

THE STATE OF FOOD AND AGRICULTURE

CLIMATE CHANGE, AGRICULTURE AND FOOD SECURITY

MITIGATION

2016

Climate change affects agriculture...

...and agriculture contributes to climate change



THE CHALLENGE

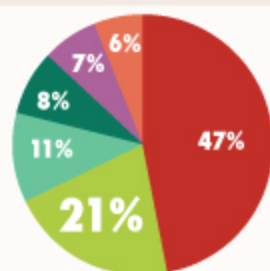


produce more food for the growing population



reduce greenhouse gas emissions

HOW AGRICULTURE CONTRIBUTES TO CLIMATE CHANGE



Shares of greenhouse gas emissions from economic sectors 2010

- Energy
- Agriculture, Forestry and Other Land Use
- Transport
- Residential, commercial and institutional
- Industrial processes and solvent use
- All other sources

Taken together, agriculture, forestry and land-use change account for at least **1/5** of total emissions, mainly from the conversion of forests to farmland as well as from livestock and crop production.



The agriculture sectors can substantially contribute to balancing the global carbon cycle.

RESPONDING TO CLIMATE CHANGE

Mitigation is key for the long-term food security of the world's population.



Agriculture



Resource use efficiency



Soil regeneration



can bind large amount of atmospheric CO₂ and lower emissions of N₂O and CH₄



Reducing food loss and waste

would improve the efficiency of the food system, reduce both pressure on natural resources and emissions of greenhouse gases.



Forestry



Reducing deforestation and increasing forested areas



Adopting sustained-yield management in timber production



can help mitigate the rise of atmospheric CO₂



Rebalancing diets towards less animal-sourced foods

would make an important contribution, with probable co-benefits for human health.

2030

How we mitigate climate change and adapt to it today will determine whether humanity succeeds in eradicating hunger and poverty by 2030.



Food and Agriculture Organization of the United Nations

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#ClimateChange

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