

## **Introduction**

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This addendum presents the specific Nestle Responsible Sourcing Standard requirements for Biomass & Bioenergy (see definitions below), building upon the *Nestle Commitment on the Responsible Use of Materials from Agricultural Origin*.

Before considering external biomass supply, priority should be given to studying the feasibility of utilizing internal biomass sources. Sourced materials must be used in the most efficient way to avoid overconsumption.

## **Scope**

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These specific requirements apply to all sourcing of biomass & bioenergy by Nestlé entities for the purpose of energy use within Nestle factories or use by third parties providing renewable energy to Nestlé.

This guideline will only focus on critical requirements regarding climate and competition for food supply.

## **Definition**

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Biomass is the biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste<sup>1</sup>.

Biomass can be used as a feedstock to produce bioenergy. It can be converted into heat through combustion, into liquid biofuel or into biogas. This heat, liquid biofuel and biogas could also be used to produce electricity.

The range of biomass that can be burnt is very wide. Non exhaustive examples of biomass currently used as fuel in Nestle boilers or being considered for it include: spent coffee ground, wood (wood chips, saw dust), coconut shells, sugar cane, spent tea waste, palm kernel shell, olive pomace and kernel, argan nut shell.

Biomass sources will be regarded in three different manners given their origin and purpose of growth:

- a. Biomass originating from forestry waste or by products
- b. Biomass originating from agricultural production waste or by products
- c. Biomass originating from forestry or agriculture systems grown specifically for energy purposes

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<sup>1</sup> Source : The EU Renewable Energy Directive

## Category Specific requirements

	Criteria	A	B	C
1	Suppliers are required to abide by the relevant sustainable forestry standards or practices in the jurisdiction they are operating. Examples of standards includes FSC (Forest Stewardship Council) (add PEFC and SFI) In the case sustainable forestry standards are not available, the feedstock sustainability may be determined using a Risk Based Approach. Evidence shall demonstrate that the third-party expert performing the risk analyses are qualified (through training and experience) as advised by Corporate Responsible Sourcing to perform risk assessment tailored to the complexity of the processes and information being assessed. The efficiency of any mitigation measures must be defined and shall be assessed and documented. For old growth forest (primary forest), biomass waste/by-products sold by vendor shall not have >5% value of the total goods sold by that particular vendor.	x		x
2	Traceability is required back to individual origins regardless of the origins of the biomass (see definition). Biomass traceability in case of using waste biomass (for example rice husk, corn cob or other processing waste) shall be limited to the supply chain from the facility where the waste biomass is generated (for example rice mill) delivered to Nestle plant. When using biomass from agriculture processing waste the traceability shall not cover down to the plot of land for growing the crops.	x	x	x
3	Evidence that biomass is not contributing to deforestation or loss of high carbon stock or high conservation value areas is required <sup>2</sup> .	Covered by Criteria 1	x	x
4	Green House Gas (GHG) emissions related to biomass transportation from its origins to Nestle sites needs to be assessed <sup>3</sup> . The GHG impact of transportation should be smaller than the direct and indirect GHG emissions reduction achieved by replacing fossil fuels with biomass. For purpose grown products, the full GHG Inventory should be considered.	x	x	x
5	Evidence that energy crop is not threatening food security of local communities is required. To do so location of biomass supply shall be benchmarked against the FAO (Food Agriculture Organization) Hunger Map <sup>4</sup> . In case the location is mapped in moderately to very high food insecurity area an impact study shall be carried out and if appropriate a mitigation program put in place. <sup>5</sup>			x
6	Evidence that the use of waste biomass by Nestle for fuel, does not result in the local use of that fuel (i.e local grid, domestic use, on-site use at the plant) being replaced with fossil fuels.	x	x	x

<sup>2</sup> FSC certificate for forest Management would be adequate evidence. Otherwise contact the Sustainable Sourcing & Climate team or the Corporate ESG Strategy and Deployment unit for Guidance

<sup>3</sup> You may use this tool, recommended by CO-Supply Chain : <http://www.ecotransit.org/calculation.en.html>

<sup>4</sup> <http://www.fao.org/hunger/en/>

<sup>5</sup> You may contact Corporate ESG Strategy and Deployment Unit for Guidance

7	<p>When biomass is directly sourced from farms, it shall be confirmed that the farms practice regenerative agriculture.</p> <p>Remaining solids (e.g. char, sludge, ashes) of energy generating facility (e.g. gasification, biomethanisation and combustion) that go back to the soil must comply with Nestlé Environmental Requirement Standard Annex 4.</p>	x	x	x
8	<p>For biomass grown specifically for energy purposes (the biomass is not a waste or by-product), production practices must meet the full Responsible Sourcing Standard and Nestlé Commitment on Biofuels.</p>			x

### Assessment and Verification

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The assessment of the biomass shall be validated by either Market Procurement or Market SHE; the Market Chief Engineer shall be informed. Then it shall be shared with CO-Procurement (Renewable Energy) & CO-Responsible Sourcing before proceeding with any sourcing of biomass & bioenergy.

To verify compliance with this guideline Nestlé will initiate yearly random assessments of the suppliers to be run by 3<sup>rd</sup> party entities<sup>6</sup>.

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<sup>6</sup> This will be managed by procurement, as per all other commodities.

*This document was published by the Corporate Responsible Sourcing team*