

"More water, more raised bogs in the Groote Peel"

LIFE+ Groote Peel

LIFE13 NAT/NL/079

Provincie Noord-Brabant



LIFE+ Groote Peel

National park de Groote Peel

- 1.345 ha Natura 2000 reserve
- 912 ha regenerative raised bogs
- Unfavourable conservation status

Problems

- Peat extraction
- Eutrophication
- Fluctuating water levels

Objective: Eco-hydrological restoration

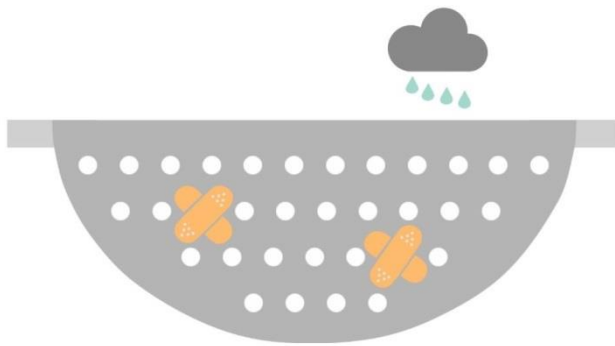


LIFE+ Groote Peel

Concrete measures:

Compartments with manageable and controllable water level


- Construction of barrages
- Damming, closing or sealing off draining ditches
- Relocating of a waterway



Ecosystem services

- Biodiversity conservation
- Reduction of greenhouse gas (GHG) emission
- Water retention
- *Monitoring and evaluation:* Estimation of reduction of GHG emission, using GEST-approach* → relatively easy, based on vegetation mapping that is anyway done, useful and reliable method in monitoring and assessment

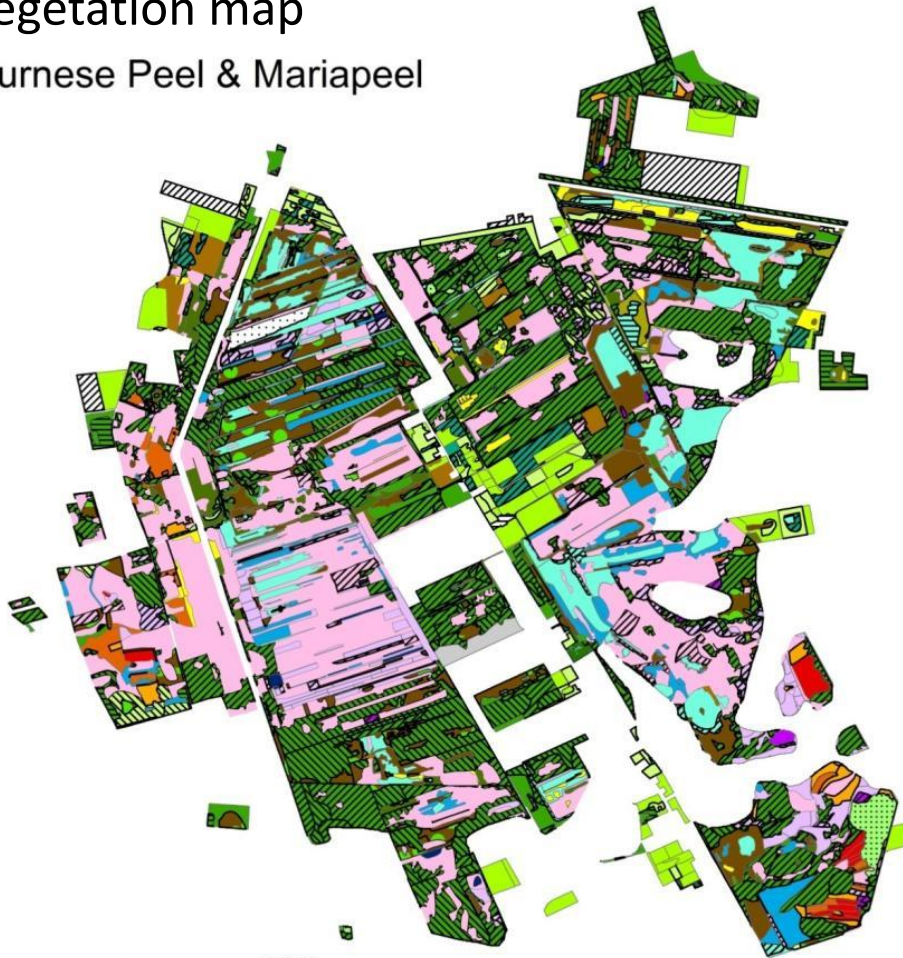
* Greenhousegas Emission Site Types: Couwenberg et al. 2011. Assessing greenhouse gas emissions from peatlands using vegetation as a proxy. Hydrobiologia 674: 67–89.



Estimation GHG emission: *GEST*-approach

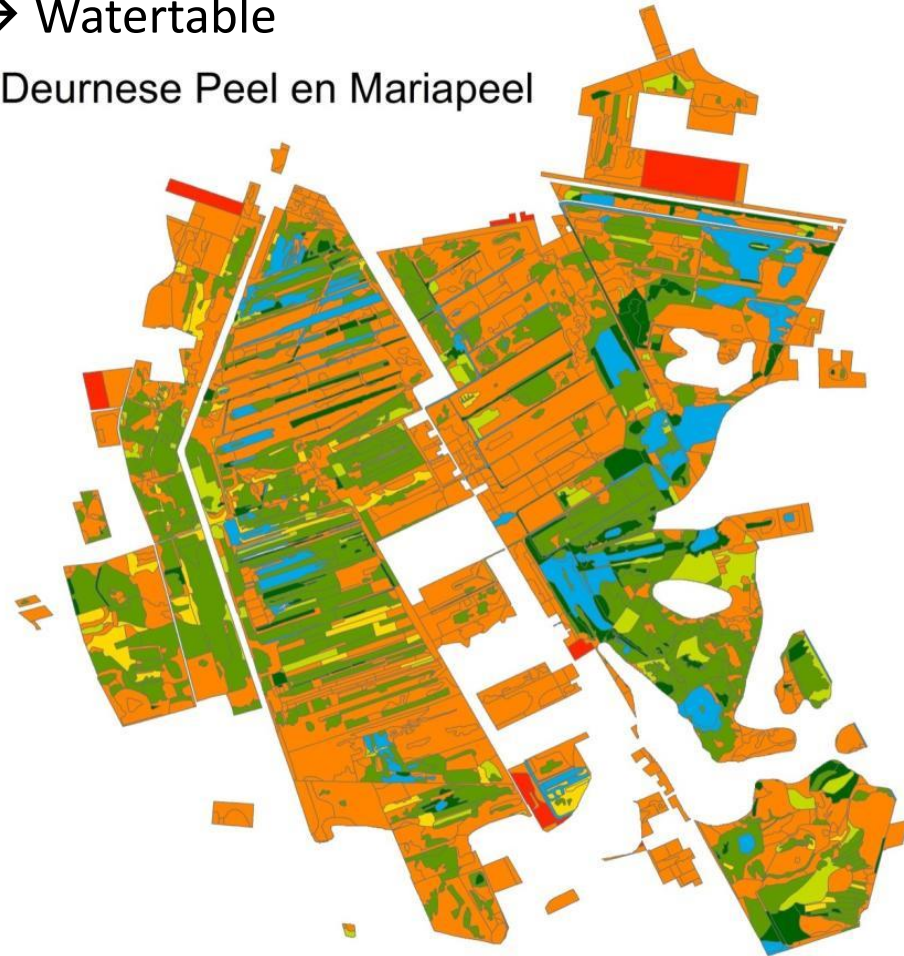
Vegetation map

Deurnese Peel & Mariapeel



→ Watertable

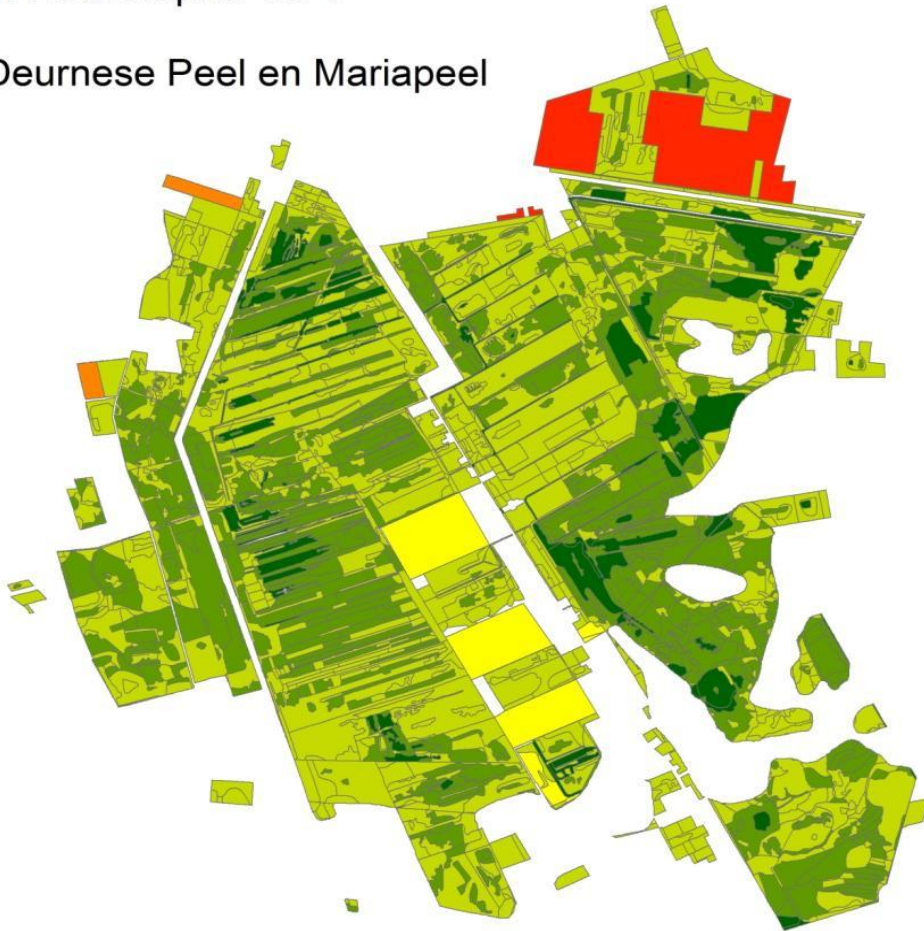
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Estimation GHG emission: *Result*

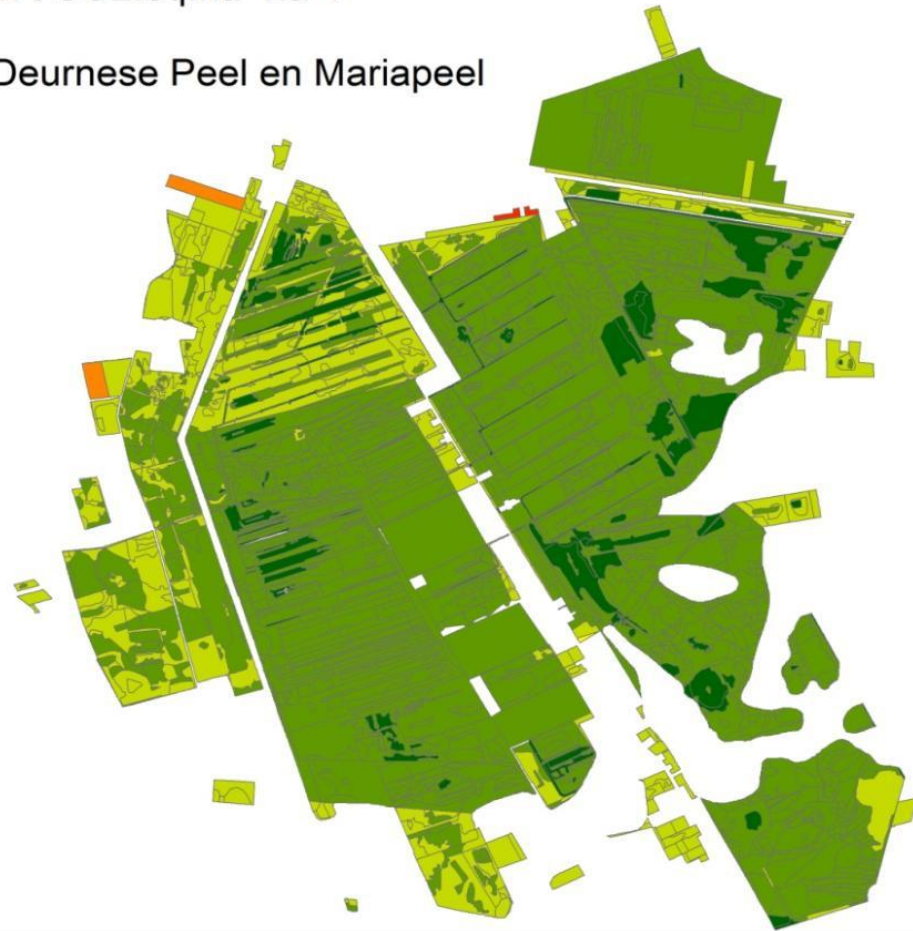
Global Warming Potential in 2005
in t CO₂.eq.ha-1.a-1

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Global Warming Potential in 2040
in t CO₂.eq.ha-1.a-1

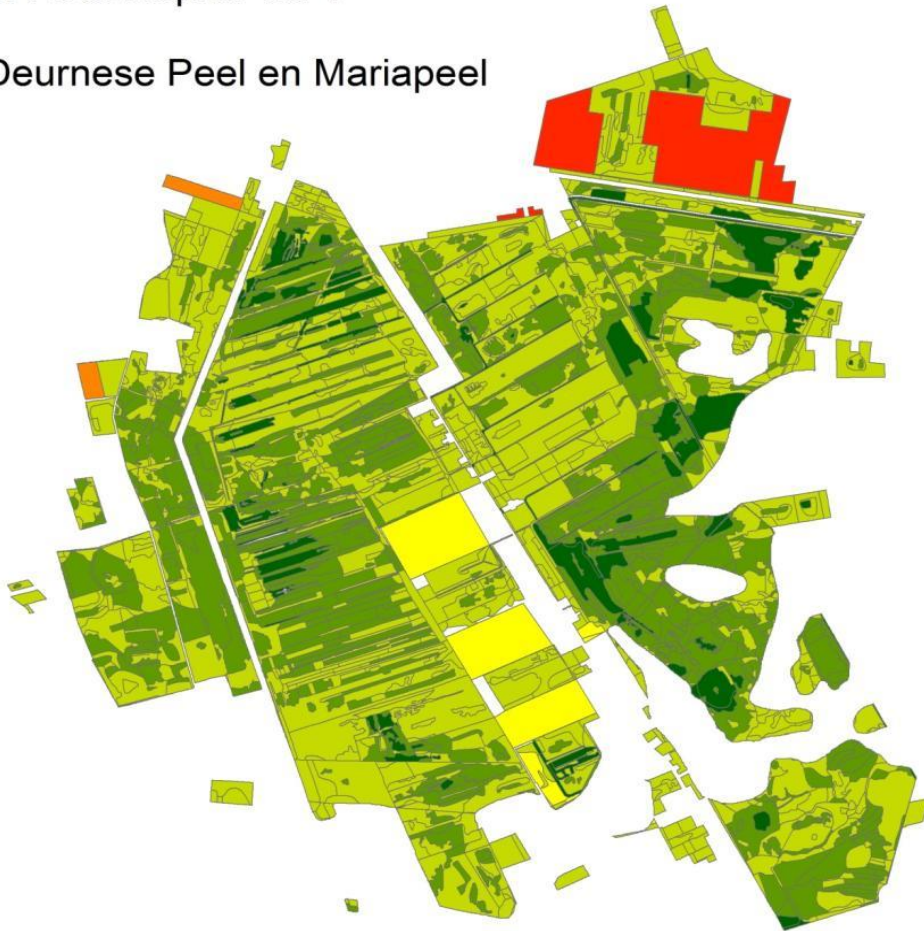
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Estimation GHG emission: *Result*

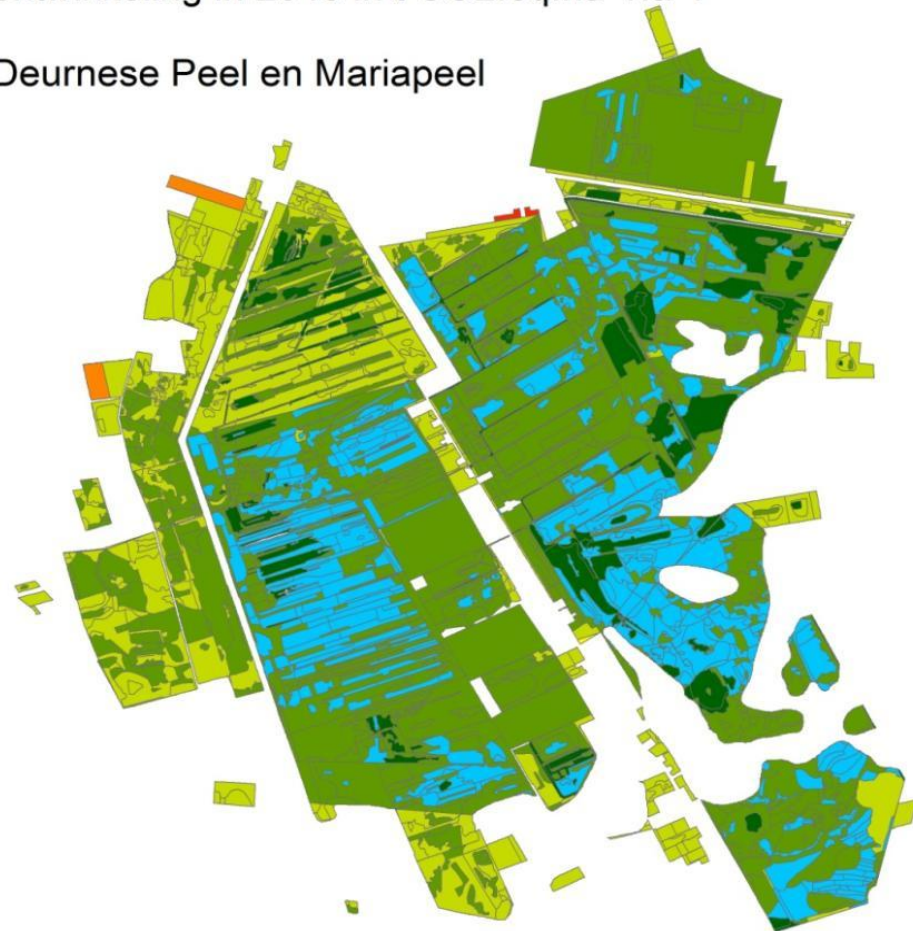
Global Warming Potential in 2005
in t CO₂.eq.ha-1.a-1

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Global Warming Potential bij een optimale veenmos-
ontwikkeling in 2040 in t CO₂.eq.ha-1.a-1

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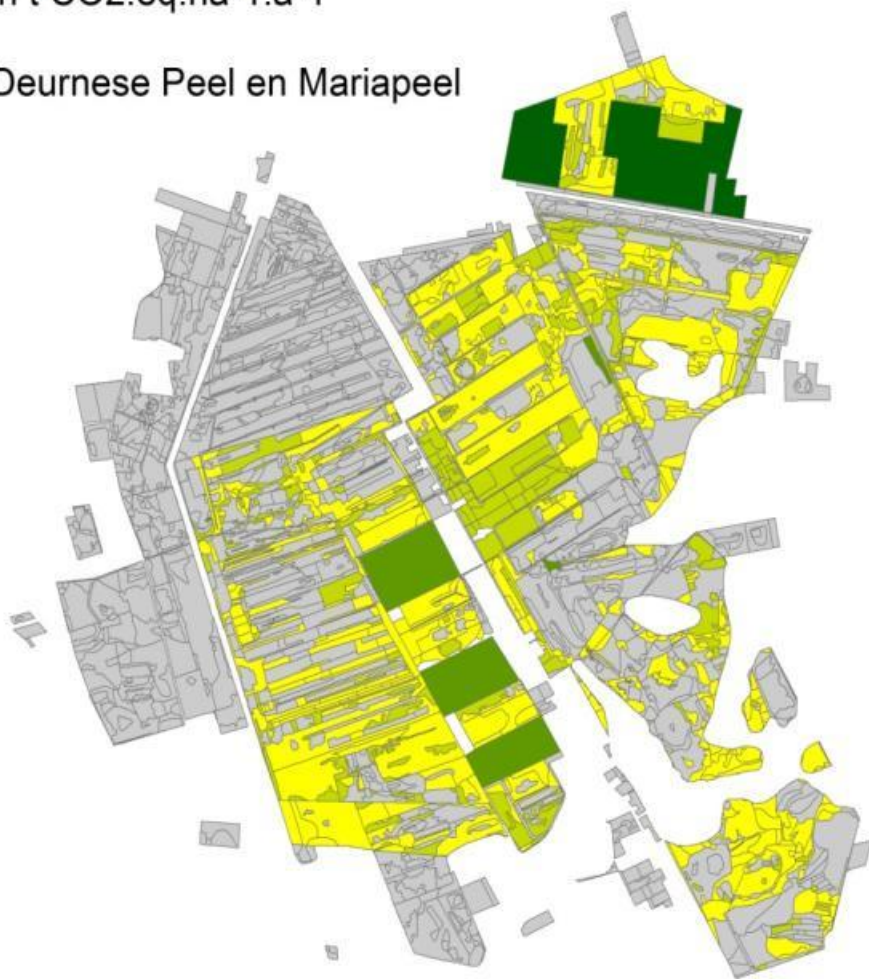


Reduction GHG emission: 5-10 k ton CO₂-eq/ha/yr

20-40%

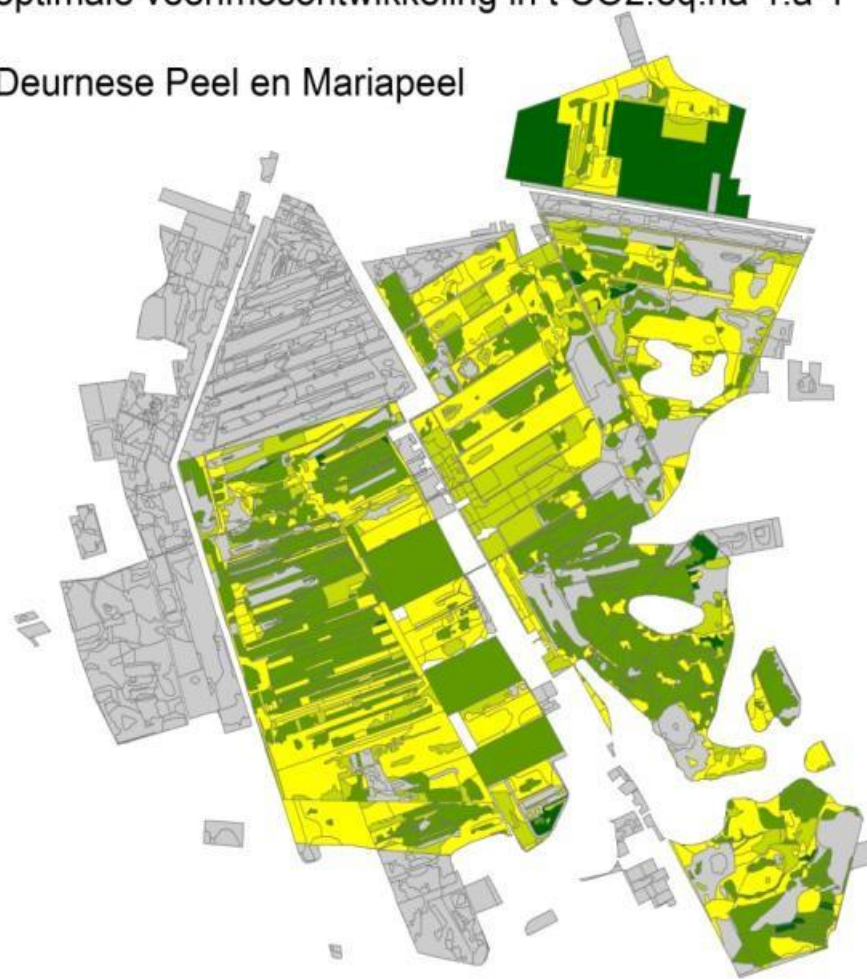
Change in Global Warming Potential in 2040
in t CO₂.eq.ha-1.a-1

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Change in Global Warming Potential in 2040 bij een
optimale veenmosontwikkeling in t CO₂.eq.ha-1.a-1

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Questions?

www.peelvenen.nl

G.vanDuinen@science.ru.nl

