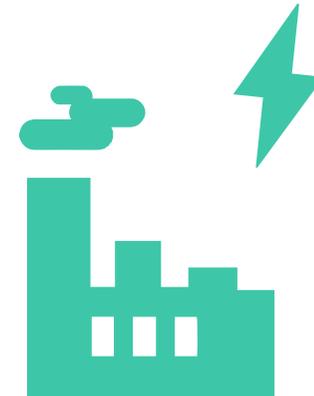


# National Energy and Climate Plans Tracker

## MAIN COUNTRY TAKEAWAYS

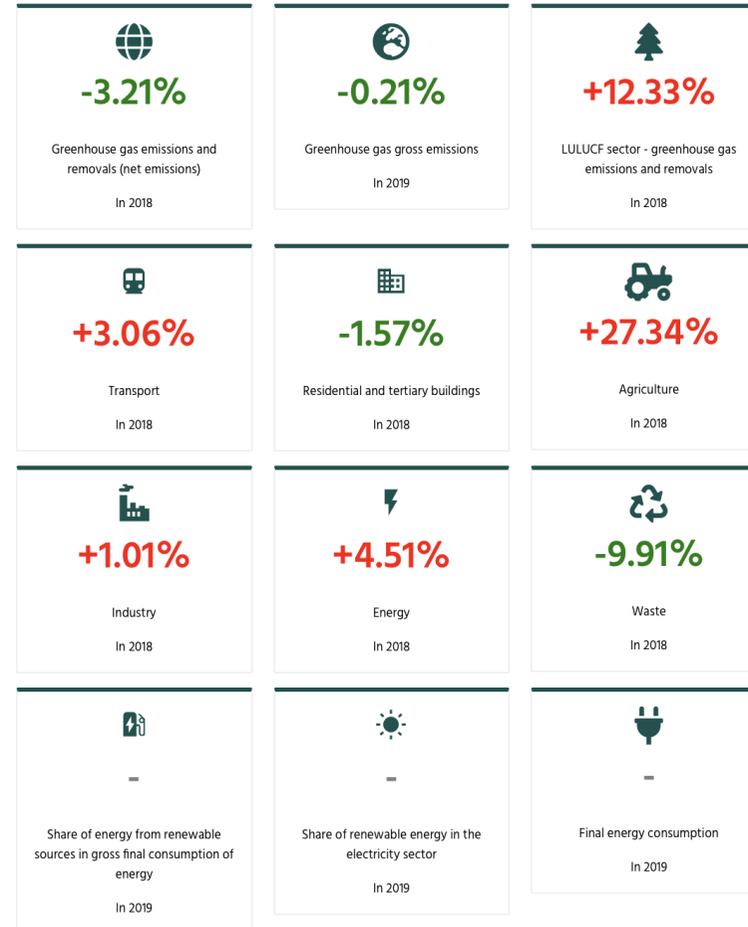


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# Croatia

The total GHG emissions in Croatia, excluding sinks, in 2018 amounted to 23,793 kt CO<sub>2</sub>e. This is a reduction in emissions by 25.4% compared to emissions in 1990. GHG emissions are in line with the trajectory set by Croatian NECP. Critical sectors seem to be the transport and waste sector which emissions have been increasing since 1990. Total sinks from the LULUCF sector were estimated at 5,094 ktCO<sub>2</sub>e (21.4 % of total GHG emissions), but this sink is expected to decrease in the future.

Final energy consumption in 2019 was 299.8 PJ which is above the target set by NECP for 2020. In regards to the share of RES in the energy sector, Croatia is on track with its NECP targets, primarily due to the high biomass consumption for heating in the household sector and high share of large HPP in electricity production. In 2019, RES share of the total electricity generation was 20.7%, excluding large HPP. Share of wind was 55.7%, while solar contributed only 3.1%.

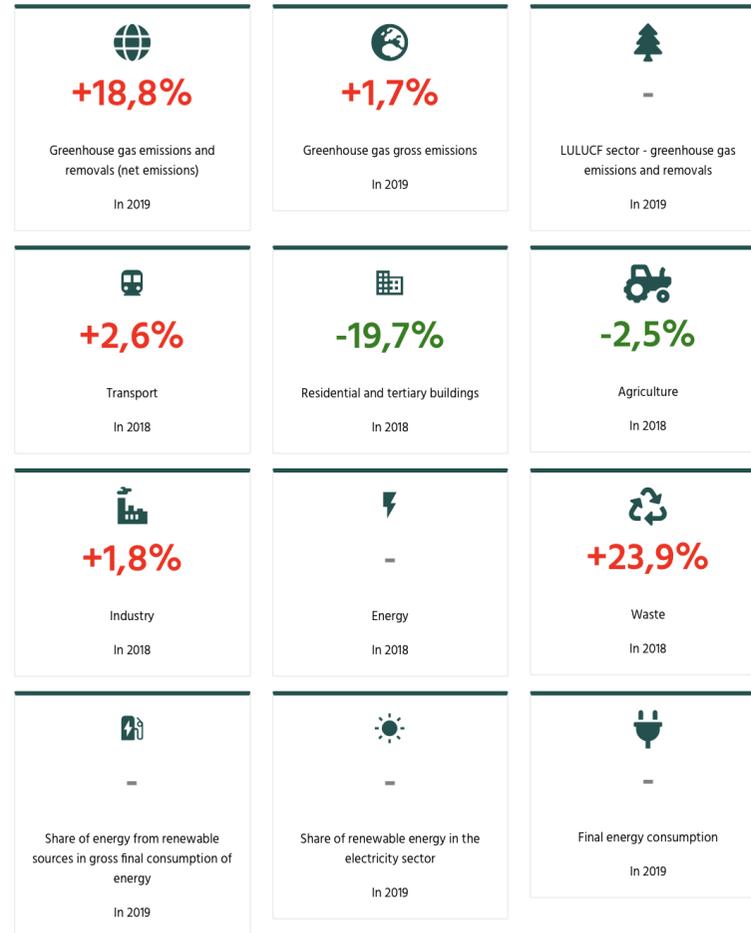


# Czechia

Czechia's overall emissions have been declining steadily over the past 30 years as a result of the country's deep economic transformation of the early 1990s. However, there are several sectors that have been bucking this trend – most notably transport, which has seen an increase in emissions by 69% since 1990. The waste sector's emissions have also increased over time. On the other hand, the most notable reductions in emissions occurred in the industry sector (especially in combustion), agriculture, and buildings. Emissions in energy first increased and then decreased slightly, but they are still above the trend seen elsewhere in Europe.

Moreover, a disturbing trend has emerged in the past few years. Since 2018, Czechia's land use, land use change and forestry (LULUCF) LULUCF sector has become a source of emissions, rather than a sink. This is due to the catastrophic state of Czechia's forests caused by droughts and the proliferation of the bark beetle. In 2019, the emissions from LULUCF accounted for a staggering 13,56 Mt CO<sub>2</sub> eq, which is more than the emissions produced by sectors such as waste, agriculture or buildings.

In terms of targets, Czechia only has a headline target for its non-ETS sectors, which has been set at a 14% reduction by 2030 compared to 2005 levels. So far, the national targets set for Czechia have been very unambitious and the country had no problems achieving them. The renewable energy and energy efficiency targets set out in the NECP are also rather weak and they don't tap into the full potential the country has in these areas.



# Denmark

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Denmark has a strong economy-wide 2030-target: 70% emissions reductions. The policy projections in its NECP do not yet include several new policy decisions reached during 2020, so the gap between the economy wide target and the sector projections appears bigger than it will be once the latest decisions are included.

Nevertheless, a major takeaway is that the Danish economy-wide target has so far not been reflected in targets for those sectors where the emissions originate. The failure to set sector targets makes it unclear how Denmark intends to reach its target. A negative side effect of this uncertainty is that, throughout 2020 and 2021, various sectors of the Danish economy have continued to push for exemptions from contributing to their fair share of reductions. To put an end to this freerider competition (especially prolific in agriculture and transport sectors), the Danish government needs to set sub-targets for the individual sectors.

# France

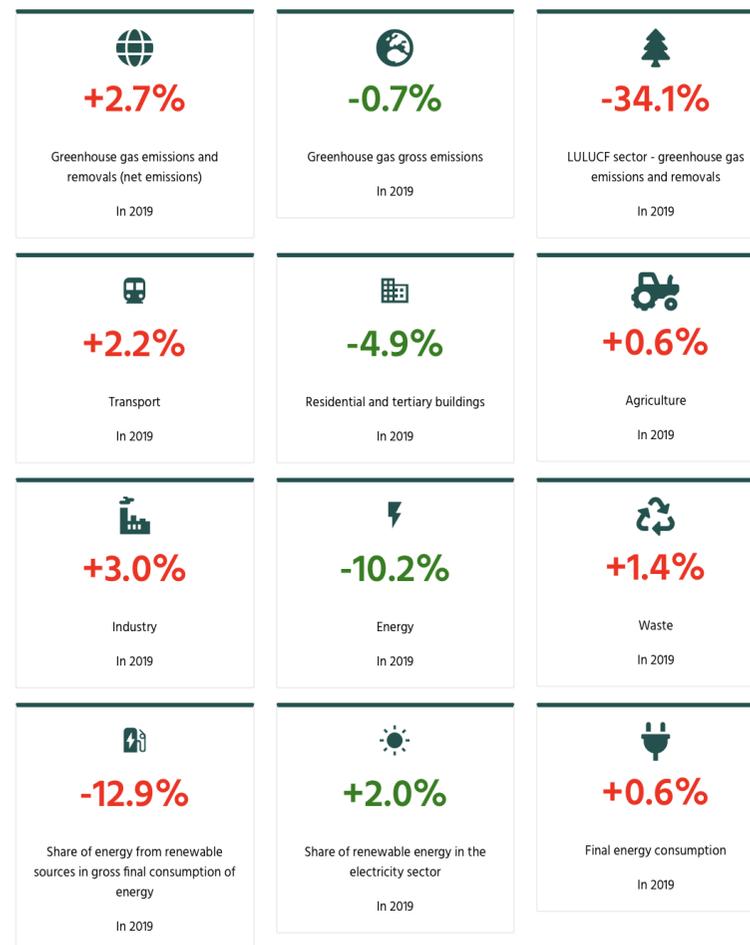
In 2019, France decreased its emissions compared to the year before, but only by a 1% reduction in net emissions and a 0.9% reduction in sectoral emissions. A decrease in emissions reductions may be encouraging but it is not enough to comply with its current NECP targets. In 2019, France exceeded by 2.7% its target on net greenhouse gas emissions. France also failed to meet its 2019 objective for the reduction in energy consumption and exceed it by 0.6%.

With regard to sectoral emissions (excluding LULUCF), France has reached its 2019 targets and is emitting 0.7% fewer greenhouse gases than the target. It should be noted that the objectives should be revised upwards when the NECP is revised.

The High Council for the Climate (HCC) points out that French greenhouse gas emissions have fallen by 0.9% in 2019 compared to 2018. However, to achieve the final objective, the annual target is currently -1.5% and from 2024 onwards it will be -3.2%. According to the HCC, it is urgent to accelerate emissions reductions.

In addition, several sectors fail to meet the trajectories and remain in the red, such as transport (2.2% more emissions than the 2019 target), agriculture (0.6% more in 2019), industry (3% more in 2019) and waste (1.4% more in 2019). Only the buildings sector (4.9% below the 2019 target) and the energy conversion sector (10.2% below the 2019 target), have a larger decrease than foreseen by the revised NECP.

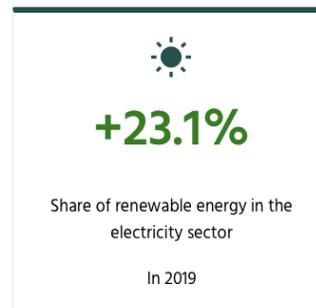
One of the key objectives that has not been reached is the share of energy from renewable sources in gross final consumption of energy. France was supposed to achieve a 19.8% share but it was only 17.2% in 2019. Given this trend, the compulsory 2020 objective of 23% will not be reached.



# Germany

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It is important to underline that Germany's current climate target of 55% GHG reduction by 2030 is not aligned with the Paris Agreement objective to limit the global temperature increase to 1.5°C. Gross emissions reductions since 1990 have been too slow. This slow decrease in emissions is also reflected in the different sectors: the agricultural sector has not shown any significant decline of emissions in the last twenty years, the buildings sector's emissions reductions are too slow and the transport and the industry sectors have even seen some increases in emissions during the last two decades. These sectors did not have targets to reduce emissions until the 2019 climate law. The key question now is how the 2019 climate protection law (Klimaschutzgesetz) will be strengthened following a Federal Court decision in April 2021. The Court stated that climate change is real and the government must act to mitigate it. It also remains to be seen how the climate law will feed into the next NECP revision.



# Estonia

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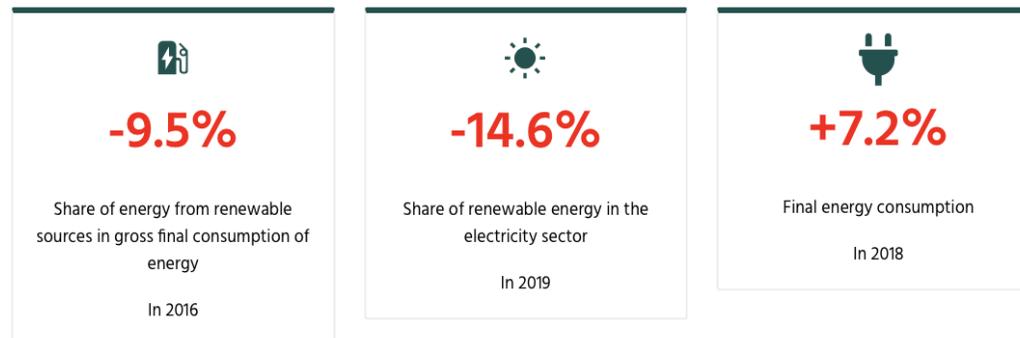
The difficulties in achieving the Estonian NECP's targets, which were relatively low in ambition, already indicates that the current measures may not be enough. According to data from 2018, greenhouse gas gross emissions have decreased by more than 50% (from 40.3 Mt CO<sub>2</sub> in 1990 to 20 Mt CO<sub>2</sub> by 2018). Still, there was a huge leap between 1990 and 1993, but since then the developments have not been progressive but rather fluctuating, at times even stagnating.

A large share of emissions originates from the energy sector. The significant decrease in gross emissions in the 1990s is related to developments in the energy sector (from 29.18 Mt CO<sub>2</sub> in 1990 to 15.8 Mt CO<sub>2</sub> in 1993). In order to cut gross emissions, noticeable change is needed in the energy sector to move from 13.8 Mt CO<sub>2</sub> in 2018 to the target of 6.6 Mt CO<sub>2</sub> by 2030. A large amount of Estonia's emissions is covered by the Emission Trading Scheme (ETS) and the share of non-ETS emissions (covered by the Effort Sharing Regulation) is smaller than in many other countries.

The LULUCF sector also shows very low ambition. Projections determine that LULUCF emissions would be -0,2 Mt CO<sub>2</sub> by 2030, as a result of measures planned. By 2018 emissions in LULUCF were - 1.99 Mt CO<sub>2</sub> and little effort is foreseen to maintain that, with the share of carbon sink in the sector to decrease considerably over the decade.

# Poland

Poland is one of the former socialist countries which abandoned its heavily industrial economy at the beginning of the 1990s and was therefore able to reduce its GHG emissions quickly by the end of the twentieth century. Since then, emissions have been steady because Poland kept its coal-based energy and transport sectors, while pursuing economic development thanks to constant energy efficiency gains. The Polish economy can still make further energy savings by continuing to improve energy efficiency. But the country also needs to continue its fuel shift from a coal-based to a renewables-based economy quicker than it has been doing for the last 15 years. From 2015 to 2019 the share of renewables stagnated and this needs to change. The biggest cause for concern in Polish emissions is transport. Emissions from the sector grew by 205% since 1990, mostly due to a rise in car ownership, car use and the fact that most cars are old. The LULUCF sector might be an important player in Poland, because the country still has a lot of diverse ecosystems as well as an active agricultural sector.

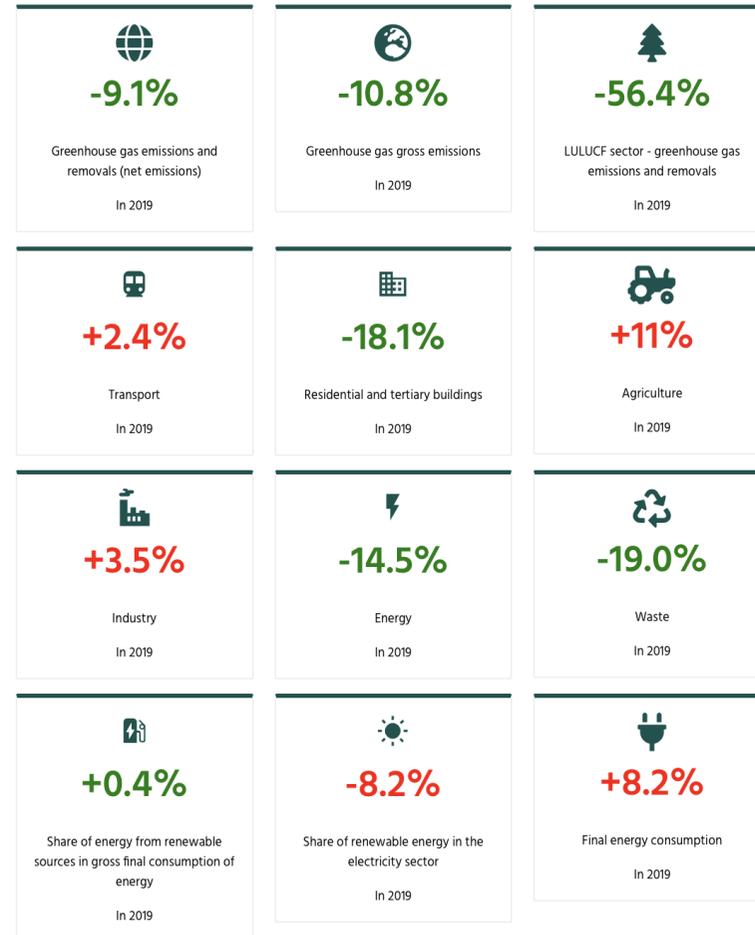


# Portugal

In Portugal, greenhouse gas emissions without LULUCF totalled 63.6 Mt CO<sub>2</sub> equivalent (CO<sub>2</sub>e) in 2019, representing a reduction of 5.6% compared to the previous year and a reduction of 25.8% compared to 2005. This trajectory complies with the national emission targets set in the NECP (18% to 23% reduction by 2020 compared to 2005) and is thus in line with reaching carbon neutrality by 2050.

However, the LULUCF sector has great variability in Portugal which could undermine reaching the goal of carbon neutrality by 2050. For instance, when considering the LULUCF sector, emissions in 2019 totalled -7,87 Mt CO<sub>2</sub>e, corresponding to a sharp variation of -180 % compared to two years ago. This enormous drop relates to the exceptional tragic events of forest wildfires that occurred in 2017.

The indicator renewable sources in gross final consumption of energy is approximately on track to meet the targets set in the legislation and the trajectory set in the NECP. For final energy consumption, the country is following a trajectory of growing consumption which is the opposite of what is needed to meet the target.

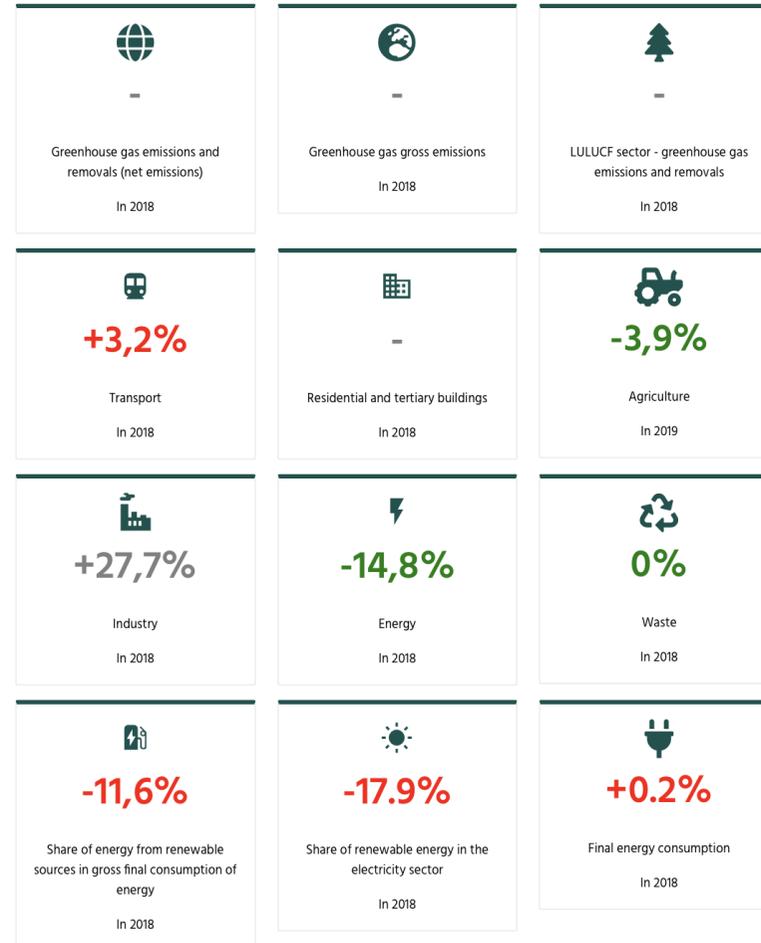


# Slovenia

In Slovenia in 2018 the net GHG emissions were 17,75 MTCO<sub>2</sub>e, showing an increase of total emissions compared to 2017 and a 20% increase compared to 1990 levels. NECP projects 36% decrease of emissions by 2030 compared to 2005 level, however no economy wide target was set for 2030.

The most problematic sector in terms of emission reductions in Slovenia is transport. In 2018 the emissions from transport were 3,2% above the 2018 target and 47% above the 1990 level. The emissions are projected to decrease by 2030 compared to 2018, reaching 4,95 MTCO<sub>2</sub>e by 2030, but the emissions from the transport sector will still be 55% higher compared to 1990 levels.

Another area where Slovenia is lagging behind is renewable energy. In 2018 the net share of energy from renewable sources in gross final consumption target was missed by 11,6%. In the electricity sector the gap was even bigger, 38,10% target was missed by 17,9%, reaching only 32,32% net share of RES in the electricity sector. Slovenia is among the worst performers in the EU in terms of share of solar and wind energy - in 2020, this share was only 1.75%.



# Spain

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In Spain, in 2019, gross national greenhouse gas emissions are estimated to be 314.5 million tons of CO<sub>2</sub> equivalent, which represents a decrease in emissions of -5.6% compared to the previous year. This decline is explained fundamentally by the reduction in the use of coal in electricity production by 66% and the increase in renewable energies, such as wind, photovoltaic and solar thermal, which have increased by 9.4%, 19% and 16.8%, respectively. To align its climate action with the EU's increased climate target, Spain needs to do some further efforts in all economic sectors.

On the other hand, the removals derived from the land use, land use change and forestry (LULUCF) sector were estimated for the year 2019 at 37.6 million tons of CO<sub>2</sub> equivalent. These removals, which represent 11.9% of gross national emissions, decreased by -3.4% compared to the estimated level for the year 2018, mainly due to the sub sector of forest lands and wood products.

In 2019, primary energy consumption decreased by 3% compared to 2018. To reach the primary energy consumption reduction objective established in its NECP, Spain should have an annual rate reduction of around 1.7% over this decade. With the current declining tendency, Spain will be able to reach its 2030 national energy efficiency objective. Likewise, in 2019 Spain reached a 18.4% share of renewables in gross final energy consumption, close to its 2020 target of 20%, and on its way to delivering its 2030 target.



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