



*European Economic and Social Committee*

**NAT/655**

**Implications of climate and  
energy policy on  
agricultural and forestry  
sectors**

Brussels, 22 April 2015

**OPINION**

of the

European Economic and Social Committee

on the

**Implications of climate and energy policy on agricultural and forestry sectors**  
(exploratory opinion)

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Rapporteur: **Mr Maciulevičius**

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On 26 September 2014, the upcoming Latvian Presidency of the European Union decided to consult the European Economic and Social Committee, under Article 304 of the Treaty on the Functioning of the European Union, on the

*Implications of climate and energy policy on agricultural and forestry sectors*  
(exploratory opinion).

The Section for Agriculture, Rural Development and the Environment, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 9 April.

At its 507th plenary session, held on 22 and 23 April (meeting of 22 April), the European Economic and Social Committee adopted the following opinion by 147 votes to 1 with 3 abstentions.

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**1. Conclusions and recommendations**

- 1.1 The EESC stresses that climate change is a global challenge. When deciding on the EU's contribution to the global climate agreement, the EU and the Member States should take into account the difference of policies worldwide and consider impacts of climate change and mitigation potentials. EU policies must address the challenge of maintaining food security in spite of the growing demand, while maintaining the competitiveness of the EU's agricultural and forestry sectors and strengthening the attractiveness of local EU producers, without imposing unnecessary burdens on farmers and forest owners. The EU should lead by example in economically, socially and environmentally sustainable farming. The EU policy framework needs to be coherent and consistent.
- 1.2 The global context needs to be considered to avoid relocation of energy- and emissions-intensive production capabilities to other parts of the world, which may even lead to an increase in total global emissions while decreasing the competitiveness of the European agricultural and forestry sectors.
- 1.3 The decision to integrate land-use, land-use change and forestry (LULUCF) in the post-2020 policy framework creates a high degree of uncertainty for the farming and – in some cases – the forestry sector. It is still unclear whether this will lead to a sink-effect or if the integration will lead to additional emissions in a number of regions. Any decision has to be science-based and should be taken after a proper impact assessment of different options at Member State level.

- 1.4 When deciding on the post-2020 GHG emission reduction targets for Member States in the agricultural and forestry sectors, the EESC calls for flexibility, especially in Member States which currently have significantly lower footprints in agriculture or forestry.
- 1.5 Given the expected very positive economic and social impact, especially for job creation in rural areas, the EESC encourages an active strategy, taking into account the potential for sustainable and economically viable growth of biomass for bioenergy and the bioeconomy in general as well as sustainably intensified agriculture, guaranteeing stable additional high income for farmers, forest owners and rural communities and boosting investment in infrastructure and the social needs of rural areas.
- 1.6 Forests and wood products can store more CO<sub>2</sub>. Active forest management and increased use of wood products can increase the removal and storage of CO<sub>2</sub>. Additional substitution effects can be expected where wood products replace conventional products or materials.
- 1.7 Agriculture and forestry sectors are complex, not fully understood biological structures, where major changes should not be proposed and implemented as temporary solutions to reach short-term targets. Concentrating on 2020 and 2030 targets is too short a period for biological systems. No global solutions on biological systems should be proposed for the whole EU region, given the very diverse and sometimes unexpected local circumstances.
- 1.8 Research, innovation and development are the main drivers for the transition to sustainable agriculture and forestry, including for bioenergy and the bioeconomy, in line with climate policy objectives. The EESC calls on the EU institutions and Member States to increase the funding for work in this field, and calls for a joint effort where findings are shared between the research communities. The key to successful implementation of innovation is to actively promote it via consultative and educational bodies to the end users in the agricultural and forestry sectors.
- 1.9 EU policies, in conjunction with specific research and innovation programmes combined with financial incentives to farmers and forest owners, should:
- promote the gradual transition to fossil fuel free agriculture models,
  - focus on improving the efficiency of all production systems, and
  - support a more efficient utilisation of resources, including land, water and nutrients.
- 1.10 The EESC stresses that civil dialogue and civil initiatives between stakeholders and local, regional, national and European institutions are the most efficient way of creating the policy framework for the agricultural and forestry sectors. The best examples of such involvement, including successful public-private partnerships, should be shared among the Member States.

## 2. Introduction

- 2.1 Acting upon the referral from the Latvian Presidency of the EU, the EESC decided to draw up this opinion in order to make known civil society's views on the best ways to reduce GHG emissions and increase CO<sub>2</sub> removals in the agricultural and forestry sectors in a cost effective manner and without hampering sustainable development and the competitiveness of the EU.
- 2.2 The EESC recognises that the implications of the EU climate and energy policy for the development of the agricultural and forestry sectors are complex. Bearing this in mind, the opinion aims to describe key impacts of the current EU policy framework on the two sectors and the contribution already made to mitigating and adapting to climate change, to highlight potential opportunities for the sectors, to address social aspects and effects on civil society and to propose recommendations concerning the place and role of the agricultural and forestry sectors in the EU's 2030 energy and climate policy framework.
- 2.3 The European Union agreed upon its energy and climate objectives in the 2009 package<sup>1</sup> of binding legislation enforcing the so-called 20-20-20 targets. The 2020 policy framework did not set a specific emissions reduction target for agriculture and the LULUCF.
- 2.4 On 22 January 2014 the European Commission issued "A policy framework for climate and energy in the period from 2020 to 2030"<sup>2</sup>. The new targets further backed by the European Council in its October conclusions include: a 40% cut in GHG emissions compared with 1990 levels, at least a 27% share of renewable energy consumption and an improvement in energy efficiency by 27%.
- 2.5 In the 2030 framework the Commission suggested: "To ensure that all sectors contribute in a cost-effective way to the mitigation efforts, agriculture, land-use, land-use change and forestry should be included in the GHG reduction target for 2030."
- 2.6 Additionally, the European Council invited the Commission "to examine the best means of encouraging the sustainable intensification of food production, while optimising the sector's contribution to greenhouse gas mitigation and sequestration, including through afforestation"<sup>3</sup>.
- 2.7 At the end of 2015, a globally binding climate protection agreement should be adopted at the 21st Conference of the Parties (COP21) of the UN Framework Convention on Climate

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<sup>1</sup> Directives: 2009/28/EC, 2009/29/EC, 2009/31/EC and Decision 406/2009/EC.

<sup>2</sup> COM(2014) 15 final.

<sup>3</sup> EUCO 169/14, point 2.14, p. 5.

Change (UNFCCC) in Paris. It must commit countries to emission-reduction and adaptation measures.

- 2.8 Furthermore, the action taken by the new European Commission in the context of the Regulatory Fitness and Performance Programme (REFIT) programme and reviewing of existing policies, which the EESC supports in general, could be a good opportunity to overcome contradictions and ensure consistency of EU environmental (water, air and soil), agricultural and forestry policies, in particular for the agricultural and forestry sectors. Respecting the subsidiarity principle as well as coherence between individual national institutions and regional authorities is also very important (coherence between national and regional policies).
- 2.9 Different Member States have different situations, conditions and strategies with regard to forestry and agriculture. Knowing these differences it would be hard to find one solution that fits all. However, the role of the EU should be to promote and disseminate best practices in forestry and agriculture among Member States as well as to contribute to capacity building of decision makers, local communities, land owners, relevant industries and researchers.

### **3. Impacts**

- 3.1 In different EU regions climate change impacts the agriculture and forestry sectors in multiple ways, with both negative and positive consequences. Although there is uncertainty concerning the magnitude of these impacts in the future, a number of significant changes are already occurring, including: changes in annual and seasonal precipitation patterns, extreme events, changes in the availability of water resources, pests and diseases and soil changes. These changes in turn affect the volume and quality of yields and the stability of food production, affecting both the agriculture and forestry sectors and consumers. They also lead to wider risks for rural areas, such as increased risk of flooding and damage to infrastructure.
- 3.2 While assessing how emissions from agriculture and LULUCF should be integrated into the 2030 framework, it is important to note the role of agriculture and forestry in terms of its large soil-based carbon pool as well as making a major contribution to reducing the EU's dependence on energy imports by supplying bioenergy. Agriculture contributes about 10% of total EU28 GHG emissions and 18% of emissions in the non-ETS sector governed by the Effort Sharing Decision. Nevertheless, it should be acknowledged that since 1990 EU agriculture has achieved CO<sub>2</sub> equivalent reductions of some 18% compared with the EU overall reduction of 17% in the same period. At the same time, the output of agricultural production has increased.
- 3.3 The climate goals imply that there is a need for resource- and CO<sub>2</sub>-efficient forms of agriculture. When determining the cost-efficient goals for the sector the CO<sub>2</sub> equivalent per produced unit must be considered. Moreover, the global context needs to be taken into account to avoid relocation of the energy- and emissions-intensive production capabilities to

other parts of the world, which may even lead to an increase of total emissions while decreasing the competitiveness of the European agricultural and forestry sectors.

- 3.4 The EU's agricultural and forestry sector is highly dependent on fossil fuels, mainly due to the use of fertiliser and fossil fuel for machines. Future EU policies, in conjunction with specific research and innovation programmes, combined with financial incentives to farmers and forest owners should:

- promote the gradual transition to fossil fuel free agriculture models,
- focus on improving the efficiency of all production systems, and
- support a more efficient utilisation of resources, including land, water and nutrients.

Moreover, a sustainable closed model of agriculture and forestry should be promoted in order to boost the competitiveness of these sectors globally.

- 3.5 The EESC welcomes the environmental measures introduced by the recent CAP reform, however it underlines the differences in climatic conditions, farm types and other specificities, including lack of awareness in the EU Member States. When designing future measures, flexibility to farmers needs to be assured. Environmental protection, agricultural production and forest management processes should be integrated in a way that sustainably strengthens production capacity and contributes to efficiency, productivity and innovation.

- 3.6 According to the United Nations' Food and Agriculture Organisation (FAO), the increase in global demand for food will reach up to 70% by 2050 and most of it will be in high protein value from animal products. The EU farming sector's focus is firmly set on increasing the efficiency of resource use on farms, thereby lowering their emissions per produced unit by adopting sustainable practices. Such practices need to incorporate a high standard of animal welfare and the EU should also press for this to be recognised internationally. However, the EESC acknowledges that even if major efforts and investments are made towards reducing methane emissions from livestock production, the increase in the number of animals can still potentially increase net emissions.

- 3.7 Due to the impact of climate change on the agricultural and forestry sectors, traditional crop production areas are also changing. The EESC notes that significant research and development is needed in order to develop the best, most productive, cost-effective and sustainable techniques and plant varieties (cultivars), taking into account climate change and specific regional and local conditions for agriculture and forestry in Europe. This could be achieved with traditional breeding and selection techniques and local plant varieties should be prioritised. Soil productivity and sustainable intensification is key for resource efficiency.

#### 4. **Opportunities**

- 4.1 Whilst giving due attention to the need to address both current challenges and those that lie ahead, the EESC calls for smart solutions to be found to the challenges already being presented by climate change, but also recognises that the ambitious goals of climate and energy policy post-2020 represent an opportunity for the EU's agricultural and forestry sectors, which have a significant role to play within the policy framework. The EESC acknowledges that the effort has to be joint and active between civil society and local, regional, Member State and EU levels.
- 4.2 The measures that are going to be implemented in the agriculture and forestry sectors need to have a positive long-term impact on GHG emissions and CO<sub>2</sub> removals, from the land-use perspective, since many of the forestry GHG reduction measures may increase emissions in the short term, but have a much more significant positive impact in the long run. Concentrating on 2020 and 2030 targets is too short a period for biological systems.
- 4.3 The EESC notes that agriculture in Europe plays a crucial role, especially for family farming, food security, rural employment, social inclusion and sustainable development in rural areas. In order to safeguard it, decisions on the further development of the sector involving GHG reductions should be evaluated thoroughly, comprehensively and with due consideration of national issues.
- 4.4 Forests have a major role to play in mitigating climate change. Their multifunctional character serving economic, environmental and social purposes needs to be recognised. The EESC encourages Member States to develop national Active Forest Strategies and update existing National forest programmes considering the principles and goals of the EU Forest Strategy.
- 4.5 Currently the available forest resources in Europe regionally exceed their potential uses. However, there is a rising demand for biomass in the EU. Further afforestation needs to be promoted in order to ensure locally sufficient supply for energy needs, for wood-based industries and the bioeconomy in general. This would also encourage the use of residues and waste, such as branches, offcuts and low value round wood. However, more efficient use of biomass has to be highlighted, prioritising production of high-value goods and securing conditions for the use of these goods in energy production at the end of their lifespan.
- 4.6 Afforestation measures, where appropriate, have a very positive impact, not only on GHG emissions reduction, but also on enhancing biodiversity and reducing water scarcity. This way of development should also be considered in regions with water scarcity problems as a sustainable way of tackling the issue both economically and socially. Additional social benefits could be gained by urban forests and trees outside forests, such as on the verges of motorways.

- 4.7 The development of sustainably produced biomass should take place within a clearly defined policy framework, respecting limits on production and use, social aspects and biodiversity. EU leadership is needed to ensure the further evolution of the bioeconomy in a way that can bring social, economic and environmental benefits.
- 4.8 Forests and wood products can store more CO<sub>2</sub>. Active forest management and increased use of wood products can increase the removal and storage of CO<sub>2</sub>. Additional substitution effects can be expected where wood products replace conventional products or materials.
- 4.9 The EESC stresses the need for sustainable active forest management based on efficient utilisation of forest goods, as well as productivity and sustainability targeted forest regeneration. In addition, efficient, science-based, targeted measures such as drainage, regenerative felling, thinning, ash spreading and fertilisation of degraded soil should be considered, since they increase forest yields and the potential for CO<sub>2</sub> removal.
- 4.10 There are considerable areas of productive forests where utilisation of biomass and further increase of the potential of CO<sub>2</sub> removals is limited by the economic accessibility of these lands. Investment is needed to develop forest infrastructure and technologies to make these resources accessible. This could be done using EU funds supporting the cohesion objectives.
- 4.11 In the majority of EU Member States there are vast areas of land currently set aside, such as former pastures not suitable for cereals or similar crop production, as well as croplands, which are used extensively due to the deterioration of infrastructure and lack of investment for drainage systems and other environmental constraints. These lands, if supported by research and innovation, could be returned to the production of traditional agriculture, bioenergy crops or afforestation.
- 4.12 The use of sustainably produced biomass for energy is an important contributor to the energy independence goals within the EU's general energy policy. It will also have a very positive impact on the general trade balance, as it means that local biomass can be used instead of paying third countries for imported fossil fuels.
- 4.13 The EESC calls for further support for research and innovation in the forestry sector in order to identify and provide sustainable techniques and forest management methods, taking account of the challenges arising from climate change, environmental differences between European regions and the economic pressures the sector is facing in trying to maintain or increase its competitiveness.
- 4.14 The research and innovation projects in bioenergy should contribute to ensuring that the entire production chain is cost-effective, sustainable and economically viable without the need to rely on any European or national subsidies for bioenergy in the future. In order to provide a level playing field, any subsidies or other non-financial support for fossil energy should be phased out.



- 4.15 The EESC welcomes the cross-sectorial approach taken by the Commission in supporting the bio-economy in general and calls for further cooperation amongst the Commission Directorates General (DGs) on promoting sustainably produced biomass.
- 4.16 The EESC stresses that the use of new information and communications technologies (ICT) and existing Commission programmes, such as Galileo, for the forestry and agricultural sectors are helping to improve sustainable production techniques for raw materials in the EU. The EESC calls for further research and development in this field.
- 4.17 The European Commission has a role to play in promoting and encouraging a coherent approach between responsible authorities in the Member States in order to successfully implement programmes at national level.
- 4.18 The EESC is aware that more than EUR 220 million was available to fund projects in sustainable agriculture and forestry under the EU's 7th research framework programme (FP7). It calls for the Horizon 2020 research and innovation framework programme to be even more ambitious. The EESC highlights the fact that the final success of research will depend on the effective dissemination of research projects' results to the end users in agricultural and forestry sectors.
- 4.19 The EESC stresses that most sustainable use of biomass is local. However, it acknowledges that the current bioenergy market is international. The specific situation of countries with oversupply of biomass should be recognised since the production of biomass results in emissions from the LULUCF sectors in exporting countries and in a reduction of emissions in the energy sector in importing countries. When deciding on the emission targets from EU LULUCF, specific compensation instruments are needed for the exporting countries.

## **5. Social aspects**

- 5.1 The development of rural areas in the European Union is heavily dependent on the viability of the agricultural and forestry sectors. The EESC stresses that the increased use of sustainable biomass and sustainably intensified agriculture, especially animal husbandry, should have a very positive primary impact on rural communities in terms of the creation of new jobs and revenue generation.
- 5.2 The EESC stresses that further processing of raw biomass or agricultural products to create high-value products should also be promoted locally, since it has a very positive secondary impact on jobs and revenue generation in rural areas. The EESC welcomes the Commission's work so far on research and innovation aimed at finding new ways of getting better value from biomass and agricultural products. The EESC calls for an even more ambitious investment programme in order to achieve EU leadership in this field globally.

- 5.3 The EESC notes that solar and wind power energy generation offer new and sustainable opportunities for rural areas. The costs of such schemes continue to fall and their efficiency to increase, but in order to encourage such means of energy production in rural areas, farmers and rural communities should be incentivised. Decentralised schemes enable individuals and communities to share the costs and benefits of renewables and to identify opportunities for better matching supply and demand.
- 5.4 Supplementary revenue from sustainably intensified agriculture, further processing of raw materials, biomass production and further processing, as well as renewable power generation, could provide a stable additional high income for farmers, forest owners and rural communities. It will also encourage – and could be the source of – further public or private investment in the infrastructure in rural areas.
- 5.5 The EESC stresses that further development of the bioeconomy in general could provide high-quality employment opportunities and thus incentivise people to stay in, or move to, rural areas, thus tackling the problem of depopulation of such areas, which is a major challenge in the EU.
- 5.6 Territorial and social cohesion should be the key objective for all EU policies and all measures, including those resulting from the EU energy and climate policy framework, should help contribute to it.
- 5.7 Biodiversity is likely to be deeply affected by the direct and indirect impacts of climate change. However, biodiversity also has an important role in climate change adaptation and mitigation. The EESC highlights the importance of the natural areas and protected nature parks in enhancing biodiversity and stresses the role of existing environmental protection instruments, such as LIFE and Natura 2000. These areas play an important role for the agricultural and forestry sectors and have significant social benefits.
- 5.8 The EESC notes that many forest owners in Europe do not manage their forests properly due to a lack of knowledge or resources and stresses that cooperation could allow for more efficient and better management of such land.
- 5.9 Education and technical support for farmers and forest owners should be a priority both for the EU and national institutions. Innovation, sustainable farming and forestry models arising from the EU-funded research and development projects funds should be widely promoted by national knowledge centres and advisory bodies.
- 5.10 Simple implementation tools should be in place for accounting GHG emissions in the agricultural and forestry sectors. They should be based on knowledge and scientific assumptions. The requirements of the EU energy and climate 2030 policy framework should not lead to overregulation of the agricultural and forestry sectors or to unnecessary burdens on

farmers or forest owners and should respect the principle that farmers and forest owners have their day jobs and limited resources for administration.

Brussels, 22 April 2015

The President  
of the  
European Economic and Social Committee

Henri Malosse

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