

# Greenhouse gases from agriculture: processes and sources

**Christoph Müller**

Justus Liebig University, Giessen, Germany  
University College Dublin, Dublin, Ireland

IAEA Scientific Forum

Nuclear  
Technology  
for Climate

*Mitigation, Monitoring, Adaptation*

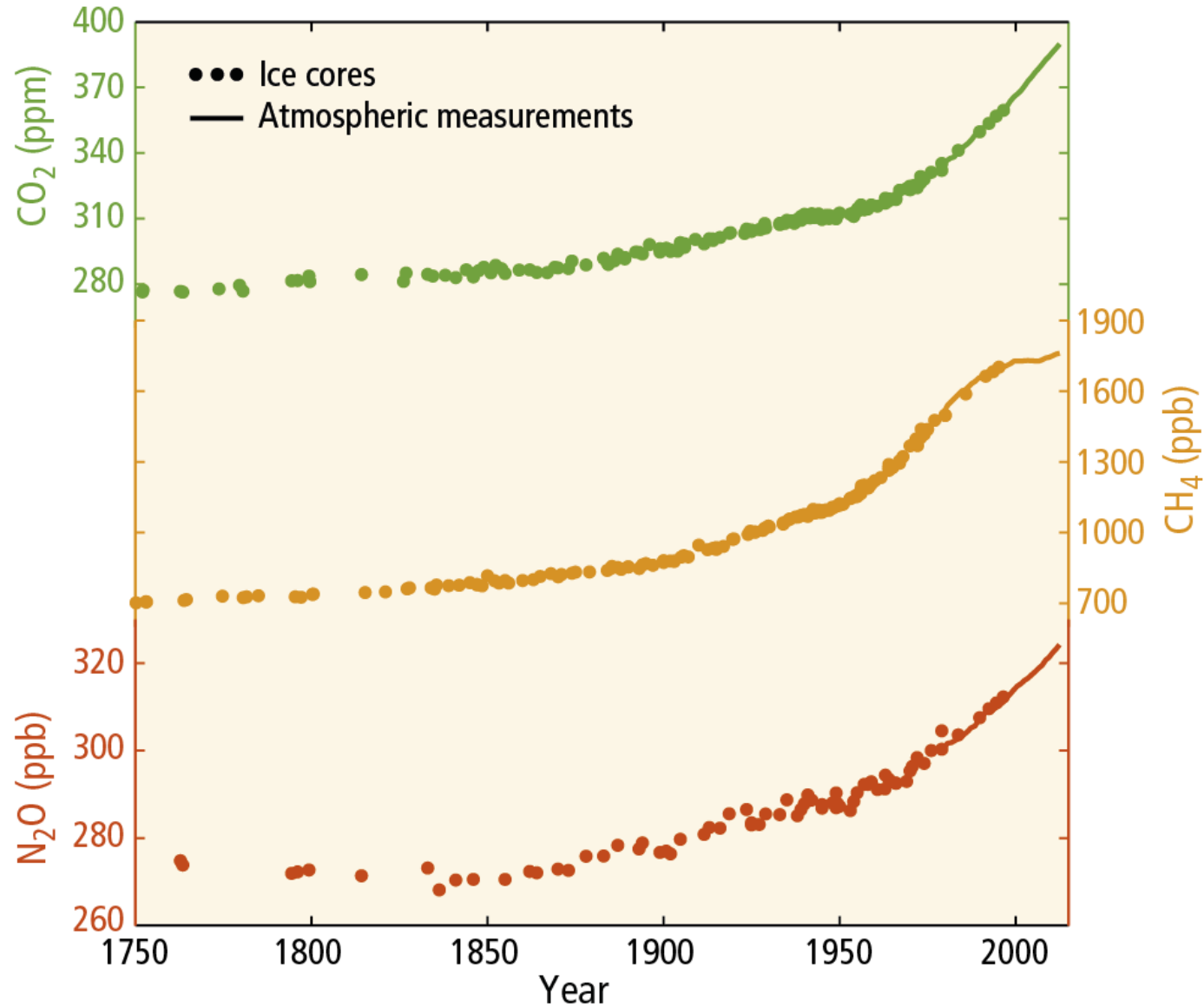
**18–19 September 2018**





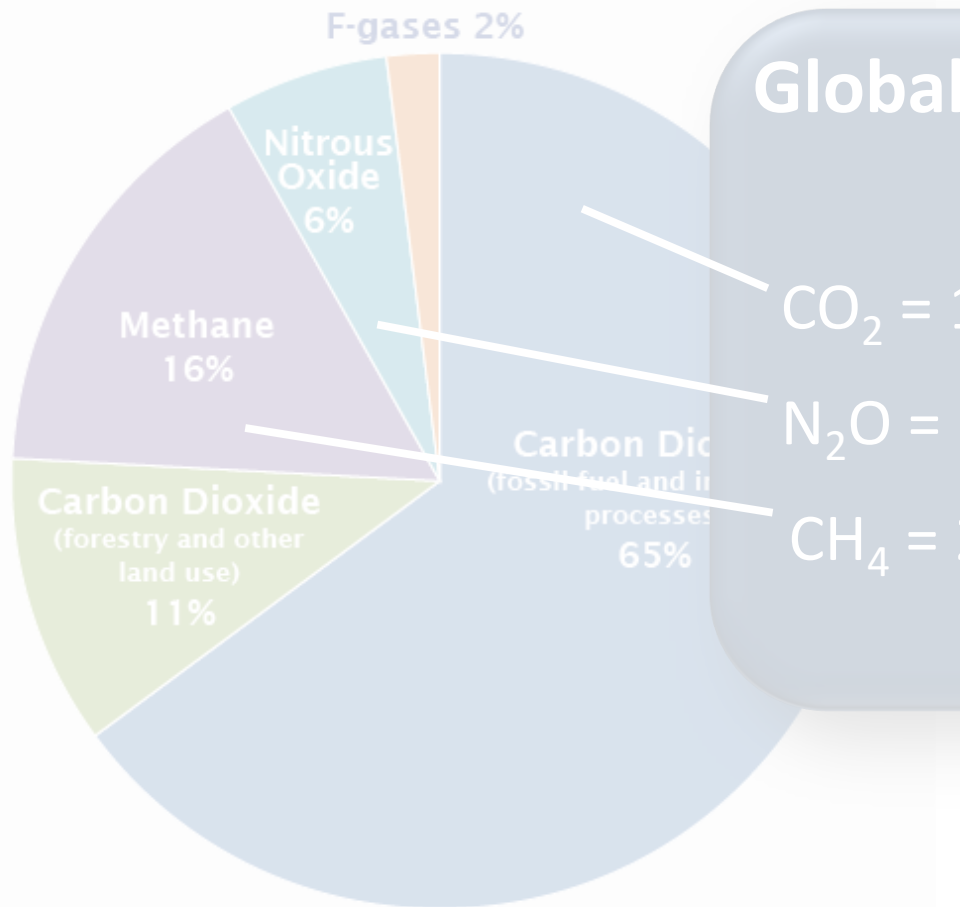


## Globally averaged greenhouse gas concentrations

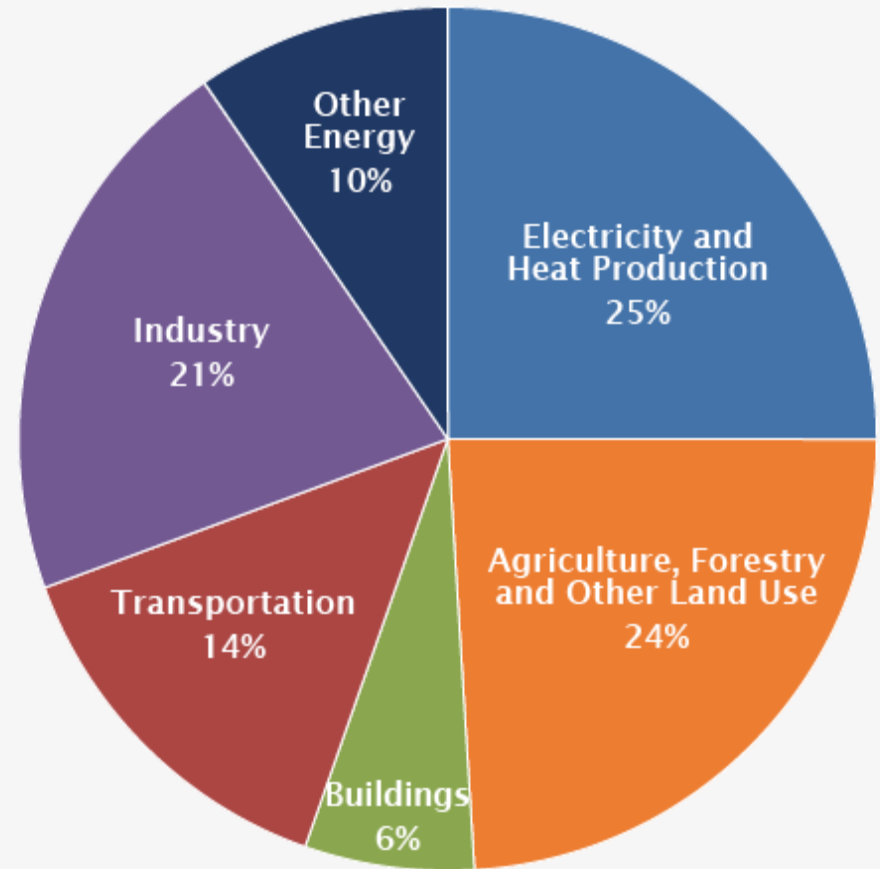


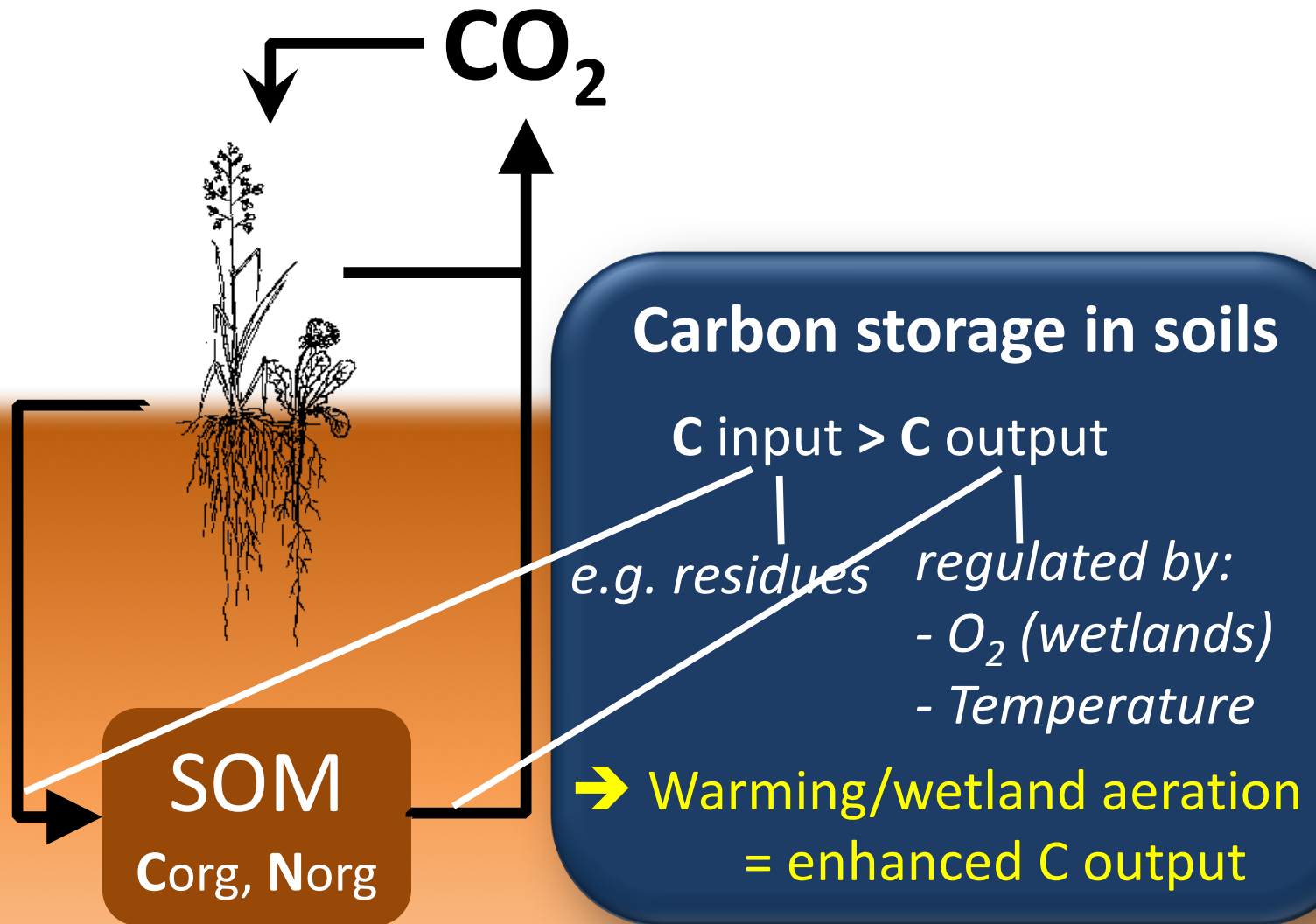
# Global Greenhouse Gas Emissions

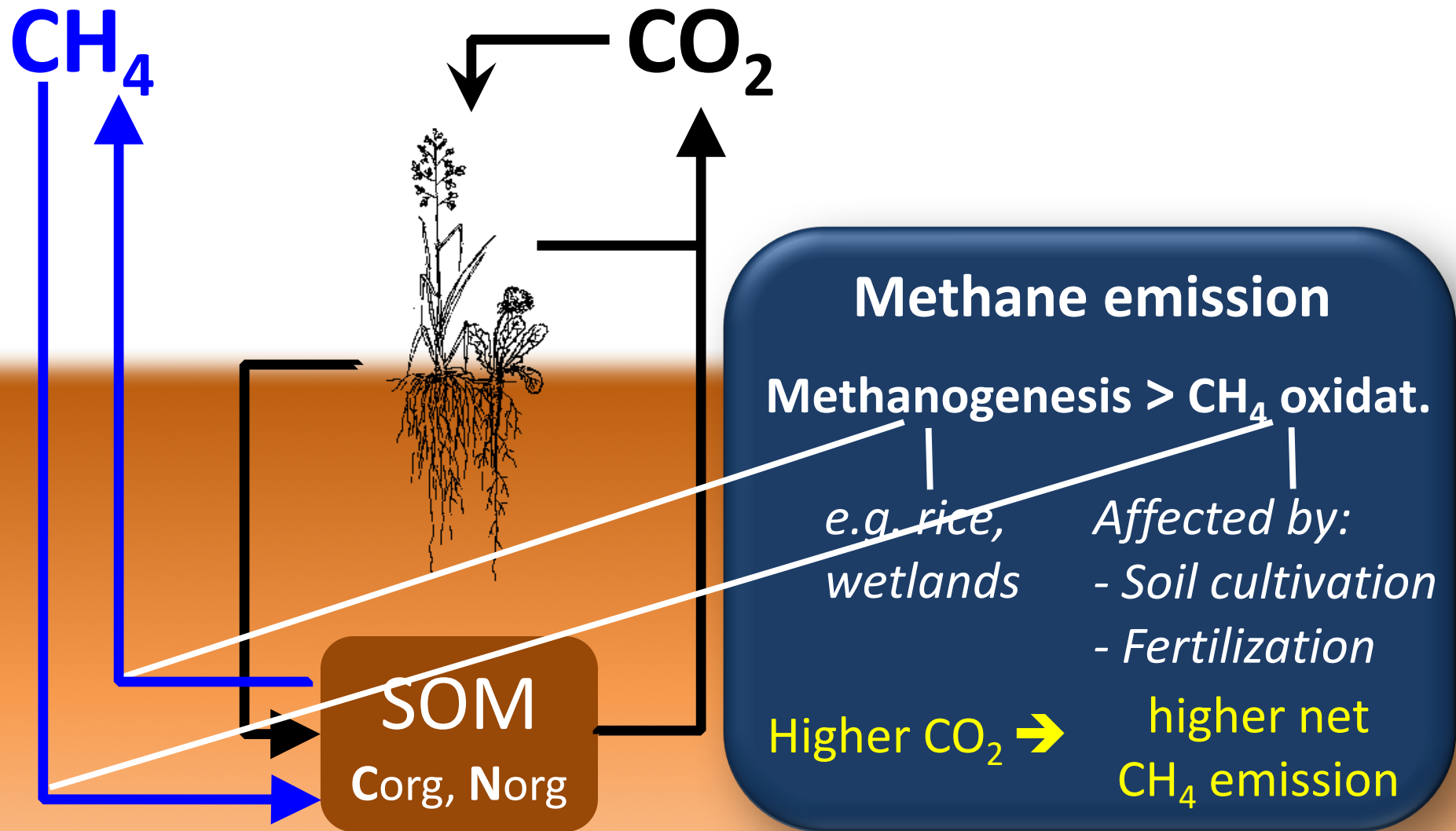
by Gas

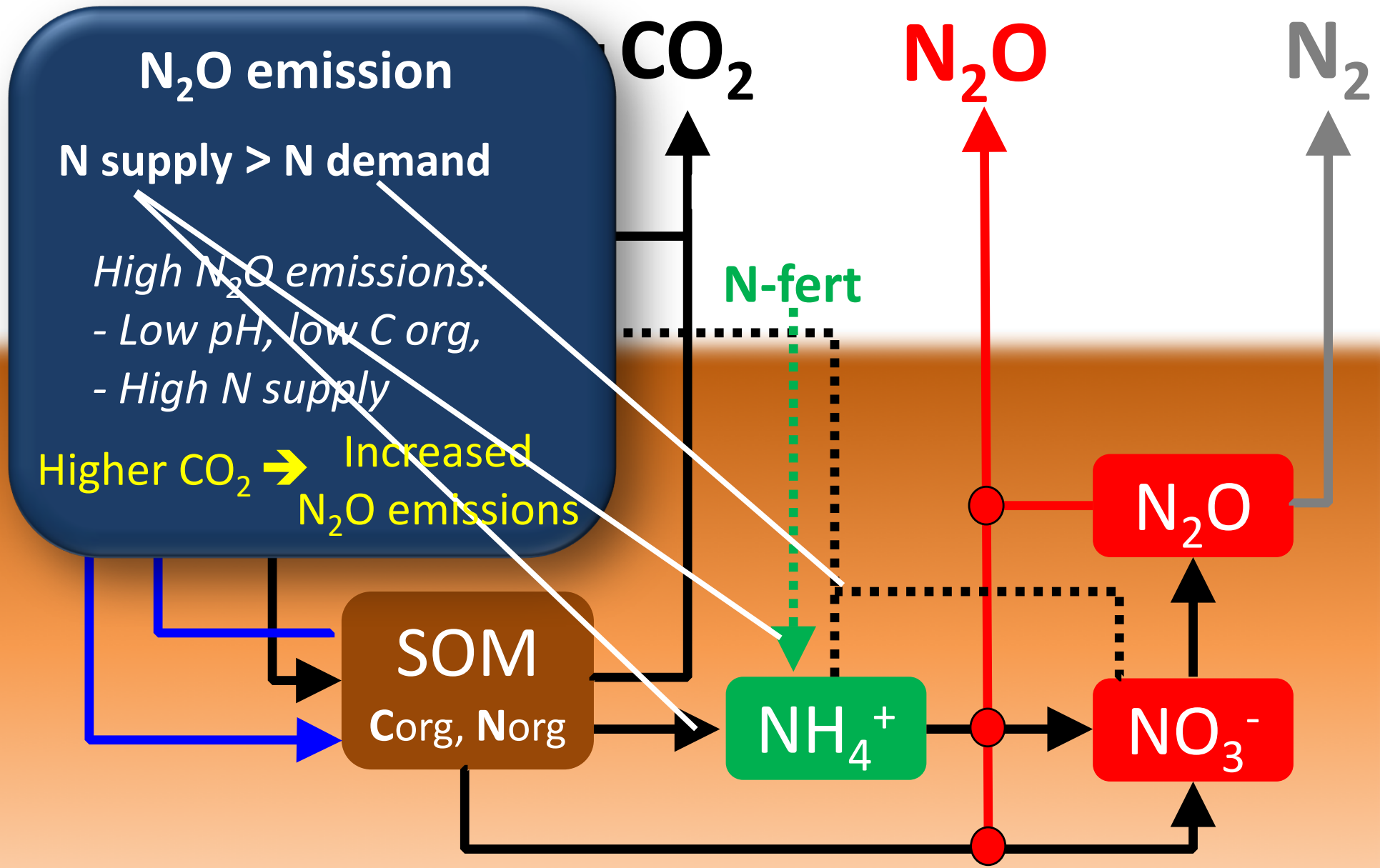


by Economic Sector

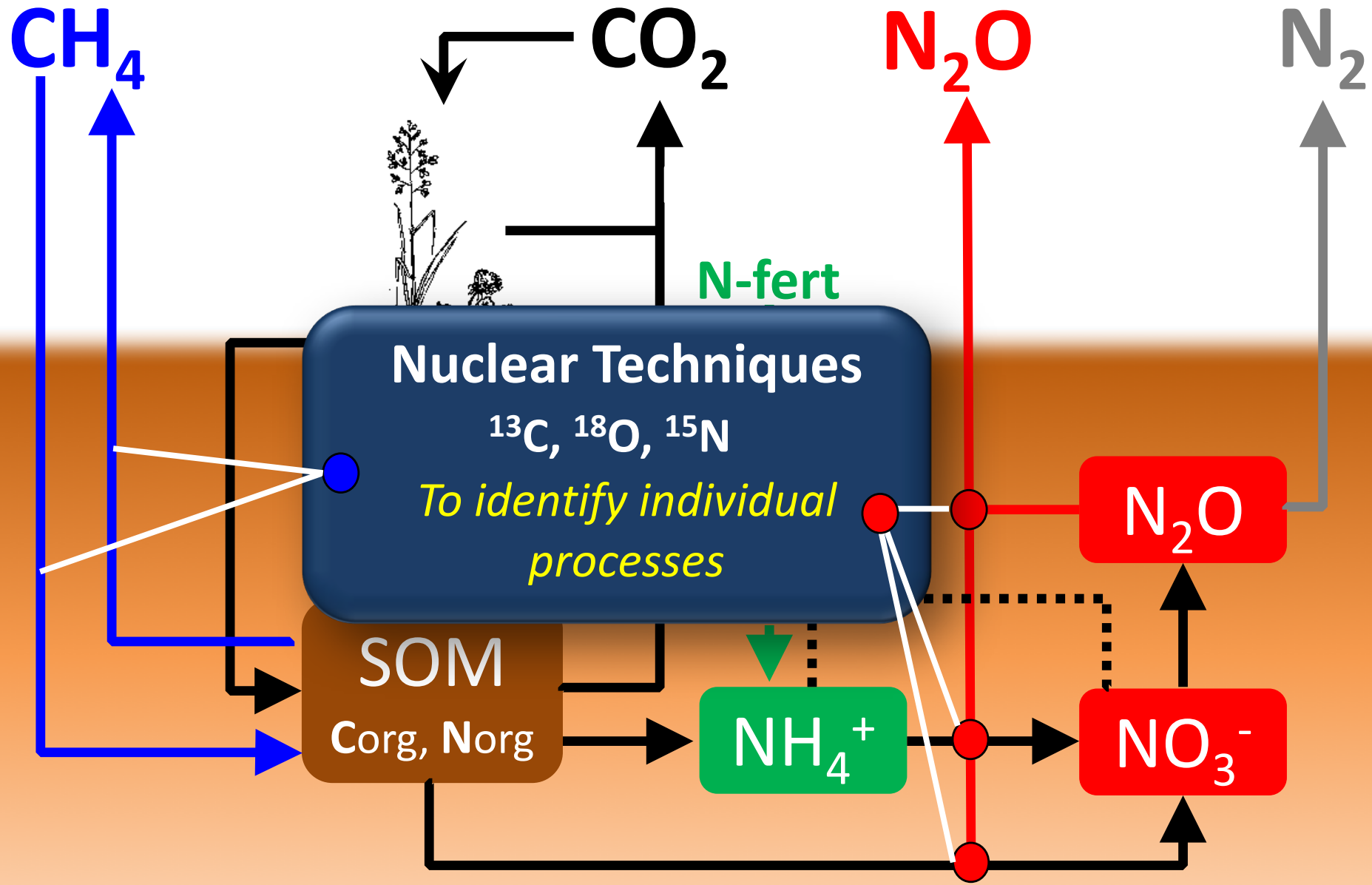








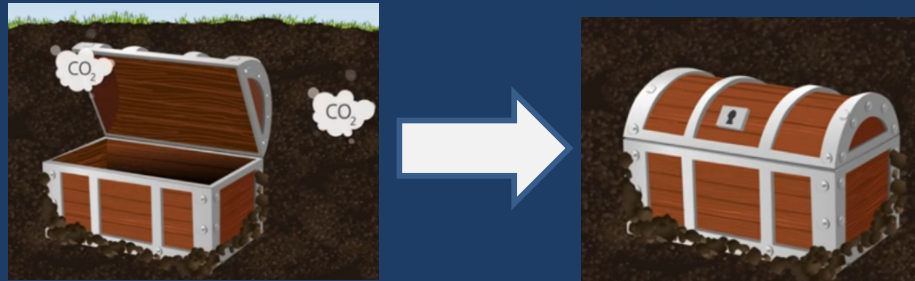






# Mitigation Options

- **Enhance Carbon Storage**
  - ➔ *peatland protection, rewetting*



- **Climate-Smart Agricultural Practices**
  - ➔ *optimize supply of nutrients and water*
- **Soil Amendments**
  - ➔ *Inhibitors, biochar*

N<sub>2</sub>



**“The Nation that destroys its soil destroys itself.”**

*Franklin D. Roosevelt, 1937*

