

Center for Global Sustainability

2035 NDC Assessment: Malaysia

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This analysis is part of the Center for **Global Sustainability (CGS): Country Climate Ambition Project**, which presents a set of detailed, country-specific analyses in a consistent, robust, and integrated approach with the goal of informing individual country ambition and supporting the Paris Agreement's NDC process. With in-depth assessments of key emitting countries, the Country Climate Ambition project provides the latest summary—with regular updates—of analyses on plausible, High Ambition country pathways that are based on CGS's field-leading modeling, data-driven empirical analyses, deep country knowledge, international research collaboration, and strategic policy engagements. For additional analysis and information, please see our website: https://country-ambition.cgs.umd.edu/.

Summary

This assessment shows that Malaysia's 2035 Nationally Determined Contribution (NDC) reflects a modest level of ambition, with the new commitment shifting positively from the carbon-intensity approach used in the 2030 NDC to an absolute emissions reduction target. Malaysia's 2035 NDC commits to peaking greenhouse gas (GHG) emissions between 2029 and 2034, and reducing emissions by 15-30 $MtCO_2e$ from the peak level by 2035. However, the target leaves 2035 emissions largely unconstrained, and the projected reduction is less than 10% of the country's current gross emissions levels.

In October 2025, Malaysia released its 2035 NDC, which commits to peaking emissions between 2029 and 2034, and reducing emissions by 15-30 $MtCO_2e$ from that peak level by 2035.[1] Of this reduction, up to 20 $MtCO_2e$ is unconditional, while the remaining 10 $MtCO_2e$ is conditional on climate finance, technology transfer, and capacity-building support from the international community.[1] Additional targets in the NDC include accelerating electric vehicle uptake and hydrogen pilot projects for heavy duty transport, phasing down unabated coal and transitioning away from fossil fuels in its energy mix, scaling up waste methane capture by 2030, and conserving at least 20% of inland waters and terrestrial areas by 2030.[1] The country also aims to achieve net-zero emissions by 2050.[2]

According to Malaysia's First Biennial Transparency Report (BTR),[3] total GHG emissions in 2021 were 328 $MtCO_2e$ excluding Land Use, Land Use Change, and Forestry (LULUCF), and 115 $MtCO_2e$ including LULUCF (using the IPCC AR5 GWP-100). In 2021, LULUCF was a net sink of around -200 $MtCO_2e$ according to the BTR.[3] Energy accounted for 80% of emissions excluding LULUCF, followed by Industrial Processes and Product Use (IPPU) (11%), waste (7%), and agriculture (2%). GHG emissions including LULUCF increased by 75% between 2005 and 2021, while emissions excluding LULUCF rose by 28% over the same period.

Recent data shows that coal accounted for 43% of total electricity generation and gas for 37% in 2024. In the same year, the sector emitted 120 $MtCO_2e$, with coal responsible for 72$MtCO_2e$.[4] Renewables made up 20% of total generation, with 17% from hydro and 2% from solar.[4] Renewable deployment has been slow, with an average annual solar buildout of 0.3 GW over the past five years and no wind capacity currently in operation.[4]

According to our analysis, although Malaysia's 2035 NDC represents a step toward mitigation—shifting from the carbon-intensity approach of the 2030 NDC (which aimed to reduce economy-wide carbon intensity per unit of GDP by 45% from 2005 levels) to an absolute emissions reduction target[5]—it still reflects modest ambition. **The planned 15-30 $MtCO_2e$ reduction accounts for less than 10% of current gross emissions, which range between 300 and 350 $MtCO_2e$ excluding LULUCF across different inventories.**[6] Framing the target as an absolute reduction from an uncertain future peak effectively leaves 2035 emissions unconstrained. If emissions grow rapidly before peaking, the resulting emissions levels could remain high, reinforcing the limited ambition of the target.

If Malaysia implements effective policies in the areas outlined in its 2035 NDC, such as transport electrification, coal phasedown, and waste methane capture,[1] **an overall emissions peak within the next five years appears achievable.** As the largest contributor to overall national emissions, emissions from the power sector could begin reducing emissions immediately through a decisive scale-up of renewable generation, particularly solar. A 50% reduction in coal generation alone could cut emissions by roughly 36 $MtCO_2e$. Transport electrification is also accelerating, supported by a surge in imports of affordable Chinese electric vehicles (EVs), which increased by more than 130% in 2025 compared to 2024 when EVs accounted for 4% of total car sales.[7,8] Emissions in other sectors have already plateaued or declined since 2014.

Given that LULUCF serves as a large carbon sink, it would be beneficial for Malaysia to **specify separate targets for the LULUCF and non-LULUCF sectors, alongside the overall reduction target, to improve transparency and clarity.**

References

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