

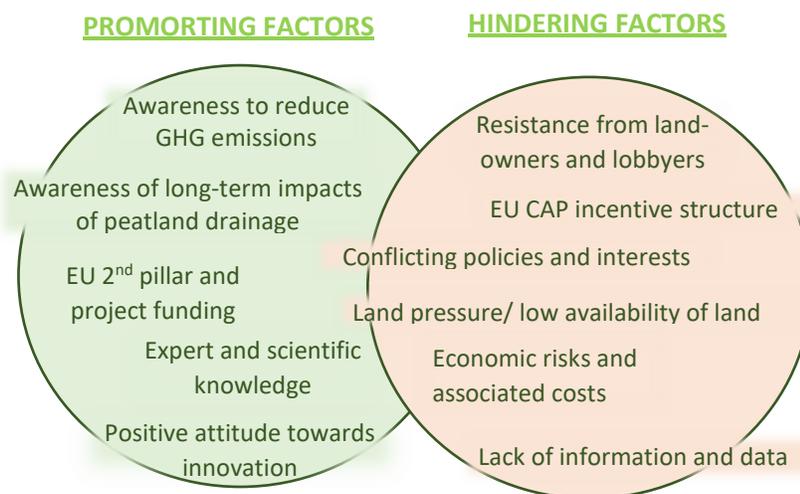
PEATLAND MANAGEMENT PRACTICES (PMP)
with mitigation potential

Water level	LAND USE and mitigation measure	Implementation status
Rewetting	<i>GRASSLAND</i> Paludiculture (biomass production, e.g. with cranberry, cattail, typha)	established and (further) developed
	Paludiculture (grazing)	(further) developed
	<i>WETLAND</i>	established and (further) developed
Water table elevation	<i>GRASSLAND</i> Biomass production	
	• conventional forage crops	established
	• wet crops	established
	Grazing	(further) developed
	<i>WETLAND</i>	established
Drainage based land use	<i>CROPLAND</i> Foil covered row spacing in maize	(further) developed
	<i>GRASSLAND</i> Reduced tillage	(further) developed
	Mineral soil adding	(further) developed
	Clay adding	(further) developed

In the Netherlands, water elevation techniques and production options are differentiated more strongly. Many of these **PMP** are already established, rewetting for paludicultures, e.g. cranberry, cattail or typha but also extensive grazing will be, however, be dominantly (further) developed. Besides productive use, wetland use after rewetting for biodiversity, water storage but also touristic use, is established today. The same applies to peatlands with elevated water tables. Peatlands managed with elevated water tables for production, mainly with submerged drainage systems, are used as grasslands for biomass production based on conventional forage crops or wet crops. Conventional forage production and wet crops are established but will be further developed. Grazing on elevated water tables is still under development. Respondents relate the technical implementation of submerged drainage systems to governmental support with new PMP under development, also towards no change in management with elevated water levels. Drainage based land use and management practices with mitigation potential are solely under development in the Netherlands. For cropland, Foil covered row spacing in maize is investigated. On grassland, reduced tillage, mineral soil and clay adding is investigated as PMP.



The majority of respondents perceived the public awareness to reduce GHG emissions and the awareness of long-term impacts of peatland drainage, mainly soil subsidence, as major **promoting factors** for the application of PMP. Further, EU 2nd pillar and project funding as well as related expert and scientific knowledge to carry out experiments and tests are considered supportive. Estimations made clear, that a positive attitude towards innovation (from farmers and the government) is present.



However, there is also resistance from landowners and lobbyists. This aspect becomes clearer, when looking at another frequently mentioned **hindering factor**: economic risks and associated costs linked to PMP. Based on stakeholder statements, farmers shy away from high investment costs and fear the loss of income. These statements are closely linked to the EU CAP incentive structure, another hindering factor, reflecting the unfavorable market and subsidy situation for alternative PMP. The economic importance of peatlands as production systems is clearly demonstrated, therefore, the lack of information and data, e.g. on the effectiveness of PMP was mentioned repeatedly. The low availability of land and conflicting policies between agriculture and nature conservation, are further hindering for the application.





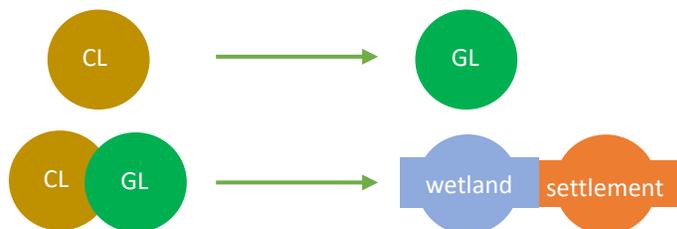
TRENDS IN PEATLAND USE

Area of drained peatland in 2050

...for agriculture
cropland (CL)/**grassland (GL)**

DECREASE
(due to restoration)

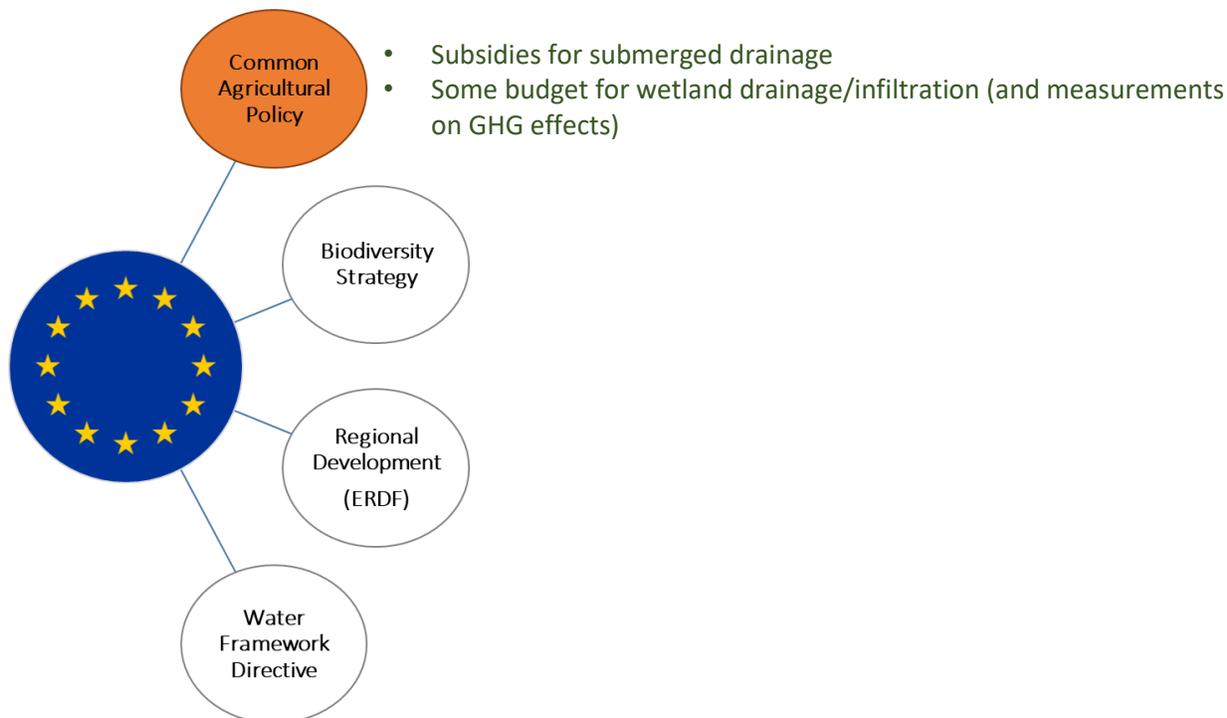
Changes in land use

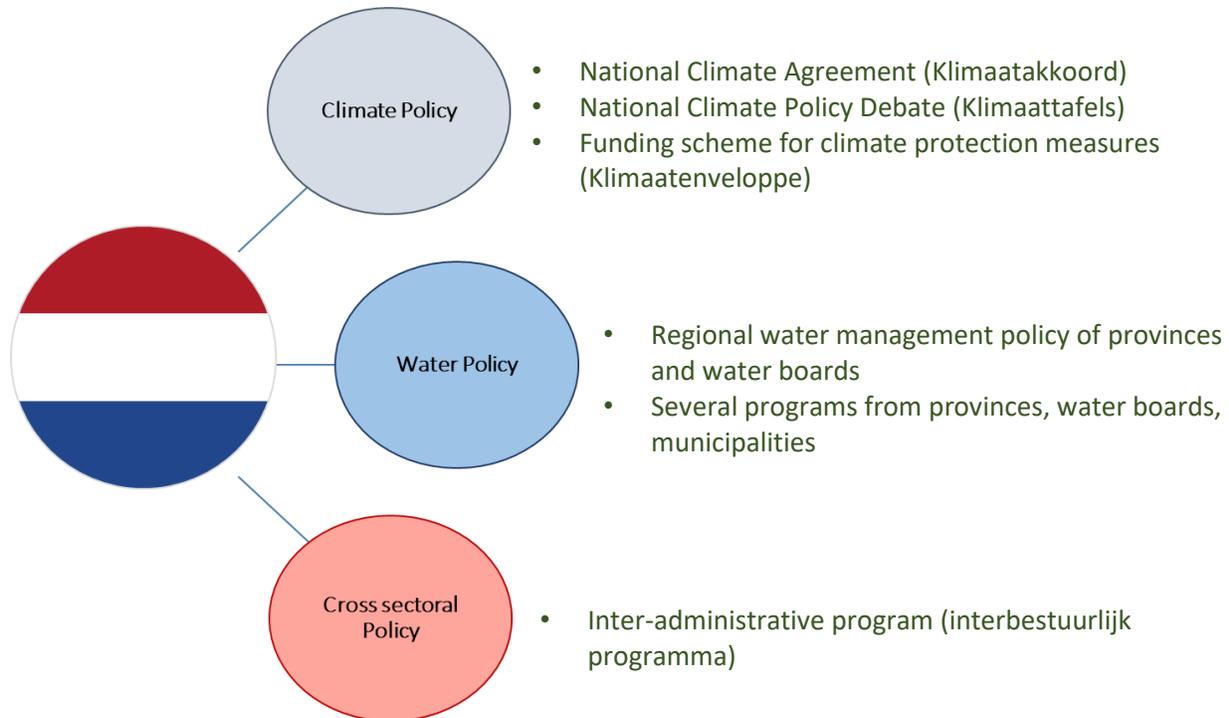


Based on the trend estimations, the production and land use focus of the Netherlands is nicely reflected. Respondents see a decrease of intensively used peatlands (for agriculture) due to related groundwater problems. Although, the agricultural area with drainage pipes is estimated to increase in the future, no increase in peatland drainage is expected. Instead, these pipes should improve the water regulation and with that decrease GHG emissions. Further, respondents expect grasslands to remain due to their production success. Also, paludiculture is expected to start playing a more prominent role. Peat extraction was formerly important in the Netherlands, however, today it is not relevant anymore. Forestry on peatlands in the Netherlands is almost non-existing

POLICIES AND POLICY INSTRUMENTS RELEVANT FOR GHG MITIGATION

Costs for GHG emissions, soil subsidence and damaged infrastructure, also drainage and water infrastructure mainly paid by governments/citizens, based on water tax and income tax.





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Taken into consideration: Wichmann, S. (2018): Economic incentives for climate smart agriculture on peatlands in the EU. Ernst Moritz Arndt University Greifswald; Greifswald Mire Centre.



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