

Identifying best practices of national sustainability criteria

LIFE BIO-BALANCE





Action	C2.2
Deliverable	Identifying best practices of national sustainability criteria
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Summary	Collection of best practices from national sustainability criteria that qualifies for higher standards than the minimum level of RED II sustainability criteria.



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Introduction

C.2 Action overall objective: *define an assessment matrix of REDII sustainability criteria transposition, set the scope of sustainability criteria through CEE-level stakeholders dialogue, and provide recommendations for stronger criteria at national level as well as national and regional policy briefs.*

C2.2 OBJECTIVE: *WWF Romania will identify and assess the national sustainability criteria for the three target countries that qualifies for higher standards than the minimum level of RED II sustainability criteria and compile a report on best practices.*

Source of information:

Matrix for the countries:

Bulgaria

https://docs.google.com/spreadsheets/d/1JtdytahK4po0JVc0WiCLZMa_lzg27EsR/edit#gid=1985625572

Hungary

<https://docs.google.com/spreadsheets/d/1XeALd5BqtdDW5GJyqf-AWsEJla50x3ea/edit#gid=1767824798>

Romania

<https://docs.google.com/spreadsheets/d/1rCTEEmfHFWemoiAbLjqVUtKiBZxKECs/edit#gid=52960931>

Resource materials:

- 1) [Technical assistance for the preparation of guidance for the implementation of the new bioenergy sustainability criteria set out in the revised Renewable Energy Directive](#)
- 2) [Why the EU's RED II biomass sustainability criteria fail forests and the climate](#)





REVIEW OF MATRIX INPUTS

Under the specific line on “*Specific practice that qualifies for higher standards than the minimum level of RED II sustainability criteria. Please, explain and indicate related RED II criteria, if any.*”, the matrix states

- In Bulgaria case, there is no practice indicated to qualify for higher standards that the sustainability criteria indicated into REDII • as currently there is no transposition of the RED II Directive in the country. However, there are many regulations in terms of forest management and silvicultural practices which could be considered as higher standards in the context of sustainability criteria, such as:
 - The Forest Act prohibits the deforestation activities and land use changes except for some limited situations listed in the law
 - Long term planning of the forest operations trough elaboration of forest management plans
 - Close to nature management which favors the natural regenerations of forest stands
 - Applying long rotation periods
 - Prohibit of clear cuttings
 - Strict adherence to logging regulations, which limits the intensity of thinnings, thus having the potential to contribute to conservation and maintenance of the carbon stock in biomass
 - Harvesting activities in forest territories part of the Natura 2000 network need to compile with adopted national guidelines for management of forest with high conservation value. The main guidelines include regeneration of indigenous tree species; a ban on afforestation with non-indigenous species and/or origins, as well as afforestation of natural open spaces in the habitat, with the exception of flood control measures and erosion processes; maintain and restore the structural diversity of the stands; lower harvesting intensity in terms of wood removals over growing stock; etc.
 - There is an initiative for prohibiting logging activities in old growth forests which do not fall under protection of the Law on Protected territories. Currently more than 100 kha are included in this initiative.
 - Maintaining certain quantities of dead wood has been recognized as one of the most important conditions for sustainable management of certified forest enterprises and hunting reserves and of Natura 2000 forest ecosystems and has been included as a regulatory requirement in the Ordinance on fellings (promulgated, SG, No. 64/19.08.2011)
 - In respect to the soil protection the forestry legislation provides some technical guidelines and restrictions on harvesting activities in areas with active soil erosion processes or steep terrains. The soil erosion is identified in the forest management plans.
- In Hungary case,
 - it is identified as higher standard for forest regeneration, that the *regeneration in protected forests have to happen only with indegenous tree species.*
 - The decree on the new, premium tariff system included strong criteria on the efficiency - biomass power plants could only apply in case of high-efficiency cogeneration technology. However, this paragraph was repealed just before the first dedicated call to biomass power plants was released. However, according to the RED III proposal, cogeneration will be obligatory again in case of state aid, from 2027.





- Government Decree No 389/2007 (XII. 23.) on the mandatory off-take and off-take price of electricity generated using energy produced from renewable energy sources or waste and cogenerated electricity limited the quality of the imported wood only to FSC and PAFC certified wood. However, the decree on the new premium tariff system omitted this criteria.
- The Hungarian Electricity Act, furthermore, states that operational support for renewable electricity cannot be provided for saw logs and veneer logs. However, this criteria is also included in RED III.
- In Romania case, there are indicated as being related to REDII criteria on harvesting legality, but also to long-term production, forest regeneration, nature protection, soil quality & biodiversity, LULUCF, the followings:
 - deadwood preservation,
 - species diversity,
 - management practices like uneven-aged and continuous-cover forestry,
 - long rotation management period,
 - natural forest type .

For Romania the following practices are considered to be best practices:

Forestry practice ROMANIA	Contribution to climate neutrality <i>(i.e. carbon sequestration, carbon pool stability)</i>	Contribution to forests resilience and/or adaptation
The principle of continuity of timber crops in long rotation cycles (applicable for all forest management plans).	Carbon sequestration. Carbon pool stability.	Long management cycles give the forest greater stability.





<p>Balanced shifting steady-state mosaic.</p> <p>In order to apply the principle of continuity of timber crops through forest management plans, long-term planning is pursued (which aims at including the normalization of the production fund). It is thus planned to form and maintain a balanced mosaic of the different stages of development for the stands (balanced proportion of different age classes).</p> <p>This is done by calculating the allowable cut by the age class method (method developed and applied in Romania). Calculating the allowable cuts according to the method of age classes involves sacrifices in establishing the allowable cuts (annual allowable cuts); this method being the most restrictive for most management plans (considering the structure by age classes for the forest fund).</p> <p>In Romania we have an allowable cut of 21 million cubic meters at national level and an increment of 58 million. We plan to harvest about 3 m³ / year / ha from an increment of 8.7 m³ / year / ha.</p>	<p>Carbon sink.</p>	<p>Direct benefits for sustaining biodiversity and with it the resilience of forest ecosystems.</p>
<p>Tranquility period (representing a period allowing cuts only exceptionally for around 25% of the rotation period), before starting the regeneration treatments. During this period the forest accumulates the largest amounts of wood while the annual allowable cut is considerably reduced considering that during this period there are designed/planned only sanitary feelings of one m³/ha/year.</p>	<p>Carbon sequestration. Carbon storing.</p>	<p>The ecosystem enters into a “wilderness period” of about 30 years, where a significant amount of dead wood is formed that supports biodiversity and ensures forest resilience. It is during this period when large dead wood appears (not only in terms of quantity but also the quality), enhancing soil quality and preparing it for the next generation of trees.</p>
<p>Natural type of forest by promoting natural regeneration, applying appropriate silvicultural treatments.</p>	<p>Carbon pool stability.</p>	<p>Increasing forest resilience, by using existing and adapted seedlings.</p>





<p>Integrity of the forest fund is secured by strict limitation of forest land use change. To change the forest land use category and take out land from the forest fund, very strict conditions are legally imposed (it must be offered in exchange for at least 3 times the newly established forest area + the payment of huge taxes). The destination of very small areas from the forest fund are in fact changed (for e.g. for large infrastructure like railways, stone pits).</p>	<p>Any reductions in forest area and thus in carbon stocks are discouraged. The surface of the forest does not decrease through various changes, so carbon sequestration is increasing.</p>	<p>Contributes to forest resilience through limited changes in the forest fund area.</p>
<p>Deadwood management** including a network of “aging islands”.</p>	<p>Stable and permanent carbon stock</p>	<p>Improve forest resilience, a so called “forest vaccine”</p>

*link for proposals table <https://docs.google.com/document/d/15DQa8Nay9sz1nvn9LpEauQN6BFTqJ10Ako2uQq7ctTo/edit>

** See WWF’s Guidelines on “The role of deadwood and innovative best practices for sustainable forest management” (2022)





INTERNATIONAL BEST PRACTICES

BEST PRACTICE ON HOUSEHOLD LEVEL

- England prohibited selling wood with moisture content higher than 20% below two cubic metres. In case of selling two cubic metres or more, must be sold with advice on drying out the wood. Legislation can be accessed [here](#), the impact assessment [here](#).
- What about good practices from other countries on: cascade use of wood? Co-generation for forest biomass plant/agriculture? Certification of firewood for households (in line with the max moisture content)? GHG emissions accounting?

<https://www.dutchnews.nl/news/2022/04/dutch-stop-subsidising-heat-generation-by-burning-wood-chips/>

- The Netherlands stopped providing subsidies for biomass use in heat generation in cities in April 2022. The government will approve the use of only sustainable bio-based raw materials such as s bioconcrete, paint based on bio-based raw, green gas as a replacement for natural gas, or as a fuel for heavy road transport, aviation and maritime shipping. The use is intended only where it makes the greatest contribution to sustainability and where alternatives are limited.
- In Slovenia a database for standardized biomass characterisation was developed and applied for all lignocellulosic biomass types covered in a project called S2BIOM encouraging investment in biomass co-generation of heat and power (CHP) plants and district heating systems for a small town for public buildings. The database has to determine if certain biomass types can be used as feedstocks for specific conversion technologies. For this purpose an extensive characterisation for the conversion technologies was also made with regard to minimal biomass characteristics requirements.

https://www.s2biom.eu/images/Publications/D8.3c_S2Biom_Investment_guide_for_forest_biomass_CHP_and_DH_in_Slovenia_Final.pdf

EU guidance [Guidance on cascading use of biomass with selected good practice examples on woody biomass - Publications Office of the EU \(europa.eu\)](#)

Why not use these examples - already developed by WWF? [cascading use of wood web.pdf \(panda.org\)](#)

- In Germany recycling of wood and paper has been established for more than two decades and is widely accepted in the society. EU regulations on waste management are transposed into national law and find strong institutions to ensure collection and recovery of wood, which also means that public awareness of wood recycling is quite high. Strengths are a comprehensive regulatory framework, which organises collection, separation and use of waste wood. They furthermore secure the separation in different qualities of waste wood in combination with specific recovery options. Weaknesses are the practical implementation of the separation process of waste wood (which is still quite elaborated in the European comparison) and a strong competition with energetic use caused by the national implementation of the renewable energy targets.





Germany has formulated many political strategies, action plans and programmes addressing biomass utilisation, bioeconomy and recycling. However, cascades currently only work in those areas that already have a long tradition in recycling, e.g. paper and particle boards

Germany has included the biomass cascade use in its bioeconomy concept developed in the National action plan for industrial use of renewable resources within the Leading-Edge Cluster Bioeconomy with two policies that have specific waste treatment ordinances and regulations: End-of-Life management of waste wood (AltholzV/KrWG) and Policies on treatment of organic waste (BioAbfV/KrWG). The Renewable Energy Sources Act regulates the support for use of crops, forest wood and biogenic residues and waste for energy. Germany has [National action plan for industrial use of renewable resources](#) in which programmes and policies concerning cascade use of biomass and renewable energies in the heat market include:

- Market Incentive Programme for Renewable Energies (MAP) has promoted investment in RE in existing buildings, heating grids and storage facilities in Germany for more than 20 years. The programme funds investment in solar thermal energy on the roof of a building, which can include part of the heat for hot water; biomass as wood pellet or log boilers used for heat and hot water, and heat pumps.
 - The programme provides 35% grant and if an old system is replaced, the rate may increase to 45%. Update after 2015 included an increase in the funding for renewables in heating and cooling energy consumption, support for innovative application and focus on hybrid systems. Gas hybrid heating systems with at least a 25% share of renewables was funded with a grant of up to 20%.
 - Since 2000 the programme funded more than 1.8 mn systems for private home-owners, companies, municipalities or non-profit organizations.
 - Eligible costs were up to 50,000 euro per residential unit.¹ Local heating networks were also included to support municipalities and large companies, with grants of up to 60 Euro per meter, and maximum repayment grant of 1 mn Euro.
 - The programme excludes candidates that receive funding under the Renewable Energy Sources Act (EEG) and the Combined Heat and Power Act (KWKG), unless deep geothermal or biomass installation are used for combined heat and power generation – in this case MAP can provide funding even if they already received funding under the above two acts (EEG and KWKG).

Waste wood policies are summarized for several EU countries here. https://dvv.dk/cvm/wp-content/uploads/2020/03/dvv_traevinduer_eol-rapport.pdf

¹ <https://www.bmwk.de/Redaktion/EN/FAQ/Market-Incentive-Programme-MAP/faq-marktanreizprogramm-map.html>





Please check report² with detailed programmes descriptions on biomass uses for households(not industrial use!) some of which listed here:

- Austria provides support for newly installed pellet- and wood chip fired central heating that replaces one or several existing fossil fuel boilers. Support is also available for replacing woodfired heating systems which are at least 15 years old with pellet- and wood-chip fired central heating or for reducing the fuel consumption of 15-year-old wood heating systems by constructing pellet-fired stoves. Funding is granted in the form of a non-repayable investment grant for pellet- or wood-chip fired central heating to replace existing fossil fuel boilers: EUR 2,000. Funding of EUR 800 is provided if an old heating system is replaced by pellet- or wood-chip fired central heating. Lump-sum support of EUR 500 is available for pellet-fired stoves. In the Climate and energy model regions 2015 and 2016 support was provided as a non-repayable net investment subsidy depending on the installed system performance (kW) and amounts to EUR 120 per kW for the first 50 kW (0–50 kW) and EUR 60 per kW for each further kW (51–399).
- In Hungary Utilisation of biomass (agricultural by-products, horticultural by-products, energy crops, forestry products and by-products, wood industry and other industry wastes and by-products) for heating is supported in a number of programmes such as:
 - - Development of the energy performance of public buildings
 - - Development of the energy performance of ecclesiastical buildings

France

France has put clear objectives for increasing biomass heat production from 120 TWh in 2017 to 145 TWh in 2023 in its Strategy³. The strategy has set as measures to reach the goals the following:

- Encourage the recovery of heat from biomass before high-efficiency cogeneration. The heat will be a clear priority for energy recovery from biomass;
- Rapidly replace inefficient independent wood-burning appliances (fireplaces, stoves, inserts) by more efficient equipment in terms of yield and air quality (green flame, pellets, etc.);
- Organize an awareness campaign on the proper use of domestic wood;
- Develop territorial analyzes of biomass on a regional scale (as part of the development of regional biomass plans) in order to mobilize biomass resources available but not yet exploited with an update of inventory data (work in progress) IGN courses),
- Continue to support boiler rooms in collectives and in industry via the Heat Fund.

The French government set up a Heat Fund in 2019 in order to support the production of heat through renewable energy. In 2018, the budget was estimated at € 540 million[TP1] . As the Heat Fund was first designed to cover only large biomass plants, after 2020 the government realized the need to include funds for individual equipment too .

One of the challenges of the sector is to develop more efficient combustion devices to anticipate changes in regulations of European Ecodesign and to reduce the production costs of the most efficient devices (6 and 7

² Monforti-Ferrario, F, Belis C, Sustainable use of biomass in residential sector - A report prepared in support of the European Union Strategy for the Danube Region (EUSDR), EUR 29542 EN, Publications Office of the European Union, Luxembourg. 2018, ISBN 978-92-79-98348-1,doi:10.2760/908058,JRC113417

³

<https://www.ecologie.gouv.fr/sites/default/files/20200422%20Programmation%20pluriannuelle%20de%20l%27e%CC%81nergie.pdf>





stars). Support for this is seen as revaluation of the Heat Fund and the relaxation of the rules of this fund are also to be put in place to revitalize investments. This makes it possible to support projects in industry, agriculture and the tertiary sector via the BCIAT14 call for projects as well as collective boiler rooms, linked possibly to a heating network. Support through the CITE for the individual equipment of Heating with wood is also a major challenge for the sector.

Multi-annual energy program in France was created for the purpose of green transition, and concerns the continental metropolis and the so-called non-interconnected zones in France, namely Corsica, Réunion, Guyana, Martinique, Guadeloupe, Wallis and Futuna and Saint-Pierre and Miquelon. By 2023 the programme will have to cover:

- 2.5 million additional housing units renovated compared to the end of 2018;
- 3.4 million housing equivalents connected to a heating network;
- The replacement of 10,000 coal heaters (half of those remaining) and 1 million boilers fuel oil (out of a remaining fleet of 3.5 million) by means of renewable heat production, heat pumps or gas boilers with very high energy performance;
- **9.5 million dwellings heated with wood with an efficient appliance;**
- 1.2 million electric passenger cars in circulation (electric and hybrid rechargeable) and more than 100,000 public charging points;
- 1 million French people who received assistance to change vehicles;
- 20,000 gas trucks in circulation;
- The entire French territory covered by a mobility organizing authority to build solutions adapted to the needs of citizens;
- The cessation of electricity production from coal;
- 2 nuclear reactors shut down (Fessenheim);
- 200,000 self-consumption photovoltaic sites, including 50 self-consumption operations collective.

