



Biomass can contribute to sector integration in Green Deal

INTRODUCTION

By introducing the Green Deal Europe set a dynamic tone for climate neutrality by 2050 and outlined the required investments to ensure inclusive transition through a circular economy that uses resources efficiently, restores biodiversity and cuts pollution. However, it is currently experiencing the Covid-19 pandemic crisis with no previous precedent and must place these priorities in a context that will allow economic recovery whilst maintaining the high aspirations for a zero carbon, green economy.

Decarbonisation of heavily polluting sectors like transport is still at early stages while primary production still relies broadly on chemical inputs and traditional crop production practices cause significant losses of soil quality and nutrients.

Biomass value chains, when sustainably sourced and managed, can offer solutions for land degradation, support food, feed and raw material production, by sustainable agricultural models (like crop rotation, double cropping, use of abandoned, degraded land, etc.), and deliver green economic and socio-economic recovery in rural areas. They are a key contributor to the portfolio of low carbon technologies, can compensate high use of fossil-based chemicals and can play a decisive role to the success of European targets for climate neutrality, emissions reduction, and the development of carbon sinks.

The European resource base is diverse and comprises of feedstocks from primary production activities in agriculture, forestry, and fisheries as well as biogenic wastes. These are most of the times directly related to the production and management of natural resources and, consequently, to rural areas¹. Their sustainable and resource efficient mobilisation through sectorial policy

¹ <https://www.scitecheuropa.eu/bioeconomy-rural-europe/96055/>

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integration across value chain stages can facilitate biomass market uptake and increase shares in energy and biobased commodities whilst at the same time meeting the needs of local communities and facilitating rural and economic development.

Member States should therefore seize this opportunity and coordinate their energy & climate plans (NECPs) with the post 2020 Common Agricultural Policy (CAP)² objectives and national assessment of needs in agriculture and rural development. Moreover, future planning should also integrate carbon sequestration which is recently introduced by the Farm to Fork Strategy³ as a ‘new green business model’ for farmers and foresters and the new ‘carbon farming’ initiative which is expected by the Commission in Q3 2021.

“BIOMASS – WHY IT OFFERS OPPORTUNITIES FOR SECTOR INTEGRATED POLICIES?”

Biomass includes a variety of feedstocks as raw materials for multiple products, contributes to sector coupling and provides vast opportunities to develop sustainable and resource efficient value chains. These often comprise sequential, inter-dependent sector activities including land use and feedstock production, conversion to energy and biobased carriers, and finally variable markets using the end products. Their future development will involve cross sectoral interactions between their upstream and downstream stages and will be regulated by sectorial policies including the ones for renewable energy and agriculture.

The recent policy developments in Europe offer unique opportunities to develop sector integrated biomass policies at European, national, and regional level. With the European Green Deal⁴ targeting a climate neutral Europe by 2050 and aiming to decarbonise the energy sector, the revised Renewable Energy Directive (REDII)⁵ steering focus to low ILUC risk biomass⁶ and the Common Agricultural Policy (CAP post 2020) objective to enhance and improve the environmental and climate change actions and ambitions at each Member State it is time to design biomass policies that are integrated across sectors⁷.

THE ROLE OF BIOMASS IN THE UPDATED RENEWABLE ENERGY POLICY

Paris Agreement⁸ aims to strengthen the global response to climate change by keeping a global temperature rise this century well below 20 Celsius and to pursue efforts to limit the temperature increase even further to 1.50 Celsius. The European Union and international transport sectors like aviation and maritime responded quickly with plans for significant cuts in emission levels by 2030.

² https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/cap-post-2020-environ-benefits-simplification_en.pdf

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0381>

⁴ https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

⁵ <https://ec.europa.eu/jrc/en/jec/renewable-energy-recast-2030-red-ii>

⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0807>

⁷ C. Panoutsou and A. Singh. 2020. A value chain approach to improve biomass policy formation. Global Change Biology Bioenergy. <https://doi.org/10.1111/gcbb.12685>

⁸ <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

THE ROLE OF BIOMASS IN THE UPDATED RENEWABLE ENERGY POLICY

Biomass as raw material for transport biofuels does offer readily available fuel solutions especially to sectors with limited short-term alternatives as aviation, heavy duty and maritime. Electrification is expected to cover the rest. Concerns are raised however about the sustainability of biomass supply and the options to increase the feedstock base and secure long term, year-round supplies for operational and future plants. REDII⁹ emphasises the role of biofuels¹⁰, bioliquids and biomass fuels but at the same time takes a more targeted approach to ensure sustainability is safeguarded and Indirect Land Use Change (ILUC) impacts associated with conventional pathways are reduced. After the 31st December 2023 biofuels, bioliquids and biomass fuels produced from food or feed crops -for which a significant expansion of the production area into land with high carbon stock is observed¹¹ will gradually decrease to zero by 2030.

The Directive also through the Commission Delegated Regulation (EU) 2019/807 of 13 March 2019¹² encourages the production of biomass raw materials that: *'are produced under circumstances that avoid ILUC effects, by virtue of having been cultivated on unused, abandoned or severely degraded land or emanating from crops which benefited from improved agricultural practices'*¹³. This definition offers the opportunity to bridge the gap between agriculture and energy, biomass supply and use, facilitate the integration of sustainable agricultural practices and deliver green, low carbon solutions with high resilience to climate change.

COMMON AGRICULTURAL POLICY POST 2020: HOW CAN STRATEGIC PLANS INTEGRATE BIOMASS?

CAP post 2020 will be based on the assessment of needs at national level and will set targets against common environmental and climate objectives. Member states will therefore design their CAP Strategic Plan to achieve the EU common environmental and climate change objectives, set quantified targets and take specific local needs and conditions into consideration. In this regard the overall guidelines foresee links to other EU legislation on the environment and climate.

The need to link agricultural policy to the development of low ILUC risk status biofuels, bioliquids and other biomass fuels in REDII is prominent and ties well with the Common Agricultural Policy's higher ambition on environmental and climate action after 2020 while continuing to support European farmers for a sustainable and competitive agricultural sector. Political aspirations¹⁴ have suggested that at least 30% of each rural development national allocation will be dedicated to environmental and climate measures while 40% of the CAP's overall budget is expected to contribute to climate action.

There is a specific CAP post 2020 objective (Specific objective 4 on agriculture and climate mitigation) which aims to enhance and improve the environmental and climate change actions and

⁹ <https://ec.europa.eu/jrc/en/jec/renewable-energy-recast-2030-red-ii>

¹⁰ "Biofuels" as defined in RED. "Biomass fuels" is a new term introduced in REDII, for gaseous and solid fuels produced from biomass.

¹¹ <https://ec.europa.eu/transparency/regdoc/rep/3/2019/EN/C-2019-2055-F1-EN-ANNEX-1-PART-1.PDF>

¹² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0807>

¹³ <https://ec.europa.eu/transparency/regdoc/rep/1/2019/EN/COM-2019-142-F1-EN-MAIN-PART-1.PDF>

¹⁴ https://ec.europa.eu/commission/news/eu-budget-common-agricultural-policy-after-2020-2018-jun-01_en

COMMON AGRICULTURAL POLICY POST 2020: HOW CAN STRATEGIC PLANS INTEGRATE BIOMASS?

ambitions of Member States **by contributing to climate change mitigation and adaptation, as well as sustainable energy.**

This objective can be used directly to coordinate efforts with the Renewable Energy Directive and L LULUCF¹⁵ at national level and develop sector integrated biomass policies. Using the foreseen needs' assessments policy makers can design interventions across the different stages of value chains with attention to GHG emissions and removals from land use, land use change and forestry, exploit advantages within specific geographic settings and consequently achieving higher market uptake.

Biomass can support the resource efficient delivery of this CAP objective, with the exploitation of abandoned and degraded land as well as the use of sustainable managed crop rotations and cover crops that can be part of the raw materials for advanced biofuels. Furthermore, advanced biofuels can sequester significant amount of carbon, brought back to the soil, still addressing key elements of both renewable energy and agricultural targets as well as the UN Sustainable Development Goals (SDGs), that are the key element in the EU Green Deal.

KEY MESSAGE

Member States should improve communication and dialogue among industry and farmers and integrate their energy & climate plans (NECPs) with the Common Agricultural Policy (CAP) objectives to prioritise the development of sustainable and resource efficient biomass value chains. Developing sector integrated biomass policies at national level will facilitate the prioritisation of biomass value chains within their geographic settings, focus on resource efficient options that use domestic biomass, contribute to rural and wider economic development, and meet overarching green, low carbon economy targets.

DISCLAIMER - The above statement has been prepared by the Alternative & Renewable Transport Fuels Forum (ART Fuels Forum) after exchange of opinions and internal consultation among the Forum members. The content of the contribution does not necessarily reflect the views of all members of the ART Fuels Forum, but is a synthesis of the main positions. The positions and recommendations listed above are those of the members of the ART Fuels Forum and do not necessarily reflect either the official position of the Commission or the complete position of the members of the ART Fuels Forum.

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¹⁵ https://ec.europa.eu/clima/policies/forests/lulucf_en