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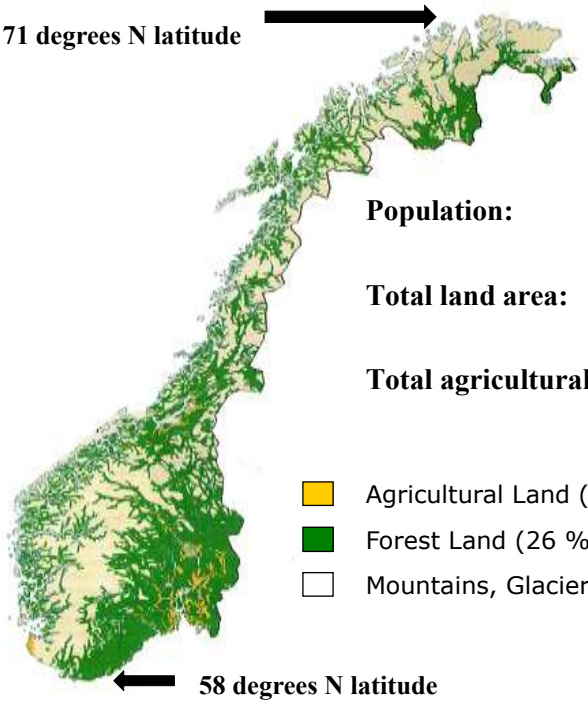
Implementation of WFD in Norway

Norwegian farmers view

BFFE Conference Hanasaari, Espo, February 25 – 26, 2015
Mr. Finn Erlend Ødegård, senior advisor, Norwegian Farmers Union

Vi får Norge til å gro!

71 degrees N latitude



Population: **5 million people**

Total land area: **324.000 Km²**

Total agricultural land: **1 mill ha (3 %)**

Agricultural Land (3 % of total area)
Forest Land (26 % of total area)
Mountains, Glaciers etc

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58 degrees N latitude

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Main traits - Norwegian agriculture

180 000 land owners

44 000 active farmers

Average about 22 ha of agricultural land per farmer

Milk and meat main productions

Cereal production on 32 % of tot farmland

39.000 employed in the food industry

Total self-sufficiency is less than 50 percent

Outside EU – part of EEA-agreement

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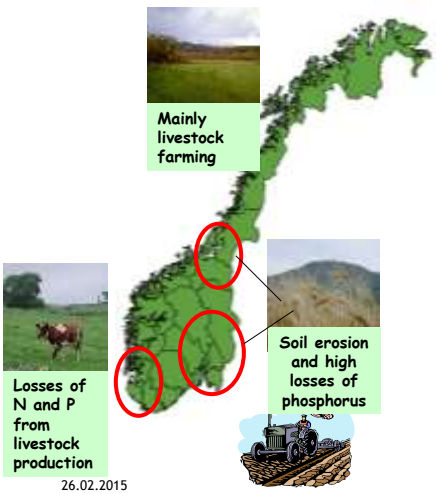
Differentiated challenges



- **Production structure:**
  - Livestock production in South-Western and Northern parts
  - Cereals and arable crops in south-Eastern and central parts
- **Specific environmental problems linked to**
  - Livestock production
  - Arable crops and soil erosion

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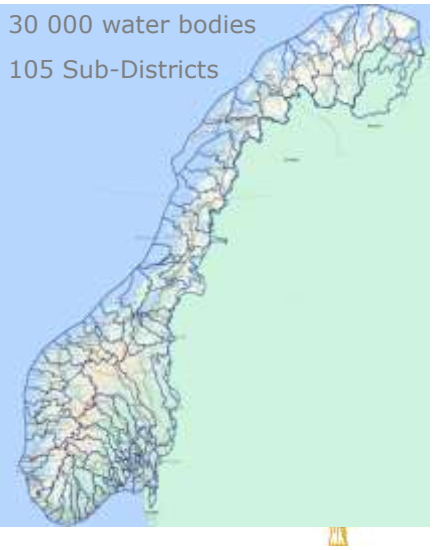
WFD organization in Norway

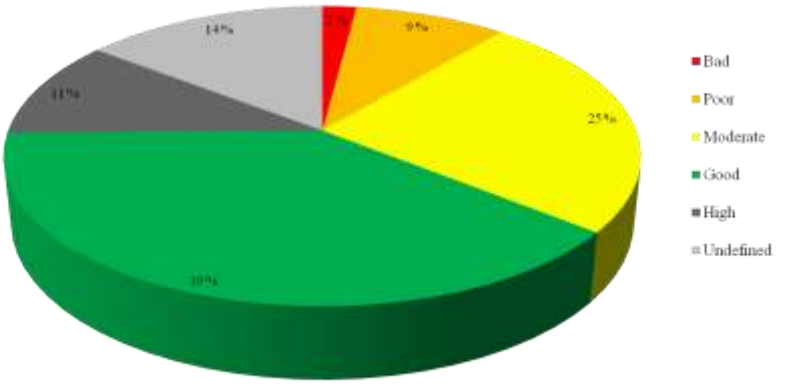
11 River Basin Districts

30 000 water bodies

105 Sub-Districts



Environmental status of water in Norway



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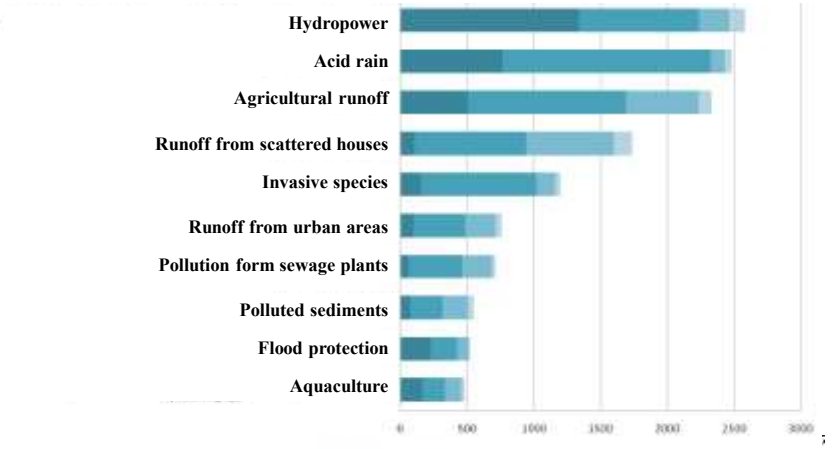
Pressures on watercourses in Norway

The 10 most important pressures on watercourses in Norway



Effect: High – Medium – Low - Unknown

Impacts on watercourses from agriculture

- Erosion
- Runoff of Nitrogen and Phosphorous
- Algal blooming
- Eutrophication

Tool box:
Economic, Legislative and Regulatory Instruments

Economic incentives to compensate costs and loss in crop yield

- **National level:** Direct payments with cross-compliance
  - Erosion controll – (riverbank)
  - Fertilizer plan
  - Pestiside license
  - Landskape (conservation)
- **Regional agri-environmental programs:**
  - Regionally tailored schemes
- **Municipality level:**
  - Targeted at local environmental issues

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Web based guide for farmers

www.bioforsk.no/tiltak

1. **About the guide and more**
2. **Options of measures**
3. **Practical instruments and tools for the management**

Handling of manure

- From problem to resource
- Storage
  - minimum 8 months today
- Modern technics
  - Used it as a resource in growth season

- Reduced tilling in autumn

- Constructed wetlands, sedimentation ponds

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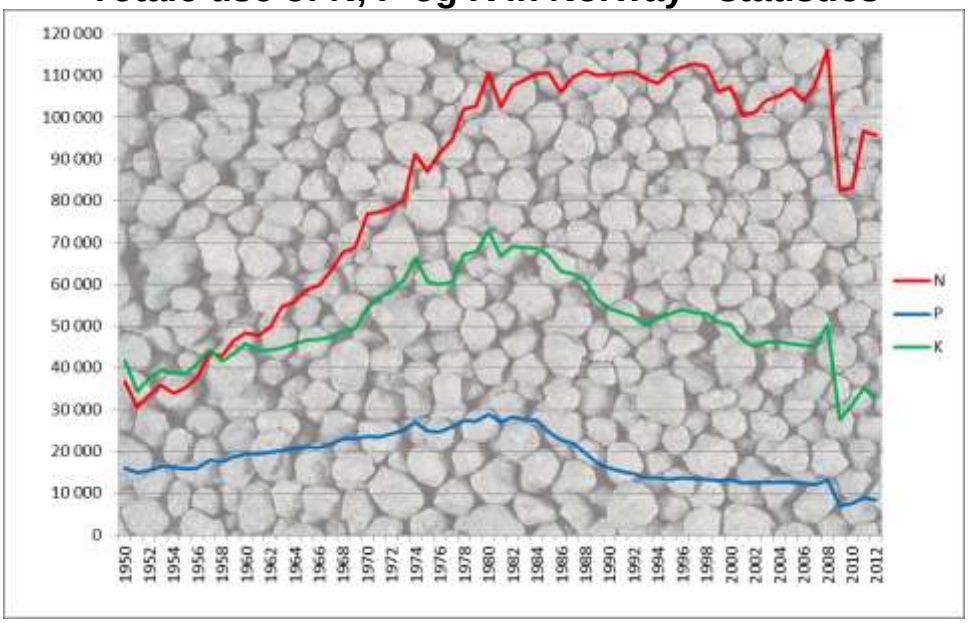
Totale use of N, P og K in Norway - statistics



Riperian zone management

Clay – marine deposit up to 180 metres above sea level

Clay slide

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Hydro-technical measures - Improved draining

Mitigation of and adaption to climate change

Hold back water in watershed area

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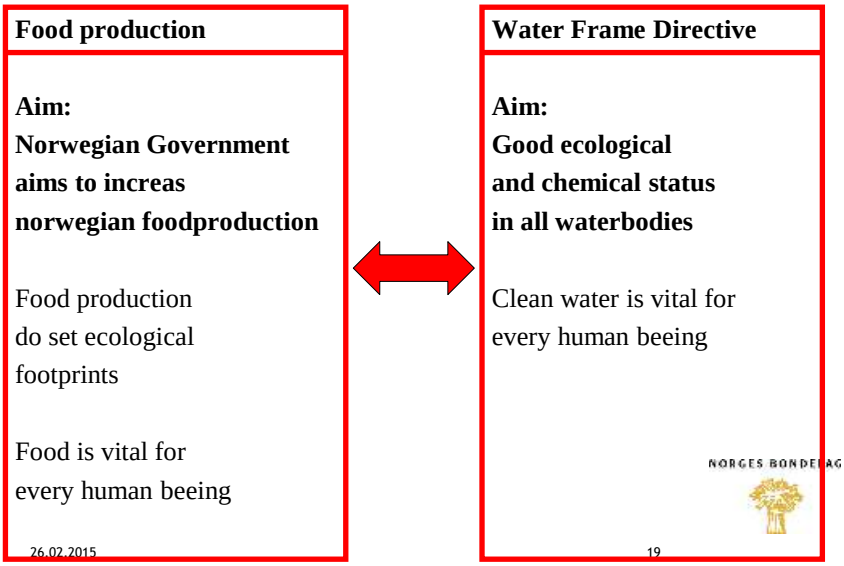
Goal conflict



We need smart agriculture

A total ban on tilling in autom may result in:

- Reduced erosion and runoff from farmfields
- Blooming of mycotocsines and fusarium disease in cereal
- Worsen soilstructure and redused crop yield
- Increaced weedproblems and use of pecticides

The decision on whether to plough or use minimum tillage must be left up to the farmers who have all the necessary information and not up to law makers!

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Expirience from imlementation of WFD

Principle of cost-efficiency:

- Waste water sector argue that it is cheaper to reduce P in agriculture than to treat sewage from scattered houses

Insufficience funding of National surveillance of water bodies:

- Many water bodies lack vitale data for characterization and classification
- Environment authority want to impose farmers to finance water surveillance

Diffuse runoff:

- To little knowledge about natural runoff from areas with marine deposit – (clay)

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