

BIKE is a Horizon 2020 project whose objective is to support uptake of the low ILUC-risk concept for biofuel feedstocks. This series of Briefing Notes seeks to explore issues in the EU policy sphere which may impact low ILUC-risk value chains, and identify opportunities for fostering an enabling policy environment.

CAP support for sustainable low ILUC-risk feedstock production



Digestate tanker refuelling the machine used to spread the digestate (Italy).

The EU's Common Agricultural Policy ('CAP') contains nine specific objectives¹ relating to market competitiveness and resilience, farmer incomes and inclusion, and environmental and ecological stewardship. The latter category includes: "(d) to contribute to climate change mitigation and adaptation [and to] promote sustainable energy", and "(e) to foster sustainable development of natural resources such as water, soil and air". Initiatives to produce bioenergy crops that avoid stimulating indirect land-use change (ILUC) could contribute to all of these objectives – as evidenced by the BIKE case studies², which include diversifying crop rotations and environmentally positive unused land conversions. Moreover, for those farmers who are unable to adopt improved management practices because of demonstrable economic barriers or other non-financial constraints, low ILUC-risk certification could grant access to enabling premiums from the biofuel market.

This Briefing Note explores the approaches of the CAP and low ILUC-risk systems, their overlapping goals, and similarities in the types of activities they support. From this, we conclude that integrating low ILUC-risk into the CAP framework could benefit both systems.

Additionality conditions in the CAP context

Low ILUC-risk certification is relevant for farms meeting the following three conditions:

1. Production on the land concerned could be increased with appropriate interventions.
2. There is a source of untapped additional demand for biofuel feedstocks, or a premium on low ILUC-risk feedstocks, that presents a value signal to farmers.
3. Measures to increase production are either not seen as profitable investments under normal market conditions (their net present value would be negative without a market premium for biofuel feedstock production), or are hampered by non-financial barriers.

For the first condition, certification procedures outlined in a Commission implementing regulationⁱⁱⁱ (as well as in protocols developed by the BIKE consortium^{iv}) provide a framework for anticipating yield increases. The regulation further specifies that low ILUC-risk measures for increasing yields should not increase environmental pressures which would lead to “deterioration of soil, water and air quality and pollinator populations”^v.

The second condition – that the market is willing to pay a premium to farmers for eligible feedstock – depends on how much the transport sector must stretch to meet the targets set in EU and national renewable energy regulations; what are the liabilities for non-compliance; and whether low ILUC-risk certification adds compliance value for a given feedstock.

The third condition targets low ILUC-risk incentives towards a particular subset of projects. This ensures that feedstock that would have been grown anyway (e.g., for the food market) does not get diverted to the energy sector. An important corollary of this design is that the low ILUC-risk system channels support towards those projects which are unviable (financially or otherwise) on their own.

All three of the above conditions contrast with the CAP system of agri-environmental measures (AEMs). This provides predictable payments to farmers implementing good practices without low ILUC-risk’s mediation through certificate markets, and without being coupled to the economic returns from the farming initiative in question. Instead, support is provided to any farms providing evidence that agri-environmental measures have been implemented. The CAP system has the advantage of simplicity and universality in boosting good practices; for specific bioenergy projects, this could be complemented by a low ILUC-risk value signal which targets support towards marginal projects in a way that minimises competition between food and fuel.

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The table below presents the official (but non-exhaustive) list of additionality measures – that is, examples of agricultural practices which qualify for low ILUC-risk certification. In Briefing Note #4^{vi}, some additions were proposed to this table (for example, using biochar for soil enrichment and carbon sequestration), but here only the measures which currently appear in the Implementing Regulation are considered. The table indicates which measures may require CapEx and which OpEx support, and highlights which may also be eligible for AEM funding under the CAP.

Additionality Category	Additionality Measure	Example	CAPEX	OPEX	CAP AEM
Multi-cropping	Sequential cropping	Introduction of second crop on same land in the same year.		X	X
Management	Soil management	Mulching instead of ploughing, low tillage.	X	X	X
	Fertilisation	Optimisation of fertilisation regime, use of precision agriculture.	X	X	X
	Crop protection	Change in weed, pest and disease control.		X	X
	Pollination	Improved pollination practices.		X	X
	Other	Leaves room for innovation, combinations of measures and unforeseen developments.		X	?
Replanting (perennials)	Choice of crop varieties	Higher yield variety, better adaptation to eco-physiological or climatic conditions.	X	X	

The measures listed in the table can apply to both first- and second-generation biofuel feedstocks. Producers of first-generation crops who have obtained both CAP grants and low ILUC-risk certification have the benefit of being able to participate in both food and biofuel markets, selling their produce to the one offering greatest returns (with the caveat that in some cases only a sub-share of the total crop would be eligible for low ILUC-risk status). Their participation in the biofuel feedstock market depends on how much of a premium (additional income) is available in this market.

Agri-environmental protection subsidies make a clear distinction whether biomass is produced as a main crop or as a secondary crop. For the former, basic environmental protection rules must be observed, while the latter is specifically supported for its contribution to ground cover and erosion protection. Crop rotations are also incentivised by the CAP, and multi-year rotations are appropriate for many bioenergy crops.

Member State implementations

The CAP Strategic Plan requires Member States to determine their ambition levels through a common set of indicators^{vii}; an example relevant to the low-ILUC risk concept is impact indicator I.12 "Increasing sustainable production of renewable energy from agriculture and forestry". The overall green architecture consists of three main elements:

1. Conditionality^{viii}, which sets out the basic requirements and standards that farmers and land managers must fulfil in order to receive area or livestock-unit based payments under Pillars 1 and 2.

2. Eco-schemes in Pillar 1^{ix}, which reallocates a portion of direct payments to farmers voluntarily employing more sustainable farm and land management. While Member States must each establish their own list of eligible practices, guidance is provided by the CAP Strategic Plan which defines the main areas of action (e.g., reduction of greenhouse gas emissions, prevention of soil degradation, microbial resistance, etc.). The European Commission has also published a list of agricultural practices that the eco-schemes could support^x.
3. Agri-environment-climate measures (AECMs) in Pillar 2^{xi}, which aim to tackle key environmental and climate challenges using rural development programmes on a voluntary basis or with regulated compensation payments. Member States are obliged to provide farmers carrying out this type of intervention with access to information and training resources.

From these elements and indicators, Member States compile their own green architecture toolset for achieving their objectives. The level of farm subsidies is generally determined by Member States as a standard cost per hectare or other unit.

In the context of low ILUC-risk, Member States could connect additionality measures to specific agri-environmental requirements or eligible management techniques. Indeed, this can be done at all three levels of green architecture – e.g., there are conditionality requirements for minimum soil cover (to avoid bare soil during periods that are most sensitive). Member States may further promote and support and result-based payment schemes in the case of AECMs.

Recommendations

The specific objectives of the post-2027 CAP could be extended to include the objectives of “avoiding indirect land use change” and “preventing land degradation and abandonment”, which will allow the low-ILUC risk concept to be integrated into the green architecture of the CAP. In parallel, the action areas of Pillar 1 eco-schemes could be expanded to include the topic of avoiding unsustainable land use change: this may complement existing provisions on carbon stocks, soil health, and biodiversity, while establishing land use and ILUC as active concepts within the CAP.

Taking a step back, it should be a long-term goal for Europe to develop funding frameworks which make support commensurate to the level of land use sustainability. Measures delivering multiple benefits – whether they be ecological, environmental, or social – would, under such a system, gain additional advantages. Farmers who adopt improved land and farm management practices to produce low ILUC-risk biofuel feedstocks are contributing not only to environmental protection, but also to EU climate policy goals, all the while ensuring that negative food market impacts are avoided. These farmers would be eligible to receive premiums for sale of their low ILUC-risk biomass; but uncertainty remains as to the value of these premiums in light of changing renewable energy targets and unpredictable compliance markets. CAP subsidies which make predictable extra funding available for certified projects would be an attractive option for galvanising uptake of the low ILUC-risk system – including by covering upfront investments and promoting relevant practices at the farm level.

- I. Regulation (EU) 2021/2115 (henceforth 'CAP Strategic Plan'), Article 6. Note that excerpts have been lightly edited for brevity, e.g. by omitting ellipses.
- II. See <https://www.bike-biofuels.eu/case-studies/>.
- III. Commission Implementing Regulation (EU) 2022/996 (henceforth 'Implementing Regulation').
- IV. BIKE Deliverables D1.1 and D1.2; available at www.bike-biofuels.eu/resources/.
- V. Implementing Regulation, Annex VIII.
- VI. BIKE Briefing Note #4, "Additionality measures for low ILUC-risk projects"; available at <https://www.bike-biofuels.eu/briefing-notes/>.
- VII. CAP Strategic Plan, Annex I.
- VIII. CAP Strategic Plan, Article 12 and Annex III.
- IX. CAP Strategic Plan, Article 31.
- X. European Commission, 2021, "List of potential agricultural practices that eco-schemes could support"; https://agriculture.ec.europa.eu/system/files/2021-01/factsheet-agri-practices-under-ecoscheme_en_0.pdf.
- XI. CAP Strategic Plan, Article 70.



This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 952872.