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Standard for Sustainable Tobacco Curing Fuel

Guideline for the certification of sustainable curing fuel for tobacco

This Friend of Earth standard has been developed based on Philip Morris International's work on its internal "Sustainable tobacco curing fuel framework" and with key support from Philip Morris International's Sustainability Team.

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Introduction to FOE:

Friend of the Earth is one of the trademarks owned by World Sustainability Organization that was founded in 2016 by sole director Paolo Bray. World Sustainability Organization, it is based in Italy and operates worldwide with the key objective of conservation of ecosystems.

Friend of the Earth is an international certification scheme for sustainable agriculture and breeding that has been developed within the guidelines of the Sustainability Assessment of Food and Agriculture Systems (SAFA) of the Food and Agriculture Organization of the United Nations (FAO) and whose principles are based on the safeguarding and protection of the entire ecosystem.

Global interest in the Friend of the Earth certification scheme has grown rapidly in recent years – we have seen a 100 percent increase in uptake from 2019 to 2020. Now over 5,000 farms, employing an estimated 50,000 farmers, have had their production, with an estimated total value of more than 1.5 billion euros, certified by Friend of the Earth.

Purpose, Requirement and Scope of the Standard:

Purpose of the Standard:

The purpose of the document is to serve as a guide to achieve traceability and sustainability for fuels used for tobacco curing in accordance with the audit verification program requirements of FOE.

This document is intended to be used for the curing fuel used by the tobacco industry. It provides general guidelines for monitoring, verification and reporting for curing fuel sustainability, address deforestation risks, to have a management system and control, and to achieve ecosystem preservation of fuel used for curing tobacco. It also provides guidance on the monitoring of barn usage and cured tobacco volume.

Requirement of the Standard:

- 1. To provide evidence on the compliance of fuel sourcing with applicable environmental laws and regulations at local forestry level.
- 2. To obtain records of cured tobacco volume, barn use, and fuel types used for curing
- 3. To obtain and record data on fuel sustainability and traceability:

a. all fuel types used for curing tobacco

- b. documented evidence of sustainability of wood-based fuel used for curing tobacco
- c. description and progress to reach self-sufficiency of wood-based fuels
- d. self-sufficiency of firewood should be demonstrated by a quantified approach
- e. to prove self-sufficiency the firewood should be traceable to the source (forest management unit).

4. The standard also requires showing progress on the forest restoration initiatives to compensate unsustainable firewood

5. The protocol also requires monitoring of deforestation, to have forest maps developed for countries using firewood, and forest risk mitigation plans designed and implemented by risk category.

6. Under the management system and controls requirement, it shall consist of a quality control and environmental management system that involves policies, programs, procedures, and records demonstrating compliance with the requirements of this protocol.

7. Firewood sources shall not have a negative impact on existing natural ecosystem, no natural ecosystem conversion. (Applicable only for firewood used for curing)

Scope:

This protocol is intended for Companies growing and purchasing Flue Cured Virginia Tobacco only



Supply Chain Definition:

Supply chain Type 1: The Company has the direct contract with the Farmer

Supply chain Type 2: The Company's third-party tobacco supplier has the direct contract with the Farmers

Supply chain Type 3: The Local or National Government entities has the direct contract with the Farmers

Document requirement per supply chain type:

Supply chain Type 1 and 2: The Company or its Supplier should collect and record information per Farmer, if not differently stated in the Guidance on Standards

Supply chain Type 3: it is preferred that the information is collected and recorded per Farmer. If this is not possible due to the local circumstances, a study should be developed on a representative sample of Farmers; a single study, that covers multiple information required by the Standard can be an acceptable option (details on the information to be included in the study are provided in each standard). The study should be done, on average, every 3 years, or when major conditions have changed, such as changes or disruption in fuel sources, or changes in the curing barns.

Purpose of the Certification:

Purpose of the Certification:

International certification as proof of sustainable fuel used for tobacco curing

Benefits:

- 1. Companies will have proof of commitment for the use of sustainable curing fuel and sustainable forest management
- 2. Farmers will obtain and use sustainable fuel for curing tobacco
- 3. Consumers will have a guarantee that the cured tobacco was produced based on applying environmental sustainability programs
- 4. The population in general, will benefit from a better environmental ecosystem.

How does Companies participate in the FOE Certification:

Measuring Company Performance through:

- Self-assessment
- Formal Assessment
- Assessments cycles to be done every 2-3 years



Level of importance of each Standard:

Essential requirements

The unit of certification shall be 100% compliant with essential requirements to be recommended for certification by the certification body. Failure to comply with essential requirements is a major non-conformity. To achieve certification, corrective actions shall be implemented within three months from the date of assessment of non-conformities. The unit of certification shall provide the certification body with satisfactory evidence of correction of all major non-conformities. Exclusively for the correction of the legal requirement, due to its more complex nature, six months are allowed.

Important requirements

The unit of certification shall be 100% compliant with important requirements to be recommended for certification by the certification body. Failure to comply with important requirements is a minor non-conformity. To achieve certification, the unit of certification shall propose a corrective action plan (declaration of intents and action plan) within maximum four months from the date of assessment of the non-conformities, to the satisfaction of the certification body. In the proposal, the unit of certification shall include the timeframe for the implementation of each corrective action. The maximum time allowed for the implementation of each corrective measures is one year.

Recommendations

It is not compulsory for the unit of certification to comply with recommendations to achieve certification. Nonetheless, compliance with recommendations shall be verified during the audit and any non-conformity shall be highlighted in the audit report as a "recommendation". The unit of certification shall inform the certification body, during the following audit, regarding any corrective measures implemented.

Requirements that are not applicable to the audited unit of certification will be marked with "N.A."

Legend:

E = Essential; I = Important; R = Recommendation

Equivalency to FOE-Agriculture Standard:

As a pre-requisite to the assessment of the sustainable tobacco curing fuel, companies applying for the certification needs to establish first the equivalency of a company policy on sustainable tobacco production with the FoE-Agriculture Standard. Companies applying for the certification for sustainable tobacco curing fuel must provide documented evidence that there is an existing policy being implemented and that is equivalent to the applicable requirements of the FoE-Agriculture standard. A standard check list to establish the equivalency of an internal standard vs FoE-Agriculture will be provided by FoE and to be populated by applying company. FoE will verify and validate the equivalency based on the information provided by the applying company. A standard checklist template to be used for establishing equivalency to FoE-Agriculture Standard will be provided by Friend of the Earth team.

FOE Standards for Sustainable Tobacco Curing Fuel:

- 1 MONITORING OF CURED TOBACCO VOLUME, BARN AND CURING FUEL
- 2 SUSTAINABILITY
- 3 DEFORESTATION and LAND USE CHANGE RISK
- 4 MANAGEMENT SYSTEM AND CONTROLS



1. MONITORING OF CURED TOBACCO VOLUME, BARN, AND CURING FUEL

N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
	Total Amount of Purchased cured tobacco (kg)		Report on Cured tobacco purchased per Farmer	E	Supply Chain Type 1&2: record as per the real quantity purchased not as per the contract	Tobacco survey: -Report on Cured tobacco purchased per Farmer
		1.1.a			Supply Chain Type 3: Record as per real quantity per farmer or total cured tobacco purchased only	Tobacco survey: -Report on Cured tobacco purchased per Farmer or total purchased volume
1.1		1.1.b	Report on Total cured tobacco produced per Farmer	E	Supply Chain Type 1&2: record the yield estimation per farmer and for the total production	Tobacco survey: -Estimated cured tobacco volume versus actual purchase
					Supply Chain Type 2 special case: if not legally permitted to collect cured tobacco purchased, Company bought volume can be used	Tobacco survey: -Estimated cured tobacco volume versus actual purchase - or total purchased volume
					Supply Chain Type 3: record total tobacco purchased	Tobacco survey: -Estimated cured tobacco volume versus actual purchase or total purchased volume
1.2	Total fuel for curing tobacco purchased by fuel source (kg)	1.2.a	Report on Fuel type	E	Obtain data on all fuel types used per Farmer	Fuel usage survey: -Type of fuel used for curing



N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
						-Report on Quantity of fuel used to cure the total tobacco produced by fuel type, by Farmer
		1.2.b	Report on Quantity of fuel used to cure the total tobacco produced	E	Obtain data of total fuel usage by each Farmer / Cooperative per fuel type (e.g. agro fuels, wood fuels, coal among others) through a fuel usage survey/farmer survey. The results from the fuel usage survey should be verified through a fuel	Fuel usage survey
					consumption study which should include the variety of barns and fuel types that the Farmers use and taking into account inactive barn types in the curing season	Fuel Consumption study
		1.2.c	Report on Quantity of fuel used to cure the tobacco purchased by fuel type by Farmer or aggregated by relevant group of Farmers.	E	Fuel Usage: multiply the proportion of the tobacco purchased by Farmer (of the total produced by Farmer) and the quantity of fuel used (by fuel type). Information can be provided by Farmer or aggregated by relevant group of Farmers, if information is aggregated, explain the rationale or relevance. Supply Chain Type 1&2: fuel usage survey/farmer survey for each farmer per fuel type	Fuel usage survey: -Type of fuel used for curing -Report on Quantity of fuel used to cure the total tobacco produced by fuel type, by Farmer -Aggregated data on total fuel consumption per fuel type and per barn type

N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
					Supply Chain Type 3: fuel usage per farmer per fuel type or obtain from research or consumption study	
		1.2.d	Report on Quantity of fuel used by tobacco cured (Kg/Kg or m3/Kg) - Efficiency	E	Fuel Consumption: calculated based on the fuel used recorded divided by the total production. Only to be calculated if data is obtained through a direct fuel usage survey/farmer survey to Farmers	Fuel consumption report: -fuel use per kg of cured tobacco
1.3	Number of curing barns used per barn type		Report on Number of curing barns per barn type per Farmer or curing station	E	Supply Chain Type 1&2: obtain data from the totality of Farmers or curing centers on the number and type of barns used to cure tobacco through Farmer / Cooperative interviews or other on-farm survey techniques Supply Chain Type 3: if possible, obtain data per Farmer, if information is not available, estimate based on research and record the findings. The research should have a methodology clearly defined and described. It should allow for replication in the future	Barn survey: -Report on Number of curing barns per barn type per Farmer or curing station.

2. SUSTAINABILITY

N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
2.1	Amount of purchased tobacco cured with sustainable and unsustainable source of fuels supported by documentation		Report on Amount of purchased tobacco cured with sustainable biomass	E	Sustainable: Report quantities of tobacco cured with non-food or non-critical agriculture residues, sustainable firewood, wood residues, briquettes, pellets, chips (see sustainable wood- fuel definition)	-Report sustainability of wood fuels and/or agro-fuels (e.g., Forest Management Plans, Sustainability Study, Certification)
			Report on Amount of purchased tobacco cured with unsustainable biomass		Unsustainable: Report quantities of tobacco cured with food crops, non-food crops and/or critical agricultural residues, unsustainable firewood, wood residues, briquettes, pellets, chips (see sustainable agro- fuel definition)	-Report on quantities of tobacco cured with sustainable and unsustainable fuels
			Report on Percentage of Farmers using only sustainable wood		Percentage of Farmers using only sustainable wood for tobacco curing: If a Farmer is using both, unsustainable and sustainable sources, it should NOT be counted as sustainable	



N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
			From the various fuel sources that a country uses, the amount of tobacco (Kg) cured with each fuel should be recorded differentiating clearly the amount from sustainable vs unsustainable sources.		For supply chain types 1 and 2, a verification of fuel sources should be developed for all fuel types every 3 years, or earlier if circumstances have changed For supply chain type 3, accepted documentation is the information found in the literature or the final report of the research or data from the pilot area	
			Report on the amount of purchased Tobacco cured with coal. Report on Tobacco cured with other fossil fuel (Natural gas, LPG, diesel)		Report use of Fossil fuels used for curing tobacco: (c) coal. (d) other: LPG, Natural Gas, diesel. Report initiative to reach zero coal usage and increase usage of renewable fuels	-Report on quantities of tobacco cured with coal and other fossil fuels -Report initiative to reach zero coal usage and plans to increase usage of renewable fuels
2.2	Number of initiatives to reach self-sufficiency and quantity of firewood that is self-sufficient	2.2.a	Report on Description of initiatives to reach self- sufficiency of firewood Report on Progress on the implementation of initiatives Report on Amount of firewood that is self- sufficient Report on Progress on the forest restoration or forest	E	Every existing initiative towards self-sufficiency to be implemented in each country should be documented. The description should have a clear objective, list the species used, describe the methodology for the implementation and a timeline.	Monitor progress of initiatives on sustainable fuel and self-sufficient firewood
			Report on Progress on the forest restoration or forest compensation initiatives to			

N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
			compensate the unsustainable firewood.		Initiatives under implementation should be monitored to report their progress	
		2.2.b	Self-sufficiency of firewood should be demonstrated by a quantified approach	E	If the firewood is from the Farmers' woodlot, then it should be recorded how much of the fuel is generated with the purpose of supplying Company's tobacco curing operations. If the firewood is purchased, documentation should demonstrate the sustainability of the source.	Monitor progress of initiatives on sustainable fuel and self-sufficient firewood
					To prove self- sufficiency the firewood should be traceable to the source (up to Forest Management Unit).	
2.3	Curing fuel is fully traceable to the source supported by documentation		Report on Curing fuel is fully traceable up to the source of harvest supported by documentation for natural managed forest. Report on Curing fuel from plantations needs to be supported by traceability documents proving the origin of the firewood	Ε	All the fuel used for tobacco curing activities should be traceable to the source with supported documentation. Curing fuel is fully traceable up to the source of harvest supported by documentation for	Traceability document proving the origin of firewood



N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
					natural managed forest. Curing fuel from plantations needs to be supported by traceability documents proving the origin of the firewood	
					This means that information should be provided for all Farmers/curing centers. Documentation should be available annually	
					For supply chains 1 and 2, documentation should prove the source of the fuel and the amount of the fuel from a specific source. For supply chain 3, a research or pilot studies should provide the information.	

3. DEFORESTATION and LAND USE CHANGE RISK

	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
3.1		3.1a	Zero Gross deforestation: The extent of the tobacco	E	To develop and have a	Forest Risk Map



Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
		growing area (TGA) for each country which uses firewood as a fuel source for curing should be mapped. All Primary and Protected Forest areas within the TGA should be identified and mapped. The risk of the Primary and Protected Forest (to be deforested) should be assessed, Farmers should be ranked annually through a risk-based approach and a risk management plan should be designed according to the identified risk levels.		documented Forest Management Plan and/or Risk Management plan which includes proof of no deforestation risk in primary and protected forest	Forest Management Plan and/or Forest Risk Management Plan
Forest risk maps developed for countries using firewood	3.1.b	Zero Net deforestation: The extent of the tobacco growing area (TGA) for each country which uses firewood as a fuel source for curing should be mapped. All Natural Managed Forest areas as source of fuel for curing within the TGA should be identified and mapped. All Protected area within TGA should be identified and mapped (refer to IUCN definition of protected area : la to VI)	Ε	To develop and have a documented Forest Management Plan and/or Risk Management plan which includes	Forest Risk Map
		The risk of the Natural Managed Forest (to be deforested) and risk on land use change on protected area should be assessed and the implementation of the Forest Management Plan (FMP) evaluated against sustainability criteria. A risk management plan should be designed according to the identified risk.		proof of no deforestation risk in Natural Managed Forest	Forest Management Plan and/or Forest Risk Management Plan



	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
3.2	Forest risk mitigation plans designed and implemented by risk category		Monitoring plan for each deforestation risk categories(zero gross and zero net) developed for TGAs relying on biomass as a source of fuel (see ZDM Guidelines for more detail) b. Risk mitigation plan for each of the deforestation risk categories developed and implemented for TGAs relying on biomass as a source of fuel (see ZDM Guidelines for more detail)	E	The forest risk map will categorize forest in the TGA into high, medium and low according to their risk of being deforested. Monitoring requirements may differ for the specific risk category.	Risk mitigation plan for each of the deforestation risk categories developed and implemented

4. MANAGEMENT SYSTEM AND CONTROLS

N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
4.1	The Company has a quality controls and environmental management system that involves policies, programs, procedures and records demonstrating compliance with the requirements of this Standard.			1	The scope includes all sites and farms intended to be certified. Policies, programs, procedures and records relevant to the Standard requirements are documented and provided during the audit.	Standard Operating Procedures (SOPs) and/or Working instructions (WI), Records of Implementation of SOPs/Wis



N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
					Availability and Implementation of Data Management System	Data or Record Management System
4.2	The Company has identified a technical profile who is responsible for verifying compliance to the environmental management system.	4.2.a	Stakeholder identification and engagement plan implemented	1	All the Stakeholders that are related to the tobacco curing supply chain should be identified and grouped. The mapping should include a description of the Stakeholder group and their involvement in the supply chain. Stakeholders refers to both external and internal actors.	-Stakeholders involved in tobacco curing mapped -Activities for Stakeholder engagement in monitoring sustainable curing fuels described -Stakeholder engagement plan
		4.2.b	Capacity building activities provided to stakeholders	1	 a. Number of people that received information about sustainable fuels and that prove understand the information provided b. Percentage of Farmers that have received information on recommended practice to reduce fuel consumption c. Number of people that received information about the Standard and that prove an understanding of the purpose of the Standard and its guidance d. Number of people trained in data collection based on the SOPs and that understand how the data should be recorded and reported in the Standard should be collected 	Capacity building activities
		4.2.c	Communication strategy implemented	1	The communication strategy should reflect the local (market and Company specific) context. It should contain: a. Appropriate communication	Communication strategy



N°	Requirement	N°	Sub-requirement	Level	Quantitative parameters	Supporting Documentations
					channels for different Stakeholders established b. b. Guidance on how to communicate with different Stakeholders c. c. Q&A mechanism established and in use	



Definitions

Term	Definition	Source
Agro-fuels	Are biofuels obtained as products of agriculture biomass and by-products from farming, and/or industrial processing of raw material (agro-industries). They cover mainly biomass materials derived directly from fuel crops and agricultural, agro- industrial and animal by-products.	FAO. Biomass Energy in the Asia-Pacific Region: Current Status, Trends and future setting, 2009. (This document is based on FAO. UBET. Unified Bioenergy Terminology. 2004)
Biomass	Non-fossil and biodegradable organic material originating from plants, animals and micro-organisms used to produce energy. Biomass (biofuel) can be divided into wood-fuels and agro-fuels.	UNFCCC. Glossary of CDM Terms, v 08.0, 2015
Company	Throughout this document, the term "Company" refers to the company implementing the Standards. Throughout this document, the term "Company" always refers to the Company contracting with Farmers, either directly or indirectly for the supply of tobacco.	
Supplier	Throughout this document, the term "Supplier" always refers to the company contracting with Farmers, either directly or indirectly for the supply of tobacco.	
Major conditions	Refers to conditions that if changed, may impact the results of the report or study.	
Recorded data	Refers to the information or data that Companies collect as part of the implementation of the Standards from Farmers or other sources and then store in their information management system. This is information managed and stored by the Companies.	
Reported data	Refers to the information and data that Companies collect as part of the implementation of the Standards from Farmers or other sources and then store in their information management system. This information is then aggregated and reported to FOE.	
Self- sufficiency	The most critical requirement for self-sufficiency is "renewability" which may be achieved through a range of forest management systems included in the definition of sustainable wood-fuels.	FAO http://aims.fao.org/ao s/agrovoc/c_6957
	Self-sufficiency of firewood depends on the degree of renewability of the source, which should be demonstrated in a quantifiable way (e.g., by comparing the Farmer's firewood consumption levels with the re growth rate at the source of the source of firewood). It can be achieved through a combination of proper forest management systems (e.g., tree planting) and sourcing processes	



Fuel wood	Fuel wood is wood that is burned for energy. It can be used for heating, cooking, or generate power. Fuel wood comes in various forms, including firewood, charcoal, pelleted sawdust, and wood chips. pelleted sawdust, and wood chips.	FAO. Glossary and Definitions http://www.fao.org/d ocrep/003/x8054e/x8 054e02.htm
Supply chain types	 Type 1: The Company has a direct contract with Farmers Type 2: The Company obtains the FCV tobacco from a supplier. The tobacco supplier contracts directly with Farmers Type 3: The Company obtains the FCV from a tobacco supplier. The tobacco supplier does not have a direct contract with Farmers as they obtain the FCV in an auction, from the market or through other third parties (e.g., government institution). 	
Sustainable agro fuels	Sustainable agro-fuels: - Non-food crops (mainly grass) or an agricultural residue without competition for food production, low environmental impact and deforestation risk, and grown in low-grade farmland and/or marginal land - Agriculture crops without competition to food production, low environmental impact and deforestation risk	FAO (2004) FAO. Biomass Energy in the Asia-Pacific Region: Current Status, Trends and future setting, 2009. (This document is based on FAO. UBET. Unified Bioenergy Terminology. 2004).
Sustainable wood-fuels	 Sustainable wood-fuels include: Legal plantations that are sustainable managed, including on farm planting. A sustainable managed secondary forest or degraded forest Identified invasive exotic species, which have not been planted and require removal Environmentally sustainable wood-fuels exclude wood-fuels derived from: Unsustainable managed natural forests Plantations resulting from conversion of natural forests after January 1ST 2006 Primary and Protected Forest under any management practice 	FAO, n.d Sustainable Forest Management.

Acronyms

FOE	Friend of the Earth
FAO	Food and Agriculture Organization of the United Nations
FCV	Flue Cured Virginia
SOP	Standard Operating Procedure
TGA	Tobacco Growing Area

