BASF Group's Position on Forest Protection

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Content

1. Background

Forests are essential to life on Earth. Forests hold the majority of the world's terrestrial biodiversity, regulate the water cycle, prevent soil erosion, provide clean air[1] and are a living environment for endangered animals and indigenous communities. As forests are also a major global carbon sink, protecting and restoring forests plays a crucial role in reducing climate change.

Through human activity, forests are under threat and are disappearing at alarming rates. The direct causes of deforestation include land-use pressure from crop production, livestock, logging, urban growth, infrastructure development and mining[2].

Agricultural expansion drives around 80% of deforestation globally, specifically in tropical countries[2], with the commodities beef, soy, timber, pulp and paper and palm oil causing the largest impact[3]. Shifting dietary preferences of a growing middle class are increasing the demand for food and feed, and thus the pressure to convert forested land to commercial agricultural land use.

Continuous deforestation will lead to the irreplaceable loss of biodiversity, significantly enhance climate change and disrupt the water cycle. These impacts are felt both at a local, regional and global scale.

More than one billion people rely upon forests for their livelihoods[1]. While the majority of them will be negatively affected by ongoing deforestation, others are making their living from using deforested land and timber. BASF therefore considers that a resilient and equitable solution halting deforestation will have to include fair compensation for the above-mentioned ecosystem services.

2. Scope

This global BASF Group position encompasses our renewable raw material supply chains including the 3rd party supply chain of our direct supply base, our own operations, as well as our products, effective immediately. It comprises primary forests and areas of High Conservation Value (HCV), as well as High Carbon Stock (HCS) forest areas and peatlands. The human rights aspects beyond our ambition stated in this document are addressed in BASF's Human Rights Position and the Supplier Code of Conduct.

3. Ambition

BASF recognizes the importance of protecting the world's forests for the wellbeing of the environment and society. We acknowledge our responsibility as an actor in various value chains and therefore, strive to end deforestation within those. We want to help to achieve the SDG 15 (life on land) and call on governments to end deforestation.

Consequently, the following principles shape our ambition:

- We support the conservation of HCS forest, HCV areas, peatlands and equivalent ecological and culturally important landscapes connected to the origins of our supply chains.
- No development on HCS forests or HCV areas. Any development activity must utilize international best practice guidance from HCS Approach, from High Conservation Value Resource Network (HCVRN) and from the principles and criteria of the Roundtable on Sustainable Palm Oil (RSPO).
- No development on peatland regardless of depth and strict application of best management practices for existing developments on peat as defined equivalent to the RSPO and no use of fire as a preparation of any area development within our supply chains.

- We support the conservation of HCS forest, HCV areas, peatlands and equivalent ecological and culturally important landscapes connected to the origins of our supply chains.
- We do expect any land use change development activity to respect the rights of indigenous and local communities to give or withhold their Free, Prior and Informed Consent (FPIC) where they hold legal, communal or customary rights in accordance with the United Nations Declaration on the Rights of Indigenous People (UNDRIP) and the HCS Approach social requirements.
- We strive to be a valuable partner for collaboration within our value chains to provide products that reduce pressure on forests for land-use change to agriculture.

These principles require means for linking them to the ground of origin. Therefore, we are committed to achieve traceable supply chains and establish appropriate monitoring of these principles in our supply chains to drive risk assessment and corrective actions. We will identify measures to provide remediation in cases where BASF has directly caused or contributed to any non-compliance of FPIC in its own operations and we do expect this from our suppliers.

To meet this ambition, we will collaborate with our business partners.

4. Actions

Our Supply Chains

BASF purchases a range of renewable raw materials including oils and fats (palm, soya, coconut, castor), grains, sugar and wood for the use as feedstock for various products. The commodities evaluated with high deforestation risks are palm (kernel) oil, soy oil and its derivates, and lignosulphonates extracted from wood. By purchasing volume and equivalent area of land needed to grow the raw material, the most relevant touchpoint for BASF is palm (kernel) oil in comparison to other renewable raw materials, for which the detailed Palm Commitment has been in effect since 2011 and extended in 2015 and which is put into practice through our Palm Sourcing Policy accordingly. Nevertheless, we will drive the compliance to our ambition and principles in all our renewable value chains.

BASF is committed to the following actions:

- Sourcing responsibly according to our Supplier Code of Conduct and according to the ambition set out in this document.
- Collaboration and partnering with suppliers to maximize their sustainability performance according to our ambition.
- Evaluating and assessing the current and potential non-compliance risks of our renewable raw material sourcing.
- Utilizing appropriate non-compliance monitoring for our supply chains to actively drive compliance with our ambition and to support evaluation of non-compliance risks.
- Implement program for handling non-compliance cases.
- Offering publicly accessible grievance mechanisms.
- Developing and implementing sustainable sourcing strategies for raw materials associated with non-compliance risks.
- Striving for appropriate public transparency and traceability in our supply chains.
- Supporting relevant certification schemes by including these in specific sourcing strategies and advocating for the further development and standardization of such schemes.

Our Operations

BASF operates production sites in more than 90 countries in a way that respects the natural resources. The general objective of BASF's environmental protection effort is to minimize the impact of our operations on people and on the environment.

BASF is committed to the following actions:

- Operating its facilities in a responsible manner, protecting the environment including forests by reducing emissions to air, water and soil and by producing less waste.
- Systematically evaluate sustainability topics (e.g. potential impact on forests, biodiversity criteria) as an integral part of investment decisions on the construction of new sites and the expansion of existing sites. These may include compensation measures for the loss of forests, e.g. investments in local reforestation programs.

The protection of forests from negative impacts of our operations, if applicable, is always an effort in cooperation with local partners and competent authorities.

Our Products

As BASF provides products and solutions for many industries, it is vital to additionally consider the potential impacts that the use of our products can have on forests. Our products for agriculture and animal nutrition have specific touchpoints to forests. Our actions are therefore designed to partner within these value chains.

Agricultural Solutions

The agricultural sector is one of the main drivers of deforestation[2] and therefore in many regions farmers play an important role in the protection of forests. BASF provides many solutions for agriculture, including crop protection, nitrogen management, digital solutions, seeds and pest control. Our innovative solutions and services enable the sustainable intensification of agriculture by increasing productivity on existing land and by mitigating impacts on the environment, locally and globally, wherever and to the extent possible. We thus actively contribute to decreasing the pressure to convert forests into arable land. We also provide plant protection technologies for managed forests to increase their productivity.

Animal Nutrition

Livestock is fundamental to meeting the world's growing demand for products of animal origin like meat, eggs and milk. However, industrialized livestock farming substantially contributes to deforestation. BASF offers a range of feed additives (enzymes, vitamins, glycinates, organic acids) which make livestock farming more sustainable in particular by reducing the feed conversion rate and thereby improve nutrient and energy utilization from feed. To analyze the life cycle impacts of user-defined diets and to provide transparency on environmental impacts along the animal protein value chain, BASF offers AgBalance® Livestock solution. By enabling sustainable intensification of livestock production, we contribute to reducing the pressure to convert forests into arable land or pastures.

BASF is committed to the following actions:

- Collaboration along the value chain with various stakeholders to increase sustainability of the value chains and to foster market transformation with sustainable solutions.

- Conducting research to provide (animal) farmers with the best technologies for farming, including, chemical and biological plant protection, digitalization, seeds and traits, nitrogen and phosphorus management products as well as best solutions to improve nutrient and energy utilization form feed, amongst others.
- Providing feed additives that improve sustainability in livestock farming by improving the utilization of energy, protein, and phosphate from plant raw materials and by reducing losses through products for feed preservation.
- Supporting (animal) farmers with digital tools, as well as advice on which agricultural practices foster biodiversity and soil health with e.g. our holistic life cycle assessment tools AgBalance® - to achieve sustainable intensification on existing agricultural land- and AgBalance® Livestock - to provide science-based transparency on environmental impacts along the animal protein value chain, (i.e. from feedstuffs and feed production, to animal farming and slaughter).
- Partnering with certification schemes for agricultural commodities to contribute to a sustainable agriculture that avoids deforestation for more croplands.
- Refining BASF development tools to enhance forest protection evaluation like the *Eco-Efficiency Analysis*, *Sustainable Solution Steering* and *Value-to-Society*.

5. Stakeholder Engagement and Reporting

Continuous stakeholder engagement is extremely important to BASF. We will continue to work collaboratively with value chain partners, governments and civil society to conserve forests and to drive our ambition stated here. BASF partners with a variety of organizations, including Roundtable on Sustainable Palm Oil (RSPO), Forum Nachhaltiges Palmöl, Brazilian Coalition on Climate, Forests and Agriculture and the High Carbon Stock Approach Steering Group. We are looking to partner with additional relevant stakeholder groups and organizations to raise and increase awareness, drive the necessary market transformation and to achieve impact on the ground.

Collaborative programs such as Mata Viva, an initiative established in Brazil to drive reforestation and preserve native forests demonstrate BASFs commitment to preventing deforestation and promoting reforestation.

We will continuously report publicly on progress of BASF Group on compliance with our ambition set out in this document.

6. Appendix

Glossary

Key Word	Definition
Deforestation	Conversion of forest to other land use or the permanent reduction of the tree canopy cover below the minimum 10% threshold (*FAO, 2015*)[4]. Deforestation implies the long-term or permanent loss of forest cover and implies transformation into another land use (agriculture, pasture, water reservoirs, urban areas). Deforestation also includes areas where the impact of disturbance, over-utilization or changing environmental conditions affects the forest to an extent that it cannot sustain a canopy cover above the 10% threshold.
Forest	Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use (*FAO, 2015*)[4].
High carbon stock (HCS) forest	HCS forests are high/medium/low density forests that are dominated by trees with diameter >30cm, climax species, canopy closure of >50% and estimated molecular C t/ha of >75, as well as young regenerating forests dominated by trees with diameter 10-30 cm, have higher frequency of pioneer species, canopy closure of 30-40% and estimated molecular C t/ha of 35-75 (*HCS Approach Steering Group, 2017*)[5]. High density forest is a remnant forest of advanced secondary forest close to primary condition. The HCS Approach provides a tool to help companies distinguish forest areas that should be conserved, from non-forested land that could be considered for conversion to oil palm or other agricultural commodities.
High conservation value (HCV) forest	Forest with biological, ecological, social or cultural values, which are outstandingly significant or critically important at the national, regional or global level. All natural habitats possess inherent conservation values, including the presence of rare or endemic species, provision of ecosystem services, sacred sites, or resources harvested by local residents (*HCV Resource Network*)[6].
Peatlands	Peatlands have a surface of peat which has been formed because permanently waterlogged conditions have prevented the complete decomposition of dead plant material (*United Nations Environment Programme, 2017*)[7]. Peat is a compact, high density carbon store.
Primary forest	Naturally regenerated forest of native species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed (*FAO, 2015*) [4].
Reforestation	Re-establishment of forest through planting and/or deliberate seeding on land classified as forest (*FAO, 2015*) [4]. Excludes the natural regeneration of forest.

References

[1] European Commission, 2019. Deforestation and forest degradation. https://ec.europa.eu/environment/forests/deforestation.htm

[2] FAO, 2016. State of the World's Forests 2017 – Forests and agriculture: land-use challenges and opportunities. Rome. http://www.fao.org/3/a-i5588e.pdf

[3] United Nations Environment Programme, n.d., Why do forests matter. https://www.unenvironment.org/explore-topics/forests/why-do-forests-matter

[4] FAO, 2015. Forest Resources Assessment Working Paper – Terms and Definitions. http://www.fao.org/3/ap862e/ap862e00.pdf

[5] HCS Approach Steering Group, 2017. The HCS Approach Toolkit – Module 4: Forest and vegetation stratification. Singapore. http://highcarbonstock.org/wp-content/uploads/2017/09/HCSA-Toolkit-v2.0-Module-4-Forest-and-vegetation-stratification-190917-web.pdf

[6] HCV Resource Network, 2018. https://hcvnetwork.org/how-it-works/

[7] Crump, J. (Ed.), 2017. Smoke on Water – Countering Global Threats From Peatland Loss and Degradation. A UNEP Rapid Response Assessment. United National Environment Programme and GRID-Arendal, Nariobi and Arendal. https://grid.cld.bz/SMOKE-ON-WATER/2/#zoom=z