

JRC Dataset

AgMIP - Agricultural non-CO2 emission reduction potential in the context of the 1.5 °C target

Description:

Agricultural methane and nitrous oxide emissions represent around 10–12% of total anthropogenic greenhouse gas (GHG) emissions and have a key role to play in achieving a 1.5 °C (above pre-industrial) climate stabilization target. Using a multi-model assessment approach, we quantify the potential contribution of agriculture to the 1.5 °C target and decompose the mitigation potential by emission source, region and mitigation mechanism. The results show that the livestock sector will be vital to achieve emission reductions consistent with the 1.5 °C target mainly through emission-reducing technologies or structural changes. Agriculture may contribute emission reductions of 0.8–1.4 Gt of CO₂-equivalents (CO₂e) per year at just US\$20 per tCO₂e in 2050. Combined with dietary changes, emission reductions can be increased to 1.7–1.8 GtCO₂e per year. At carbon prices compatible with the 1.5 °C target, agriculture could even provide average emission savings of 3.9 GtCO₂e per year in 2050, which represents around 8% of current GHG emissions.

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AGMIP, CLIMATE CHANGE, CLIMATE CHANGE MITIGATION, GLOBAL CLIMATE CHANGE

Related resources:

Data access

AGMIP - Agricultural non-CO₂ emission reduction potential in the context of the 1.5 °C target
Dataset - Interactive download - CSV format

<https://datam.jrc.ec.europa.eu/datam/perm/od/df58f9f-0609-4cac-a139-fff80eef83>

AGMIP - Agricultural non-CO₂ emission reduction potential in the context of the 1.5 °C target
Dataset - bulk download - zip file with CSV inside

<https://datam.jrc.ec.europa.eu/datam/perm/od/df58f9f-0609-4cac-a139-fff80eef83/download/dataset.zip>

Publications

Agricultural non-CO₂ emission reduction potential in the context of the 1.5 °C target

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