

Water protection and sustainable water use

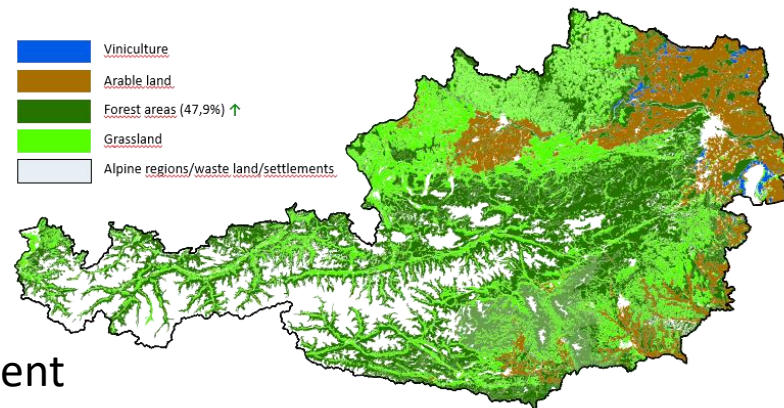
Contribution of Austrian CAP Strategic Plan

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Agriculture in Austria

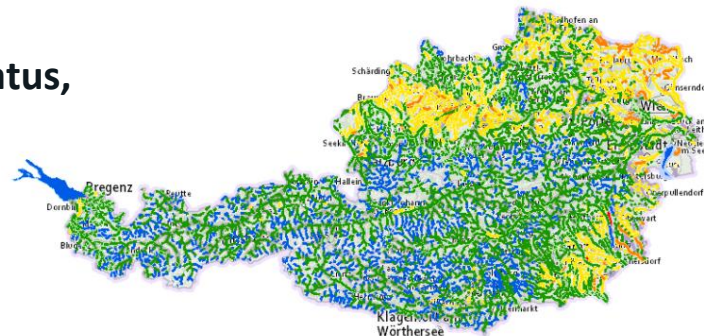
- **family-farm-based agriculture** (Ø 25 ha UAA)
- ~ 104.000 farms, ~ 44 % **part-time** farmers,
high share of young farmers (~ 24%)
- relatively **low production intensity**,
> 80 % of the agricultural area in agri-environment
- high proportion of **organic farming** (27% of agricultural area) and **less-favoured areas** (3/4 of the area)
- Strong focus on **high-quality food** and **regional marketing**
- **CAP-payments** have high share on farm income



Pressures to surface waters and groundwater

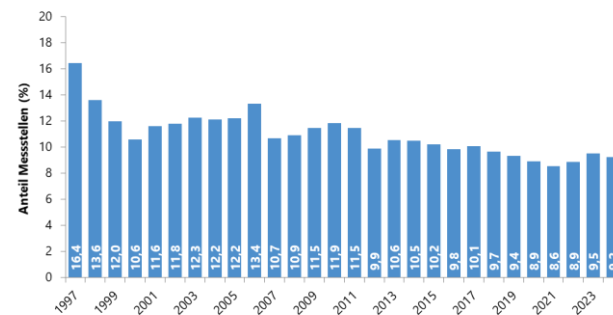
• Surface Waters

- about **20%** of water bodies **not in good ecological status**,
mainly nutrients (P), oxygen consuming substances
- sources: point sources (WWTP)
 diffuse sources (erosion)



• Groundwater

- 5 gwb (out of 132) not in good chemical status due to
nitrates (2 gwb: env. objectives in gw-dependent surface
waters not met)
- 1 gwb not in good chemical status due to
pesticides (metabolite of Dimethachlor/Metazachlor)

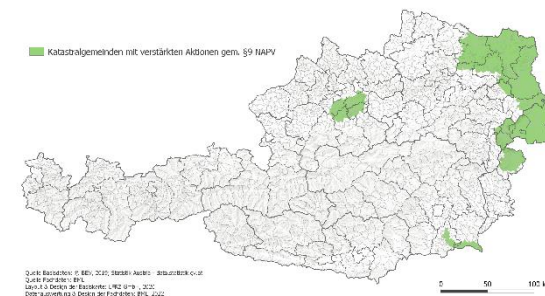


Instruments

| Measures | Implementation |
|--|--|
| Surface Waters | |
| Measures to prevent/reduce erosion | NAP, GAEC 5 (erosion prevention) and 6 (minimum soil cover) |
| Measures to prevent/reduce sediment discharges into surface waters | Buffer strips: NAP (3m) – all surface waters, GAEC 4 (5-10m) – wb not in GES (nutrients) |
| Groundwater | |
| Nitrates action programme (NAP), regional groundwater protection programmes (specific gw bodies) | Whole territory approach; more stringent measures for NVZ (see map) |
| Agri-Environment Program ÖPUL 2023 | Voluntary basis |

In areas with higher risk

- reduced fertilizer limit (10%-15%)
- extended record keeping (incl. yield, N-balance)
- Storage capacity >10 months



Contribution of CAP Strategic Plan – water quality

Agri-environmental program

ÖPUL 2023 (incl. eco-schemes)

- thematic areas: **animal welfare, water and soil protection, climate and air quality, biodiversity**
- management practises **beyond legal requirements** on **voluntary basis** with financial compensation
- measures applicable either to all or to dedicated agricultural areas

| General | Grassland | Arable land | Permanent crops | Animals |
|---|---|--|--|---|
| Environmentally sound and biodiversity-promoting management | Limitation of yield-increasing inputs | Greening of arable land - catch crops | Erosion control in vineyards, fruit and hops | Preservation of endangered livestock breeds |
| Organic Farming | Hay farming | Greening of arable land - "Evergreen" system | Non-use of insecticides in vineyards, fruit and hops | Animal welfare - herding |
| Near-ground application of liquid farm manure and manure separation | Management of mountain meadows | Erosion control arable land | Non-use of herbicides in vineyards, fruit and hops | Animal welfare – pasture |
| Nature conservation | Alpine pasturage | Preventive groundwater protection - arable land | Use of beneficial organisms in greenhouses | Animal welfare – stable husbandry (cattle) |
| Results-oriented management | Humus preservation and soil protection on grassland eligible for conversion | Water Framework Directive – agriculture | | Animal welfare – stable husbandry (pigs) |
| | Natura 2000 and other protected areas - agriculture | Non-productive arable land and agroforestry strips | | |

AECM – groundwater protection

ÖPUL groundwater protection (=package)

- taking into account N-surplusses
- mandatory catch crops
- Record keeping and trainings
- Soil samples
- PPP limitations

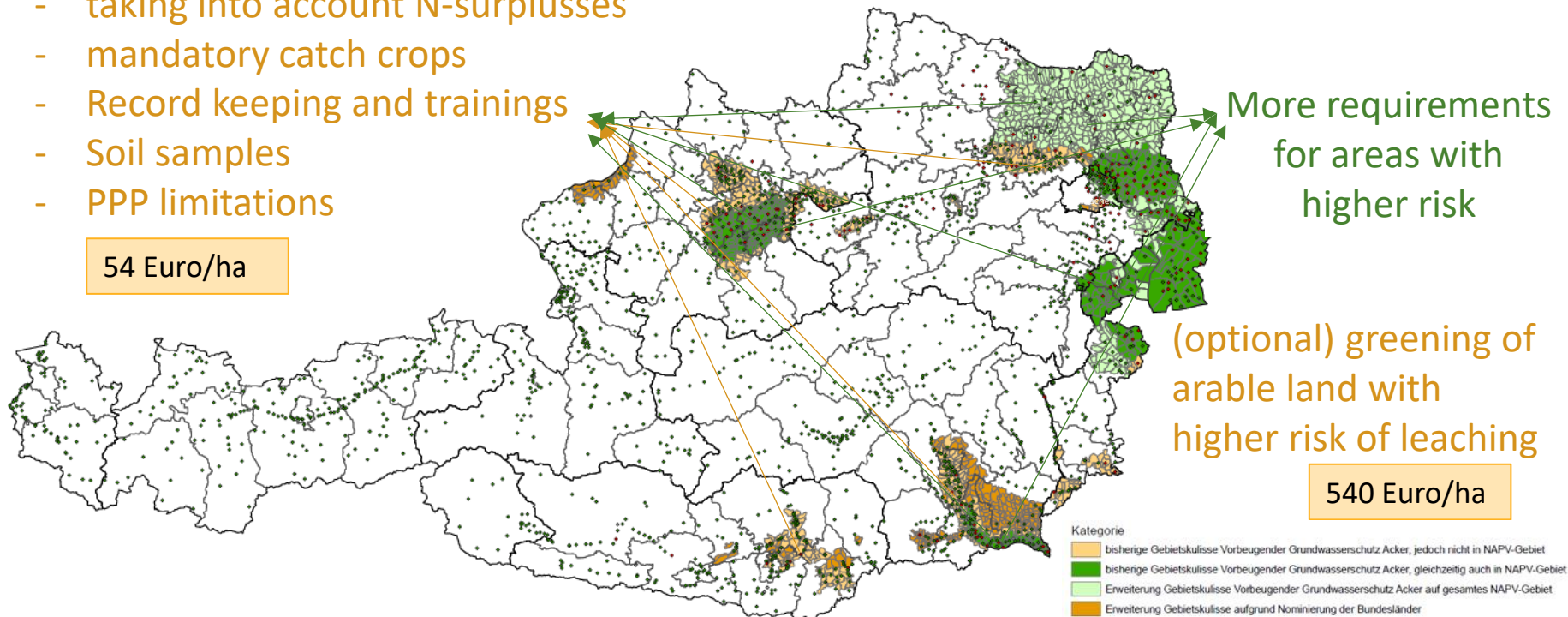
54 Euro/ha

Mandatory: Nitrates
Action Programme
for all agricultural
land in Austria

More requirements
for areas with
higher risk

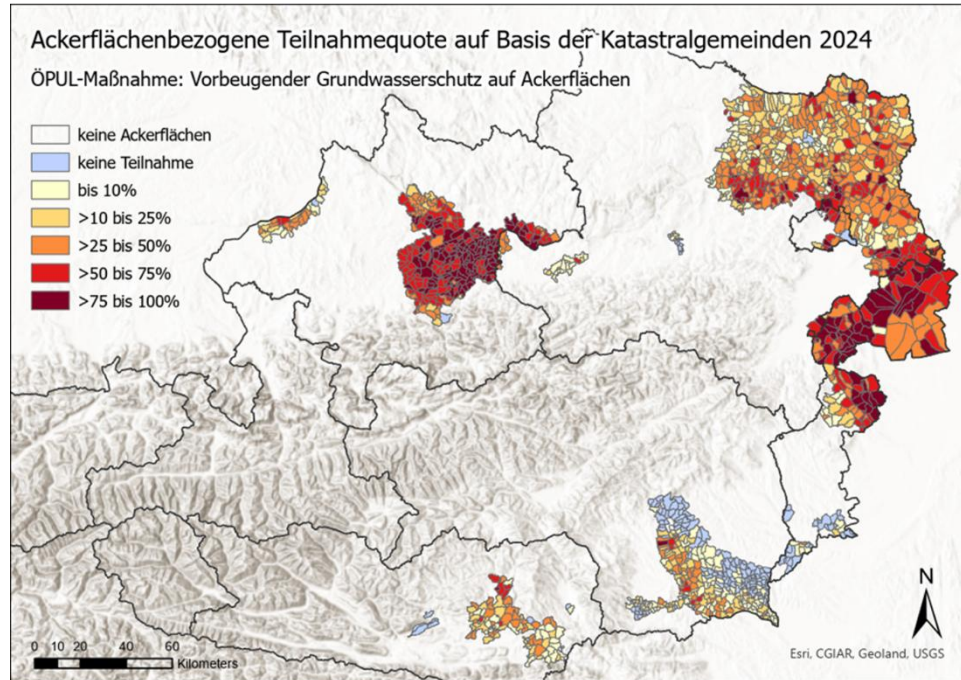
(optional) greening of
arable land with
higher risk of leaching

540 Euro/ha



Participation and effectiveness - ÖPUL 2023 (gw protection)

- Participation in AECM groundwater protection measure varies with region
- Effectiveness currently evaluated (finalised by end 2026)
- Feedback from farmers (interviews):
 - positive effects on gw protection, complicated, compensation too low (participating farms)
 - High bureaucracy, limitations in fertilization and plant protection, lower yields expected (reasons for not participating)



Education, training and awareness raising

- Dedicated measures (training) part of the CSP, also requirement for participating in AECM measures
- Services for **consultation** and **awareness raising** provided on regional level in cooperation with **regional governments** and **regional agricultural chamber**
- Nitrate information service (NID)
 - Recommendations for fertilization for typical crop rotation for different regions based on soil analyses



DÜNGEMPFEHLUNGEN

Marchfeld
Nördliches Tullnerfeld
Südliches Tullnerfeld
Prellenkirchner Flur
Zillingdorf/Lichtenwörth/Neufeld

UNTERSUCHUNGSMETHODEN

Soilwertmethode
Erstellung Düngempfehlung
Soilwert
Umrechnungsmethode
N-Tester

Download NID-Folder (2 MB)

A green tractor is shown in a field, likely performing agricultural work. The field has rows of young plants, and the tractor is moving through them.

MARCHFELD

Düngung Winterweizen 2019

Aktuelle Nmin-Untersuchungsergebnisse weisen heuer folgende Reduktionsmöglichkeiten bei der N-Düngung aus

Nach Vorfrucht Karotten: 20 kg N/ha
Nach Vorfrucht Mais: 25 kg N/ha
Nach Vorfrucht Spinat (+ ev. Bohne): 35 kg N/ha
Nach Vorfrucht Zwiebel: 40 kg N/ha
Nach Vorfrucht Kartoffel, Rübe, Durum: 45 kg N/ha

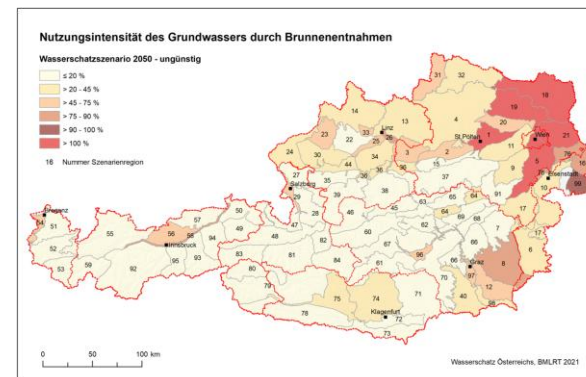
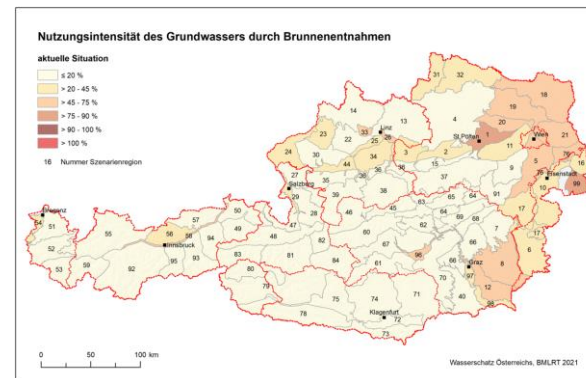
Die dargestellten N-Düngungseinsparpotentiale beziehen sich auf die gesamte Vegetationsperiode. Der überwiegende Nmin-Vorrat befindet sich im Bodenhorizont 60 - 90 cm.

Nmin-Vorräte vor Kartoffel und Zwiebel

Abhängig von der Vorfrucht ergeben sich unterschiedlich hohe Nmin-Vorräte (0 bis 60 cm) bzw.

Long-term availability of groundwater resources

- Study „**Wasserschatz**“ (2021) assessed the available groundwater resource and groundwater use today and in 2050:
risk of regional/local shortages in 2050
- Possible future local conflicts of use between water supply and agriculture
- Solutions so far mainly on the supply side; more water demand management required



Recommendations (Wasserschutz)

- **Improve knowledge base**
 - Review of permitted abstractions, documentation of droughts, guidance on how to tackle droughts,...
 - ➔ Central register on water abstractions (currently ongoing)
- **Reduce water demand**
 - Increase **water use efficiency** in agriculture (CAP provides subsidies for water-saving irrigation technology, water retention and storage)
- **Availability of water resources**
 - Increase water retention

Contribution of CAP Strategic Plan – water quantity

- Project funding (support of investments)
 - Investments in rehabilitation of existing or new **irrigation infrastructure** (minimum requirements for increased water efficiency: 15-20%)
 - Investments to improve local water management by **increasing water and sediment retention** (natural or technical retention basins or landscaping)
- Support for **rewetting of wetlands** and wetland protection
 - ÖPUL: „Nature conservation measure“, tailored management since 2025 management of wet grassland)
 - GAEC 2: Protection of wetlands and peatlands (prohibition of new drainages, peat mining, landscaping, etc.)



Conclusions

- **Solid legal framework** sets the basis for additional measures (NAP), complexity of rules seems to increase → simplification without less stringent rules?
- Agri-environment programme has **main role** in preserving and promoting agricultural practices → positive contribution to environment and climate
 - **broad measures** all over Austria → organic farming, greening
 - **targeted measures** for regions → specifically water protection and biodiversity
- participation in high productive areas are lower than in other regions
→ **challenge to include intensive farms and intensive regions**
- **Training, awareness rising** and specific project-measures are **important** for successful implementation; **pilot farms** are drivers to convince reluctant farmers

Thanks for your attention!

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