**Four flagships Eco-schemes as announced in the Farm to Fork Strategy**

## Agroforestry

Agroforestry is a particular type of land-use system and technology where woody perennials (trees, shrubs, etc.) are deliberately used on the same land management unit as agricultural crops and/or animals:

* On land with pasture: combining woody with forage and animal production
* On agricultural crop : widely spaced woody vegetation inter-cropped with annual or perennial crops

It notably results in:

* Increasing carbon sequestration and soil carbon content (mitigation potential changes depending on number of trees and pedo-climatic conditions)
* Increasing resilience to climate change both in crop and animal systems (e.g. extended grazing season)
* Reducing emission of N2O from dried soils
* Increasing soil nutrient, reducing erosion
* Improving water retention and water penetration, increasing drought resilience
* Enhancing biodiversity: birdlife, pollinators, earthworms

Possible practice for an eco-scheme:

* List of the region(s) concerned (depending on the needs)
* Minimum density of trees (x1 trees per ha for certain crops, x2 trees per ha for pastures)
* Management rules for the trees to maximise the benefit for biodiversity, e.g. no cutting during nesting period (to be defined region per region), no use of fertilizers and pesticides
* Etc.

Agroforestry can contribute to the following F2F targets:

\*Pesticide reduction

\*Nutrient management

\*Landscape features

\*Reduce GHG emissions

## Agro–ecology

Agro-ecology is not any particular production system, but rather a way of thinking holistically about agronomy, ecology and biology. The aim is to produce food in harmony with nature, not against it. The approach relies on, and maximizes, ecological processes to support production system, for example by:

* maximizing biomass production-adequate soil coverage over year;
* crop rotation including leguminous (nitrogen input);
* mixing crops (good synergy and interaction between crops);
* reducing the ploughing (avoiding soil disturbance and improving soil microbiology) and under-sowing

It mains benefits include increased soil fertility, higher resilience, enhanced biodiversity, improvement plant health.

Possible practices for an eco-scheme:

1. organic farming: the farmers receives the payment under the single main condition that his farm complies with commitments laid down in Council Regulation (EC) No 834/2007.
2. Sustainable land management practices: farmers that follow some land management practices going beyond conditionality or as defined in the organic regulation. These practices could include the rotation of crops, soil fertilisation with low release nitrogen source, use of natural substances as plant protection production with a focus on plant health by prevention or no use of chemical fertilizers.
3. Enhanced crop rotation, with the main condition that above the requirement of GAEC 8 on crop rotation the farmer includes additional crops, including on at least X % of the agricultural area nitrogen fixing crops.
4. Landscape Features, higher share of permanently devoted areas to landscape features and additional types of elements to be retained, beyond GAEC 9.
5. Land lying fallow with enhanced species composition dedicated for pollination, farmland birds or other target species.
6. Support for low to moderate grazing level in target areas.
7. Implementation of flower strips, margins strips and high diversity grassland strips dedicated to biodiversity

Agro-ecology can contribute to the following F2F targets:

\*Pesticide reduction

\*Organic production

\*Nutrient management

\*Antibiotic use reduction

\*Landscape features

\*Reduce GHG emissions

## Precision farming

Precision Farming refers to a management concept focusing on (near-real time) observation, measurement and responses to inter- and intra-variability in crops, fields and animals. The concept is made possible by the rapid development of ICT-based sensor technologies and procedures along with dedicated software that, in the case of arable farming, provides the link between spatially-distribution and appropriate farming practices such as fertilization, herbicide and pesticide application, and harvesting.

The main benefits are:

* Optimization of inputs use: appropriate calendar, monitoring of disease outbreaks, more targeted approaches and reduction of dose and surplus,
* Environmental results = less pesticides, less residues, less pollution, therefore leading to improved water and soil quality, GHG emissions reduction
* higher crop yields and animal performance,
* cost and labour reduction and optimization of process inputs, all of which would increase profitability.

Possible practice for an eco-scheme: Nutrients management plan, where:

* with the support of farm advisory services, the farmer establish a nutrients plan covering the whole farm
* the farmer applies the plan during the year and reports in real time (possibly to a central Member State data repository)
* any significant deviation to the plan triggers a contact with the advisory services to correct the situation

Precision farming can contribute to the following F2F targets:

\*Pesticide reduction

\*Nutrient management

\*Antibiotic use reduction

\*Reduce GHG emissions

## Carbon farming

Carbon farming refers to farm activities having an effect to carbon pools in soils and vegetation, at farm level and with the purpose of decreasing emissions, increasing carbon removal and storage and protect C-rich soils (climate mitigation with land management practices).

It is based on relevant agricultural practices to increase carbon sequestration and reduction of GHG emission, notably:

* Conservation agriculture ( no ploughing and reduced tillage)
* Soil cover with cover crops, trees, landscape elements
* Afforestation with native species to create a species-rich forest that is resilient, also to climate change
* Appropriate management of dried peatland (e.g. rewetting, rewetting with paludiculture, higher water table)
* Conversion of arable land to grassland
* Grassland management, for instance switching to multisward grasslands

Potential benefits are numerous:

* Climate mitigation thought carbon removal, lower GHG emissions, sequestration and protection
* Soil biodiversity and fertility improved
* Resilience to climate change (e.g. soil organic carbon retaining water during drought periods)
* New business model for farmers through Carbon farming scheme

Possible practice for an eco-scheme: each of the practices mentioned above could be supported under an eco-scheme.

The most effective practice corresponds to Carbon Farming system:

* Result based system for CO2equivalent removed or for emission avoided
* Computation of costs/income lost through proxies of removed/avoided CO2 (e.g. level of implementation of good practices)
* Monitoring, reporting and verification ( essential for data collection and calculation of GHG reduction)
* possible rewarding from the carbon market, conditional on high quality MRV and benchmarking

Carbon farming can contribute to the following F2F targets:

\*Nutrient management

\*Reduce GHG emissions

\*Biodiversity related targets, landscape features

**Annex 1: Eco-scheme and agricultural practices: how does it work?**

The Eco-scheme is a new tool that is an integral part of CAP Strategic Plan’s Green Architecture design and implementation, which Member Sates are required to put in place in order to contribute to the CAP’s specific environmental and climate objectives (Article 28 and Recital 31 of the Commission proposal).

**Member States must establish a ‘list of agricultural practices beneficial for the climate change and the environment’** based on the needs and priorities they have identified at national and/ or regional level. The Eco-scheme gives Member States autonomy to define the actual content of environmental and climate actions supported under Pillar 1. This moves away from the approach taken with the Greening direct payments whereby Member States implemented a common set of practices with detailed rules set at EU level, applicable to all eligible farmers in receipt of direct payments.

In the last 2 years discussions on the Commission proposal the words ‘agricultural practices’ have been replaced by ‘eco-schemes’, which creates a confusion between the policy tool – the eco-scheme proposed by the Commission, article 28 of the legal proposal – and eco-scheme**s** to be established by the Member States in their CAP plan and to be approved by the Commission.

In fact the eco-scheme follows an approach similar to the current support under M10.1 of the second pillar. As laid down in Regulation (EU) No 1305/2013 Article 28, Measure 10 (M10), “aims to preserve and promote the necessary changes to agricultural practices that make a positive contribution to the environment and climate.” Its inclusion in Rural Development Programmes (RDPs) is compulsory at national and/or regional level, and farmers join on a voluntary basis. The Basis Act only establishes the aim of the measure, the management practices that the farmer will have to comply with to receive the payment are to be established by the Member States in their Rural Development Programme approved by the Commission.

Although no EU-wide practices are prescribed in the proposal, certain agricultural management practices that could be supported by an Eco-scheme have been signposted by the Commission. For instance, enhanced management of permanent pasture, landscape features or organic farming have been mentioned several times during numerous workshops and seminars with Member States and stakeholders. The Farm to Fork Strategy identified four flagships: agroforestry, agro-ecology, precision farming and carbon farming. These flagships aimed at giving examples of what the Commission expects from the Member States when they will design their eco-scheme, they do not restrict the possible scope of an eco-scheme.