NIBIO
NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH

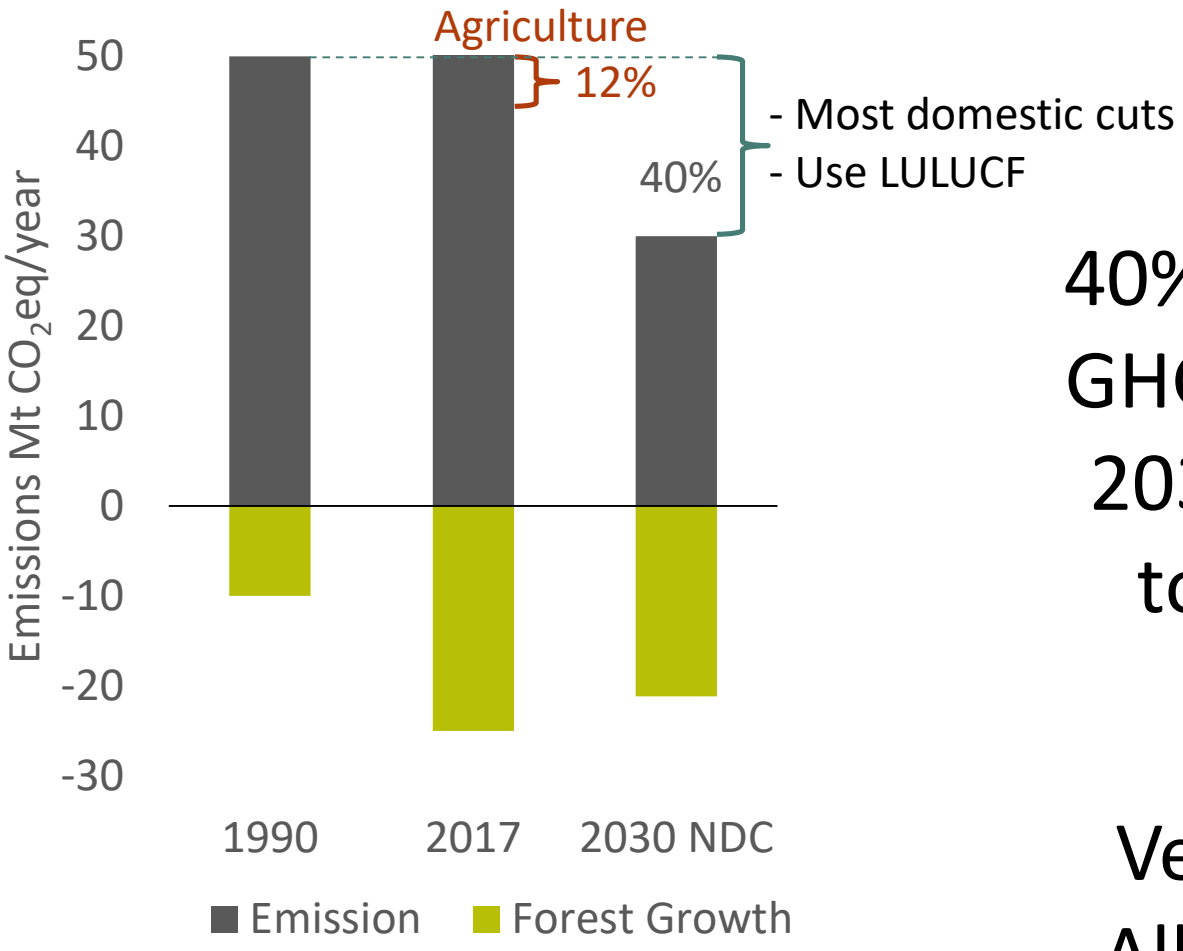
REPORT ON NORWAY'S NATIONALLY DETERMINED CONTRIBUTION (NDC)

Daniel Rasse

Teresa Gomez de la Bárcena

Christophe Moni

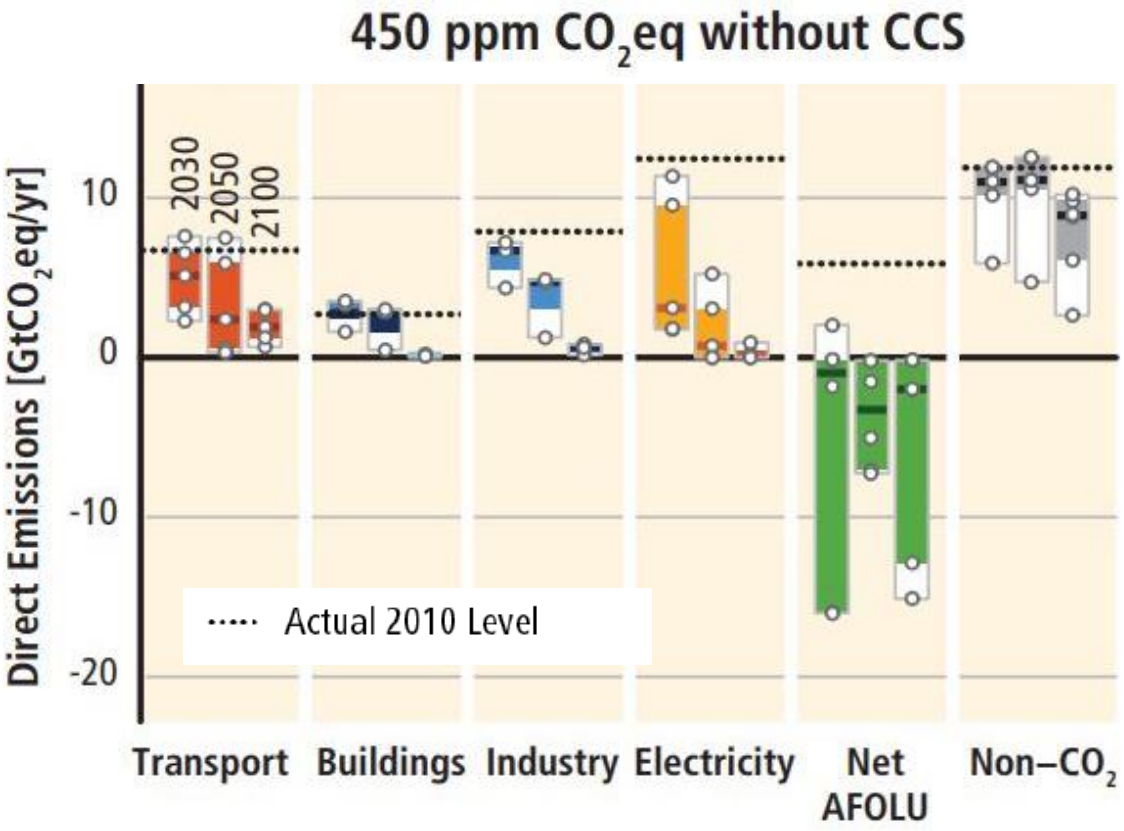
GHG EMISSIONS AND TARGET FOR NORWAY



40% reduction of GHG emission by 2030 compared to 1990 level

Very ambitious
All sectors must contribute

ROLE OF AGRICULTURE



IPCC Report (2014)

AFOLU

(Agriculture, Forestry and Land Use Change)

is the only source of CO_2 that can be reverted to a sink

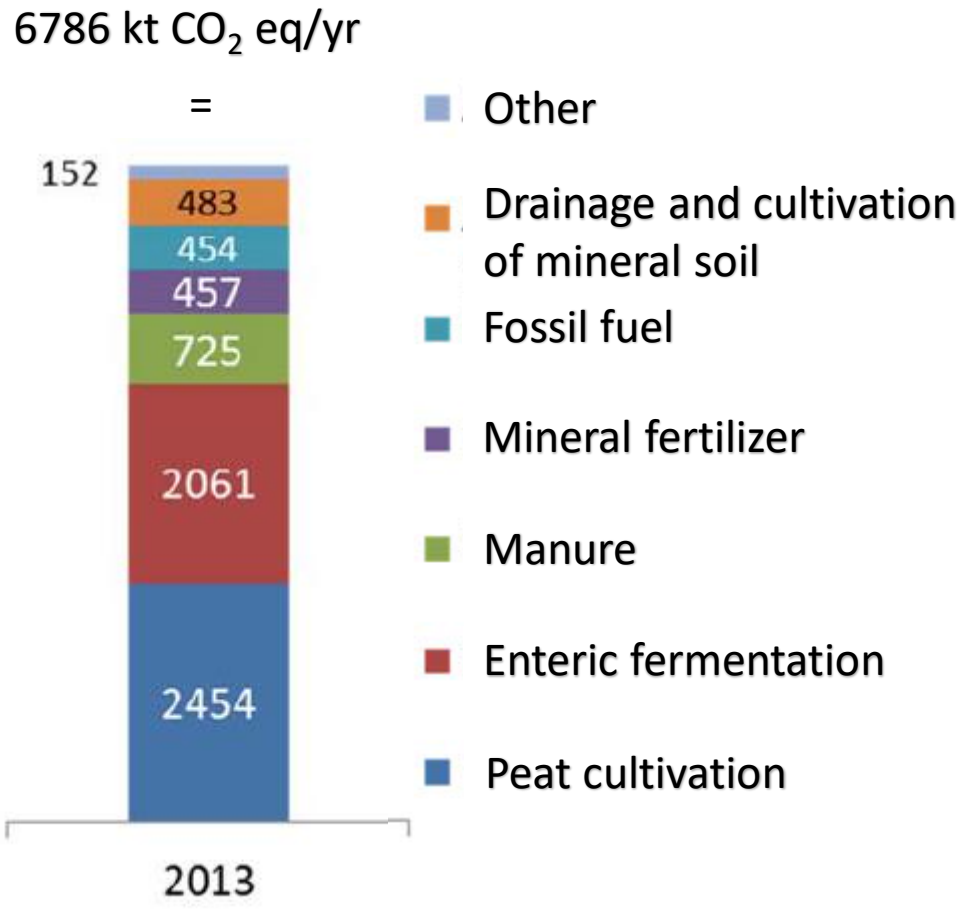
NORWEGIAN AGRICULTURE

Area dedicated to agriculture :

- **3%** of land area
- About 1 million ha
- Two thirds under productive grasslands, one third cereal and other crops.

Emission from agriculture

- **12%** of the emission in 2013
- One third from peat cultivation and one third as CH_4 from enteric fermentation



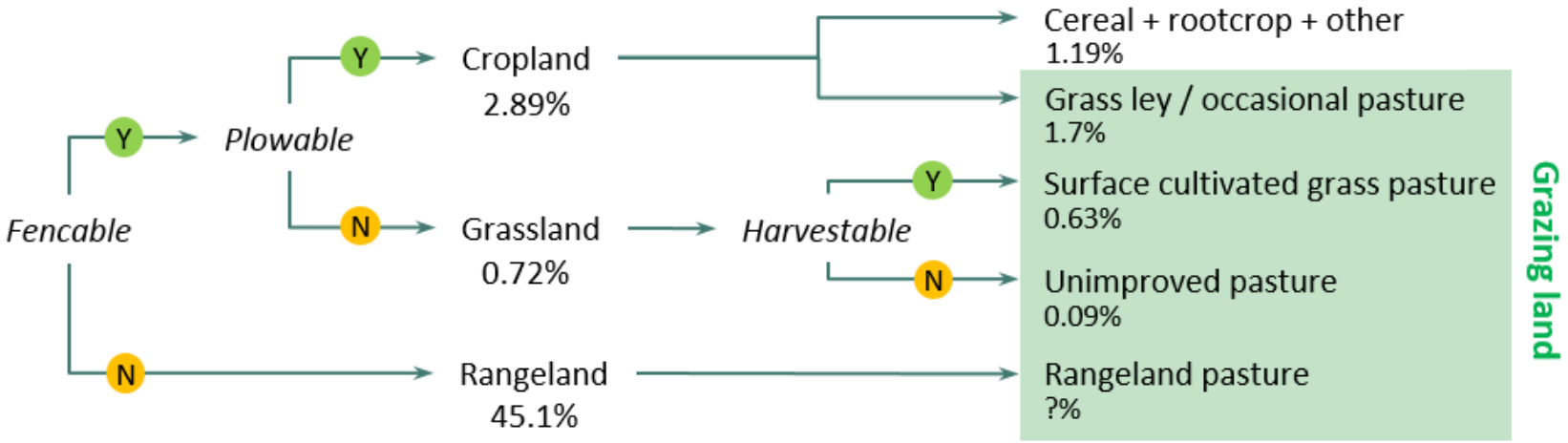
REDUCING AGRICULTURE EMISSIONS

Challenges:

- Land use change not a real option: area with annual crops is too small already
- No-till not really option in cold and wet climate
- Rate of sequestration decrease with time in forest

C SEQUESTRATION UNDER NORWEGIAN PASTURES ?

Norwegian inventory for LULUCF (2017) define 4 types of pasture/grazing land



Little information is available on the effect of grazingland management practices on soil carbon sequestration in Norway !

Only one study found (Martinsen et al., 2011)

High grazing pressure in rangeland → reduced SOC stocks

Low grazing pressure → no change / slight increase

More research needed

NIBIO
NORWEGIAN INSTITUTE OF BIOECONOMY RESEARCH

NORWAY'S CONTRIBUTION TO IRG

Daniel Rasse

Teresa Gomez de la Bárcena

Christophe Moni

Norway participates to 6 projects and 3 networks

Project	Description	Date	10^6 €
SIS soil C	C storage in Norwegian soil	2015-19	0.1/yr
Longterm Grass	Carbon storage in long- and short-term grasslands	2017-19	0.75
Tier 3 method	Developing a Tiers 3 for SOC stock change in Norwegian agricultural soil	2017-19	2.1
MYR	Climate smart use of Norwegian organic soils	2018-21	2
CarboFertil	Implementing biochar-fertilizer solution in Norway for climate and food production benefits	2018-21	2.5
CarbonCrop	Biodigestate, biochar and compost for C sequestration	2018-20	0.2

Network	Description	Date	10^6 €
SOC management working group	Production of a technical manual on SOC management at the regional and sub-regional scale	2017-18	
LEAP network	Participation Technical advisory group for soil carbon in livestock system		
JPI TAP soil	Participation: small national support for project	when?	0.01

Mercredi 17 13:30
Tour de table

Mercredi 17 17:00
Country reports on contributions to IRG, Networks, and SCS and Inventories Flagships

Jeudi 18 9:00
Country reports on their NDCs: role of agriculture, MRV, further steps; knowledge gaps; research needs.

A priori, on est toujours partant pour organiser un meeting du SCN en Norvège cette année (ou en 2019).