



## Preserve nature

22

# Proportion of priority forest area in PMI tobacco and paper and pulp-based product supply chains with zero deforestation

### KPI description

PMI's [Zero Deforestation Manifesto](#) (ZDM) outlines our commitment to achieving zero identified deforestation in priority forest area in our tobacco and paper and pulp-based product supply chains. PMI's priority forest area KPI is a next-generation indicator that measures the state of nature (outcome) as a lagging output and uses due diligence in the process as a leading indicator (i.e., forest integrity versus certification of sourced timber materials). The KPI allows us to monitor the preservation of natural capital over time, including the tracking of forest degradation that could be indirectly linked to PMI activities in the areas of interest (AOIs).

To determine the amount of forest area in scope compliant with zero identified deforestation, we conduct an assessment of deforestation risk using geospatial monitoring tools on the growing areas (for tobacco) and the forest concessions (for provision of fuel wood for curing) within PMI's supply chain.

An area buffer, calculated ad hoc, is added to account for the sourcing of biomass and firewood outside of the tobacco farm. AOIs provided for our paper and pulp-based product supply chain are used for Procurement Direct Materials (DIM) when the AOI coordinates or polygons are available directly from suppliers. If not spatially determined, AOIs can be defined for both tobacco and DIM at jurisdictional level as the municipality area where PMI-related business activities occur. Consequently, a monitoring and verification framework, including third-party verification, is applied to both supply chains to validate compliance with zero identified deforestation requirements.

The commitment to zero identified deforestation in priority forest areas in our tobacco and paper and pulp-based supply chains is aligned with PMI's biodiversity strategy, aiming to achieve No Net Loss on PMI's value chain by 2033.

## Definitions

PMI's effort to address deforestation focuses on its agriculture and forestry supply chains, where deforestation poses the greatest risk to nature, society, and business operations. These areas are prioritized according to the Taskforce on Nature-related Financial Disclosure (TNFD) recommended criteria of sensitivity and materiality.

**Sensitive location** An area with high ecological importance or vulnerability, as defined by the TNFD. They typically include biodiversity hotspots, legally protected areas, key biodiversity areas (KBAs), critical habitats for endangered species, areas of importance for ecosystem service provision, including benefits to Indigenous people and local communities, and water-stressed areas (TNFD, 2023).

**Material location** An area where nature-related risks and opportunities are likely to have a substantial impact on a company's financial position, performance, and value creation (TNFD, 2023). Materiality is often determined by the potential magnitude of the risk or the opportunity in specific contexts. Identifying material locations requires assessing the dependency on ecosystem services (e.g., water supply, pollination) and the negative impact on natural resources (e.g., deforestation, pollution). The yields, production volumes, or purchased materials can serve as proxies for determining the materiality of a location, based on the assumed direct cause-effect relationship between these volumes and the biodiversity impacts and dependencies.

**Priority location** An area where a company should focus its efforts to address nature-related risks, opportunities, and impacts (TNFD, 2023). They are determined through the combination of the sensitivity of the area (i.e., sensitive locations), the materiality of the business activities (i.e., material locations), and the alignment with regulatory requirements or stakeholders' concerns. Prioritization facilitates efficient allocation of resources to the most critical areas. Prioritized areas undergo further analysis based on local data.

**Cut-off date** The date after which deforestation or conversion renders a given area or production unit noncompliant with no-deforestation or no-conversion commitments, as defined by the Accountability Framework initiative (AFI). The set cut-off date for PMI applies to all current and future suppliers. Therefore, any new supplier will have to demonstrate their adherence to PMI's commitment of no deforestation as of January 1, 2019, regardless of the year in which their engagement with PMI commenced. This date aligns with and surpasses the EU Deforestation Regulation request for setting a baseline year in 2020.

**Deforestation** Loss of natural forest area as a result of: (i) conversion to agriculture or other non-forest land use; (ii) conversion to a tree plantation; or (iii) severe and sustained degradation (AFI, 2020).

**Tobacco-growing areas (TGAs)** Geographical spaces that include a farm area where tobacco cultivation takes place and the potential area of impact on nature that tobacco-related activities could generate (buffer area).



**Tree plantation** A forest predominantly composed of trees established through planting and/or deliberate seeding that lacks key elements of a natural forest native to the area, such as species composition and structural diversity. Tree plantations generally have one or a few tree species and tend to include one or more of the following characteristics:

- Planted on cleared land
- Intensive use of chemical inputs (fertilizers, pesticides)
- Regular harvesting
- Trees of even ages
- Products from the plantation managed and processed for commercial production

**Natural ecosystem** An ecosystem that substantially resembles—in terms of species composition, structure, and ecological function—one that is, or would be, found in a given area in the absence of major human impacts. This includes human-managed ecosystems where much of the natural species' composition, structure, and ecological function are present (AFi, 2020). For the scope of this document, the relevant ecosystems beyond forest are peatland, wetland, savannah, grassland, and semi-forest formations.

**Natural forest** Forests that possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function.

**Primary forest** Forests that have not been subject to major human impacts in recent history and possess many or most of the characteristics of a forest native to the given site, including species composition, structure, and ecological function.

**Key biodiversity areas (KBAs)** Sites that contribute significantly to the global persistence of biodiversity. The criteria used to identify KBAs incorporate elements of biodiversity across genetic, species, and ecosystem levels, and are applicable to terrestrial, freshwater, marine, and subterranean systems. KBAs have delineated boundaries and are actually or potentially manageable as a unit ([Map Search](#)).

**Wood fuel** All types of biofuels derived directly and indirectly from trees and shrubs grown on forest and non-forest lands, from silvicultural activities, harvesting, and logging, as well as industrial byproducts, and timber-based fuels such as firewood, pellets, woodchips, and briquettes.

**Sustainable wood fuel** Includes wood fuels derived from:

- Sustainably managed legal plantations, including on-farm planting
- Sustainably managed secondary forest or degraded forest with no measurable deforestation by spatial analysis tools

Excluded are identified invasive exotic species that have not been planted and require removal according to a thorough ecological assessment. Sustainable wood fuel also excludes wood fuels derived from:

- Unsustainably managed natural forests where deforestation is measurable by spatial analysis tools or onsite inspection visits
- Plantations resulting from conversion of natural forests after the set cut-off date
- Primary and protected forests

## Scope

**Included** Any forest area defined as priority based on sensitive location and material location analysis according to specific thresholds for tobacco and direct materials. Among the selected priority forest areas, the forest management can be directly or indirectly linked to PMI's tobacco and paper and pulp-based product supply chains (e.g., biomass for energy in tobacco curing, feedstock source plantations for DIM). Natural ecosystems that may not be entirely forested, like peatland or savannah, or unique ecosystems like the Cerrado in Brazil or the Miombo forest in Mozambique, are also in scope, as is any specific key biodiversity area when it intersects with material locations.

**Excluded** All the forest area that does not meet the priority forest area criteria, i.e., forest areas that do not represent sensitive locations. Additionally, any areas where loss of forest area results from natural disturbances that are part of the natural life cycle of forests and characteristic of ecosystem formation and evolution are not considered in the scope of our deforestation commitments.

## Calculation methodology

**Monitoring and verification framework** To ensure adherence and measure progress toward PMI's zero deforestation commitments, PMI provides third-party leaf suppliers, PMI leaf operations, and contracted farmers with guidelines to deploy a monitoring and verification system ([here](#)), including measurement criteria. Similarly, PMI offers zero deforestation implementation guidelines to our paper and pulp-based product suppliers.

The monitoring and verification and implementation of PMI's zero deforestation commitments for tobacco and paper and pulp-based product supply chains can be broken down into three main activities.

The first activity is defining and mapping forest types in TGAs for the tobacco supply chain; for the paper and pulp-based product supply chain, it involves disclosing the origins of the wood fiber or AOIs in sourcing raw materials for PMI's products. GPS coordinates of the TGAs and AOIs are mapped against publicly available sources of forest cover to define the forest types contained within these areas. Forest types include primary forests, managed natural forests, or natural ecosystems, and proximity to key biodiversity areas.



The second activity involves monitoring of deforestation risk and conducting landcover change analysis. This is typically done at three levels:

- 1. Supply chain inputs:** A monitoring framework for tobacco supply chain sustainable curing fuels is applied to all TGAs in which Virginia flue-cured tobacco is cultivated, due to the associated material risk for deforestation. Accordingly, all suppliers of Virginia flue-cured tobacco must record and verify the sources of the wood fuel used to cure tobacco. A third-party auditor assesses conformity with the monitoring framework to ascertain sustainability and traceability of 100 percent of the fuel used to cure tobacco by contracted farmers. Similarly, for the paper and pulp-based product supply chain, a third-party auditor assesses conformity to ascertain that all products for PMI are coming from sustainable sources and comply with the ZDM requirements.
- 2. Landscape analysis:** This is applied to all TGAs, combining the GPS data of the TGAs and AOIs with forest cover maps from Global Forest Watch or equivalent platforms to assess changes in forest cover and the conversion of natural ecosystems over a defined period. Land cover change analysis and proximity to key biodiversity area assessments are also conducted. PMI conducts this analysis annually, and the results provide an indication of the intrinsic risk towards identified deforestation and/or conversion of natural ecosystems.

- 3. Verification of identified deforestation:** For each Virginia flue-cured market and each paper and pulp-based source market, verification is conducted by a third-party auditor. The outcome is an opinion of compliance with the monitoring framework on tobacco curing fuel and adherence to PMI's ZDM. Both tobacco and paper and pulp-based product suppliers must comply with PMI's ZDM requirements and provide evidence that they safeguard the primary and key biodiversity areas where they operate.

The third activity is the compensation. Interventions to counterbalance identified deforestation are requested from PMI-related supply chain stakeholders involved in the issue. Specifically, reforestation/afforestation activities must be designed and delivered in accordance with the mitigation hierarchy ([here](#)) and the Like for Like approach (AFI). The compensated area needs to undergo third-party validation on the design and planned implementation. Compensation projects must be implemented within three years of detecting the deforestation.

### Calculation methodology

$$PF_0 = \frac{(PFt + PFd)}{PFtot}$$

**PF<sub>0</sub>** = proportion of priority forest area with zero identified deforestation

**PFt** = priority forest in tobacco with zero identified deforestation

**PFd** = priority forest in DIM with zero identified deforestation

**PFtot** = total priority forest area in scope for tobacco and DIM

### Data management

Supply chain inputs are managed via third-party leaf suppliers' data collection processes and reported in PMI's proprietary curing fuel data monitoring system annually, with tobacco data collected in line with the reporting year. DIM-related supply chain data are provided on a year-minus-one basis and are always related to the feedstock area (polygons, GPS coordinates, municipalities) in relation to the sourcing of timber-based materials.

For mapping forest types within each TGA and AOIs, PMI uses global forest maps publicly available online and a database of KBAs, with overlaps calculated using a Geographic Information System (GIS) tool. This mapping is maintained in PMI's geospatial analysis tools, with the landscape risk analysis updated annually following the GFW update in Q4.

Following the verification process, the results of the supply chain inputs, and landscape risk analysis are consolidated centrally on an annual basis to report the global figure of the proportion of priority forest area in PMI tobacco and paper and pulp-based product supply chains with zero identified deforestation.

**Data verification** In addition to verifying the supply chain inputs and any deforestation events identified by the landscape analysis, the program auditor verifies PMI's assertion of compliance on the global consolidated information about proportion of priority forest area in PMI's tobacco and paper and pulp-based product supply chains with zero identified deforestation, prior to external reporting.