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A sustainable bioenergy policy for the period after 2020

Fields marked with * are mandatory.

Introduction

EU Member States have agreed on a new policy framework for climate and energy, including EU-wide targets for the period between 2020 and 2030. The targets include reducing the Union's greenhouse gas (GHG) emissions by 40 % relative to emissions in 2005 and ensuring that at least 27 % of the EU's energy comes from renewable sources. They should help to make the EU's energy system more competitive, secure and sustainable, and help it meet its long-term (2050) GHG reductions target.

In January 2014, in its Communication on A policy framework for climate and energy in the period from 2020 to 2030,[1] the Commission stated that '[a]n improved biomass policy will also be necessary to maximise the resource-efficient use of biomass in order to deliver robust and verifiable greenhouse gas savings and to allow for fair competition between the various uses of biomass resources in the construction sector, paper and pulp industries and biochemical and energy production. This should also encompass the sustainable use of land, the sustainable management of forests in line with the EU's forest strategy and address indirect land-use effects as with biofuels'.

In 2015, in its Energy Union strategy,[2] the Commission announced that it would come forward with an updated bioenergy sustainability policy, as part of a renewable energy package for the period after 2020.

Bioenergy is the form of renewable energy used most in the EU and it is expected to continue to make up a significant part of the overall energy mix in the future. On the other hand, concerns have been raised about the sustainability impacts and competition for resources stemming from the increasing reliance on bioenergy production and use.

Currently, the Renewable Energy Directive[3] and the Fuel Quality Directive[4] provide an EU-level sustainability framework for biofuels[5] and bioliquids.[6] This includes harmonised sustainability criteria for biofuels and provisions aimed at limiting indirect land-use change,[7] which were introduced in 2015.[8]

In 2010, the Commission issued a Recommendation[9] that included non-binding sustainability criteria for solid and gaseous biomass used for electricity, heating and cooling (applicable to installations with a capacity of over 1 MW). Sustainability schemes have also been developed in a number of Member States.

The Commission is now reviewing the sustainability of all bioenergy sources and final uses for the period after 2020. Identified sustainability risks under examination include lifecycle greenhouse gas emissions from bioenergy production and use; impacts on the carbon stock of forests and other ecosystems; impacts on biodiversity, soil and water, and emissions to the air; indirect land use change impacts; as well as impacts on the competition for the use of biomass between different sectors (energy, industrial uses, food). The Commission has carried out a number of studies to examine these issues more in detail.

The development of bioenergy also needs to be seen in the wider context of a number of priorities for the Energy Union, including the ambition for the Union to become the world leader in renewable energy, to lead the fight against global warming, to ensure security of supply and integrated and efficient energy markets, as well as broader EU objectives such as reinforcing Europe's industrial base, stimulating research and innovation and promoting competitiveness and job creation, including in rural areas. The Commission also stated in its 2015 Communication on the circular economy[10] that it will 'promote synergies with the circular economy when examining the sustainability of bioenergy under the Energy Union'. Finally, the EU and its Member States have committed themselves to meeting the 2030 Sustainable Development Goals.

[1] COM(2014) 15.

[2] COM/2015/080 final.

[3] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L 140, 5.6.2009, p. 16).

[4] Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC (OJ L 350, 28.12.1998, p. 58).

[5] Used for transport.

[6] Used for electricity, heating and cooling.

[7] Biomass production can take place on land that was previously used for other forms of agricultural production, such as growing food or feed. Since such production is still necessary, it may be (partly) displaced to land not previously used for crops, e.g. grassland and forests. This process is known as indirect land use change (ILUC); see http://ec.europa.eu/energy/en/topics/renewable-energy/biofuels/land-use-change.

[8] See more details on the existing sustainability framework for biofuels and bioliquids in section 5.

[9] COM/2010/0011 final.

[10] Closing the loop – an EU action plan for the circular economy (COM(2015) 614/2).

1. General information about respondents

* 1.1. In what capacity are you completing this questionnaire?

- academic/research institution
- as an individual / private person
- civil society organisation
- international organisation
- other
- private enterprise
- professional organisation
- public authority
- public enterprise

* 1.2. If you are a private or public enterprise, could you please indicate your principal business sector?

- Agriculture
- Automotive
- Biotechnology
- Chemicals
- Energy
- Food
- Forestry
- Furniture
- Mechanical Engineering
- Other
- Printing
- Pulp and Paper
- Woodworking

* 1.3. If you are a private or public enterprise, could you please indicate the size of your company?

(Medium-sized enterprise: an enterprise that employs fewer than 250 persons and whose annual turnover does not exceed EUR 50 million or whose annual balance-sheet total does not exceed EUR 43 million.
Small enterprise: an enterprise that employs fewer than 50 persons and whose annual turnover and/or annual balance-sheet total does not exceed EUR 10 million.
Micro-enterprise: an enterprise that employs fewer than 10 persons and whose annual turnover and/or annual balance-sheet total does not exceed EUR 2 million.)

- large enterprise
- medium-sized enterprise
- small enterprise
- micro-enterprise
- I don't know

* 1.4. If you are a professional organisation, which sector(s) does your organisation represent?

- Agriculture
- Automotive
- Biotechnology
- Chemicals
- Energy
- Food
- Forestry
- Furniture
- Mechanical Engineering
- Other
- Printing
- Pulp and Paper
- Woodworking

1.5. If you are a professional organisation, where are your member companies located?

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia

- [ ] Lithuania
- [ ] Luxembourg
- [ ] Malta
- [ ] Netherlands
- [ ] Poland
- [ ] Portugal
- [ ] Romania
- [ ] Slovakia
- [ ] Slovenia
- [ ] Spain
- [ ] Sweden
- [ ] United Kingdom
- [ ] non-EU country(ies)

* 1.6. If you are a civil society organisation, please indicate your main area of focus.

- ( ) Agriculture
- ( ) Energy
- (•) Environment & Climate
- ( ) Other
- ( ) Technology & Research

* 1.7. If you are a public authority, can you define more specifically your area of competence?

- ( ) national government
- ( ) national parliament
- ( ) regional government
- ( ) regional parliament
- ( ) local authority
- ( ) governmental agency
- ( ) other

1.8. If replying as an individual/private person, please give your name; otherwise give the name of your organisation

200 character(s) maximum

European Federation for Transport and Environment

1.9. If your organisation is registered in the Transparency Register, please give your Register ID number.

(If your organisation/institution responds without being registered, the Commission will consider its input as that of an individual and will publish it as such.)

200 character(s) maximum

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1.10. Please give your country of residence/establishment

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom
- Other non-EU European country
- Other non-EU Asian country
- Other non-EU African country
- Other non-EU American country

* 1.11. Please indicate your preference for the publication of your response on the Commission's website: (Please note that regardless the option chosen, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In this case the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.)

- Under the name given: I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication.
- Anonymously: I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication.
- Please keep my contribution confidential. (it will not be published, but will be used internally within the Commission)

Perceptions of bioenergy

2.1. Role of bioenergy in the achievement of EU 2030 climate and energy objectives

Please indicate which of the statements below best corresponds to your perception of the role of bioenergy in the renewable energy mix, in particular in view of the EU's 2030 climate and energy objectives:

- ○ Bioenergy should continue to play a dominant role in the renewable energy mix.
- ○ Bioenergy should continue to play an important role in the renewable energy mix, but the share of other renewable energy sources (such as solar, wind, hydro and geothermal) should increase significantly.
- ◉ Bioenergy should not play an important role in the renewable energy mix: other renewable energy sources should become dominant.

2.2. Perception of different types of bioenergy

Please indicate, for each type of bioenergy described below, which statement best corresponds to your perception of the need for public (EU, national, regional) policy intervention (tick one option in each line):

	Should be further promoted	Should be further promoted, but within limits	Should be neither promoted nor discouraged	Should be discouraged	No opinion
Biofuels from food crops	○	○	○	◉	○
Biofuels from energy crops (grass, short rotation coppice, etc.)	○	○	○	◉	○
Biofuels from waste (municipal solid waste, wood waste)	○	◉	○	○	○
Biofuels from agricultural and forest residues	○	◉	○	○	○
Biofuels from algae	○	◉	○	○	○
Biogas from manure	○	◉	○	○	○
Biogas from food crops (e.g. maize)	○	○	○	◉	○
Biogas from waste, sewage sludge, etc.	○	◉	○	○	○
Heat and power from forest biomass (except forest residues)	○	○	○	◉	○
Heat and power from forest residues (tree tops, branches, etc.)	○	◉	○	○	○

Heat and power from agricultural biomass (energy crops, short rotation coppice)	○	○	○	◉	○
Heat and power from industrial residues (such as sawdust or black liquor)	○	◉	○	○	○
Heat and power from waste	○	◉	○	○	○
Large-scale electricity generation (50 MW or more) from solid biomass	○	○	○	◉	○
Commercial heat generation from solid biomass	○	○	◉	○	○
Large-scale combined heat and power generation from solid biomass	○	◉	○	○	○
Small-scale combined heat and power generation from solid biomass	○	◉	○	○	○
Heat generation from biomass in domestic (household) installations	○	○	◉	○	○
Bioenergy based on locally sourced feedstocks	○	○	◉	○	○
Bioenergy based on feedstocks sourced in the EU	○	○	◉	○	○
Bioenergy based on feedstocks imported from non-EU countries	○	○	○	◉	○
Other	○	○	○	○	○

Please specify the "other" choice

200 character(s) maximum

3. Benefits and opportunities from bioenergy

3.1. Benefits and opportunities from bioenergy

Bioenergy (biofuel for transport, biomass and biogas for heat and power) is currently promoted as it is considered to be contributing to the EU's renewable energy and climate objectives, and also having other potential benefits to the EU economy and society.

Please rate the contribution of bioenergy, as you see it, to the benefits listed below (one answer per line):

	of critical importance	important	neutral	negative	No opinion
Europe's energy security: safe, secure and affordable energy for European citizens	○	○	◉	○	○
Grid balancing including through storage of biomass (in an electricity system with a high proportion of electricity from intermittent renewables)	○	◉	○	○	○
Reduction of GHG emissions	○	○	○	◉	○
Environmental benefits (including biodiversity)	○	○	○	◉	○
Resource efficiency and waste management	○	○	◉	○	○
Boosting research and innovation in bio-based industries	○	○	◉	○	○
Competitiveness of European industry	○	○	◉	○	○
Growth and jobs, including in rural areas	○	○	◉	○	○
Sustainable development in developing countries	○	○	○	◉	○
Other	○	○	○	◉	○

Please specify the "other" choice

200 character(s) maximum

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Investments on R&I on other renewable sources; System transition to a 100% renewable en
ergy, especially focused on decarbonization of the transport sector.
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3.2. Any additional views on the benefits and opportunities from bioenergy? Please explain

2,500 character(s) maximum

T&E doesn't see particular benefits in the promotion of bioenergy for its use in transport unless it delivers real greenhouse gas emissions savings and comes from waste, sustainable residues or non-food based feedstock. The current Renewable Energy Directive set a 10% target for the use of renewable energy in the transport sector. This, instead of promoting and developing the use and deployment of truly renewables such as wind and solar electricity for transport, led to an increased demand of unsustainable biofuels which actually have higher GHG emissions than the fuel they are supposed to replace – this is the case specifically for biodiesel – from sources such as palm or soy - as according to the Globiom study would be 80% worse than fossil diesel by 2020 due to the high Indirect Land Use Change (ILUC) emissions effects linked to these feedstocks. That's why T&E sees that there's an urgency for electrification of the road transport sector beginning with light vehicles. Sustainable biofuels are not just available in the necessary amounts to be the main solution. Real greenhouse gas emission savings can be achieved with real renewable energy, and therefore contribute to the necessary transport decarbonisation. With a large volume of electric vehicles, they can be also used to balance intermittent renewables as they will account to significant battery capacity.
Nevertheless, T&E sees that sustainable advanced biofuels can play a role in decarbonizing transport. Advanced biofuels need to be tied to robust sustainability criteria to ensure that land displacement does not happen, that emissions linked to indirect land use change are accounted; that doesn't put biodiversity in risk and that deliver actual GHG savings.
T&E sees an opportunity from bioenergy when it comes to the development and deployment of advanced biofuels from sources such as wastes and residues as long as it goes in line with the waste hierarchy and respect the cascading principle. T&E also sees potential in energy crops as long as these are not replacing food or feed crops meaning that they should be grown in abandoned lands or lands with high abandonment risk. The assessment of abandoned lands must be based on exhaustive impact assessments considering all potential risks to water, biodiversity, soils, etc. and taking into account the availability of land. T&E firmly believes that an exhaustive study on land availability in the EU is needed, to have a full picture of land availability.

4. Risks from bioenergy production and use

4.1. Identification of risks

A number of risks have been identified (e.g. by certain scientists, stakeholders and studies) in relation to bioenergy production and use. These may concern specific biomass resources (agriculture, forest, waste), their origin (sourced in the EU or imported) or their end-uses (heat, electricity, transport).

Please rate the relevance of each of these risks as you see it (one asnwer per line):

	critical	significant	not very significant	non-existent	No opinion
Change in carbon stock due to deforestation and other direct land-use change in the EU	○	○	◉	○	○
Change in carbon stock due to deforestation and other direct land-use	◉	○	○	○	○

change in non-EU countries					
Indirect land-use change impacts	◉	○	○	○	○
GHG emissions from the supply chain (e.g. cultivation, processing and transport)	○	○	◉	○	○
GHG emissions from combustion of biomass ('biogenic emissions')	○	◉	○	○	○
Impacts on air quality	○	◉	○	○	○
Impacts on water and soil	○	◉	○	○	○
Impacts on biodiversity	○	◉	○	○	○
Varying degrees of efficiency of biomass conversion to energy	○	◉	○	○	○
Competition between different uses of biomass (energy, food, industrial uses) due to limited availability of land and feedstocks and/or subsidies for specific uses	◉	○	○	○	○
Internal market impact of divergent national sustainability schemes	○	◉	○	○	○
Other	○	◉	○	○	○

Please specify the "other" choice

200 character(s) maximum

Technological and infrastructure Lock-in risks hindering development of other renewables for transport.

4.2. Any additional views on the risks from bioenergy production and use? Please explain

2,500 character(s) maximum

The main aim of using bioenergy should be to mitigate climate change in a sustainable manner. This essentially means that land use change, direct and indirect, need to be quantified and taken into account when accounting carbon. Bioenergy policy should not drive increased demand for land as it leads to land use change in the short term, as yield increases are not large enough to encounter the large increases of especially biofuel demand. A warning example is the increase of biodiesel use which has led to increasing amount of rapeseed cultivation and palm oil cultivation for energy purposes globally, in addition to the previous food demand.

It is important to note that different biomasses feedstocks have different levels of climate benefits (or detriments). We need to focus the use of biomass feedstocks which have low LCA emissions and replace fossil fuels mainly where other renewables cannot.

Another policy failure is the "zero rating" of all bioenergy which for some feedstocks

actually leads to bioenergy increasing CO2 concentration in the short and medium term, depending on the feedstock. Full life cycle (LCA) emissions from bioenergy should be used when accounting for the climate benefits. Taking LCA emissions into account will lead to smarter bioenergy use, focusing the feedstocks on wastes, residues and other low LCA emission feedstocks.

The use of wastes and residues should be based on cascading principle and in line with the waste hierarchy outlined in the Waste Framework Directive. The use of abandoned and degraded land for low input energy crop production should be explored, but at the same time, making sure that such cultivation is not done on productive farmland, where it would essentially lead to the displaced crops being grown elsewhere.
Risks of negative social impacts such as land use conflicts, land rights, livelihoods of local communities, volatility of food prices and food security have not been appropriately considered in this consultation. They should be also considered as a significant risk, especially related to land based crops.

5. Effectiveness of existing EU sustainability scheme for biofuels and bioliquids

In 2009, the EU established a set of sustainability criteria for biofuels (used in transport) and bioliquids (used for electricity and heating). Only biofuels and bioliquids that comply with the criteria can receive government support or count towards national renewable energy targets. The main criteria are as follows:

- Biofuels produced in new installations must achieve GHG savings of at least 60 % in comparison with fossil fuels. In the case of installations that were in operation before 5 October 2015, biofuels must achieve a GHG emissions saving of at least 35 % until 31 December 2017 and at least 50 % from 1 January 2018. Lifecycle emissions taken into account when calculating GHG savings from biofuels include emissions from cultivation, processing, transport and direct land-use change;
- Biofuels cannot be grown in areas converted from land with previously (before 2008) high carbon stock, such as wetlands or forests;
- Biofuels cannot be produced from raw materials obtained from land with high biodiversity, such as primary forests or highly biodiverse grasslands.

In 2015, new rules[1] came into force that amend the EU legislation on biofuel sustainability (i.e. the Renewable Energy Directive and the Fuel Quality Directive) with a view to reducing the risk of indirect land-use change, preparing the transition to advanced biofuels and supporting renewable electricity in transport. The amendments:

- limit to 7 % the proportion of biofuels from food crops that can be counted towards the 2020 renewable energy targets;
- set an indicative 0.5 % target for advanced biofuels as a reference for national targets to be set by EU countries in 2017;
- maintain the double-counting of advanced biofuels towards the 2020 target of 10 % renewable energy in transport and lay down a harmonised EU list of eligible feedstocks; and
- introduce stronger incentives for the use of renewable electricity in transport (by counting it more towards the 2020 target of 10 % renewable energy use in transport).

[1] Directive (EU) 2015/1513 of the European Parliament and of the Council of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources (OJ L 239, 15.9.2015, p. 1).

5.1. Effectiveness in addressing sustainability risks of biofuels and bioliquids

In your view, how effective has the existing EU sustainability scheme for biofuels and bioliquids been in addressing the risks listed below? (one answer per line)

	effective	partly effective	neutral	counter-productive	No opinion
GHG emissions from cultivation, processing and transport	○	◉	○	○	○
GHG emissions from direct land-use change	○	○	○	◉	○
Indirect land-use change	○	○	○	◉	○
Impacts on biodiversity	○	○	◉	○	○
Impact on soil, air and water	○	○	◉	○	○

Any additional comments?

2,500 character(s) maximum

The so-called ILUC reform (that was finalized in 2015 with the adoption of the 7% cap for the use of land-based biofuels to count towards the 10% target of renewables in transport) was a step in the right direction, however more action needs to be taken to have real savings from biofuels in the transport sector.
The recently published study "the land use change impact of biofuels consumed in the EU", commissioned by DG Energy, revises the emissions from land use change (both direct and indirect). It also analyses the role of the 7% cap in saving emissions and it clearly shows its effectiveness. This cap must be kept as a very minimum in the post-2020 policy framework, and it to be gradually phased-out until food-based biofuels are eliminated from the EU market. This would give room to the deployment of real sustainable advanced biofuels within this cap, complementing achieving the overall objective of deploying electric vehicles fueled with wind/solar energy.
Sustainability criteria has been somehow effective and could become more effective but it must be extended to all forms of bioenergy and not only biofuels. This sustainability safeguards for the use of biomass for any type of energy use must be comprehensive and robust, reporting and accounting ILUC effects, eliminating zero-rating, taking into account effects on biodiversity, water, soils, etc.
The post-2020 framework should include a cap but it should not include blending mandates, even for advanced biofuels, as it could lead to a massive demand and can repeat the same mistakes of the past. Quality must be prioritized over quantity, to ensure that the use of advanced biofuels deliver actual savings.

5.2. Effectiveness in promoting advanced biofuels

In your view, how effective has the sustainability framework for biofuels, including its provisions on indirect land-use change, been in driving the development of 'advanced' biofuels, in particular biofuels produced from ligno-cellulosic material (e.g. grass or straw) or from waste material (e.g. waste vegetable oils)?

- ○ very effective
- ○ effective
- ◉ neutral
- ○ counter-productive
- ○ no opinion

What additional measures could be taken to further improve the effectiveness in promoting advanced biofuels?

2,500 character(s) maximum

There should be no volume / percentage target for advanced (or any other) biofuels as this approach only focuses on quantity and not on quality and impacts of those biofuels.

There should be a correct carbon accounting for biofuels which would promote those that deliver higher savings – taking into account ILUC and during the full life cycle of the product - over those that do not have significant savings associated. This would be the basis of EU biofuels policy and would automatically exclude unsustainable biofuels. Support schemes and incentives for unsustainable biofuels cannot continue and should be phased out. Incentives for real sustainable advanced biofuels should be put in place.

There should be a level playing field for all forms of bioenergy, including advanced biofuels, which would apply the same sustainability requirements for all bioenergy. The playing field for material and chemical use should also be in balance with energy use.

5.3. Effectiveness in minimising the administrative burden on operators

In your view, how effective has the EU biofuel sustainability policy been in reducing the administrative burden on operators placing biofuels on the internal market by harmonising sustainability requirements in the Member States (as compared with a situation where these matter would be regulated by national schemes for biofuel sustainability)?

- (●) very effective
- ( ) effective
- ( ) not effective
- ( ) no opinion

What are the lessons to be learned from implementation of the EU sustainability criteria for biofuels? What additional measures could be taken to reduce the administrative burden further?

2,500 character(s) maximum

Concerns on negative societal, climate and environmental impacts of policies, raised by the scientific community and civil society should be addressed in a precautionary manner as early as possible to avoid flawed or constantly changing policy incentives. Indirect land use change has not been adequately accounted for, and has led to biofuels on the market which have negative climate impacts compared to fossil fuels (see T&E analysis on the Globiom report). The future policy should ensure that these indirect effects are also taken into account.

A robust, coherent and binding EU level policy is needed to give clear incentives and prevent the use of harmful forms of bioenergy. Constantly changing, voluntary or member state specific policies only create a confusing and ever changing business environment decreasing willingness to invest and hence deploy advanced biofuels.

Sustainability schemes need to go beyond regulating land and forest management practices but also address natural resource use and our ecological footprint, resource efficiency, full carbon emission impacts and overall volume of demand created.

5.4. Deployment of innovative technologies

In your view, what is needed to facilitate faster development and deployment of innovative technologies in the area of bioenergy? What are the lessons to be learned from the existing support mechanisms for innovative low-carbon technologies relating to bioenergy?

2,500 character(s) maximum

The previous policy framework set a volume target for the introduction of biofuels in the market. This has proven to be ineffective and harmful for climate as it led to a "quantity over quality" approach. As a result the demand for biofuels has quickly grown and the production has not taken into account environmental, climate and social considerations. There needs to be a completely different approach on which quality is prioritized over quantity, and on which biofuels are promoted based on their environmental performance and greenhouse gas saving potential on a full life cycle approach. This can be done by implementing ILUC factors and greenhouse gas emission savings targets, instead of implementation of volume targets.
By introducing a policy approach based on greenhouse gas savings instead of volume of biofuels blended, support is given to those fuels that are actually delivering benefits, not only on climate but also environmental and social. This would be an automatic way of excluding bioenergy forms that lead to negative impacts.

Policy needs to give a clear preference for the kinds of bioenergy that deliver genuine climate benefits without negative societal and environmental impacts and incentivize this production whilst excluding bioenergy with negative impacts. The subsidies for bioelectricity need to be shifted away from volume based subsidies payments (leading to base load production) towards balancing other intermittent renewables (such as solar and wind) and for providing peak power as biomass can be dispatched when necessary.

6. Effectiveness of existing EU policies in addressing solid and gaseous biomass sustainability issues

6.1. In addition to the non-binding criteria proposed by the Commission in 2010, a number of other EU policies can contribute to the sustainability of solid and gaseous bioenergy in the EU. These include measures in the areas of energy, climate, environment and agriculture.

In your view, how effective are current EU policies in addressing the following risks of negative environmental impacts associated with solid and gaseous biomass used for heat and power? (one answer per line)

	effective	partly effective	neutral	counter-productive	No opinion
Change in carbon stock due to deforestation, forest degradation and other direct land-use change in the EU	○	○	◉	○	○
Change in carbon stock due to deforestation, forest degradation and other direct land-use change in non-EU countries	○	○	◉	○	○
Indirect land-use change impacts	○	○	◉	○	○
GHG emissions from supply chain, e.g. cultivation, processing and transport	○	○	○	○	◉

GHG emissions from combustion of biomass ('biogenic emissions')	○	○	○	◉	○
Air quality	○	○	○	○	◉
Water and soil quality	○	○	○	○	◉
Biodiversity impacts	○	○	○	○	◉
Varying degrees of efficiency of biomass conversion to energy	○	○	○	◉	○
Competition between different uses of biomass (energy, food, industrial uses) due to limited availability of land and feedstocks	○	○	◉	○	○
Other	○	○	○	◉	○

Please specify the "other" choice

200 character(s) maximum

Social impacts such a land use rights, human rights and food security.

6.2. Any additional views on the effectiveness of existing EU policies on solid and gaseous biomass? Please explain

2,500 character(s) maximum

Existing policies in the field agriculture: like the CAP' or rural development or in the field of forestry delivered through national legislation on sustainable forest management or waste management have not always been effective in limiting the use of harmful biomass for energy or ensuring it's done in a sustainable way. The sustainability of increasing imports of solid biomass for electricity are also questionable. Solid and gaseous bioenergy should be used where local biomass feedstocks are available.

Measures to report for emissions in the LULUCF sector (EU Decision) or account from the under the Kyoto Protocol have not been effective in capturing the emissions of increased bioenergy use or excluding high-carbon bioenergy sources.

There's a clear gap in policies (both EU and national) to ensure that bioenergy use delivers true GHG savings and that biomass is used in a resource efficient way in line with the cascading use principle.

7. Policy objectives for a post-2020 bioenergy sustainability policy

7.1. In your view, what should be the key objectives of an improved EU bioenergy sustainability policy post-2020? Please rank the following objectives in order of importance: most important first; least important 9th/10th (you can rank fewer than 9/10 objectives):

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th

Contribute to climate change objectives	◉	○	○	○	○	○	○	○	○	○
Avoid environmental impacts (biodiversity, air and water quality)	○	○	○	◉	○	○	○	○	○	○
Mitigate the impacts of indirect land-use change	○	◉	○	○	○	○	○	○	○	○
Promote efficient use of the biomass resource, including efficient energy conversion	○	○	◉	○	○	○	○	○	○	○
Promote free trade and competition in the EU among all end-users of the biomass resource	○	○	○	○	○	○	◉	○	○	○
Ensure long-term legal certainty for operators	○	○	○	○	○	◉	○	○	○	○
Minimise administrative burden for operators	○	○	○	○	○	○	○	○	◉	○
Promote energy security	○	○	○	○	◉	○	○	○	○	○
Promote EU industrial competitiveness, growth and jobs	○	○	○	○	○	○	○	◉	○	○
Other	○	○	○	○	○	○	○	○	○	○

Please specify the "other" choice

200 character(s) maximum

7.2. Any other views? Please specify

2,500 character(s) maximum

The post 2020 policy framework on bioenergy needs to avoid repeating the mistakes of th e past. In the case of biofuels, the upcoming policy framework needs to ensure deployed biofuels deliver significant actual savings compared to the type of fuel that needs to replace. This seems obvious but the recent study "the land use impact of biofuels consu med in the EU" shows that average emissions from biodiesel are actually higher than the diesel it is supposed to replace, considering a full life cycle approach. This is compl etely unacceptable as the overall goal of the introduction of biofuels is to decrease G HG emissions from transport, and therefore the upcoming policy framework needs to take the necessary steps and safeguards to protect this goal.

The European Commission already acknowledge the negative impacts of the excessive promo tion of biofuels, especially due to indirect land use change effects, and set a cap of 7% to limit the use of food-based biofuels to be counted towards the 10% renewable ener gy target in transport. This was indeed a step in the right direction, however it still gives room for "bad" biofuels to be used in the EU, such as biodiesel from palm or soy. Therefore, for the post-2020 framework, T&E asks for a real and complete carbon account ing that avoids zero-rating, with a rigid GHG savings target. These together will lead to exclusion of those biofuels that generate high greenhouse gas emissions when the ful l life cycle emissions are taken into account. These must not be eligible to be counted towards any renewable energy targets and also must not be eligible to count towards EU climate goals, i.e. Effort Sharing Decision targets.

To support post-2020 policy and sustainability of bioenergy, the EU should build a prop er knowledge of available lands and their condition to assess whether there would be su itable unused land available to grow energy crops without creating indirect land use ch ange. At the moment nobody knows how much abandoned land is existing in the EU which co uld be used for low input energy crops (e.g. perennial grasses, short rotation coppic e), and the availability of these should be explored, as these lands can be used for bi ofuel feedstocks without land use changes.

8. EU action on sustainability of bioenergy

8.1. In your view, is there a need for additional EU policy on bioenergy sustainability?

- ○ No: the current policy framework (including the sustainability scheme for biofuels and bioliquids, and other EU and national policies covering solid and gaseous biomass) is sufficient.
- ○ Yes: additional policy is needed for solid and gaseous biomass, but for biofuels and bioliquids the existing scheme is sufficient.
- ○ Yes: additional policy is needed on biofuels and bioliquids, but for solid and gaseous biomass existing EU and national policies are sufficient.
- ◉ Yes: a new policy is needed covering all types of bioenergy.

8.2. In your view, and given your answers to the previous questions, what should the EU policy framework on the sustainability of bioenergy include? Please be specific

5,000 character(s) maximum

The sustainability criteria and policy should ensure that bioenergy delivers significan t greenhouse gas emissions reductions. This means that the full life cycle emissions sh ould be taken into account, including indirect effects, mainly indirect land use chang e. The 7% cap on agricultural land based biofuels has been somewhat effective in limiti

ng the amount of harmful biofuels, but an approach based on life cycle emissions would be much stronger when combined with a savings target, as it would ensure that only biofuels which bring true GHG emission reductions would be available on the market. The sustainability criteria needs to also take into account the competing use of feedstocks and avoid distorting markets. Human rights in land acquisition or management should also be considered.

Transport & Environment is calling for phasing out of the support of 1st generation agricultural land based biofuels and phasing in stronger support towards advanced biofuels based on wastes and residues. The aim of biofuels policy should be to bring true emissions savings, Hence we have a quality over quantity approach, and oppose mandates.

The policy should be also coherent, as currently the land based biofuels which go over the 7% cap can still be accounted towards CO2 emission reduction targets, despite the poor performance of some of biofuels (as outlines in the Globiom study). Bioenergy should not be automatically considered zero rated and the full Life cycle (LCA) emissions from bioenergy should be used when accounting for the climate benefits of bioenergy. This would essentially give a more realistic view on the climate benefits of bioenergy and a more correct accounting than the currently used method. Taking LCA emissions into account would also lead to smarter bioenergy use, focusing the feedstocks on wastes, residues and other low LCA emission feedstocks. The use of wastes and residues should be based on cascading and the waste hierarchy. The use of abandoned and degraded land for low input energy crop production would be explored, but at the same time, making sure that such cultivation is not done on productive farmland, where it would essentially lead to the displaced crops being grown elsewhere.

The bioenergy support schemes should become conditional, and allowed only for bioenergy which brings climate benefits. The error of supporting bioenergy not beneficial for the climate (e.g. biodiesel) should not be repeated. This would be also resource efficient, as the financial incentives would be channeled towards renewables (including bioenergy) which bring real emission savings.

9. Additional contribution

Do you have other specific views that could not be expressed in the context of your replies to the above questions?

5,000 character(s) maximum

As part of the preparation of the sustainable bioenergy policy the Commission should carry out a critical analysis of the costs and impacts of bioenergy use in comparison to other renewable energy sources and assess to what extent has bioenergy use until 2020 contributed to the energy system changes needed go to a fully renewable energy system.

Policies on sustainable forest management and agriculture have so far failed to stop biodiversity decline in these habitats and have limited impacts. These policies have so far not been effective in stopping environmentally and climate wise negative bioenergy uses. While these policies should be improved additional policies are needed to ensure especially that GHG savings from bioenergy use are delivered and that biomass resources are used in an efficient way. Biomass use should be slowly oriented towards uses where other renewables are not an option for instance as balancing or peak power, and transport where other options are not yet available (e.g. aviation biofuels). This would essentially mean phasing out the support schemes for bioenergy for stationary uses.

Policies for emissions from the land use and forestry sector (LULUCF) such as EU's LULU

CF Decision and the Kyoto Protocol and the respective accounting rules (especially forest management) for the LULUCF sector have not effectively captured the biogenic emission related to bioenergy use, especially from imported biomass, or succeeded in limiting them. Accounting rules and targets for the land sector that are not consistent globally and that allow the hiding of emissions in projected reference levels won't sufficiently address bioenergy emissions also in the future. Carbon emissions need to be minimized by applying sustainability requirements on the policies driving bioenergy use i.e. the renewable energy policies.

Finally, you may upload here any relevant documents, e.g. position papers, that you would like the European Commission to be aware of.

T_E_relevant_documents_and_position_papers.pdf

Thank you for participation to the consultation!

Contact

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