Agri - environmental schemes for soil and water

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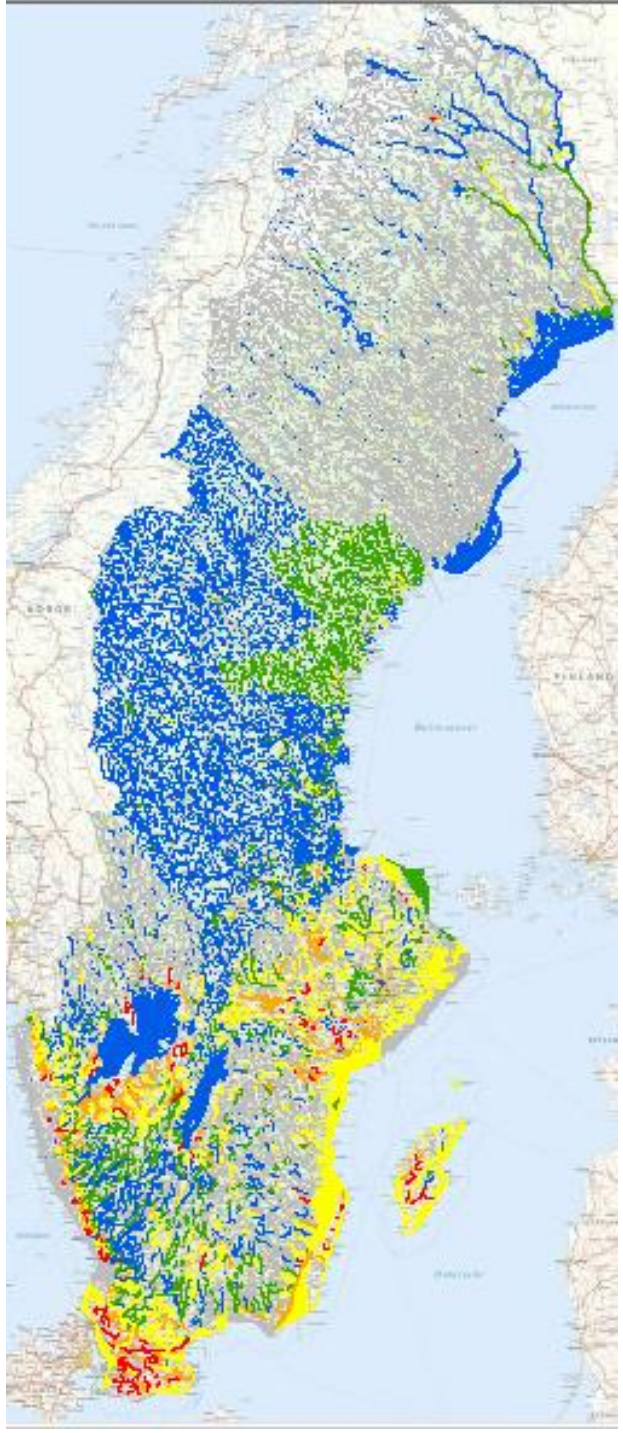
Sweden - the kingdom of 96 000 lakes

Yet needs for improved water quality



Water quality in terms of nutrient load (WFD)

Source: The Water Authority in the South Baltic Water District

Schemes for water and soil in RDP

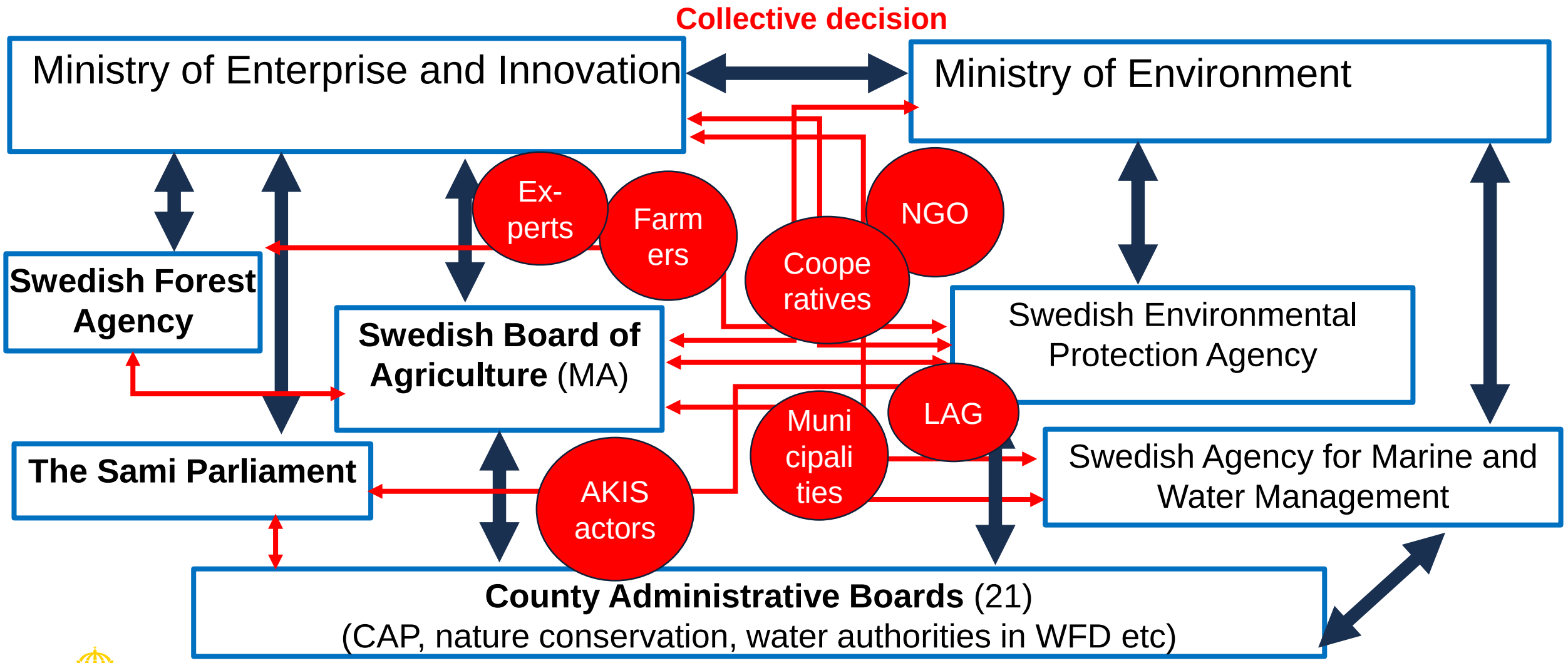
Agri-environmental schemes

- Buffer strips and buffer zones
- Catch crops
- Spring tillage
- Extensive management of permanent grassland

Investments for environment

- Wetlands and ponds
- Two-step ditches
- Regulated drainage
- Structural liming
- Limefilling ditches

Speaking the same langue for CAP in SE



Ex 1. Catch crops

Positive aspects

+ Well established measure
+ Effective on nutrients
+ Acts as carbon sink
+ Enables continued production

Some challenges today

- Sensitive to variations in weather, soil and crop rotation
- Unattractive scheme due to rules and risk for sanctions
- Farmers mess up with the greening?

Future possibility: Annual eco-scheme, indicators for multivalues?

Ex 2. Buffer zones and buffer strips

Positive aspects

+ Well established measure
+ Reduce runoff
+ Acts as carbon sink
+ Protects from pesticides
+ Adds features to landscape

Some challenges today

- Messed up with the greening
- Payment in some cases far to low
- Rules and risk for sanctions
- Need for regenerate the zone don't necessarily follow the 5 year round
- Great variation in effect

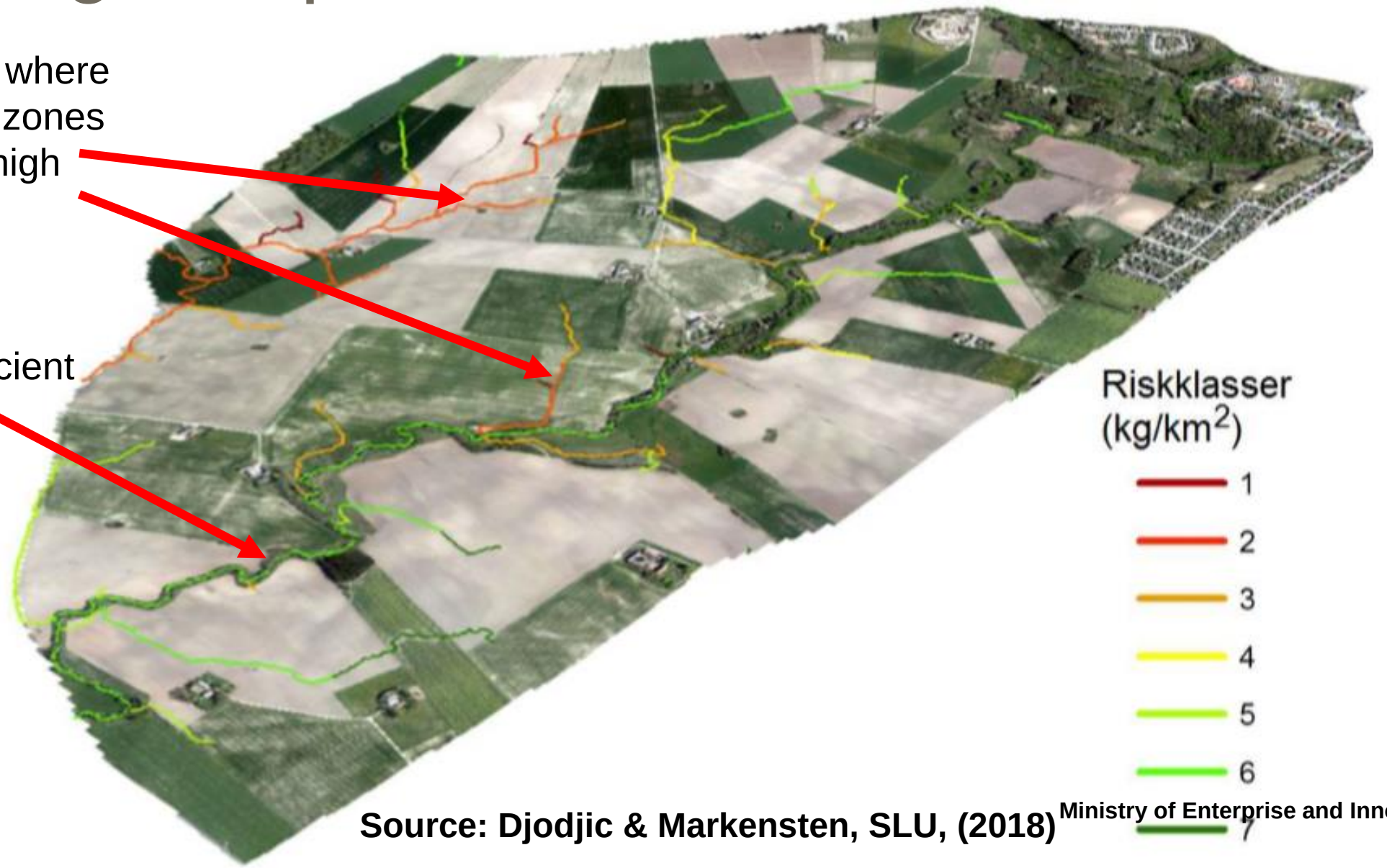
Future possibility:

Scheme with paymenet based on modelled effect?

Mapping for spots with risk for erosion

Areas where buffer zones adds high value

Not efficient spot



Source: Djodjic & Markensten, SLU, (2018)

Ex 3. Structural liming (reactive CaO + $Ca(OH)_2$)

Positive aspects

+ Improve clay soil structure
+ Reduced P runoff
+ Attractive for farmers due to increased soil stability and yield
+ Relativly cheap

Some challenges today

- Great variation in effect between different field situations
- Uncertain effect in the long run
- Not accepted in organic farming
- Better and more simple subsidy through national funding in SE

Future possibility:

Continued farm advice + simpler measure attractive enough to include the risk for failure?

Further discussions in SE

1. How to design effective voluntary actions that attracts farmers with lack of time and fear of administration?

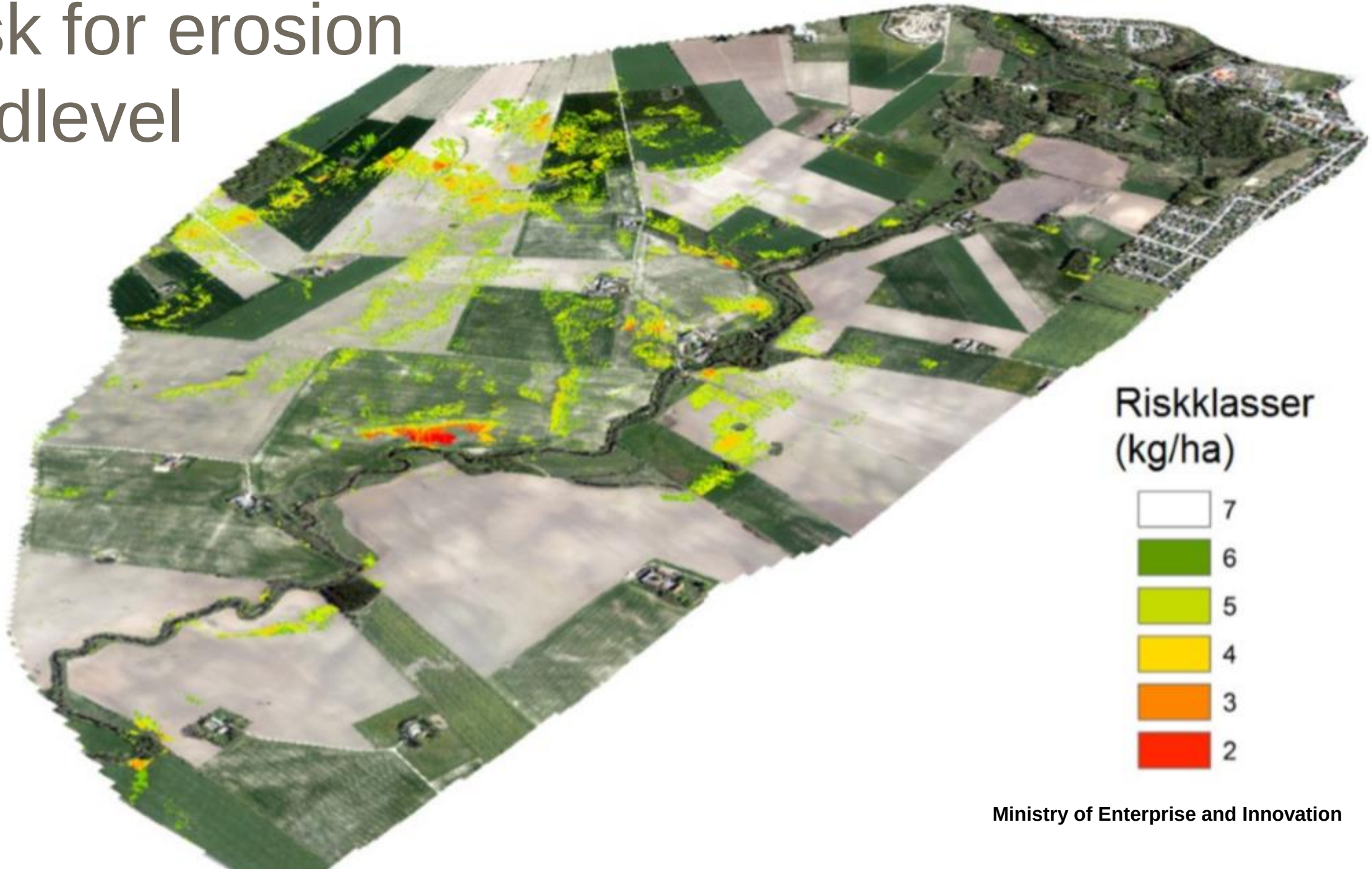
2. Where do we find the balance between simplification and well targeted measures?

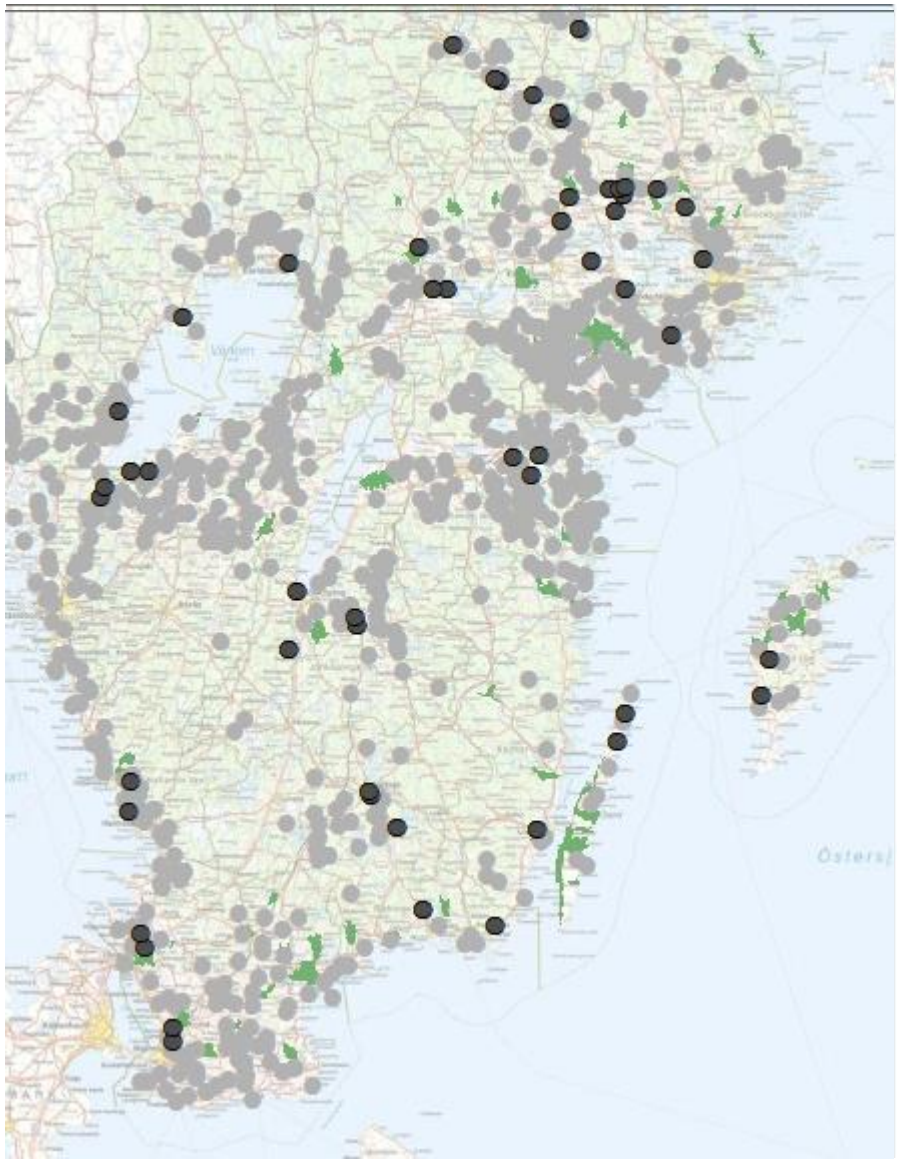
3. How to get measures done on high value farms or soils with the approach of average ”aditional costs and income forgone”?

4. Indicators and payment for multifunctions?

Thankyou

Risk for erosion fieldlevel





Wetlands as a mean to reach good ecological status in WFD

- Established wetlands, RDP 2016-2018
- Proposed new establishments until 2021
- Proposed new establishments 2021-2027

Source: The Water Authority in the South Baltic Water District