



Indonesia

Republic of Indonesia

Key facts: Agriculture in Indonesia



93% of agricultural producers in Indonesia are smallholders, who hold an average 4.9 hectares of land. However, decreasing revenues, tight profit margins, shifting diets, a lack of investments, and climate hazards are driving youth to seek employment elsewhere, depleting crucial labour inputs from Indonesia's agricultural system.



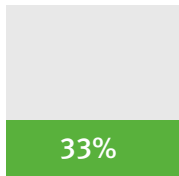
Water stress and water access is a major issue in Indonesia. It is partly driven by agriculture but also affects agricultural productivity.



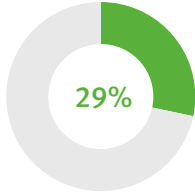
On-farm agriculture emissions in Indonesia are over-shadowed by LULUCF emissions, most of which are driven by deforestation for agricultural expansion.



Use of synthetic fertilisers in Indonesia is very high but not linked to increasing yields, suggesting an overuse and misapplication.



62 mio ha
used for agriculture
Total area: 188 mio ha



40 mio
employed in agriculture
Total labour force: 136 mio

Main agricultural products



Rice



Palm oil



Maize

Key areas with high mitigation potential

Three mitigation options are highlighted here that are important in the national context due to the share of emissions produced from the activity, the magnitude of possible emissions savings, and feasibility of implementation. These 3 measures form part of a broader set of measures that would be needed to address agricultural emissions in the country, especially those that address deforestation and its drivers.



Reduce livestock emissions intensity

Improving management practices for health monitoring, disease prevention, breeding and diet.



Improve rice cultivation

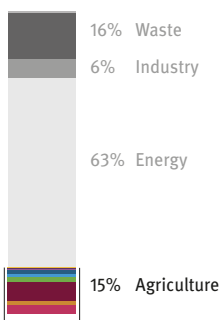
Modifying irrigation, fertiliser and straw residue management practices.



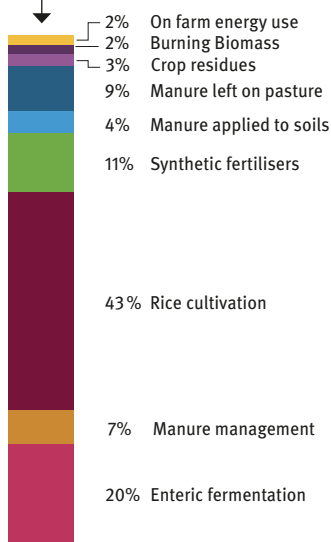
Improve palm oil yield gaps to limit future land expansion

Adopting different harvesting practices and improving nutrient management practices can improve yields on existing farmland, contributing to avoiding deforestation and peat fires.

Total national emissions
963 MtCO₂e (except LULUCF)



Agricultural emissions
148 MtCO₂e



Key challenges for implementing mitigation measures



Farming in Indonesia is **dominated by smallholder farms** making dissemination of information and overcoming cultural barriers to changing practices challenging.



At the national level, **policies to increase self-sufficiency** sometimes compete with mitigation objectives.



International **demand for palm oil** provides an incentive for increasing supply.

Recommendations for enhancing mitigation in the agricultural sector



Enhance the national climate mitigation framework for agriculture, e.g. by **clarifying the role of agriculture in achieving climate targets**.



Align overall agricultural policy framework with climate mitigation objectives.



Collaborate with other international actors on the **establishment of sustainable global supply chains**.



Improve subnational coordination of **peatland restoration initiatives**.

Sources for data on emissions: FAO (2022): Emissions Totals [Dataset]. <https://www.fao.org/faostat/en/#data/GT>; Gütschow, J., Günther, A., & Pflüger, M. (2021). The PRIMAP-hist national historical emissions time series v2.3 (1750-2019). <https://doi.org/10.5281/zenodo.517515>.

Umwelt 
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