

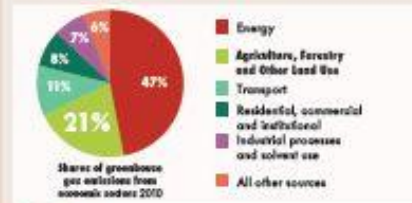
# THE STATE OF FOOD AND AGRICULTURE

CLIMATE CHANGE, AGRICULTURE AND FOOD SECURITY

MITIGATION  
2016



## HOW AGRICULTURE CONTRIBUTES TO CLIMATE CHANGE



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.



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

#SOFA16  
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ADAPTATION  
2016

## CLIMATE CHANGE AFFECTS AGRICULTURAL PRODUCTION IN MANY REGIONS



The greatest vulnerabilities to climate change impacts are in sub-Saharan Africa and South and South-east Asia.

Food insecurity and climate change vulnerability present day



Productivity declines would have serious implications for food security.

Millions of low-income people that are already highly food insecure, would be affected. Smallholder producers in developing countries are amongst the most vulnerable.

All these effects have negative impacts on the productivity of crops, livestock, fisheries and forestry.

CLIMATE CHANGE POSES A SERIOUS THREAT TO FOOD SECURITY



Significant improvements can be achieved with the introduction of sustainable agricultural practices. Smallholders need support to access the right technologies to implement them.

## RESPONDING TO CLIMATE CHANGE

Innovation is key to farm system adaptation.

### Some examples of sustainable agricultural practices

- Cultivating nitrogen-efficient crop varieties
- No-till
- Cultivating heat-tolerant crop varieties
- Resilient agriculture
- Integrated soil fertility management
- Improved pasture management
- Improved fodder grasses or legumes
- Natural predation of pests and reduction of pesticides
- Cultivating drought-tolerant crop varieties
- Drip irrigation
- Water harvesting & sprinkler irrigation

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