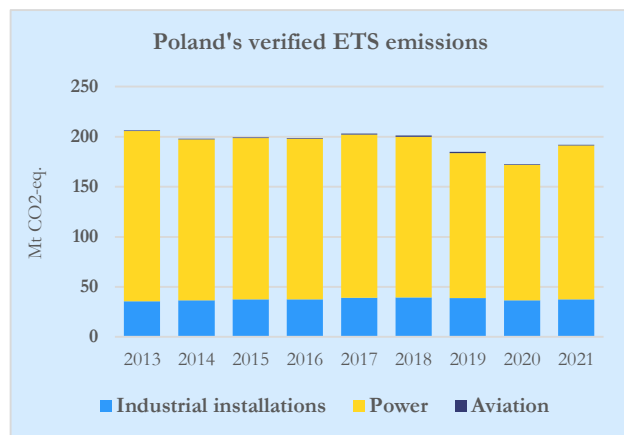
Notes: (1) Energy sector refers to electricity and heat production and petroleum refining. (2) Industry includes fuel combustion in manufacturing and construction and emissions in industrial processes and product use. (3) Buildings include emissions from energy use in residential and tertiary buildings, and energy use in agriculture and fishery sectors.

In 2021, the highest contribution to net GHG emissions in Poland came from the Energy sector (43%), followed by the Transport sector (19%) and the Buildings sector (16%). Emissions from sectors under the Effort Sharing Regulation (ESR) were 52% compared to 62% for the EU as a whole (see shares in the charts below).



4) Emissions under the EU Emissions Trading System (ETS)

In 2021, stationary installations (e.g. power generation and manufacturing industry) in Poland emitted 191.5 million tonnes of CO₂-eq emissions (equal to 48% of Poland's total GHG emissions). This is 11.5% higher compared to 2020 and 4.2% above pre-pandemic levels. By 2021, emissions from stationary installations were down by 6.9% against 2013 level (i.e. -13.5% to 2005 levels). Aviation emissions covered by the EU ETS were 16.0% higher compared to 2020 but 54.6% below 2019 level.



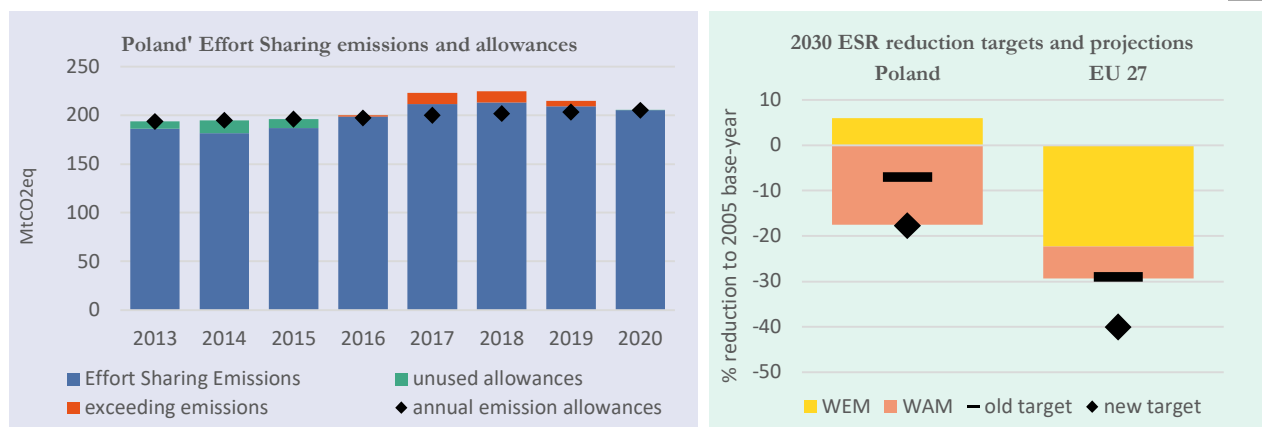
In parallel, Poland has raised over EUR 13.6 billion in auction revenues since 2013, available for further climate action and energy transformation. Poland reported that an average of 50% of revenues was spent for climate and energy purposes over the same period. (*)

Mt CO ₂ -eq	2013	2020	2021
Power installations	170.2	134.9	153.8
% change since 2013	-	-20.7%	-9.6%
Industrial installations	35.5	36.8	37.7
% change since 2013	-	3.5%	6.1%
Aviation (**)	0.62	0.43	0.50
% change since 2013	-	-30.4%	-19.2%

(*) Revenues are not earmarked, example projects have been reported for around 50% of revenues each year.

(**) ETS emissions from aviation include flights within the European Economic Area (EEA) and outgoing flights to Switzerland and to the UK.

5) Emissions in Effort Sharing sectors



Note: (1) Verified emissions based on annual inventory review under the Effort Sharing Decision (ESD). (2) Projections as reported by Member States under Reg. (EU) 2018/1999, compiled and checked by the EEA. (3) ESR base-year emissions and targets have been approximately converted into GWP AR4 for comparability. For these reasons, the distances to targets for 2030 are provided for illustrative purposes only (4) WEM = with existing measures, WAM = with additional measures.

In 2021, effort sharing approximated emissions in Poland were 209.7 MtCO₂eq (equal to 52% of Poland's total GHG emissions), 2.3% higher than in 2020 and 0.3% higher than 2019 pre-pandemic level.

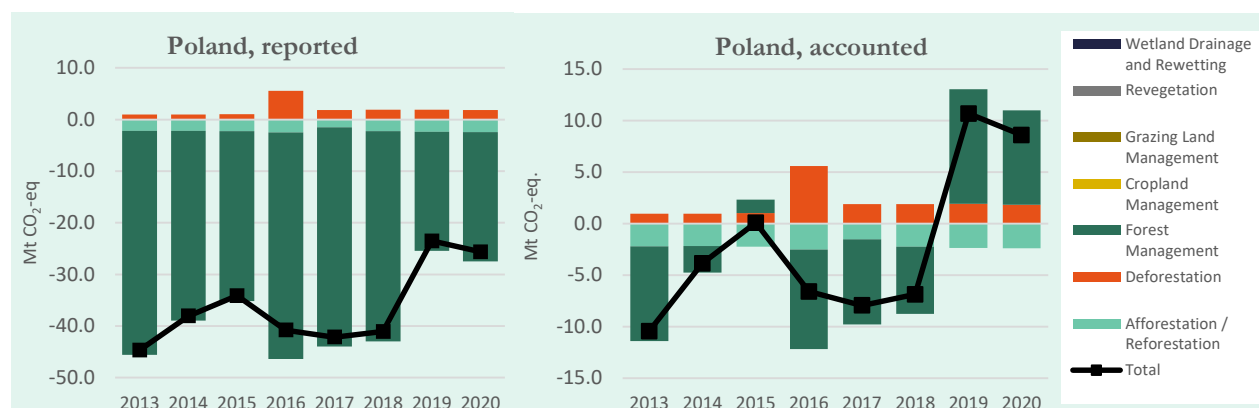
Between 2013 and 2019, Poland exceeded its annual emission allocations (AEAs) 4 times. However, Poland complied with the Effort Sharing Decision by making use of the flexibilities provided therein.

In 2020, effort sharing emissions in Poland were below the annual limit.

6) Land Use, Land Use Change and Forestry (LULUCF)



Reported quantities under the Kyoto Protocol for Poland show net removals of -36.3 Mt CO₂-eq on average per year for the period 2013 to 2020. In this regard, Poland contributes with 11.3% to the annual average sink of -320.2 Mt CO₂-eq of the EU-27. Accounting for the same period depicts net credits of, on average, -2.0 Mt CO₂-eq, which corresponds to 2.5% of the EU-27 accounted sink of -83.4 Mt CO₂-eq. Reported net removals and accounted net credits decrease between 2013 and 2015, followed by an increase until 2018 and then sharply drop in 2019, resulting in net debits for 2019 and 2020.



Notes: (1) Charts based on the submissions delivered until May 2022. (2) Data reported for the period 2013-2020, for mandatory and elected LULUCF activities, were submitted by Member States to the European Environment Agency (EEA) and underwent a simulated accounting process developed by the Joint Research Centre (JRC), together with DG CLIMA. (3) Reported data represent the gross annual flux of greenhouse gas from the sector, by activity, according to the IPCC methods for calculation in the framework of the Kyoto Protocol (KP). Accounting is aimed at assessing the impact of policies on climate actions on the actual data, for example as an increase in the sink within the Forest Management activity. (4) The simulated accounting process does not take into account any adjustments or flexibilities that a Member State may apply, for example the purchase of KP credits.

The dominating reported activity is Forest Management with removals. Removals by Afforestation/Reforestation are small and emission by Deforestation negligible except for 2016 with emissions of 5.6 Mt CO₂-eq. This increase is the result of large conversions of forest to settlement for expanding infrastructures. Removals by Forest Management decrease between 2013 and 2015 by 10.5 Mt CO₂-eq, followed by a moderate increase in 2016. Between 2018 and 2019 credits by Forest Management sharply declined by more than 50% followed by a slight increase in 2020. The decreasing removals from 2013 to 2015 relates to a reported increase in harvests, and the decrease in 2018-2019 is due to extreme events such as drought, pests and windbreaks.

Credits by Forest Management are the biggest accounting quantity in most years; in 2019 and 2020 Forest Management, following the decrease in removals, results in debits. Credits by Afforestation/Reforestation are moderate, and debits by Deforestation negligible except for 2016.

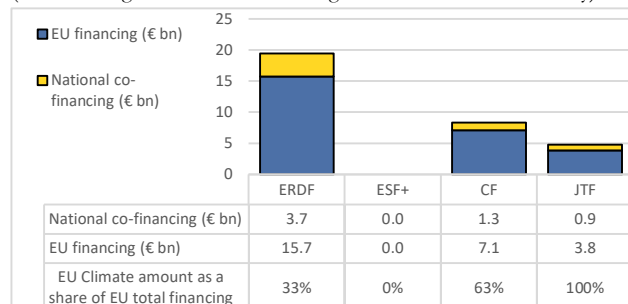
7) Financing Climate Action



Cohesion policy

Poland's Planned Financing for Climate Actions

(EU financing & national co-financing - 2021-2027 Cohesion Policy)



The chart presents information on investment plans and achievement targets from adopted programmes. Financing for cohesion policy uses a categorisation to provide thematic information on the finances planned.

Source: <https://cohesiondata.ec.europa.eu/>

Innovation and Modernisation Fund

Innovation Fund (Portfolio of signed projects)

	n.	EUR million
Small Scale Projects	2	8.9
Large Scale Projects	2	303.7

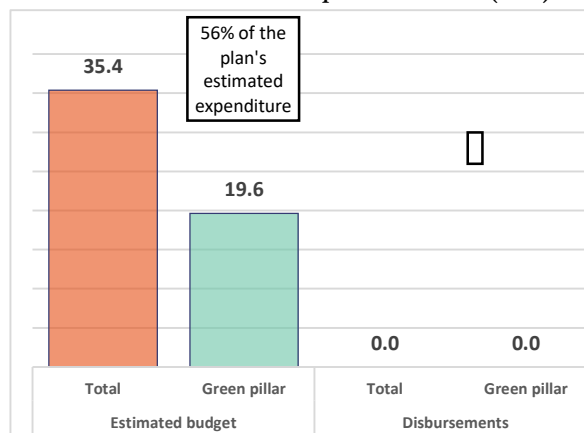
Modernisation Fund n. EUR million

(List of confirmed or approved investment proposals)	19	990
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Recovery & Resilience Facilities

RRF allocations (EUR billion)	Grants:	Loans:	% of GDP
	23.85	11.51	6.2

RRF contribution to the Green pillar in Poland (€ bn)



This graph displays: 1) the estimated cost of measures attributed by the Commission, in consultation with the Member State, to the green pillar either as primary or secondary assignments; and 2) how disbursements under the RRF (excluding pre-financing) relate to the green pillar.

Source: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html?lang=en