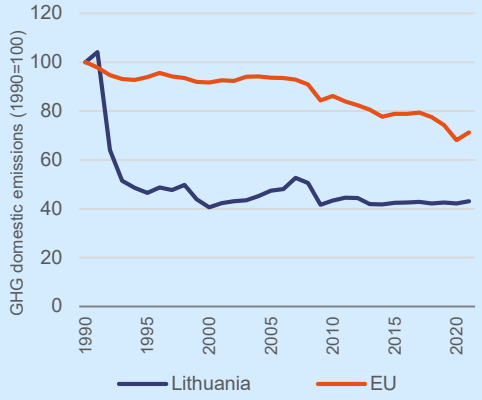
Lithuania

1) Key takeaways

- In 2021, GHG emissions in Lithuania were 1.2% above 2019 pre-pandemic levels.
- Over the same period, ETS and Effor Sharing emissions decreased by 1.5% and increased by 2.3%, respectively.
- Net GHG emissions (i.e. including LULUCF) in 2021 were 69.9% lower than 1990 levels.
- The LULUCF sector removed 1.07 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 Lithuania were 20.6 MtCO2-eq, 2.1% higher compared to 2020 and 1.2% above pre-pandemic levels. Overall, net domestic emissions, including the Land Use, Land Use Change and Forestry (LULUCF) sector, were 69.9% lower than 1990 levels.



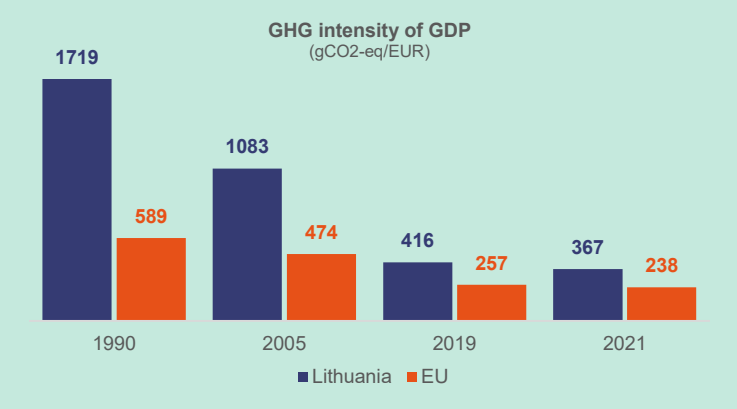
Total domestic GHG emissions

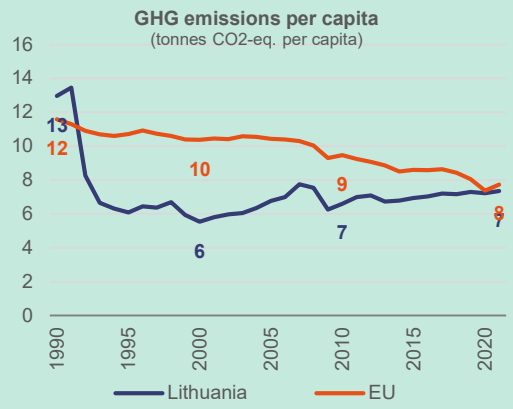
	1990 (MtCO2-eq)	2005 to 1990 (% change)	2019 to 2005 (% change)	2021 to 2019 (% change)	2021 to 1990 (% change)
Lithuania	48	-53%	-10%	1%	-57%
EU	4847	-6%	-21%	-4%	-29%

Total net domestic GHG emissions (including LULUCF)

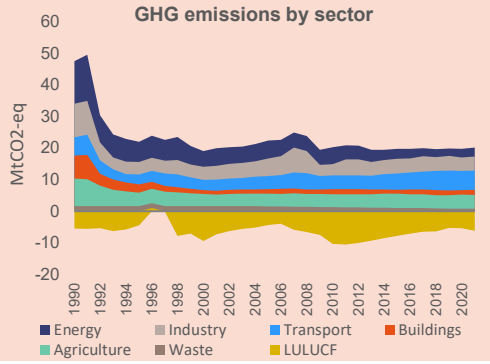
Lithuania	42	-62%	-34%	-29%	-70%
EU	4633	-13%	-26%	-10%	-33%

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.





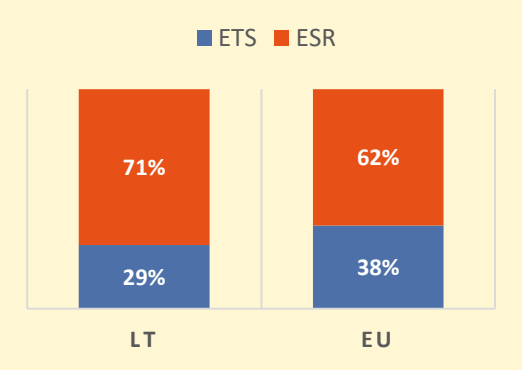
3) Greenhouse gas emissions by sector

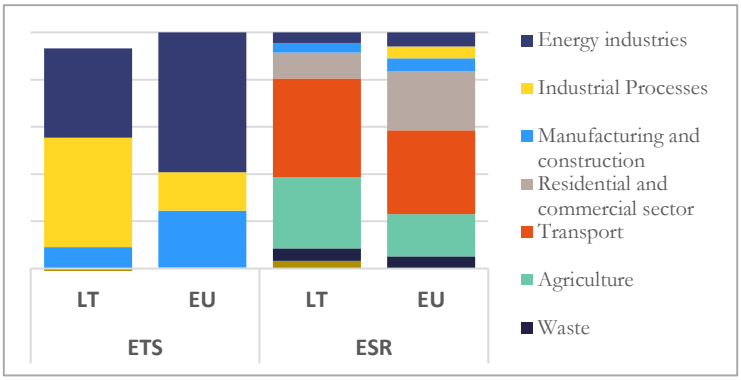


	1990 (MtCO2-eq)	2005 to 1990 (% change)	2019 to 2005 (% change)	2021 to 2019 (% change)	2021 to 1990 (% change)
Energy	13.6	-58%	-60%	22%	-79%
Industry	10.6	-48%	-15%	-5%	-58%
Transport	5.8	-28%	50%	-3%	5%
Buildings	7.3	-81%	5%	7%	-79%
Agriculture	8.8	-54%	5%	4%	-50%
Waste	1.5	-3%	-43%	-7%	-49%
LULUCF	-5.5	-21%	21%	17%	12%
International aviation	0.4	-65%	166%	-50%	-54%

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.

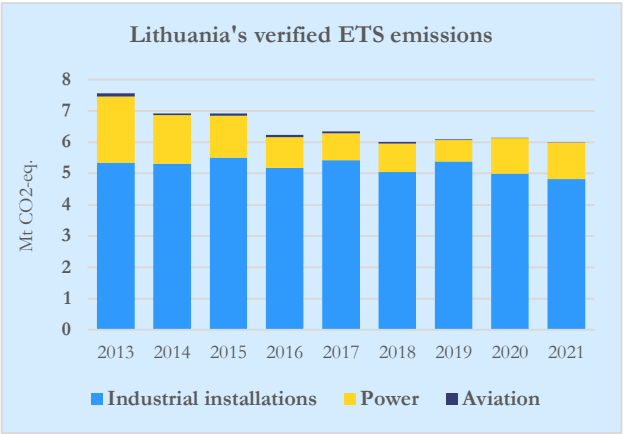
In 2021, the highest contribution to net GHG emissions in Lithuania came from the Transport sector (44%), followed by the Industry sector (32%) and the Agriculture sector (31%). Emissions from sectors under the Effort Sharing Regulation (ESR) were 71% compared to 62% for the EU as a whole (see shares 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 Lithuania emitted 6.0 million tonnes of CO2-eq emissions (equal to 29% of Lithuania's total GHG emissions). This is 2.6% lower compared to 2020 and 1.5% below pre-pandemic levels. By 2021, emissions from stationary installations were down by 19.9% against 2013 level (i.e. -48.2% to 2005 levels). Aviation emissions covered by the EU ETS were 107.1% higher compared to 2020 but 18.0% below 2019 level.



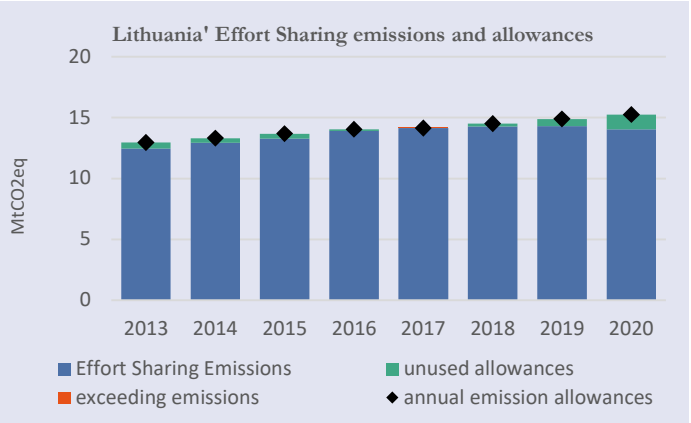
In parallel, Lithuania has raised over EUR 0.5 billion in auction revenues since 2013, available for further climate action and energy transformation. Lithuania reported that an average of 100% of revenues was spent for climate and energy purposes over the same period.(*)

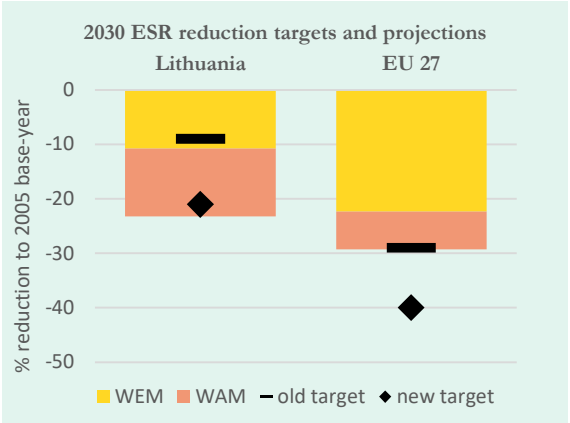
Mt CO2-eq	2013	2020	2021
Power installations	2.1	1.1	1.2
% change since 2013	-	-46.2%	-45.8%
Industrial installations	5.3	5.0	4.8
% change since 2013	-	-6.5%	-9.6%
Aviation (**)	0.10	0.01	0.02
% change since 2013	-	-92.0%	-83.5%

(*) Revenues are put in a Climate Change fund that is only for climate action and only funded by auctioning revenues, and spent on climate and energy projects

(**) 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.

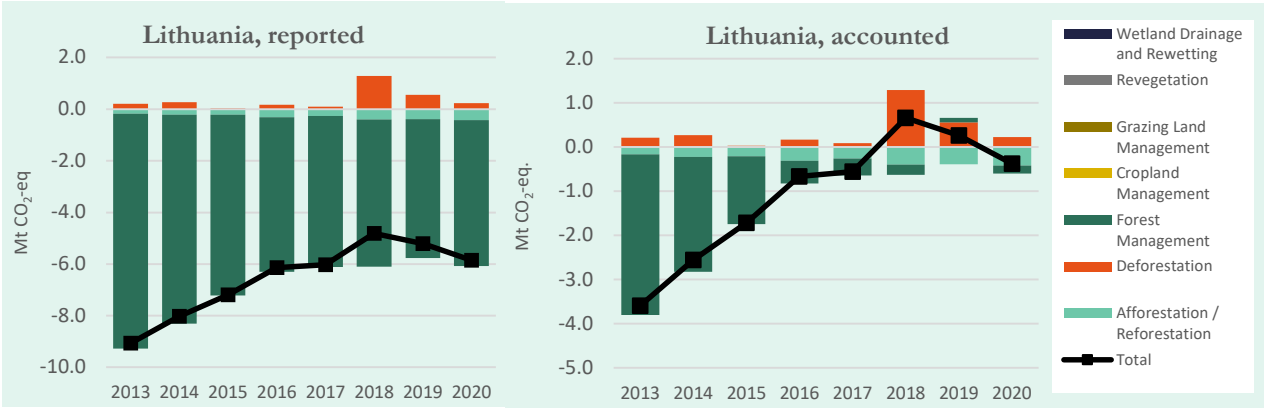
In 2021, effort sharing approximated emissions in Lithuania were 14.6 MtCO2eq (equal to 71% of Lithuania's total GHG emissions), 4.2% higher than in 2020 and 2.3% higher than 2019 pre-pandemic level.

Between 2013 and 2019, Lithuania exceeded its annual emission allocations (AEAs) 1 times. However, Lithuania complied with the Effort Sharing Decision by making use of the flexibilities provided therein.

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

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

Reported quantities under the Kyoto Protocol for Lithuania show net removals of -6.5 Mt CO2-eq on average per year for the period 2013 to 2020. In this regard, Lithuania contributes with 2.0% to the annual average sink of -320.2 Mt CO2-eq of the EU-27. Accounting for the same period depicts average annual net credits of -1.1 Mt CO2-eq, which represents 1.3% of the EU-27 accounted sink of -83.4 Mt CO2-eq. Reported net removals show a sharply decreasing trend between 2013 to 2018. The same trend is shown for accounted net credits between 2013 and 2017 becoming net debits in 2018 and 2019 but reversing to net credits for 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.

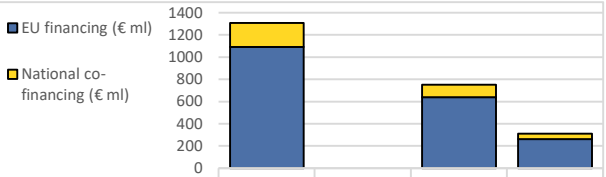
The dominating reported activity is Forest Management with removals. Removals by Afforestation/Reforestation are small. Emissions by Deforestation are negligible except for 2018 and to a lesser extent 2019 and 2020. Removals by Forest Management decrease markedly from -9.1 Mt CO2-eq in 2013 to -5.7 Mt CO2-eq in 2020. The driver for this development is an increase in harvests. Emissions by Deforestation depict a notable increase in 2018.

Forest Management provides the main accounting contribution with credits between 2013 and 2017 Debits by Deforestation are relatively small except for year 2018; credits by Afforestation/Reforestation only play a minor role. The trend in net accounted quantities is explained by the Forest Management term, which became a debit for 2019 reverting to a small credit in 2020; for 2018 this trend was continued by increasing debits by Deforestation. Overall, however, the trend is towards accounted debits.

7) Financing Climate Action

Cohesion policy

Lithuania's Planned Financing for Climate Actions
(EU financing & national co-financing - 2021-2027 Cohesion Policy)



	ERDF	ESF+	CF	JTF
National co-financing (€ ml)	216	0	113	46
EU financing (€ ml)	1091	0	639	263
EU Climate amount as a share of EU total financing	31%	0%	52%	100%

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)

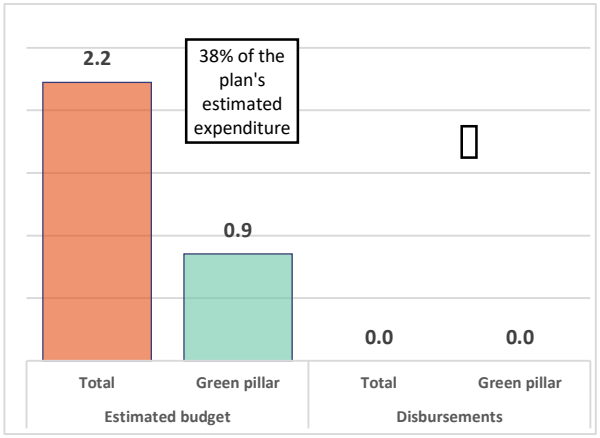
	n.	EUR million
Small Scale Projects	-	-
Large Scale Projects	-	-

Modernisation Fund	**n.**	**EUR million**
(List of confirmed or approved investment proposals)	non-beneficiary	

Recovery & Resilience Facilities

RRF allocations (EUR billion)	**Grants:**	**Loans:**	**% of GDP**
	2.22	-	**4.0**

RRF contribution to the Green pillar in Lithuania (€ 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