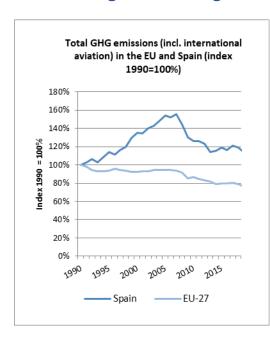
Country fact sheet: Spain

1. Total greenhouse gas emissions



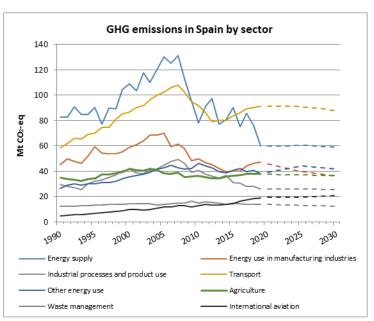


Figure 1: Left hand side: Total greenhouse gas emissions (incl. international aviation) 1990-2020 (index 1990 = 100 %). Right hand side: Greenhouse gas emissions by sector¹ – historical emissions 1990-2019, proxy 2020, projections WEM 2021-2030 (Mt CO₂-eq).

¹ The sectors in the figure correspond to the following IPCC sectors: Energy supply: 1A1, 1B and 1C. Energy use in manufacturing industries: 1A2. Industrial processes and product use: 2. Transport: 1A3. Other energy use: 1A4, 1A5 and 6. Agriculture: 3. Waste: 5. International aviation: 1.D.1.a.

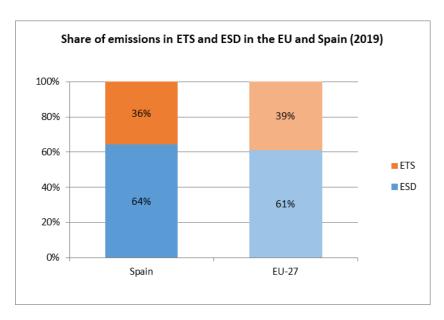


Figure 2: Share of emissions covered by the ETS and the ESD (2019).²

2. ETS emissions

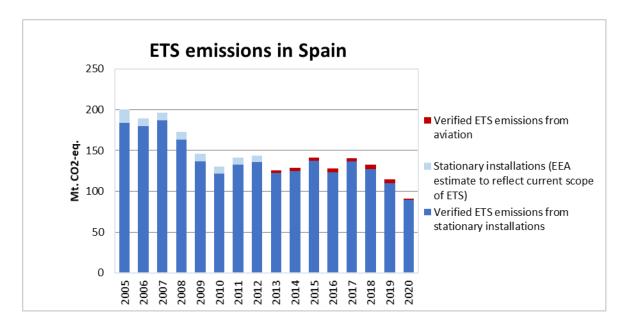
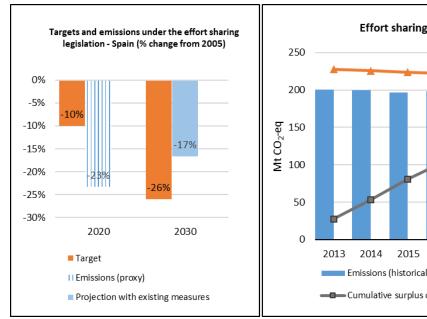


Figure 3: ETS emissions 2005-2020 (Mt CO₂-eq).³

² Excluding international aviation and NF₃.

³ The scope of ETS was extended from 2013. To reflect the current scope of ETS, estimates made by EEA are included in the figures from 2005 to 2012. The estimates cover only emissions from stationary installations.

3. Emissions in Effort Sharing sectors



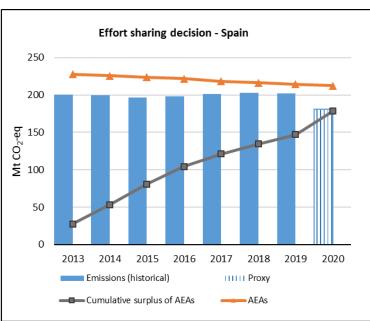


Figure 4: Left hand side: Emissions and targets under the Effort Sharing Decision/ Effort Sharing Regulation 2020 and 2030 as percentage change from 2005. Right hand side: Emissions, annual emission allocations (AEAs) and accumulated surplus/ deficit of AEAs under the Effort Sharing Decision 2013-2020 (Mt CO₂-eq).

4. Land use, land use change and forestry

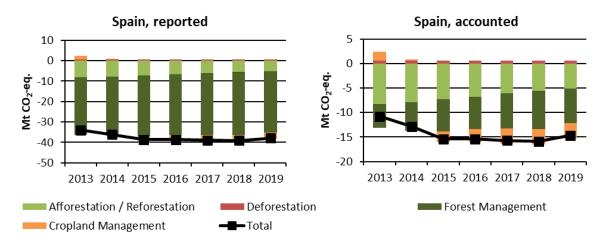


Figure 5: Reported and accounted emissions and removals from LULUCF (Mt CO2-eq.) 4

Reported quantities under the Kyoto Protocol for Spain show net removals of, on average, -37.6 Mt CO₂-eq for the period 2013 to 2019. In this regard, Spain contributes with 10.9% to the annual average sink of -344.9 Mt CO₂-eq of the EU-27. Accounting for the same period depicts net credits of, on average, -14.4 Mt CO₂-eq, which corresponds to 12.5% of the EU-27 accounted sink of -115.0 Mt CO₂-eq. Reported net removals show an increase from 2013 to 2015 which level off thereafter and slightly decrease for 2019. This pattern is more accentuated for accounted net credits. Spain elected to report and account for Cropland Management as one of six EU Member States.

The dominating reported activity is Forest Management with removals. Removals by Afforestation/Reforestation show sizable amounts. Small emission by Cropland Management for 2013 and 2014 turn into notable removals for the years thereafter. Emissions by Deforestation are negligible in the overall emission budget of the LULUCF sector. Removals by Forest Management and Cropland Management show increasing trends, but Afforestation/Reforestation depicts decreasing amounts of removals.

Credits by Afforestation/Reforestation and Forest Management show dominant accounting quantities. Debits by Cropland Management in 2013 and credits for 2015 to 2019 show sizable amounts; debits by Deforestation are negligible. Trends of accounting quantities are clear with increasing credits by Forest Management and Cropland Management and decreasing patterns of credits by Afforestation/Reforestation.

⁴The differences between reported and accounted emissions from LULUCF under the Kyoto Protocol are described in the 'explanatory note on LULUCF – accounted and reported quantities under the Kyoto Protocol'.

Data sources

Figure 1: Annual European Union greenhouse gas inventory 1990–2019 (EEA greenhouse gas data viewer: https://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer). Approximated EU greenhouse gas inventory 2020 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

Figure 2: Verified ETS emissions extracted from European Union Transaction Log 01.07.2021 (EEA ETS data viewer: https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1). ESD data from European Commission: Commission Implementing Decision (EU) on greenhouse gas emissions covered by Decision No 406/2009/EC of the European Parliament and of the Council for the year 2019 for each Member State (forthcoming).

Figure 3: extract from European Union Transaction Log 01.07.2021 (EEA ETS data viewer: https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1.

Figure 4: European Commission: Commission Implementing Decisions on greenhouse gas emissions for each Member State for the years 2013-2019 under the Effort Sharing Decision (Implementation of the Effort Sharing Decision (europa.eu)). Approximated EU greenhouse gas inventory 2020 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

Figure 5: European Commission based on data accounted and reported by Member States under the Kyoto Protocol.