

Requirement to keep land in good agricultural and environmental condition (GAEC)

Background

Cross compliance is part of the Common Agricultural Policy and has manifold implications for soil conservation. Cross compliance is a control and sanctioning mechanism leading to the reduction of direct support in the case of non-compliance with standards established in the field of environment, public, animal and plant health, and animal welfare. Furthermore, cross compliance refers to the requirement to maintain land in good agricultural and environmental condition (GAEC). What this implies is defined by Member States at national or regional level according to a common framework.

Cross compliance applies to direct income payments as well as to most environmental payments applied under Rural Development. Cross compliance refers to the 'baseline' or 'reference level' for voluntary agri-environment measures (fact sheet no. 9), under which payments are granted to farmers who undertake environmental commitments going beyond mandatory requirements, including cross compliance standards.

Effect on soil degradation processes

The GAEC requirement refers to a range of standards that relate to protection against soil erosion, maintenance of soil organic matter and structure, avoidance of the deterioration of habitats, and water management. Minimising the area of bare soil and retention of terraces directly contribute to the prevention of soil erosion, whereas crop residue management and crop rotation help to maintain organic matter in the soil. Compliance with management requirements that target habitat

and water quality such as the retention of landscape features, the establishment of buffer strips along watercourses, or the avoidance of encroachment may help to control water erosion and are likely to contribute to soil biodiversity. Retaining land as permanent pasture has the additional advantage of maintaining soil organic matter. Finally, appropriate use of irrigation water helps in the control of salinisation and sodification.

In general, cross compliance has increased farmers' awareness of soil degradation, as well as the environmental reasons for introducing standards to prevent it.



*Cover between vine rows that is also used as green manure (Rheinland-Pfalz, Germany)
(Source: Geertrui Louwagie)*

Common framework for defining GAEC (Council Regulation (EC) 73/2009, Annex III)

Issue	Compulsory standards	Optional standards
<i>Soil erosion:</i> protect soil through appropriate measures	Minimising the area of bare soil	Retain terraces
	Adequate land management reflecting site-specific conditions	
<i>Soil organic matter:</i> maintain soil organic matter levels through appropriate practices	Arable stubble management	Standards for crop rotation
<i>Soil structure:</i> maintain soil structure through appropriate measures		Appropriate machinery use
<i>Proper level of maintenance:</i> ensure a proper level of maintenance and avoid deterioration of habitats	Retention of landscape features, including (where appropriate) hedges, ponds, ditches, trees in line, in groups or isolated, and field margins	Minimum livestock stocking rates or/and appropriate regimes
		Establishment or retention of habitats
	Avoiding the encroachment of unwanted vegetation on agricultural land	Prohibition on grubbing up olive trees
	Retention of permanent pasture	Maintenance of olive groves and vineyards in good vegetative condition
<i>Protection and management of water:</i> protect water against pollution and run-off, and manage the use of water	Establishment of buffer strips along watercourses	
	Compliance with authorisation procedures where use of water for irrigation is subject to such	



*Prohibition on stubble burning (Finland)
(Source: Geertrui Louwagie)*



*Tree line along grassland (County Sligo, Ireland)
(Source: Geertrui Louwagie)*

Success stories

The following practices (related to GAEC standards) have proven to be successful in addressing diverse aspects of soil degradation.

Targeting water erosion

- Minimise the area of bare soil
On agricultural land and forest area with under-planted crops, green cover (planted or spontaneous) between 15 November and 1 March is required, except during soil preparation work for new crop cultivation (Portugal).
- Adequate land management reflecting site-specific conditions
On parcels with high risk of soil erosion, except for terrace plots or plots in areas integrated into flood plains, neither the planting of temporary crops nor of new pasture is allowed. The improvement of natural permanent pastures is allowed only when the soil is not tilled. Planting new permanent crops is only allowed in situations considered to be technically adequate by the responsible authority (Portugal).
On sloping ground with clear signs of erosion (such as widespread presence of rills), temporary channelling of surface water by means of drainage furrows is required directly after sowing (Italy, in particular the 'Provincia Autonoma Bolzano/Bozen' and Calabria).

Targeting soil organic matter and soil biodiversity decline

- Arable stubble management
Some Member States extend this standard beyond arable land and also prohibit burning of crop residues (stubble, straw, dead grass, hay) on grassland (natural or sown) and pastures (Italy, in particular the 'Provincia Autonoma Bolzano/Bozen' and Calabria) or on all agricultural land (Estonia).

Practices to improve soil quality on arable land more generally

- Farmers must complete an annual 'Soil Protection Review' (SPR), which consists of a simple assessment of the risk of damage to soil structure, loss of organic matter, and erosion, and identifies remedial measures to be implemented (England, UK). The SPR allows the choice of the management options that are appropriate under varying local conditions and requires an annual update to reflect changing circumstances.

Source: SoCo survey on EU policy implementation and SoCo case studies



*Riparian margin (County Sligo, Ireland)
(Source: Geertrui Louwagie)*

Further reading

<http://soco.jrc.ec.europa.eu>

This fact sheet is based on the findings of the 'Sustainable agriculture and soil conservation' (SoCo) project. It is part of a package of ten sheets organised around the three main topics of the project. The sheets cover the following topics:

- Introduction:
 - Fact sheet no. 1: Linking soil degradation processes, soil-friendly farming practices and soil-relevant policy measures;
- Soil degradation processes:
 - Fact sheet no. 2: Water erosion and compaction;
 - Fact sheet no. 3: Organic matter decline;
 - Fact sheet no. 4: Salinisation and sodification;
- Soil-friendly farming systems and practices:
 - Fact sheet no. 5: Conservation agriculture;
 - Fact sheet no. 6: Soil-friendly tillage practices;
 - Fact sheet no. 7: Soil-friendly farm infrastructure elements;
- Soil-relevant policies:
 - Fact sheet no. 8: Requirement to keep land in good agricultural and environmental condition (GAEC);
 - Fact sheet no. 9: Agri-environment measures;
 - Fact sheet no. 10: Advisory services.

All SoCo fact sheets and project reports can be downloaded at: <http://soco.jrc.ec.europa.eu>.

