



# Water resilience in the CAP Strategic Plans

An assessment of interventions proposed by Member States

*CDG Environment & climate change*  
13.11.2023

# Scope

Screening of CSPs focussed on:

- area-based interventions:
  - agri-environment climate (AEC) interventions
  - eco-schemes
  - WFD and N2000 payments
- productive investments (incl. in irrigation, precision farming,...)
- non-productive investments, infrastructure

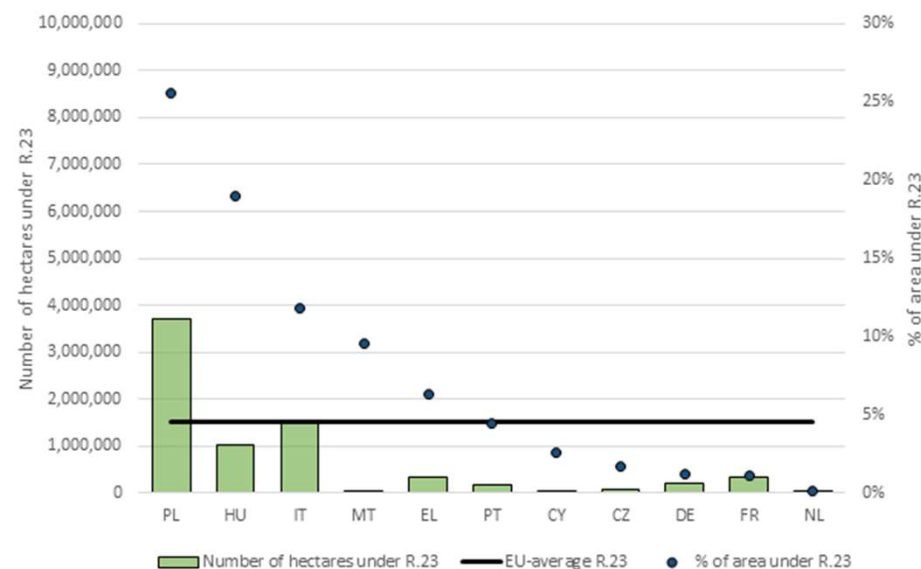
*\* N.B. this analysis is based on the initial approved CSP versions*

# Result indicators and targets (1)

## Main result indicator:

### R.23 (Sustainable water use - Share of UAA under supported commitments to improve water balance)

- EU average: 4,5%
- activated in 11 MS



## Result indicators and targets (2)

- **R.12 (Adaptation to climate change - Share of UAA under supported commitments to improve climate adaptation): 25%**  
- all MS except EE, LU, MT and RO
- **R.26 (Investments related to natural resources)**
- **R.27 (Environmental or climate-related performance through investment in rural areas)**
- **R.16 (Investments related to climate)**
- **Other relevant RIs are covered in other analytical papers:**
  - **R.21 - Protecting water quality (21%), R.22 - Sustainable nutrient mgt (15,2%), R.24 (sustainable use of pesticides), R.29 (organic)**
  - **R.14 - Carbon storage in soils / biomass: (35%), R.17 – afforested land (afforestation, agroforestry)**
  - **R.19 - Improving and protecting soils (47%)**

# Relevant GAECs

- new SMR1 linked to WFD (controls on abstraction and impoundment (along with controls on diffuse sources of pollution))
- GAEC 2 (protection of wetland and peatland)
- GAECs 5, 6 and 7
- GAEC 8
- GAEC 1 and GAEC 9
- In relation to quality: GAEC 4 (buffer strips along water courses)

# Relevant interventions

- Screening of CSPs looked at:
- R.23
- Relevant interventions under R.12 (Adaptation to climate change), R.16 (Investments related to climate), R.26 (Investments related to natural resources), R.27 (Environmental or climate-related performance through investment in rural areas)
- Investments in irrigation and water storage (expansion) (R.9, R.39)
- Relevant interventions under WFD and Natura 2000 payments

# Area-based interventions under R.23

In total 29 interventions in 10 Member States:

- 12 eco-schemes, 17 agri-environment and climate (AEC) interventions
- Interventions focus on:
  - improving organic carbon content of the soil, crop rotation systems, catch crops, cover crops, agroforestry, afforestation, reduced tillage, specific residue management, mulching, integrated production or agro-ecological practices.
  - more climate adapted / water resilient crops and varieties
  - Smart water / irrigation management

# Interventions under R.12

- 69 AEC interventions in 22 Member States and 45 eco-schemes in 22 MS
- Broad range of practices linked to:
  - soil management (increase of soil organic carbon, catch and cover crops, erosion protection, reduced tillage, soil cover, crop diversification, legumes, buffer strips)
  - conservation agriculture, integrated production
  - grassland management, permanent pasture and forage autonomy
  - conversion of arable land to grassland, agro-ecological land use change
  - agroforestry, afforestation
  - conservation of genetic resources, local breeds and varieties
  - wetland management



# Selected interventions under R.23 and R.12

- Use of more climate adapted / water resilient crops and varieties:
  - GR (eco-scheme), BE-FL 1 eco-scheme, 1 AEC), BG (2 AEC)
- Smart water management (and input mgt to reduce chemical and water inputs):
  - GR (eco-scheme): digital application of input management and monitoring of environmental parameters
  - FR (AEC): water quality and quantitative management (arable crops, vegetable, wine and fruit production) - compensation for potential losses due to reduction of irrigation
  - IT (AEC): precision farming to reduce chemical and water inputs
  - IT (AEC): smart water mgt (irrigation)
  - PT (AEC): irrigation practices to reduce water use, efficient use of fertilisers

# Non-productive and infrastructure investments

- 21 CSP (AT, BE-FL, BE-WL, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IT, MT, NL, PL, PT, RO, SE and SK) include investments targeting water retention
- 28 interventions (17 on-farm, 7 off-farm, 4 infrastructure)
- Typical examples of NPI: investments in landscape features, wetland, peatland and stream restoration, ponds and terraces, as well as various forest features which can enhance water retention in soil and landscape, increased infiltration, reduce runoff and erosion into surface water

## Productive investments - irrigation

- Investments in irrigation (on-farm installations, infrastructure, water storage): > 52 interventions in 19 CSPs
- > 31 interventions in 17 CSPs (AT, BE-FL, BG, CY, DE, EE, EL, ES, FR, HR, HU, IT, MT, PT, RO, SE, SI and SK): investments in improvement of existing on-farm irrigation installations and/or irrigation infrastructure to increase efficiency and reduce losses
- At least 5 MS (including EL, ES, FR, HU, IT) invest in use of reclaimed (recycled) water for irrigation
- Several MS support rainwater harvesting for irrigation
- > 21 interventions in 13 CSPs (AT, BE-FL, BG, ES, FI, FR, HR, HU, IT, PT, RO, SI, SK): invest in new / expansion of irrigation installations / infrastructure, as well as water storage (reservoirs).

## Productive investments (2)

- Example of Spain:
- Within broad investment intervention (rel. to climate change mitigation-adaptation, efficient use of natural resources and animal welfare):
- investments to facilitate adaptation to new climatic conditions, e.g.:
- Promote diversification of production, changes in production orientation or conversion to / inclusion of crops and breeds less vulnerable in future climate change scenarios
- support change to multi-annual crops with lower water consumption and to varieties of crops resistant to drought, incl. by changing to threatened livestock breeds, which are better adapted (i.t.o temperature, humidity...).

## WFD and Natura 2000 payments (art. 72) (1)

- WFD payments: 5 CSPs (AT, DK, ES, IT, LU)
- Natura 2000 payments on agricultural land: 13 CSPs (AT, CY, CZ, BE-WA, BG, DE, ES, HU, IT, LT, PT, SI, SK)
- Natura 2000 payments in forests: 13 CSPs (BE-Wa, BG, DE, EE, EL, ES, HR, HU, IT, LT, LV, PT, SK)
- compensate for mandatory requirements from implementation of WFD and Nature Directives (Birds and Habitats Directive)
- contain obligations which are relevant for water resilience

## WFD and Natura 2000 payments (art. 72) (2)

- N2000 payments cover:
- Typically restrictions on fertilisation and/or the use of plant protection products, on livestock density, mowing (cutting times and frequencies) and grazing
- but also: restrictions on irrigation (e.g. Asturias), a ban of drainage and of changes in the hydrological regime (e.g. DE-BW, DE-MV, LT, HU); restrictions on agricultural intensification (e.g. PT (no irrigation), ES-Murcia (maintenance of traditional extensive rain-fed cultivation), land use change (e.g. IT-Emilia Romagna, IT-Tuscany (conversion of arable or permanent crops into grassland), requirements for the management of wetlands (Tuscany and Valle Aosta)

## WFD and Natura 2000 payments (art. 72) (3)

- WFD payments cover:
- typically restrictions on fertilisation and pesticides (often in drinking water protection areas)
- but also: restrictions on irrigation, soil cover obligations beyond conditionality, nitrogen reducing measures in coastal catchment areas (DK), expansion of buffer strips along water courses.
- ES-Aragon: cultivation of multi-annual arable crops compatible with flooding in floodplains (Ebro River)
- IT-Tuscany: requirements linked to irrigation achievement of water saving targets at different territorial levels (defined in RBMP)

# Summary

- Wide range of interventions/ practices and result indicators concerned
- Strong support for area-based interventions (eco-schemes and AEC interventions) to improve soil health, carbon sequestration
- R.23 (Sustainable water use): 4,5% (activated in 11 MS)
- Some examples of support for less water intensive / more climate resilient crops
- Much emphasis on investments in irrigation (improvement and expansion) and water storage, several MS support water reuse
- Scope for natural water retention measures to be upscaled
- WFD (and Natura 2000) payments under-utilised



# Thank you



© European Union 2020

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

Slide xx: **element concerned**, source: [e.g. Fotolia.com](https://www.fotolia.com/); Slide xx: **element concerned**, source: [e.g. iStock.com](https://www.istock.com/)

