

Europe's National Energy and Climate Plans 2030: Are they fit for purpose?

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Forests are an essential part of both climate and biodiversity action

So, what should the plans include?

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To a large extent, this increased harvesting is due to perverse incentives based on faulty carbon accounting which encourage Member States to increase the amount of forest biomass they burn for energy.

The plans must therefore prioritise investment in real renewables and the protection and restoration of our best natural climate solution - forests.

Fern's analysis

To find out whether they are fit for purpose, Fern analysed the National Energy and Climate Plans of five Member States - [Denmark, Germany, Romania, Slovakia and Sweden](#) - as well as information from their [National Forestry Accounting Plans](#).

We wanted to find out how transparent they are on four issues:

1. Source of wood for material and energy use
2. Ratio of wood for material versus energy use
3. The forests' ability to remove carbon from the atmosphere
4. Plans to protect forests and biodiversity

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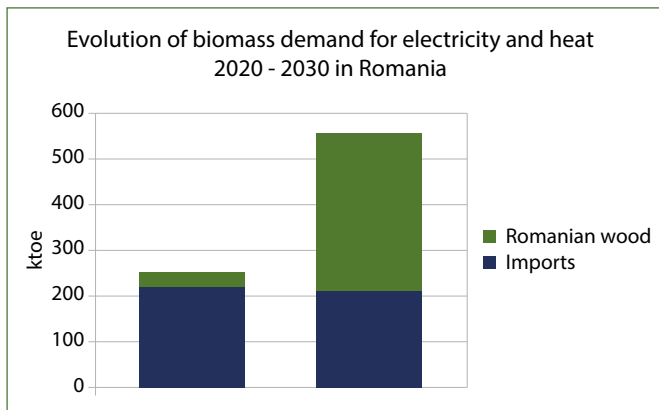
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ROMANIA

Romania's forests are in the spotlight following the killings of two forest rangers who had been working to end widespread illegal logging. This has led to public protests which show how much Romanians care about forests.

What the Plan says about bioenergy:

- By 2030 Romania plans to produce 27.9 per cent of its energy renewably, but the Plan does not state how much would come from forest biomass.
- Most wood for bioenergy is used for firewood.¹
- Use of biomass will increase by 121 per cent.² Most of this will come from their own forests, since wood imports will decrease by five per cent between 2020 and 2030.



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What the Plan says about Romania's forests:

- Sustainable forest management will be improved to include the fight against pests, prevention of forest degradation and increased accessibility to forest funding. The Plan does not describe where such measures will be applied.
- Wooded areas will be extended, but it is unclear what is meant by 'wooded' and whether this may also include monoculture plantations.

Additional information from other sources:

- **The State of Europe's Forests (2015):** 7.8 per cent of total forest cover is protected.
- **Joint Research Centre's Wood Resource Balance Report (2015):** 43 per cent of Romania's timber came from unaccounted sources.

Scorecard

	Transparency	Climate impact
Source of wood for energy and material use	No information	Pending official information
Ratio of wood for energy versus material use	No information	Pending official information
Forests' ability to remove carbon from the atmosphere	No information	Pending official information
Forest protection and biodiversity	No information	Pending official information

Conclusion

The Government needs to listen to public protests and commit to protecting unique old-growth forests and those who work to defend them. The National Energy and Climate Plan needs to be clear that Romania will stop clearcutting biodiverse habitats and hiding behind tree-planting which does little to replace vast natural carbon sinks.

¹ NECP P.63

² NECP P.67



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DENMARK

Denmark imports and burns more wood pellets for energy than almost any country in the world. Between 2015 and 2018 it provided nearly EUR 1 billion in tax exemptions to the bioenergy industry.

To assess the full climate impact of Denmark's climate and energy plan to 2030, we looked at how transparent it is in four categories: Source of wood for material and energy use; ratio of wood for material versus energy use; the forests' ability to remove carbon from the atmosphere and plans to protect forests and biodiversity.

What the Plans say about bioenergy:

- Sixty-seven per cent of renewable energy will come from biomass by 2030 under current policies and measures.¹
- "Solid biomass will play an important role in the conversion of the remaining central power plants still operating on coal".²
- The percentage of wood being used for industrial roundwood dropped from 40 per cent in 1999 to 10 per cent in 2016³ (meaning more wood is being burnt).

What the Plans say about Denmark's forests:

- Only 5.7 per cent is protected (we calculated this number based on information in the plan. However, more nuanced information and the meaning of 'protected' was found in other sources, see below).
- They will be a net source of emissions by 2030, in a trend expected to continue until 2050.⁴



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Additional information from other sources:

- The **EU's Joint Research Centre**: in 2015, 22 per cent of wood used came from unaccounted sources. Around half of the wood from unaccounted sources was burnt for energy.
- **Natural Resources Defense Council**: in 2017, Denmark spent €87 million subsidising bioenergy.
- **Copenhagen University**: 3.5 per cent of Danish forest is formally protected against commercial forestry, and five per cent is completely unmanaged, i.e. is not undergoing any kind of forestry.

Scorecard

	Transparency	Climate impact
Source of wood for energy and material use	No information	Pending official information
Ratio of wood for energy versus material use	No information	Pending official information
Forests' ability to remove carbon from the atmosphere	Information provided	Dangerous: the forest carbon sink will emit 1.2 million tons of carbon dioxide equivalent by 2030
Forest protection and biodiversity	No information	Without this information it is not possible to say, but only 5.7 per cent is protected

Conclusion

Denmark must provide comprehensive information on how it will ensure the sustainability of its biomass supply and prove that it will fully account for the climate and environmental impacts of biomass harvesting.

1 NECP P. 76
2 NECP P. 46
3 NFAP P. 53
4 NFAP P. 36



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GERMANY

Climate change as well as past management practices such as planting monocultures of badly adapted species is already destroying large woodland areas in Germany, and the Ministry of Agriculture is planning to unlock millions of Euros to help re-establish those forests. As 32 per cent of Germany is covered by forest (only 5.9 per cent of which is not available for wood supply), this will make a huge difference to the climate and citizens' lives.

What the Plans say about bioenergy:

- Germany will have less bioenergy in its energy mix in 2030. Twenty three per cent of their renewable energy will come from biomass in 2030, unless additional policies and measures are introduced.¹ However, it is important to realise that total biomass use for energy increased by 51 per cent between 2005 and 2015.
- Between 2010 and 2017, bioenergy for electricity has increased by 60 per cent.²
- Between 2021 and 2030, bioenergy for electricity will decrease by 15 per cent.
- Sustainability is a priority, they will consider "efficient use of waste and residual materials, taking into account the cascade of use" and the need to avoid negative climate and biodiversity impacts when importing biomass, but there is no clarity on where biomass would come from.



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What the Plans say about Germany's forests:

- Only 2.9 per cent of forests are "strictly protected" but 17 per cent falls under Natura 2000.
- German forests will annually remove 39.2 million tons of carbon dioxide equivalent between 2021-2026.³
- The Land Use, Land Use Change and Forestry sector is likely to become a net emitter, although it is not clear why.

Additional information from other sources:

- Increment, felling and wood removal information is not consistent with EUROSTAT figures.
- The [Convention on Biological Diversity 5th National Report](#) and [Nature Conservation Action Programme 2020](#) identify the transformation of the energy supply system to burning biomass for heating and cooling as a potential new risk to biodiversity.

Scorecard

	Transparency	Climate impact
Source of wood for energy and material use	No information	Pending official information
Ratio of wood for energy versus material use	No information	Pending official information
Forests' ability to remove carbon from the atmosphere	Information provided, but no trajectory given.	Too little information to be conclusive.
Forest protection and biodiversity	Little information	Too little information to be conclusive.

Conclusion

Germany's National Energy and Climate Plan needs to say how Ministry of Agriculture funds would be spent. It should also provide information on domestic and imported biomass and the development of the Land Use, Land Use Change and Forestry sink.

1 NECP P. 133

2 NECP P. 108

3 NFAP P. 1

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SLOVAKIA

Slovakia is the fourth most forested country in the EU, with 40 per cent of its land covered in forests. But these forests are in danger. The Convention on Biological Diversity's (CBD) [National Strategy for the Protection of Biodiversity to 2020](#) in Slovakia highlights "insufficient financing of elementary nature protection activities such as mapping, monitoring... and ensuring suitable management of protected areas."

What the Plans say about bioenergy:

- Wood will account for 75 per cent of total renewable energy for heating and cooling in 2030.¹
- Wood used for electricity generation will increase by ten per cent from 2020-2030.²
- No information is given on where this biomass will come from (whether imported or domestic), the feedstock, nor the impact on biodiversity or the forests' ability to remove carbon dioxide.
- "In recent years, plants using combined heat and power technology have been rebuilding boilers to burn biomass with coal and building new boilers to burn biomass, and this trend will continue, although to a lesser extent"³

What the Plans say about Slovakia's forests:

- By 2030, the forest carbon sink will reduce by 1.2 million tons of carbon dioxide equivalent.⁴



© Wolf NGO Slovakia

- 23,000 hectares of agricultural land will be afforested between 2020 and 2030.⁵
- Harvesting will increase due to high level of old stands.⁶ This is a continuing trend as harvesting increased from 46 per cent of forest growth in 1998 to 78 per cent of forest growth in 2017.⁷
- It does not outline the trajectory of emissions and removals, nor the source of biomass supply and its impact on the forests' ability to remove carbon dioxide from the atmosphere. It states that the final version will include more information, so hopefully those gaps will be filled soon.

Additional information from other sources:

- **EUROSTAT** data shows that 44 per cent of Slovakia's total forest area falls within Natura 2000, but the area of forest under a "protective function" is only 18.2 per cent.

Scorecard

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Source of wood for energy and material use	No information	Pending official information
Ratio of wood for energy versus material use	No information	Pending official information
Forests' ability to remove carbon from the atmosphere	Information provided	Dangerous: forest carbon sink will reduce by 1.5 million tons of carbon dioxide equivalent by 2030
Forest protection and biodiversity	Information provided	Deadwood, natural regeneration and broadleaf species are increasing, and clearcutting is decreasing.

Conclusion

Slovakia must outline where its biomass will come from and how it will account for the climate and environmental impacts of biomass harvesting and burning. It must also propose a plan for improving the forest carbon sink.

1 NECP P. 41
2 NECP P. 39
3 NECP P. 152
4 NECP P. 142
5 NECP P. 140
6 NFAP P. 7
7 NFAP P. 41



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SWEDEN

Forests cover 57 per cent of Sweden, making it one of Europe's most forested countries. But rather than seeing its forests as a resource to be treasured, Sweden pursues a forestry model centered around intensive management and exports.

What the Plans say about bioenergy:

- In 2015, 56 per cent of renewable energy was generated from biomass.¹ They state that this will remain at the same level in 2030 unless additional measures are taken.² Consumption of fossil fuel will also not decrease, unless additional measures are taken.
- "The supply of sustainable biomass from Swedish forests has an important role to play in the continued transition to a fossil free society".

What the Plans say about Sweden's forests:

- Although the [Convention on Biological Diversity](#) considers forestry a driver of biodiversity loss in Sweden, the Plans provide no concrete data on how forestry impacts biodiversity.
- Forests' ability to remove carbon dioxide is projected to decrease by 15 million tonnes.³ 4.7 per cent of 'productive' forests are formally protected and 5.1 per cent are voluntarily set aside for protection.⁴ Rather than continuing



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with harvesting rates set in 2000-2009, the Forest Reference Level assumes an increase in harvesting where 100 per cent of the net annual biomass growth would be harvested, regardless of the age of trees. This means all areas of trees above 80 years old will decline.⁵

Additional information from other sources:

- The [5th National Report to the Convention on Biological Diversity](#) states: "The main threats to the forest and its species are to a large extent caused by the intensification of forestry during parts of the 20th century which has led to reduction of habitat connectivity and loss of specific habitat features, removal of dead and dying trees... Forest operations can have detrimental effects on the microclimate."

Scorecard

	Transparency	Climate impact
Source of wood for energy and material use	No information	Pending official information
Ratio of wood for energy versus material use	No information	Pending official information
Forests' ability to remove carbon from the atmosphere	Information provided	Dangerous: the forest carbon sink will decrease significantly in the next decade.
Forest protection and biodiversity	No information	Without this information it is not possible to say, but only 4.7 per cent of forests are formally protected.

Conclusion

Sweden must report on the sustainability of any harvesting and consider the impacts of its forest management on biodiversity and the natural carbon sink. It must include clear trajectories for bioenergy and be more transparent about how it will ensure sustainability of biomass, and the division of wood between material and energy uses.

1 NECP P. 55
 2 NECP P. 67
 3 NFAP P. 9
 4 NFAP P. 22
 5 NFAP P. 19 Figure 7