



# The Koronivia Joint Work on Agriculture – Ideas for a successful outcome

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# Agriculture and climate change (why we talk about it)

- Agriculture is **highly exposed to climate change** as farming activities directly depend on climatic conditions.
- Agriculture also **contributes to climate change** through the release of greenhouse gases into the atmosphere
- However, **agriculture and forestry can contribute to climate change adaptation and mitigation** (for example by reducing greenhouse gas emissions and by sequestering carbon)

# Key observed and projected climate impacts for the regions in Europe

## Arctic region

- Temperature rise much larger than global average
- Decrease in Arctic sea ice coverage
- Decrease in Greenland ice sheet
- Decrease in permafrost areas
- Increasing risk of biodiversity loss
- Some new opportunities for the exploitation of natural resources and for sea transportation
- Risks to the livelihoods of indigenous peoples

## Atlantic region

- Increase in heavy precipitation events
- Increase in river flow
- Increasing risk of river and coastal flooding
- Increasing damage risk from winter storms
- Decrease in energy demand for heating
- Increase in multiple climatic hazards

## Mountain regions

- Temperature rise larger than European average
- Decrease in glacier extent and volume
- Upward shift of plant and animal species
- High risk of species extinctions
- Increasing risk of forest pests
- Increasing risk from rock falls and landslides
- Changes in hydropower potential
- Decrease in ski tourism

## Coastal zones and regional seas

- Sea level rise
- Increase in sea surface temperatures
- Increase in ocean acidity
- Northward migration of marine species
- Risks and some opportunities for fisheries
- Changes in phytoplankton communities
- Increasing number of marine dead zones
- Increasing risk of water-borne diseases

## Boreal region

- Increase in heavy precipitation events
- Decrease in snow, lake and river ice cover
- Increase in precipitation and river flows
- Increasing potential for forest growth and increasing risk of forest pests
- Increasing damage risk from winter storms
- Increase in crop yields
- Decrease in energy demand for heating
- Increase in hydropower potential
- Increase in summer tourism

## Continental region

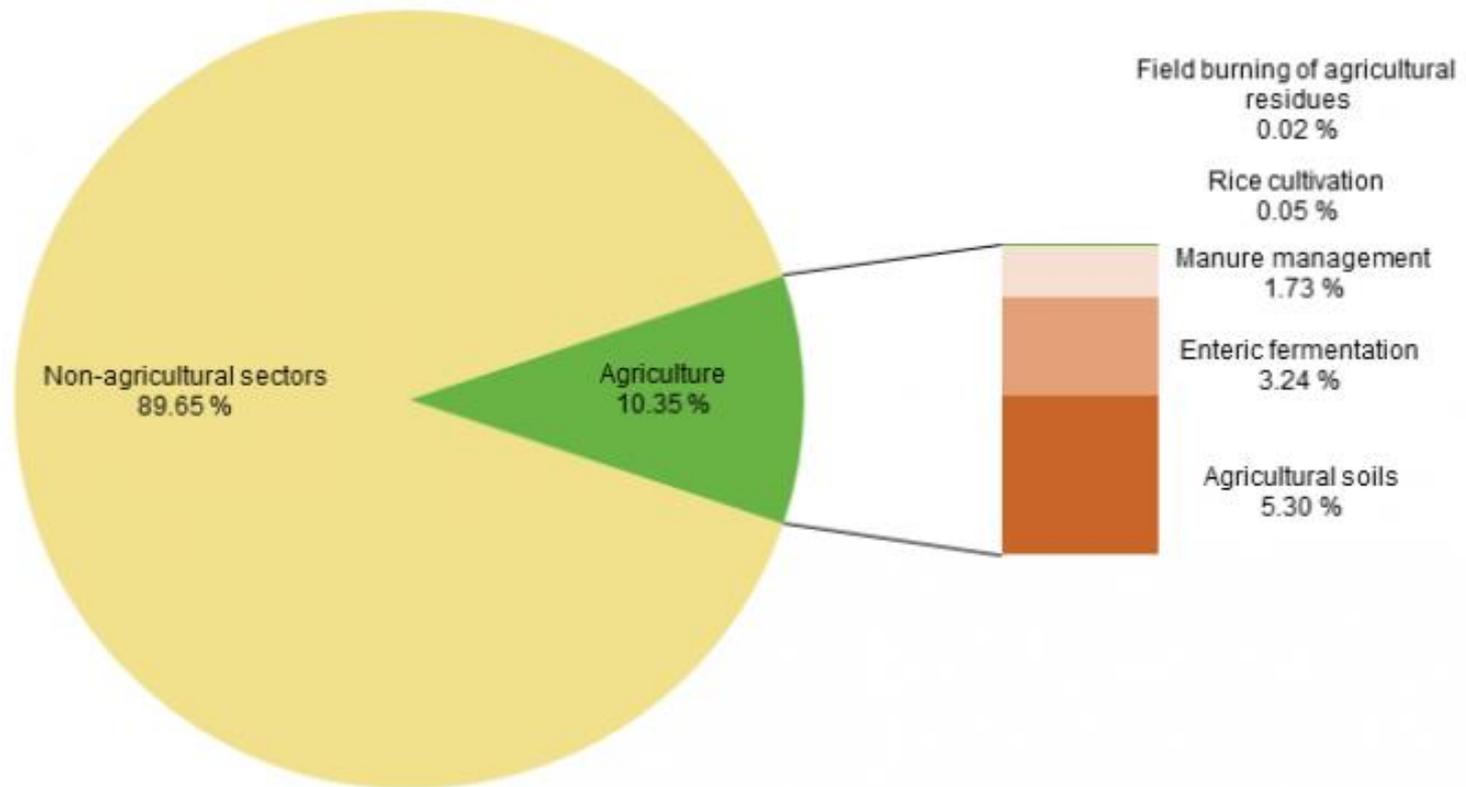
- Increase in heat extremes
- Decrease in summer precipitation
- Increasing risk of river floods
- Increasing risk of forest fires
- Decrease in economic value of forests
- Increase in energy demand for cooling

## Mediterranean region

- Large increase in heat extremes
- Decrease in precipitation and river flow
- Increasing risk of droughts
- Increasing risk of biodiversity loss
- Increasing risk of forest fires
- Increased competition between different water users
- Increasing water demand for agriculture
- Decrease in crop yields
- Increasing risks for livestock production
- Increase in mortality from heat waves
- Expansion of habitats for southern disease vectors
- Decreasing potential for energy production
- Increase in energy demand for cooling
- Decrease in summer tourism and potential increase in other seasons
- Increase in multiple climatic hazards
- Most economic sectors negatively affected
- High vulnerability to spillover effects of climate change from outside Europe

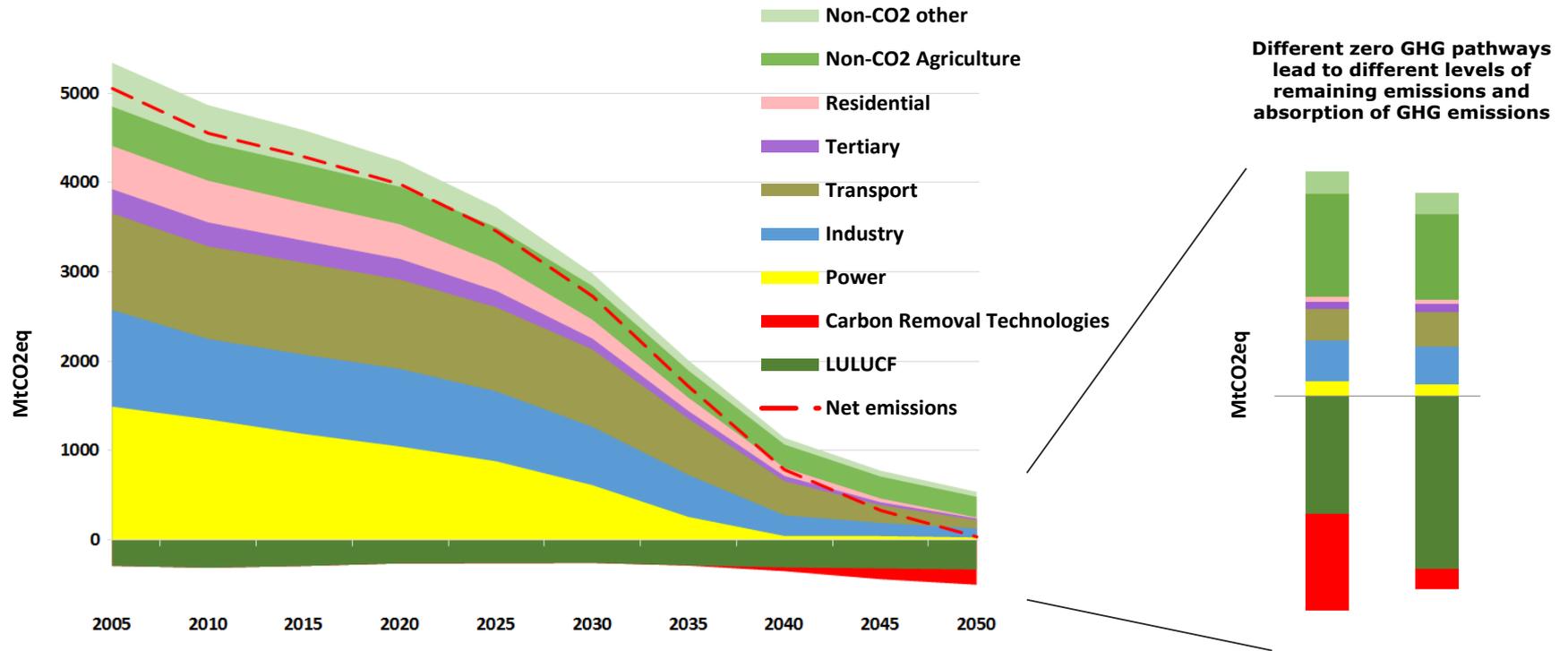


## Agricultural GHG emissions, EU-28



Land use, land use change and forestry (LULUCF) net removals are not included in total GHG emissions. Emissions from agricultural transport and energy use are not included in agriculture emissions, as these sectors are not defined as part of the agriculture sector by the current IPCC reporting guidelines.

# Our Vision for a Clean Planet by 2050



## EU ideas for a successful KJWA outcome

- Mind the importance of farmers, gender, youth, local communities and indigenous peoples
- Explore the synergies between mitigation and adaptation, including their possible trade-offs and respective co-benefits
- Explore the scientific and technological opportunities around sustainable agriculture
- Improve understanding of possible climate action in agriculture as part of Parties' NDCs and other relevant national strategies and plans
- Encourage knowledge exchange and link research under *inter alia*, CCAFS, HORIZON 2020 (CIRCASA) and the Global Research Alliance

## **EU ideas for a successful KJWA outcome**

- Focus on discussions of technical issues related to agriculture
- Help Coordination of International Research Cooperation on Soil Carbon Sequestration in Agriculture.
- Focus on the farmer-friendliness of the technologies and practices, or their relation to gender equity and local knowledge.
- Ensure that KJWA output will help with implementation of Parties' NDCs also by producing a list of recommendations resulting from the KJWA workshops

## Links to the GCAA and other outside initiatives

- Work on the ground will not happen at SBSTA
- Recommendations coming out of SBSTA/SBI will need to be acknowledged and taken up by actors in the field
- International organisations and initiatives have an important role to play (providing support, coordinating efforts, focusing public attention)
- GACSA can help to focus support and knowledge on key climate action and improve exchanges of knowledge and best practices



## What do we need to succeed?

- Summarise the outcomes of the KJWA workshops in an actionable format
- Agree on a set of broad recommendations that will:
  - Help farmers on the ground to have easier access to support
  - Improve exchanges of knowledge and best practices
  - Inform on access to public and private climate finance in sustainable agriculture and climate action in agriculture



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**Thank you very much for your attention!**