

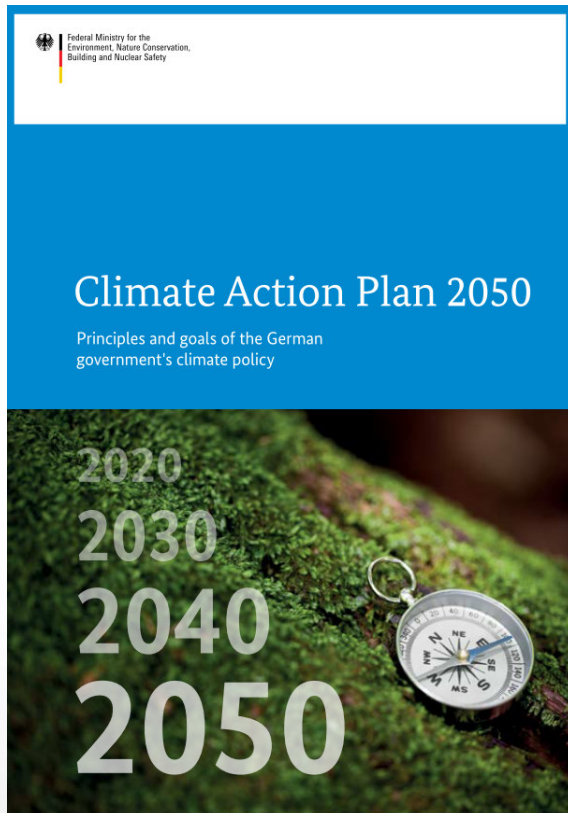
Climate mitigation in German agriculture – targets and strategies

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The German Climate Action Plan 2050



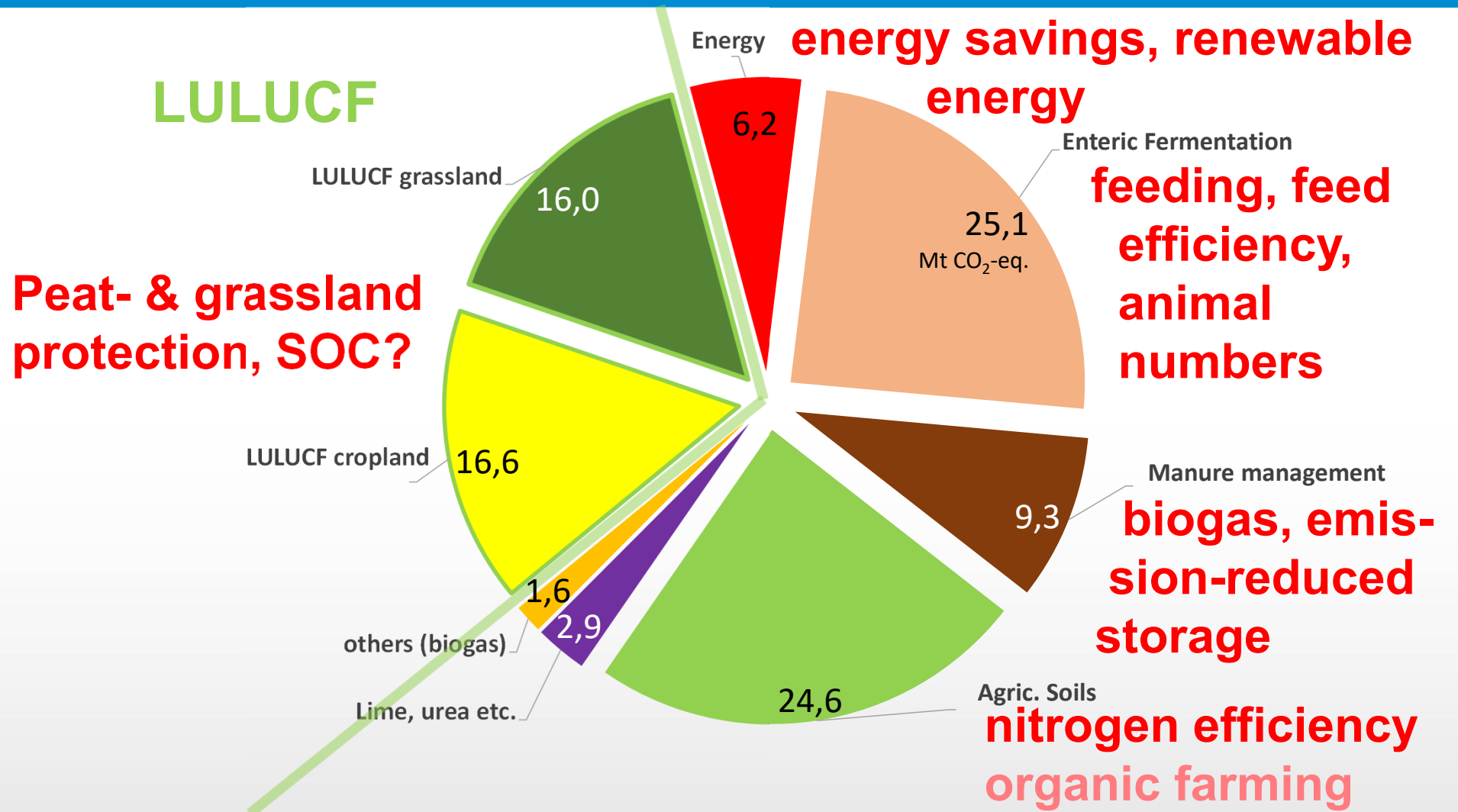
- Decided by the German Government in November 2016 in the light of the European targets and the outcomes of the 2015 Climate Change Conference in Paris
- To be underpinned with a programme of measures based on an impact assessment
- To be reviewed and updated in accordance with the five-year reviewing cycle of NDCs under the Paris Agreement
- Dialogue process with stakeholders

Reduction targets for 2030

- Climate Action Plan: Introduction of ‚sectoral‘ reduction targets
 - for agriculture: from 88 (1990) to 58-61 Mt CO₂-eq. (2030)
 - for LULUCF: sector shall be safeguarded as a net sink
- 2019: Federal Climate Action Law & Mitigation Progr. 2030
- Judgement of the German Constitutional Court because of lack of concrete mitigation targets after 2030, and unbalanced, high mitigation burden for next generations
- Amendment of the Federal Climate Action Law in June 2021
 - tighter reduction target for agriculture: 56 Mt CO₂-eq. in 2030
 - Quantitative targets for LULUCF: -25 Mt CO₂-eq. in 2030,
-35 Mt CO₂-eq. in 2040
- Consequences of the EU “fit-for-55” package?

GHG emissions of German agriculture 2018

(= 102 Mt CO₂-eq.; 12,3% of German total emissions)



Source: own illustration based on data of UBA,
https://www.umweltbundesamt.de/sites/default/files/medien/2546/dokumente/2020-03-11_trendtabellen_sektoren_und_vorjahresschaetzung_out.xlsx
<https://www.umweltbundesamt.de/dokument/trendtabelle-sektoren-vorlaeufige-thg-daten-2019>

Policies and measures in agriculture and land use

- Energy efficiency programme
- Reduction of sectoral nitrogen surplus to 70 kg/ha in 2030
- Reduction of ammonia emissions by 29% until 2030 (basis 2005)
- Increased manure use in biogas production
- Increase the area of organic farming to 20% of total farm land
- Research and strategies for reducing livestock emissions
- Restoration of peat soils
- Conservation of grassland
- Increase soil organic carbon (in mineral cropland soils)
- [Reduce the expansion of settlements]
- [Reduction of food waste]

Requirements for „mitigation measures“

Emission inventory

- Differentiated depiction of GHG emissions
- Complete coverage, no „cherry picking“

Measures and effect

- implementable (in the short-term!) and acceptable
- Effect & stability of effect to be proven, side effects?

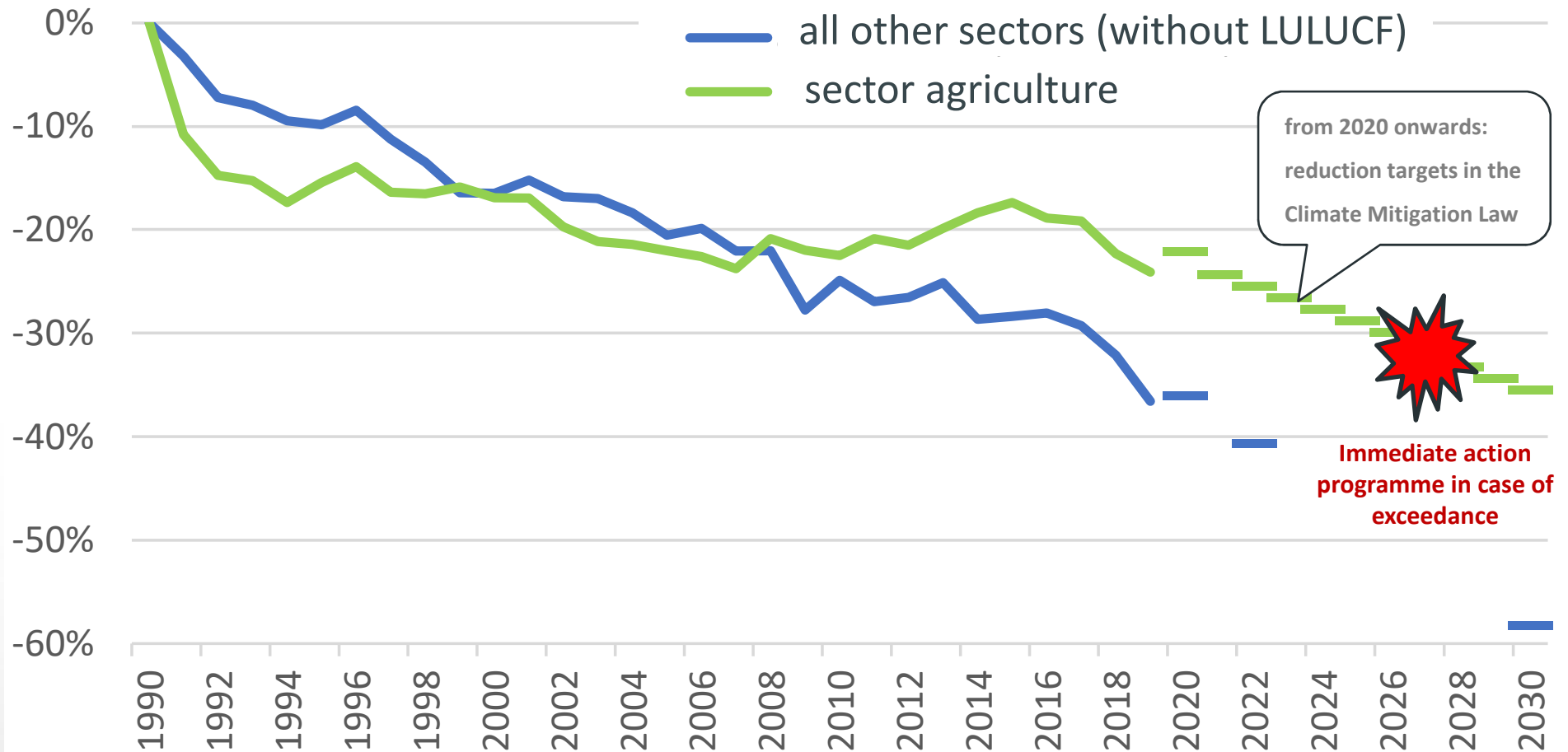
Implement. & Upscaling

- Implementation at sectoral scale
- Long-term continuation

Monitoring

- Data on implementation surveyed ...
- ... for differentiated depiction in GHG inventory

GHG emissions from agriculture according to the Federal Climate Mitigation Law, and all other sectors



Source: Own illustration based on Federal Climate Action Law, Annex 2, and data of UBA
<https://www.umweltbundesamt.de/dokument/trendtabelle-sektoren-vorlaeufige-thg-daten-2019>

Conclusions

- **Agriculture:** Additional mitigation options required
- Several measures with high abatement cost, but many co-benefits
- New measures to be developed and introduced (e.g. additives for N₂O and CH₄ inhibition)
- Role of extensification (organic farming)?
- Reduction of livestock herd?
- **LULUCF:** target (“maintain the sink”) appear not achievable by 2030
- Forest sink is decreasing, emissions from drained peatland difficult to be reduced in short term
- New reduction targets for LULUCF -25/-35 Mt CO₂-eq. even more ambitious

Thank you for your attention!

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