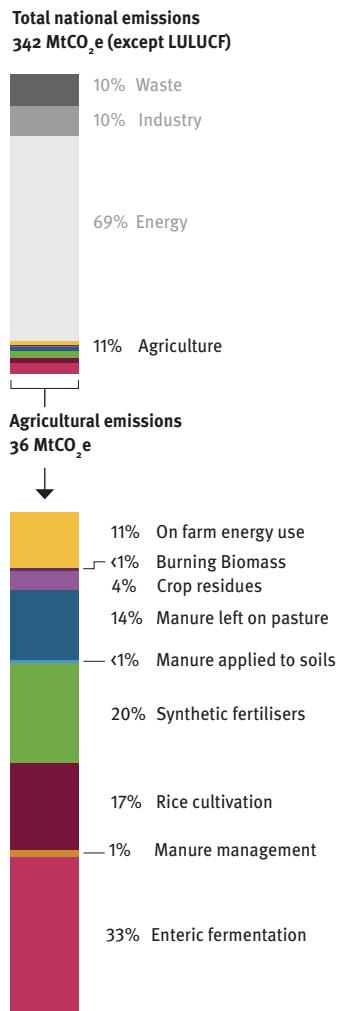




#### Main agricultural products



Sugar cane and sugar beet  
Wheat  
Maize



# Egypt

## Arab Republic of Egypt



### Key facts: Agriculture in Egypt



The vast majority of the country is desert land which is partly reclaimed for agricultural purposes at high cost ("new lands"); while fertile agricultural land has been partly lost to urban infrastructure in the Nile Delta.



Egyptian agriculture is almost fully irrigated (97%) with large amounts of on-farm energy use for diesel pumps used to channel and distribute irrigation water.



Water and food security are key political priorities. Egypt's water abundance hinges on sustained flow of the Nile which makes the country highly vulnerable to increasing temperatures and decreasing precipitation.

### 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 the emissions intensity of livestock, emission reductions in the production of synthetic fertilisers and reducing meat consumption and food waste on the demand side.

#### $\text{N}_2\text{O}$ Improving fertiliser/nutrient management

Apply fertiliser more precisely and integrate fertiliser and nutrient supply from compounds or compost.

#### $\text{CH}_4$ $\text{N}_2\text{O}$ Improved rice cultivation

Changing management practices related to water use (e.g. alternate wetting and drying) and nutrient input (e.g. fertilizer and straw) to reduce  $\text{CH}_4$  and  $\text{N}_2\text{O}$  emissions.

#### $\text{CO}_2$ Decarbonising on-energy farm use

Replace diesel pumps with solar irrigation pumps and bioenergy from crops and livestock residues.

### Key challenges for implementing mitigation measures

**⚠️ Lack of investment capacity, resources and financial assistance** needed to cover investment costs of new technologies and adopt sustainable practices.

**⚠️** Considering Egyptian average income levels, GHG mitigation strategies have to be coupled with existing strategies towards **greater water and food security** while improving the livelihoods of the Egyptian population.

**⚠️ Egypt's mitigation targets lack a strategic vision** and commitment to quantifiable emission reduction targets for the agricultural sector which poses barriers towards defining concrete adaptation and mitigation strategies for Egypt's food systems.

### 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.

**✓ Targeted supportive policies** would be needed that set incentives for low carbon on-farm energy use, high nitrogen use efficiency, water and pumping savings, regulating and encouraging good manure management and rewarding non-continuous rice flooding/irrigation.

**✓ Microfinance, access to technology, as well as maintenance and repair services or trainings** would help to increase the spread of solar irrigation pumps.

Sources for data on emissions: FAO (2022): Emissions Totals [Dataset]. <https://www.fao.org/faostat/en/#data/GT>; Gutschow, 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>.