



FOREST OF THE WORLD BIOMASS POSITION

Biomass plays a major role in Danish and European energy policy. Biomass is increasingly being used as an energy source in both Denmark and several other countries. Biomass is wrongly considered as CO₂ neutral, which is why in paper benefits the countries' climate efforts to use biomass as an energy source. But the use of biomass is putting pressure on forests around the world. In Denmark, we import over half of the biomass that we use. The majority comes from the Baltic countries, but sometimes we also import from more distant regions such as the USA, Russia or Gabon, and we will do more in the future as consumption in Denmark and the EU increases. According to Forests of the World, the use of biomass is extremely problematic in several areas. This is Forests of the World position on the use of wood-based biomass:

Forests of the World position:

- Biomass is not sustainable, and it is not beneficial to the climate to use biomass in the quantities currently used.
- Biomass should only be a supplement to real renewable energy sources and that a plan should therefore be made for phasing out biomass from energy and heat supplies.
- Biomass cannot be characterized as a real renewable energy source such as solar and wind energy, but as a resource that is only renewable to a limited extent.
- There should be a statement of the actual CO₂ emissions and displacement effects from the burning of biomass.
- That biomass should be subject to a tax that reflects the real CO₂ emissions and compares it with other CO₂-emitting energy sources.
- The CO₂ emissions associated with biomass burning should be counted in the energy sector's national CO₂ accounts.
- Maximum consideration should be given to the conservation of forest's biodiversity and their ability to absorb and store CO₂ and the nutrient cycle in the forests and other wooded areas where biomass is extracted.
- Enough dead wood should be left in the forest to ensure good biodiversity conditions.
- Trees should not be felled for biomass production alone; only real residual wood and waste products should be used.
- Whole strains of a certain size should not be used for biomass production.
- Wood should always be used based on the principle of cascade use.
- It must be guaranteed/ensured that actors using biomass have insights into the supply chain and at all times know where the tree comes from and under what conditions it is extracted.
- All wood used for biomass must be FSC FM (Forest Stewardship Council) certified as a minimum. Forests of the World does not recognize SBP, PEFC, FLEGT or others as adequate certification schemes.
- Neither the Sustainable Biomass Partnership or the Sustainable Biomass Partnership Agreement represents a guarantee for sustainable biomass production.
- A model should be developed that can quantify the real climate effect of biomass, which includes the carbon debt that arises when, for example, large trees are felled for biomass production.
- Biomass production does not expand the production area through the inclusion of marginal forests that were otherwise untouched.
- Further research should be conducted into how intensive utilization of biomass in production forests affects the nutrient balance of forest soils, carbon storage of soils and the consequences for biodiversity in forests.



1. Introduction

The term biomass covers more products than wood-based biomass, such as crops, crop residues and other vegetative material. In Denmark, mainly pellets, wood chips and straw are used today. This position paper deals exclusively with the use of wood-based biomass. In our position, we also distinguish between the “modern” use of biomass in a central power plant and the traditional subsistence use of biomass, which is the largest use of biomass in many developing countries. This position paper focuses exclusively on the “modern” use of biomass in power plants.

In recent years, we have seen an increased focus on bioenergy and a strong increase in consumption of wood-based biomass in electricity generation. This is done both nationally and internationally as part of the ‘green’ transition. Total biomass consumption in the EU - including primarily wood-based biomass - has increased by approx. 70% from 1990 to 2015¹. In Denmark, the consumption of wood-based biomass in the energy supply has increased by over 400% (see Table 1).

The problems of wood-based biomass are linked to both **production** and the **use** of biomass. The **production** of biomass puts a great deal of pressure on forests in Europe, in the US and now also in Africa. As more countries announce that they will invest in biomass in their energy production, the pressure on forests will increase. These are the same forests that are the best solution to climate change because forests absorb and store CO₂ for as long as they live.

The **use** of biomass is problematic because there is a large decrease in official CO₂ emissions from energy production when energy production is converted from coal or another fossil fuel to biomass. The large drop in CO₂ emissions occurs because the biomass on paper is considered CO₂ neutral, even though CO₂ is still emitted – sometimes even more from the biomass than from the coal it replaced².

Therefore, Forests of the World does not believe that wood-based biomass can be considered as a truly renewable and CO₂-neutral energy source. Forests of the World will always recommend that truly renewable energy sources, such as solar and wind, become the backbone of energy production, while biomass should at most be a supplement use to such a limited extent that it does not result in intensification of forest operations.

¹EUObserver: Solid Biomass Barometer 2016, <https://www.eurobserv-er.org/solid-biomass-barometer-2016/>

²literature review, European Commission - Joint Research Center, Report EUR 25354 EN. Available online: <https://ec.europa.eu/jrc/en/publication/euro-scientific-and-technical-research-reports/carbon-accounting-forest-bioenergy-conclusions-andrecommendations-critical-literature>.



Table 1: Danish (wood-based) biomass consumption

Terra Joule (TJ)	1990	2015	2016	2017
Danish production:				
Wood chips	1724	14744	17097	19433
Wood	8757	21943	22492	22492
Wood pellets	1575	2669	2812	2797
Wood waste	6191	11151	8546	7166
Import:				
Wood chips	-	2808	3257	5481
Wood	-	2547	2611	2611
Wood pellets	-	33889	41128	54284
Total:	18247	89751	97943	114264
Factor increase since 1990	-	4,9	5,4	6,3
Share of DK's total renewable energy consumption	40%	43%	45%	47%

Amount of energy produced on different sources³.

2. Problems related to the use of wood-based biomass

Forests of the World does not believe that wood-based biomass, as it is used now, can be considered a truly renewable and CO₂-neutral energy source. There is a risk that the use of wood-based biomass will result in a delay in the conversion to genuinely renewable energy sources and will be dangerous in relation to reducing CO₂ emissions from the energy sector. In the worst-case scenario, the increased demand for wood-based biomass can lead to greater emissions of CO₂ than the continuation with natural gas and even coal.

Wood-based biomass is not CO₂ neutral

Wood-based biomass emits CO₂ when burned. In fact, it emits more CO₂ than biogas and sometimes even more CO₂ per produced energy unit than coal because wood has a lower calorific value⁴. Nevertheless, wood-based biomass is presented as a renewable energy source that does not emit CO₂. In the EU's greenhouse gas

³ Energistatistik 2017 <https://ens.dk/sites/ens.dk/files/Statistik/pub2017dk.pdf>

⁴ Burn value means how much energy / heat is released when burning, for example, a kilo of material. When wood has a lower calorific value than coal, it means that a kilo of wood produces less energy / heat in burning than a kilo of coal does.



inventory, biomass is also treated as CO₂ neutral in the energy sector. This assumes that the emissions of greenhouse gases from biomass are adequately calculated in the forest sector when the tree is felled. However, this is far from always the case, both because there are exceptions in the EU's own rules and because the biomass can be imported from countries outside the EU. In addition, EU rules for the estimation of forest emissions do not include the CO₂ debt described below. The fact is that biomass emits CO₂ when burned. It should be included in the CO₂ production of energy production to give a true and fair view of the actual climate impact of the various energy sources.

Considerable amounts of energy are used in the processing and transport of biomass and not least to evaporate the water content contained in the tile, which increases the amount of CO₂ released when using biomass in relation to coal/natural gas.

CO₂ debt and interest rates

With all use of wood-based biomass in energy production, one creates a CO₂ debt when taking the biomass out of the forest/nature, if the alternative had been to leave the biomass in the forest. The debt consists of the logging in of the forest's CO₂ pool in the form of the removed wood-based biomass, and the CO₂ soil has emitted. The concept of carbon neutrality is based on the idea of a payback period. That is, the amount of time elapsed between the burning of the wood biomass and until the forest has reabsorbed the CO₂ amount released by the burning. This period can take from ten to several hundred years depending on which trees have been used or what is happening on the areas from which the tree biomass has been removed.

But this debt is further increased by an "interest rate" in the form of the CO₂ that the extracted wood-based biomass could have absorbed if it had not been deposited. The debt, which one might think was "repaid" when a new tree has grown up to the same size as the felled tree, has not been repaid since the interest rate, ie. the CO₂ the original tree would have absorbed and stored in the meantime should also be included. In short, it is a matter of whether the debt can be repaid at all. This is one of the reasons why wood-based biomass from forest cannot be CO₂ neutral.

Payback time and time perspective

Another perspective on whether biomass can be considered CO₂-neutral is the idea that it is part of the green short carbon cycle. That is, compared to fossil fuels such as coal and oil that form part of the black long carbon cycle, where it takes millions of years for the CO₂ to be trapped again, the tree's life cycle is a bit shorter, and it takes "only" between 20-200 years or more before the same amount of CO₂ is absorbed into the wood and forest again. However, this is only the case if you ignore the debt and interest rates described above. But even though it is referred to as the short carbon cycle, even the "short circuit" takes longer than we have, according to the Paris Agreement and the UN Climate Panel's *Intergovernmental Panel on Climate Change (IPCC)* reports before we have to go into negative emissions and thus absorb more CO₂ than we emit.



According to IPCC reports, we must have neutral emissions by 2040, after which we must move towards a negative emission and thus absorb more than we discharge. It does not harmonize with having a debt that we can potentially pay off for more than 200 years in the future.

Heating potential during payback time

A third reason why biomass is not CO₂ neutral is the heating potential that the CO₂ emitted from the biomass actually has. From the biomass being burnt to the same amount of CO₂ theoretically absorbed again, the emitted CO₂ will be in the atmosphere and contribute to global warming in the meantime. That is, even though all CO₂ from biomass burning is theoretically absorbed again, it will have contributed to global warming in the meantime. Thus, it is relevant what kind of wood is burned and to calculate the effect it has during the time the CO₂ is in the atmosphere.

3. Problems related to biomass production

Forests are one of the most important natural ecosystems that absorb and store CO₂ on land. Changes in forest propagation, or the capacity to store CO₂, are therefore of great importance for the overall CO₂ level in the atmosphere. Forests also have other functions for humans and the planet, which should not be overlooked in this debate. In addition to be the livelihood of many people, forests are important for biodiversity, stabilization of local temperature and rainfall, cleansing of air and surface and groundwater, and protection against erosion. Some of the themes to be considered when assessing the use of wood-based biomass in Denmark are described below:

Biodiversity

The forest is home to many species. Much of the biodiversity in forests is linked to decomposition of dead organic matter. In Denmark, the demand for biomass has meant that almost everything dead is removed, leaving only branches and leaves in the forest floor. Removing most of the wood pulp from the forests also removes the habitat of many organisms and animals, resulting in a decline in biodiversity. As demand for biomass for energy production rises in Denmark and the countries around us, there is a great risk of a more intensive harvesting with the extraction of more stems per hectare. This will put even greater pressure on biodiversity.

Increased demand for biomass can mean that forestry is spreading to forests that are otherwise untouched. In the case of untouched forest, ie. forests where there is no forestry operation, biomass harvesting will have particularly negative impacts on ecosystem and biodiversity.

Dead wood in the Forest

Dead wood is, as described above, essential for biodiversity in forests. The increasing use of biomass means



that more parts of the pulp can be sold and thus taken out of the forests, and thus does not remain in the forest for the benefit of birds, beetles, larvae and other living organisms. It adversely affects biodiversity as described above. Here, larger trunks and trees are especially important.

The industry agreement does not ensure sustainable production of biomass

The current criteria in the biomass industry agreement are completely insufficient to ensure sustainable biomass production. The agreement recognizes certification schemes that make fewer requirements than FSC. The industry agreement contains no regulations on how to ensure the forest's ability to absorb and store CO₂ or preserve the biodiversity of the forest in the future. The industry agreement places insufficient requirements on the management of the forests from which the biomass comes. The industry agreement makes no demands on the use of biomass in a global perspective, ie. how much biomass it is ethically and physically permissible to use in Denmark. Thus, the trade agreement is not sufficient or complete to allow it to be followed and to call the biomass sustainable in any way.

Sustainable Biomass Production (SBP) does not ensure sustainable biomass production

The global trade in wood-based biomass demands to ensure the sustainable origin of the tree. If this does not happen, an energy solution in one country can cause serious environmental and climate problems and CO₂ debt in another country. Sustainable Biomass Production (SBP) is no guarantee of sustainable biomass production, since these are systems that screen for risk of controversial sources and NOT actual certification systems that guarantee sound management of forests. SBP approves several different certification schemes, such as PEFC, which Forests of the World does not recognize as sufficient to guarantee the proper management of forests and biomass extraction. In addition, SBP allows the manufacturer to carry out the own production certification. The presentation of an independent third-party assessment must be a natural requirement. Furthermore, SBP allows an independent sub-element - ie part of the producer's forest areas, to be certified, which does not guarantee sustainable production throughout the area and thus does not guarantee to relieve pressure on the forest. SBP does not yet take into account the CO₂ storage in the forest, as they write they will. SBP is thus not a guarantee of sustainable management of the producer's forest.

Area Offset

To the extent that increased biomass production leads to land being converted from, for example, agricultural production to plantation forest for the purpose of producing tree-based biomass, the previous agricultural production will be shifted to other areas. This can result in felling of new forest areas and thus additional CO₂ emissions. Likewise, the conversion of forest to biomass plantations may result in increased harvesting in other forests to compensate for the smaller area for timber production. This will further push biodiversity and lead to less carbon storage in forests.



Consumption of biomass in a global perspective

More and more countries are aiming to use biomass to achieve CO₂ savings in their energy production.

International demand for biomass must therefore be expected to increase further. Unfortunately, Denmark is a pioneer in this area. But Denmark uses a disproportionate amount of biomass per day and inhabitant. It is striking that Denmark imports over half of the wood-based biomass we use in energy production.

If all countries used biomass on the same scale as Denmark, the world's forests would quickly disappear. In addition, there is also a need for wood products other than biomass, which also puts pressure on forests.

Proper use of biomass should therefore take into account the quantities available and what other needs exist, both in the form of other material, but also in the form of forests, as climate solutions, and as homes for the millions of people in the world who depend on the forest, and that 80% of all terrestrial flora and fauna found in the forests.

4. Forests of the world recommendations

Forests of the World does not believe that wood-based biomass is CO₂-neutral, so the use of wood-based biomass is not a viable solution, but only a short-term transition solution and then a limited supplement to more sustainable and truly renewable energy sources. To the extent that wood-based biomass is used, it must be ensured that at least all wood used is FSC-certified and can be categorized as residual wood that cannot be used for other purposes, as well as the extraction of biomass must be limited to the site's capacity. That is, the extraction of biomass does not affect the biodiversity, the nutrient cycle or the forest's ability to absorb and store CO₂. In addition, as suggested by the Government of Denmark (Climate Council), there must be a real and comprehensive calculation of the climate effect of biomass.

Recommendations for the use of biomass

Including CO₂ emissions in energy production

It is incorrect and misleading that biomass is considered CO₂ neutral at the time of combustion. If biomass is not properly included in the countries where the biomass is produced as described above, then there will be a large discharge that is not included anywhere. We cannot afford this in relation to the climate change issues we are facing. The fact that the biomass is considered CO₂-neutral and therefore not taxed helps to make it attractive and more widespread, and in fact helps to undermine our efforts for the climate, while at the same time producing it as good for the climate. It should be amended to show the true effect of the burning of biomass on the climate. Therefore, the CO₂ emissions of biomass should be included in the calculation of the total emissions of the energy sector.

Use only biomass with a high positive CO₂ displacement effect

If, in a climate context, it makes sense to use biomass in heat and power plants, then it requires that



combustion of the biomass as a whole leads to a lower emission of CO₂ than the fossil energy sources it replaces. Only when using biomass emits less CO₂ can it be said that it actually displaces CO₂ from fossil energy sources in energy production and thus spares the atmosphere for CO₂, i.e. a displacement exclusively targets how much less CO₂ is emitted from a renewable energy source compared to how much CO₂ is emitted from a fossil energy source. The displacement effect should be calculated for all types of wood-based biomass. Only biomass with a high displacement effect should be allowed in Danish energy production. Minimum displacement effect should be decided politically on the basis of recommendations from climate experts. The displacement effect for 1 GJ of energy produced can be calculated as follows: $FE = 1GJ - E_f - E_a - KG - KRG - LE^5$. This means, for example, that trees should not be felled solely for the purpose of producing wood pellets or wood chips, as carbon debt and interest rates go far beyond the goals of the Paris Agreement to keep the temperature rise below 1.5 degrees.

We note that the displacement effect does not take into account the loss of biodiversity or other negative effects that the use of biomass has.

Should not be equated with other renewable energy sources

Wood-based biomass is not a renewable energy like wind, solar and hydropower. It is at best renewable if you make sure that new corresponding biomass grows up. Biomass should therefore not be categorized and compared with real renewable energy sources. On the other hand, biomass should be levied on an equal footing with other fossil and CO₂-emitting fuels.

Plan for phasing out the use of biomass in Denmark

The use of wood-based biomass is not a viable solution but should only be a short-term transitional solution and then a limited supplement to real renewable energy. The Danish energy sector and the Danish government should therefore put in place a plan for phasing out the use of biomass, so that this is only a real small supplement as early as 2030.

Take into account the use of biomass in a global perspective

Denmark is currently using far more biomass per year and per capita than both Sweden and England. If all countries changed their energy production to consume as much biomass per capita as Denmark, it would not

⁵ The displacement effect (FE) is calculated on the basis of; EC (Energy Consumption in Manufacturing, Drying and Transport to the Power Plant). EA (The energy used on mitigation measures, such as the spread of bio-ash to prevent soil depletion as a consequence of the extraction of biomass). KG (Carbon Debt, that is, the amount of carbon that is taken out of the forest and discharged by burning the biomass, however, this depends on how fast and how much of The CO₂ that would be emitted anyway if the biomass was not used for energy production). KRG (Carbon Interest Rate of Debt, ie the carbon bond that would have occurred in the forest during the period while repaying the original debt (wood mass re-establishment in the forest area). This is calculated as $KG = (1 + r)^n$ where R is interest and N is the maturity). LE (Leakage Effect, that is, if a production of wood pellets pushes another production to another place in the forest; uses sawdust for wood pellets, then it may result in the whole trees being cut into particle board and pulp in other forests, which would otherwise have stood as carbon storage.)



be sustainable in a global perspective. Denmark should take into account how much biomass it is safe to use from a global perspective.

Recommendations for the production of biomass

Forest management is different in different types of forest. In Denmark we distinguish between Untouched forest (as well as Biodiversity forest) and Production forest. The production of biomass (timber and residues from this) should only take place in production forests. These should be managed as a minimum according to the FSC principles and with regard to deadwood and felling periods as described below. Never take more biomass out of the forest than it can carry. The need to add extra nutrients in the form of artificial fertilizers or bio-ash is unacceptable. If this is the case, the forest will be exploited too intensively, and biomass production would be unacceptable.

Proper use of forest resources

An ever-increasing need for materials coming from the forest is expected, be it paper for packaging and bags in connection with the phasing out of plastic, building materials for a growing population or plant fibers for clothing production. Therefore, whole strains should not be used in the production of energy. Whole strains have better application elsewhere for other materials, cf. section on the cascade principle below.

Whole or large strains should not be used for biomass

Whole strains with a diameter of 20-40 cm⁶ cannot be characterized as residual wood. Whole logs that cannot be used for timber can be used in the paper and chipboard industry or left in the woods. Residual timber is a tree residue that is in excess of the harvesting of the benefit timber or the sawmill industry. Residual wood is the products and parts of the trunks that may be left over from the production of the other materials, which according to the cascade principle have the greatest value. Only residual wood should be used for energy production.

All biomass must be FSC certified

All wood used for biomass should at least be FSC FM certified (this does not mean neither FSC mix nor controlled wood which is incorrectly counted as 100% FSC certified). FSC is the most responsible certification scheme available today. The FSC (which is a certification scheme for production forest) ensures that no predation is conducted on the forest, as it insures a stable wood mass over time, the potential for cultivation and biodiversity. However, it is important to keep in mind that FSC certification does not relate to the climate effect of production or use of biomass for energy production, and not at all whether FSC certified biomass is CO₂ neutral. Thus, there is a need for other/additional measures to ensure a solid and transparent calculation

⁶Depending on the tree species.



of the climate effect of the biomass used in power plants.

20% Untouched forest in a production forest

At least 20% of all production forests should be left untouched. This is in addition to the larger contiguous areas that the Danish government should lay out for untouched forest (more on this in another document). The 20% is a minimum that should also help us meet the UN's Aichi goals, where 17% of the country's total nature should be laid out with nature for a purpose. Both the interconnected pristine forests and the small fragments of a production forest must be managed according to the principle of letting nature take care of itself, with the aim of creating wild nature and diverse habitats for animals and plants and thus being eliminated from production.

Which area of the forest on forest properties over 250 ha to be left untouched must be decided after consulting expert entomologists, biologists and ornithologists. For smaller properties, this must be done in consultation with professionally competent external advisors.

The untouched areas must include areas with the most favorable conditions for insects, birds and shrubs and trees and may include forest lakes, mosses and clearings in the forest. The uninhabited areas should also, as far as possible, serve as a corridor between other untouched forests and contribute to a coherent untouched and more wild nature. In private forests, 10% of the forest area should always be left untouched at forest level. The next 10% of the land can either be located at forest level or at the landscape level (ie possibly collected by a forest owner) where it makes the most sense compared to secure optimal conditions for wild forest nature, coherence and biodiversity, for example by entering into agreements between forest owners.

Dead wood in the forest

It is important to leave dead wood in the production forests, especially where biomass is also extracted. Dead wood must ensure better conditions for biodiversity and that not too many nutrients are removed from the forest. Forests of the world suggests that the amount of dead wood in Danish production forests should be increased from the current 6.5 m³/ha on average⁷ to at least 20 m³/ha by 2050 and increase further to at least 30m³/ha by 2100⁸. The 20% of the forests laid for untouched forest must be kept out of the calculations of the amount of dead wood in the production forests.

Dead wood can not only comprise leaves and branches but must include a larger proportion of old thick stems - at least 5 per hectare, mainly standing but also horizontally. These old thick trees are very much like jars

⁷ <https://naturstyrelsen.dk/media/132571/rapport-om-udvikling-af-doedt-ved.pdf>

⁸ Quantities are based on experience from the Baltic countries and what is recommended by the EU in respectively; https://www.eea.europa.eu/publications/technical_report_2007_11 and http://ec.europa.eu/environment/enveco/resource_efficiency/pdf/bioenergy/Task%202.pdf as well as "Assessment of forest conservation status", National Center for Environment and Energy, 2013.



(branched trees), pointed and bouquet branches and give them space to develop wide crowns. The branches must be continually designated for natural decay and death, which means they are appointed while still alive and left after being overturned in a storm or old age, after which a replacement is appointed. In young stands, dead wood should be created at a faster rate by damaging a number of trees per ha., which will then decay more quickly and contribute to the pool of dead and dying wood on the acreage. Neither stumps, wind traps nor leftover stems are allowed to be tiled, but must be left whole in the forest so that they break down at a natural pace. The leftover wood pulp should not only be sick/dying trees, but must also be made up of healthy trees with the potential to become important veteran trees with age.

Allow grazing in production forests

Allow grazing for biodiversity purposes in production forests and grant funds for year-round grazing. This will contribute to the natural dynamics of the forest and create more habitats for light-demanding forests that are having a hard time today and thus help to stop the biodiversity crisis in Denmark.

Keep a minimum of biodiversity

Leave trees with both pointed and canopy branches. By thinning natural growth or planting, a more species-rich forest is promoted with at least several flowering trees per hectare, either inside the vegetation or at the edge. It could be lime, cherry, rowan, maple or chestnut. This provides a minimum of habitat and foraging opportunities for multiple animals in the forest.

Restrictions on extraction of biomass

Biomass should not be taken from the forests during birds and other animals breeding periods. Even in the case of just leaving the breeding trees in the forest, it will disturb birds and other wildlife if the trees around a breeding tree is felled. This may result in the animals disappearing from the area.

When biomass is extracted for e.g. tile in connection with thinning or chopping should leave at least 20% of branches and peaks to natural decay and thus contribute to the pool of dead wood on the area. In nutrient-poor areas, the set-aside must be smaller so that the soil is not depleted and the cultivation potential is maintained without fertilization (including with ash from burning biomass).

Research into the Earth's ability to store CO₂

Right now, no consideration is given to the effect of forest soils on the forest's ability to absorb and store CO₂. Thus, it can give wrong results if you only calculate the forest's CO₂ storage from the standing trees, and you can overlook the effect of logging and other operational measures, including especially clean-up and tillage on the CO₂ emission, knowing that this too happens from the forest floor. Therefore, more research should be done on the soil's ability to absorb and store CO₂ and the impact of forest management on this.



Principle of cascade use

In principle, a material should be subject to a qualitative order of priority over its use over time, the so-called cascade principle. Such application of the cascade principles means that wood must first be used for long-term durable products and recycled to the greatest extent possible, and only eventually, when the recycling possibilities have been exhausted, utilized as a source of energy (biomass), which is burnt at the most energy efficient way in CHP plants. Forests of the World supports the principles of cascaded use of wood. Wood does not differ in principle here from other materials or from the principles of a waste hierarchy expressed in the EU Waste Directive⁹.

Wood is a very useful and basically an environmentally friendly resource, but sustainably produced wood is a limited resource. Forests of the World therefore believes that wood should be used where it gives the most value ie. for long-lasting materials. Energy production from wood-based biomass should only take place with residues from wood production that cannot be used for other uses, or when disposing of wood-based materials that can no longer be recycled or reused for other products.

The SBP and the Industry Agreement should both be updated

Forests of the World believes that the industry agreement should be replaced by legislation regulating stringent requirements for the production and use of biomass, as has been done in, for example, the Netherlands, followed by regulatory control in the area. In the absence of regulation, Forests of the World believes that the SBP and the Industry Agreements should be revised as soon as possible, so that they include requirements for real sustainable management of the forest, ensuring that the forest's biodiversity is maintained, that the forest's carbon cycle, carbon pools and carbon storage are maintained in the future. And at the same time, a thorough and transparent calculation of the actual overall climate effect of the biomass, including carbon debt and interest rates, within a short time horizon relevant to the Paris Agreement should be done.

⁹Article 4 of the EU Waste Directive (2008/98 / EC).