



Theme 1: Policy and Institutional Support for CA Development (Examples from Europe, Africa, Asia)

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Europe: Common Agricultural Policy

The two-pillar CAP 2000-2014

- **Pillar 1**
- **Market support**
 - intervention purchase
 - supply controls
 - export subsidies
- **Direct payments**
 - Initially, coupled
 - Since 2004 ~ decoupled
 - With cross compliance
- **Annual, universal, obligatory, 100% EU financed**

- **Pillar 2 Rural Development**
- Competitiveness of Ag & F
- Environment management
- Wider rural development
- **Rural Dev Programmes (88)**
 - **Multi-annual**
 - **Menu of options**
 - **Regionally defined**
 - **Co-financed**

Europe: Common Agricultural Policy

Soil management and the CAP

- Explicit references to soils in CAP relatively infrequent as no binding EU legislation to cross-refer to.
- This contrasts with nature protection (the EU birds and habitats directives) and water management (the nitrates and water framework directives)
- Three key measures to support appropriate soil management are:
 1. Agri-environment and forestry schemes in Pillar 2
 2. Cross compliance in Pillar 1
 3. The new “greening” measures in Pillar 1
- There is a large degree of discretion for Member States in all these policies and their approach varies.

EU policy/support instruments - REGULATORY

Cross-compliance – GAEC 2015 onwards

- Land managers must adhere to GAEC to receive direct payments AND area payments (agriculture) in Pillar 2.
- Flexibility for Member States to tailor to national and regional contexts
- Member States must define all standards
- Some GAEC landscape features and buffer strips count towards the greening payment requirement

Main Issue		GAEC Requirement
Water	GAEC 1	Establishment of buffer strips along water courses (requires that the rules for NVZs regarding non application of fertilisers near water courses must be applied both within and outside NVZs)
	GAEC 2	Where use of water for irrigation is subject to authorisation, compliance with authorisation procedures
	GAEC 3	Protection of groundwater against pollution
Soil and carbon stock	GAEC 4	Minimum soil cover
	GAEC 5	Minimum land management reflecting site specific conditions to limit soil erosion
	GAEC 6	Maintenance of soil organic matter level through appropriate practices, including ban on burning arable stubble, except for plant health reasons
Landscape, minimum level of maintenance	GAEC 7	Retention of landscape features, including where appropriate, hedges, ponds, ditches, trees in line, in group or isolated, field margins and terraces, and including a ban on cutting hedges and trees during the bird breeding and rearing season and as an option, measures for avoiding invasive plant species

EU policy/support instruments - REGULATORY

GAEC standards relevant to soils

GAEC standard	Requirements	Relevant to soil
4	Minimum soil cover	<ul style="list-style-type: none"> • Use cover/catch crops and reduce bare fallow • Biological N fixation in rotations and in grass mixes
5	Site specific land management to limit erosion	<ul style="list-style-type: none"> • Use cover/catch crops and reduce bare fallow • Conversion of arable land to grassland
6	Maintenance of soil organic matter, including ban on burning arable stubble	<ul style="list-style-type: none"> • Ceasing burning crop residues • Returning crop residues to the soil
7	Retention of landscape features:	
	Hedges	<ul style="list-style-type: none"> • Woodland management (including hedgerows and single trees)
	Ponds	<ul style="list-style-type: none"> • Conservation of existing peatland and wetland
	Trees in lines, groups or isolated	<ul style="list-style-type: none"> • Woodland management (including hedgerows and single trees)
	Field margins	<ul style="list-style-type: none"> • Conversion of arable land to grassland to sequester carbon in the soil

EU policy/support instruments - REGULATORY

Greening

30 % of the Direct Payment envelope in every Member State

Three requirements

- Crop diversification on arable land
- Having ecological focus areas (EFA) on arable land
- Maintenance of the existing permanent grassland

Exemptions:

- Organic farmers comply *ipso facto*
- Small Farmers Scheme beneficiaries
- More than 75% agricultural land / arable land is grassland

EU policy/support instruments – NON-REGULATORY

RD objectives – the six EU priorities

1. *Fostering knowledge transfer and innovation in agriculture, forestry, and rural areas*

2. *Enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and sustainable management of forests*

3. *Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture*

4. *Restoring, preserving and enhancing ecosystems related to agriculture and forestry*

5. *Promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors*

6. *Promoting social inclusion, poverty reduction and economic development in rural areas*

EU policy/support instruments – NON-REGULATORY

Rural Development Programmes 2014-20

- RDP must address at least 4 of the EU priorities
- has to be approved by the European Commission
- 19 EAFRD measures to choose from (plus technical assistance):
 - 30% of the EAFRD contribution to each RDP must be reserved for measures relevant to climate change mitigation and adaptation and the environment, and 5% for LEADER
 - but only 2 measures are compulsory (agri-environment-climate payments and LEADER)
- other measures cover:
 - investment (farms, businesses, processing and marketing)
 - forests (investment, afforestation, restoration, environmental)
 - advisory services, knowledge transfer, food quality, producer groups
 - innovation, co-operation, networking

EU policy/support instruments – NON-REGULATORY

A closer look at agri-environment-climate

- only compulsory RDP measure for Member States (apart from LEADER)
- new name and scope for 2014-20 (+ climate)

Agri-environment-climate for soils

Reduce erosion risk, increase organic matter

- convert arable to grassland
- buffer strips
- increase organic matter
- manage and restore landscape features
- peatland and wetland restoration and management

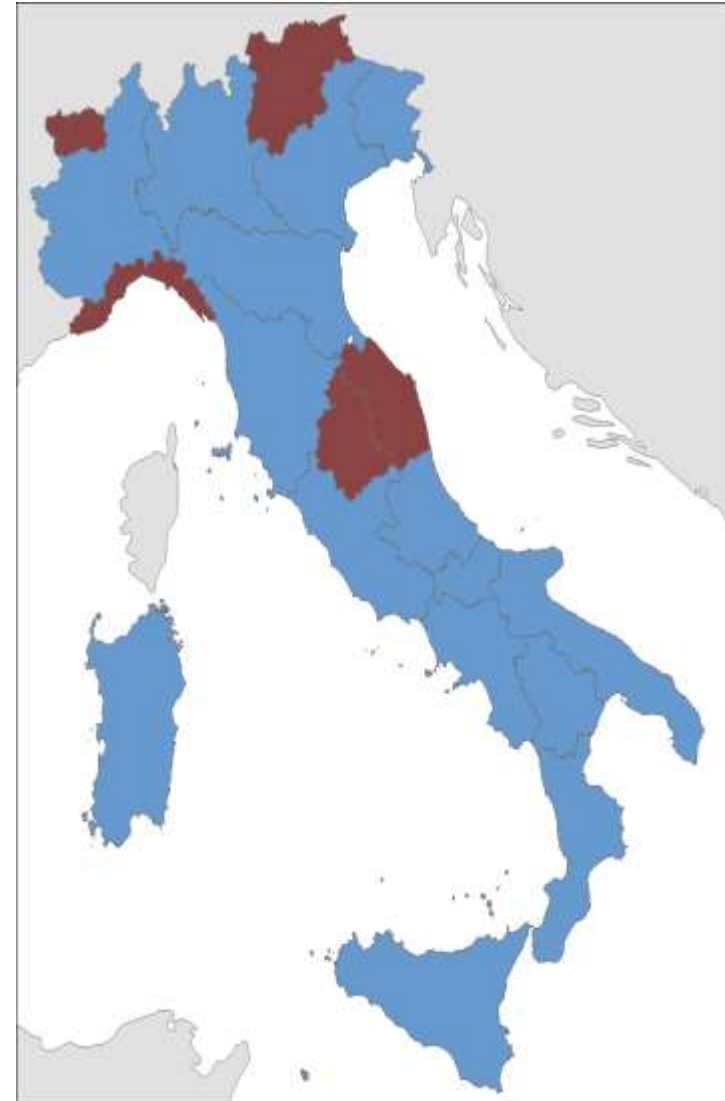
EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Italy”

- Are there Agri-Environmental Schemes (Rural Development – pillar 2 of CAP) in place in Italy/Region that support the practice of CA?

15 Regions: Abruzzo, Basilicata, Calabria, Campania, Emilia Romagna, Friuli Venezia Giulia, Lazio, Lombardia, Molise, Piemonte, Puglia, Sardegna, Sicilia, Toscana, Veneto.

- Direct seeding: 130- 600 €/ha
- Minimum till/Strip till: 50-327 €/ha
- Cover crops: 84-240 €/ha



EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Germany”

Agri-Environmental Schemes (Rural Development – pillar 2 of CAP)
in place Germany that support the practice of CA

- Saxony - 80 Euro/ha - No Till/ Strip Till (AUK/2015)
- Bavaria - 100 Euro/ha – Conservation Tillage (KULAP)
- Rheinland Pfalz – 50 Euro/ha Conservation Tillage with stubble fallow
- Rheinland Pfalz --120 EUR/ha Conservation Tillage with cover crops (PAULa)

EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Switzerland”

Crops	Minimum tillage		Direct Drilling	
	1 – 5 years	6 – 10 years	1 – 5 years	6 – 10 years
Cereals	102	0	204	204
Rapeseed	204	0	340	340
Maize (strip tillage)	306	204		
Maize	204	0	340	340
Sugarbeets	238	0	374	340
Peas and beans	170	0	272	272
Sunflowers	204	0	340	340

in early 2000s

Tillage system	Area of soil disturbance	Amount of Direct payment
“NT”	< 25%	230€/ha
Strip tillage	< 50%	180€/ha
Mulch tillage	Up to 100% (superficial)	130€/ha

today

EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Portugal”

Support schemes for CA measures (2016)

NT, strip till in wide rows crops	Scale (ha)	Basic payment (€/ha)	Residue maintenance (€/ha)	Additional measures (€/ha)
Annual irrigated crops	<= 20	95	25	25
	> 20 a <= 40	81	21	20
	> 40 a <= 100	57	15	15
	> 100	24	6	5
Annual rainfed crops and forages	<= 30	50	25	25
	> 30 a <= 60	43	21	20
	> 60 a <= 150	30	15	15
	> 150	13	6	5

Perennials	Scale (ha)	Payment (€/ha)
Groundcovers in perennial crops (orchards, olives, vineyards) with minimum plants density depending on the species (if not IP)	<= 10	105
	> 10 a <= 25	89
	> 25 a <= 50	79
	> 50	26

EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Portugal”

Support schemes for CA measures (2004-2005)

Comparision of the number of applications to the different Agro-Env. Measures between 2004 and 2005									
YEAR		2004		2005		Nu. of 1st applications received in 2005	Evolution of the number of applications (2005/2004)	Area of 1st applications in 2005 (ha)	Evolution of the area applied (2005/2004)
Measures		Nu. Applications	Area of applications (ha)	Nu. Applications	Area of applications (ha)				
15	Direct Drilling or Zone/Strip Tillage	230	15.901,1	674	54.088,1	444	193%	38.187,01	240%
17	Cover crops in perennials	1.044	12.656,5	1.735	26.151,4	691	66%	13.494,85	107%

EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Spain”

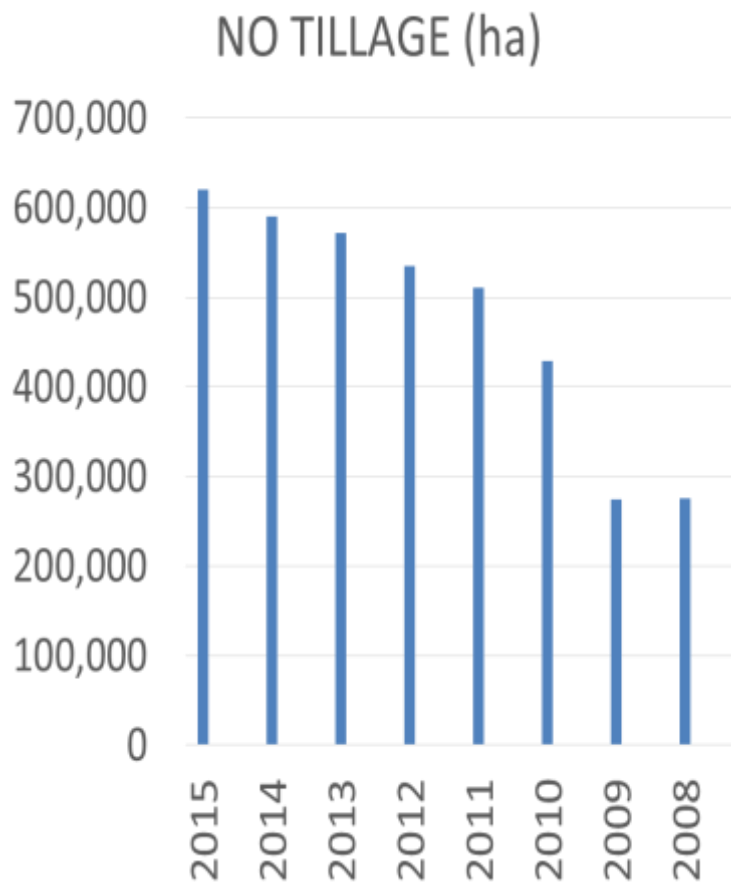
- Rural Development – pillar 2 of CAP - in SPAIN that support the practice of CA
 - Mainly focused on permanent crops with few regions supporting no tillage.
 - No tillage: 103.73 -126.83 €/ha
 - Groundcovers: 110.28 - 277.15 €/ha
 - **Problem: eligible criteria, slope above 8%!**

Further Institutional and/or policy support

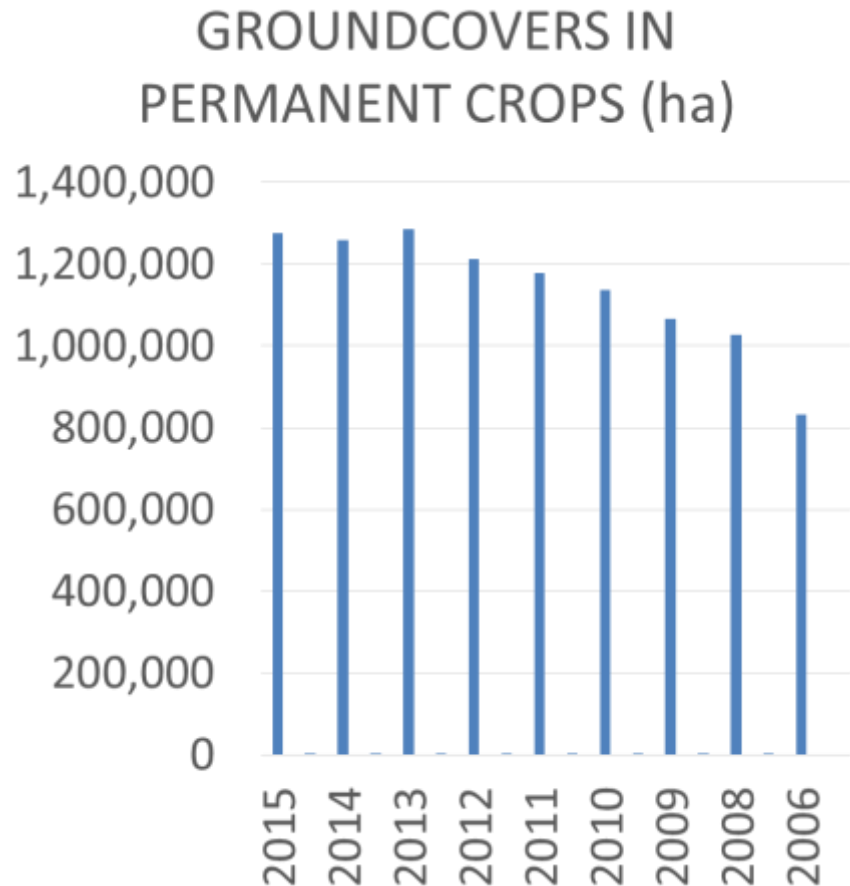
- In the past, through the Ministry for Industry: energy saving ag. 40% of machinery cost was supported.

EU policy/support instruments – NON-REGULATORY

Agricultural policy in “Spain”



8,3% of annual crops



30,1% of permanent crops

EU policy/support instruments – NON-REGULATORY

... in “France”

Initiative “4 ‰”

Establishment of a framework to increase soil organic carbon by 4 per mil every (referring to the total amount of SOC actually stored in each)

EU policy/support instruments – INFRASTRUCTURE

EU – Joint Research Centre (JRC)

- Research Centre working for the EC**
- Several centres in Europe (ISPRA in Italy thr biggest (> 3000))**
- Strong focus on soils regarding monitoring an research**

EU policy/support instruments – RESEARCH

EU – research projects with focus on soils

- Transnational research consortia to address specific research gaps and to provide policy recommendations**
- Examples: Catch-C, SmartSOIL, SoCo, SOIL SERVICE, SoilTrEC, EcoFINDERS, TILMAN-ORG, FertilCrop, RECARE, SNOWMAN**
- Most recent calls on “Soil Quality and Function” & “Addressing Soil Improving Cropping Systems”**

EU policy/support instruments – RESEARCH

EU – Joint Research Centre (JRC)

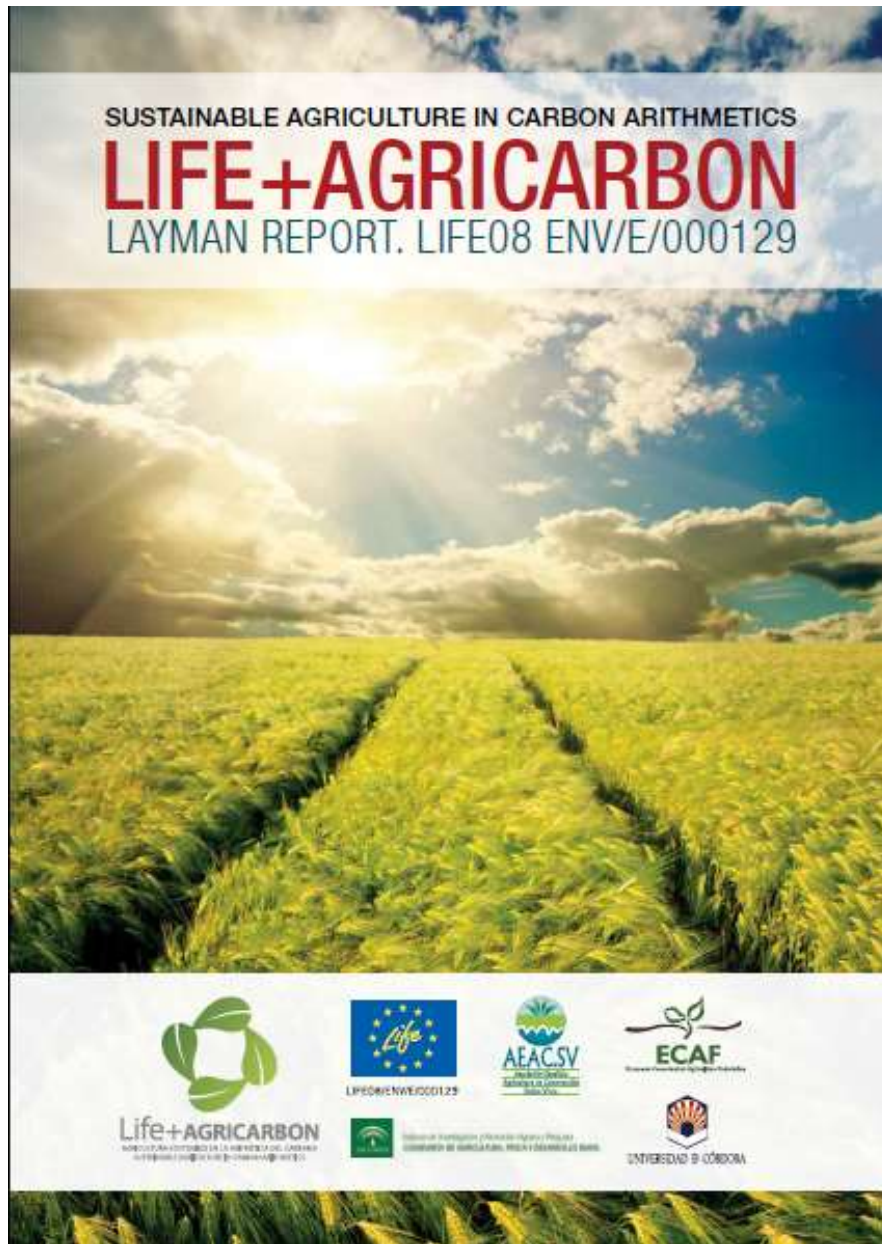
JRC Scientific and Technical Reports



Addressing soil degradation in EU agriculture: relevant processes, practices and policies

Report on the project 'Sustainable Agriculture and Soil Conservation (SoCo)'

SPAIN



After LIFE + AGRICARBON in Spain
Area under NT increased 115%
274,869 ha → 590,473 ha

More information <http://agricarbon.eu/layman%20ingls.pdf>

EU policy/support instruments – PUBLIC/PRIVATE

EU – European Innovation Partnership

- Establishment of so-called “Focus Groups”**
- Expert groupd with strong multistakeholder involvement to identify needed action on farming related issues.**
- Examples: “Soil Organic Matter in the Mediterranean” & “Water and Agriculture”**
- Resulting in “Operational Groups”**

AFRICA – Foreign Aid Programs/Project



AGRO-ECOLOGY BASED AGGRADATION-CONSERVATION AGRICULTURE:
Targeting innovations to combat soil degradation and food insecurity in semi-arid africa

Sponsored



Coordinated



CA2Africa

Assess and learn jointly from [past and ongoing CA experiences](#) under which conditions and to what extent does CA strengthen the socio-economic position of landholders in Africa.

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ASIA – Enhancing natural resources & ESS

CHINA: non-regulatory 'Ecological Redline Policy' (ERP), to protect the integrity of important ecosystems to secure diverse and coupled ecosystem services delivery to meet different stakeholders' needs in the ecological redline area

Vietnam

Philippines:

Foreign aid

LEGATO project : “Land-use intensity and Ecological Engineering Assessment Tools for risks and Opportunities in irrigated rice based production systems”

More information: <http://www.legato-project.net>