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ON AGRICULTURAL GREENHOUSE GASES

# CROPLANDS RESEARCH GROUP: Germany Country Update



CRG representative: Heinz Flessa

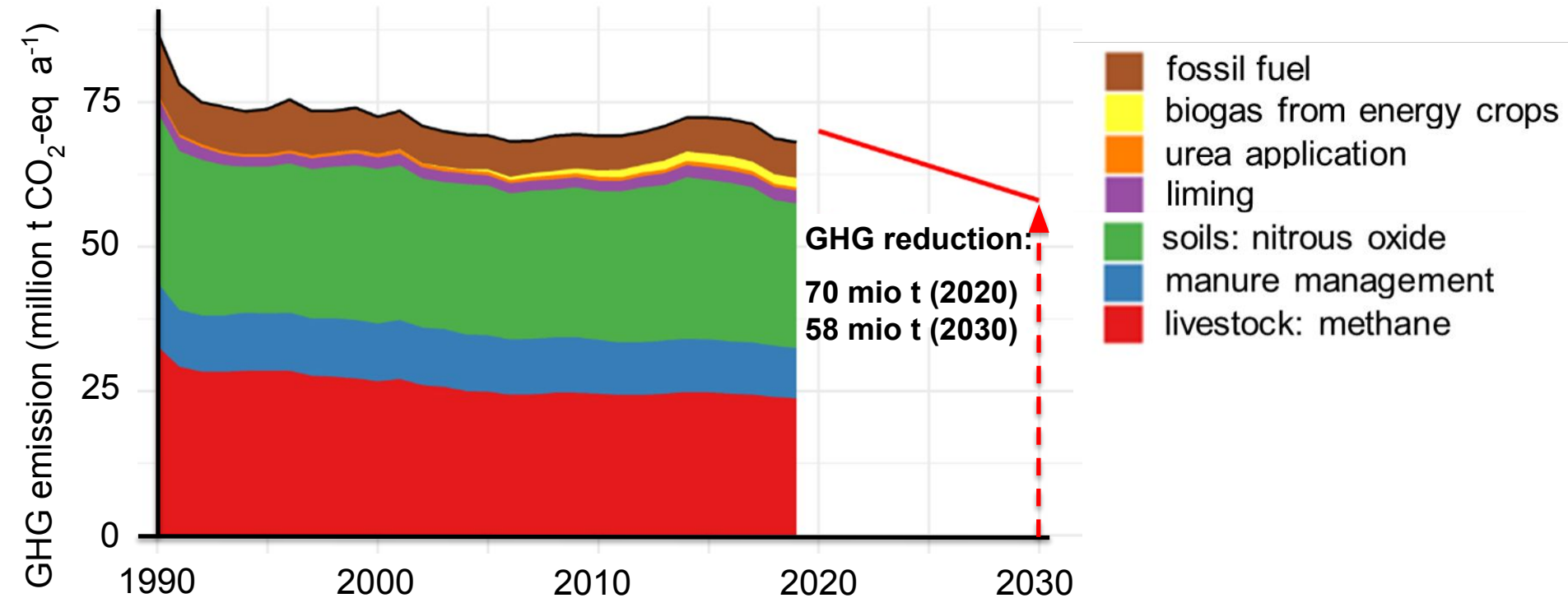
# Nina Graßnick our new member in the GRA office



- **Nina Graßnick**  
our new member in the GRA office
- Workplace:  
Thünen Institute,  
Coordination Unit Climate Protection  
Braunschweig, Germany
- Focus of work:  
International research collaboration:  
mitigating climate change  
in agriculture



# New Climate Protection Law in Germany



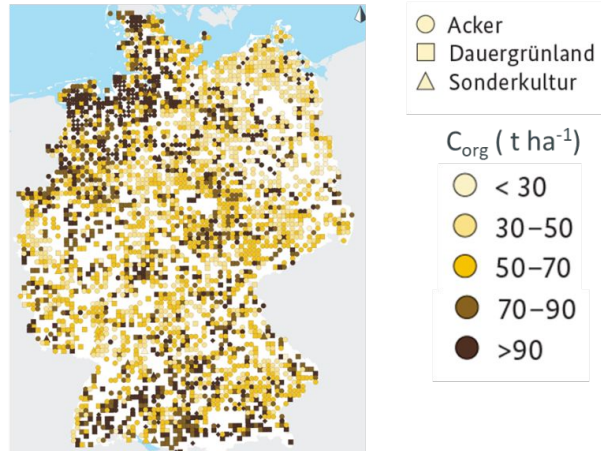
- Obligatory GHG reduction target for agriculture
- GHG reduction progress is checked each year

# National soil inventory in Germany

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Topsoil (0-30 cm)



Subsoil (30-100 cm)

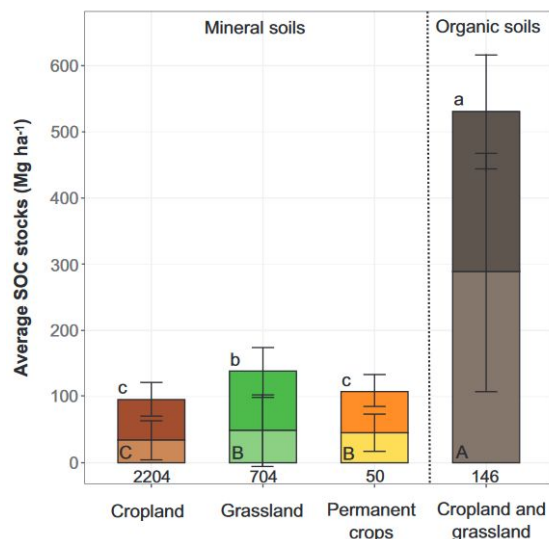


Published:

Poeplau C. et al 2020:  
J Plant Nutr Soil Sci: in Press,  
[DOI:10.1002/jpln.202000113](https://doi.org/10.1002/jpln.202000113)

Data available:

[www.openagrar.de/receive/openagrar\\_mods\\_00054877](http://www.openagrar.de/receive/openagrar_mods_00054877)



**The German Ministry of Agriculture  
approved a resampling of all sites**

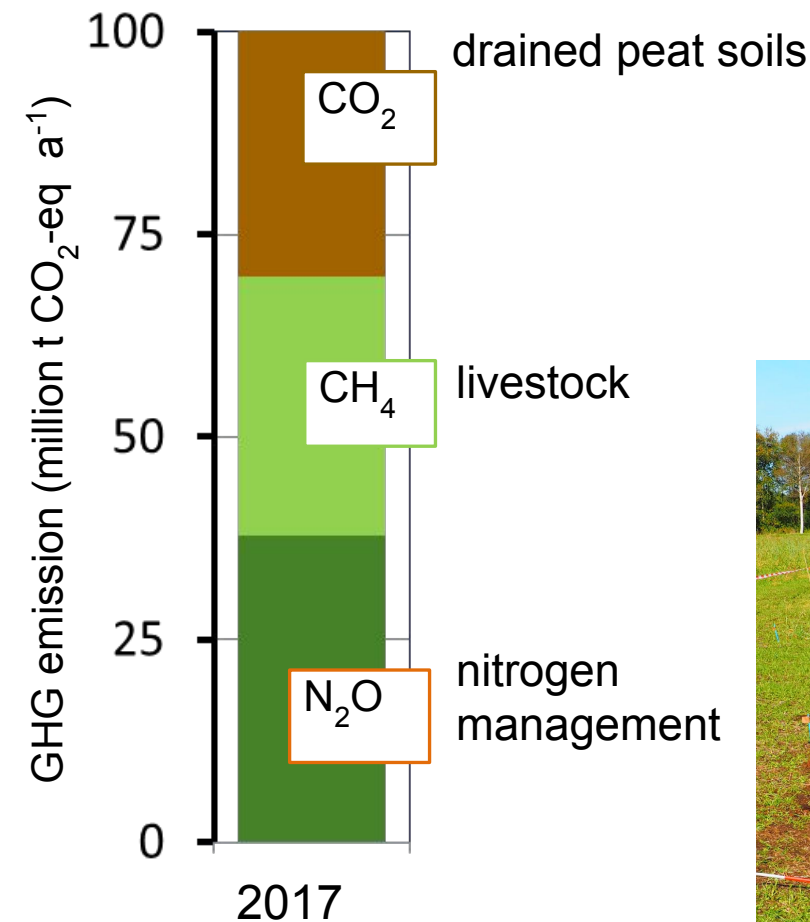
**Second national soil inventory  
2023-2028**



# National monitoring of peat soils

Drained organic soils in Germany emit large amounts of CO<sub>2</sub>

A national peat soil monitoring programme is set up to improve emission reporting including mitigation by rewetting (2020-2025)



## Towards climate-smart sustainable management of agricultural soils

- Large European Joint Programme (national co-funding)
- 26 partners from 24 countries
- Topics and calls (up to 4 years):

- potentials of soil carbon sequestration
- trade offs: soil carbon and greenhouse gases
- soil management and climate change adaptation
- innovative soil management practices
- assessing soil quality
- implementation of improved soil management
- soil erosion processes
- innovative soil mapping





# SPACES II Science Partnerships

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## Science partnership and capacity building programme in Southern Africa (BMBF)

□ 12 courses in 2021 (probably online courses)



Introduction to Ecology  
(in NetLogo)



Agroforestry in Temperate  
Dryland Ecosystems



Short Course on Agricultural  
Modelling & Simulation



Eddy Covariance Flux Measurements  
Winter School