NEPCon Non Timber Forest Product Certification Addendum for *"NEPCon Interim Standard for Assessing Forest Management in Ukraine".*

Title: NEPCon Non Timber Forest Product Certification Addendum for *"NEPCon Interim Standard for Assessing Forest Management in Ukraine".*
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Introduction

The intent of this standard is to outline certification requirements which pertain to non-timber forest products (NTFP) and which complement the FSC® requirements for forest management based on the FSC Principles and Criteria. The standard has been developed for use within the territory of Ukraine for the following non-timber forest products:
N6.3.1 Christmas trees (*Abies alba, Picea abies, Pínus sylvéstris*)
N8.4 Cosmetics and health care products (pine needle extract) (*Pínus sylvéstris*)
N9.4 Mushrooms, truffles (*Boletus edulis, Boletus badius, Cantharellus cibarius, Suillus spp., Armillaria mellea, Xerocomus spp.*)
N9.5 Fruits (*Rubus idaeus, Rubus caesius, Vaccinium myrtillus, Fragaria vesca, Vaccinium vitis-idaea, Viburnum opulus, Oxycoccus palustris, Aronia melanocarpa*)
N9.6.2 Birch syrup or sugar

Certified operations wishing to include NTFPs in the scope of their FSC forest management certificate shall demonstrate conformance to the NTFP indicators outlined in this document. Another pre-condition for the certification of NTFP is the compliance with the requirements of "NEPCon Interim Standard for Assessing Forest Management in Ukraine".

1. Note on the Use of this Standard

All aspects of this standard are considered to be normative (unless indicated otherwise), including the scope stated.
The standard in this document consists of specific indicators organised under the relevant FSC criteria. This standard is designed to complement "NEPCon Interim Standard for Assessing Forest Management in Ukraine". For NTFPs to be certified and sold with a FSC claim, they must originate from FSC certified forest which have demonstrated conformance with these additional NTFP indicators.
This NTFP addendum is valid until the end of the 12-month phase-out period of "NEPCon Interim Standard for Assessing Forest Management in Ukraine". This phase-out period will commence on the effectiveness date of the new National Forest Stewardship Standard (NFSS) of Ukraine (based on FSC P&C V5-2). This new NFSS is planned to be assessed by the Policy and Standards Committee (PSC) of the FSC International in June 2019.

2. Contents

E Standards and Requirements

PRINCIPLE 1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES
Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.
Criterion 1.1 Forest management shall respect all national and local laws and administrative requirements.
1.1. NTFP.1 The FME demonstrates a record that all activities related to the collection/harvesting and processing of NTFPs undertaken in the Management Unit* are carried out in compliance with:
1) Applicable laws* and regulations and administrative requirements,
2) Legal* and customary rights*; and
3) Obligatory codes of practice.

1.1. NTFP.2 Activities related to the collection/harvesting and processing of NTFPs and covered by the management plan* are designed to comply with all applicable laws*.

Criterion 1.2. All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.
1.2. NTFP.1 The FME or NTFP harvester(s) maintain(s) up-to-date harvesting permits, collecting licenses, collecting contracts or cultivation permits and duly pays any related fees, leases, or royalties.

Criterion 1.3. In signatory countries, the provisions of all binding international agreements, such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.
1.3. NTFP.1 Compliance with applicable national laws*, local laws*, ratified* international conventions and obligatory codes of practice relating to the transportation and trade of NTFP up to the point of first sale is demonstrated.

1.3. NTFP.2 NTFPs on CITES Appendix 1 are not harvested.
Note: For today in Ukraine there are no harvested NTFPs on CITES Appendix 1.

Criterion 1.4. Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.
1.4. NTFP.1 Collection of forest resources (e.g. NTFPs, firewood, timber, game etc.) for commercial purposes by third party NTFP harvesters (e.g. local communities, individuals external to the FME) throughout the forest management area is monitored and controlled.

Criterion 1.5. Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.
1.5. NTFP.1 Measures are implemented to provide protection* from unauthorized or illegal NTFP harvesting, hunting, fishing, trapping, collecting and other unauthorized activities.

1.5. NTFP.2 If illegal or unauthorized NTFP harvesting is detected, measures are implemented to address it.

Criterion 1.6 Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.
1.6. NTFP.1 A written publicly available policy, endorsed by an individual with authority to implement the policy, includes a long-term* commitment to forest* management practices consistent with FSC Principles* and Criteria* and related Policies and Standards.

PRINCIPLE 2: TENURE AND USE RIGHTS AND RESPONSIBILITIES
Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.
Criterion 2.1. Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.

2.1. NTFP.1 Agreements exist between the FME and third party commercial NTFP harvesters and are documented (e.g. a lease contract or other agreement outlining harvest area and its location, species collected, estimated extracted volume, etc.).

Criterion 2.2. Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.
2.2. NTFP.1 Local communities receive fair and adequate benefits for any use of their name or image in marketing of NTFPs.

2.2. NTFP.2 When local knowledge is the basis of an NTFP-related patent, informed consent is obtained, and the affected community or individuals receive(s) fair and adequate benefits.

Criterion 2.3. Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.
2.3. NTFP.1 Local communities* that exist in the Management Unit* and those that may be affected by NTFP harvesting are identified.

2.3. NTFP.2 Large-scale harvesting and commercialisation of NTFPs is described in advance to affected communities identified in 2.3. NTFP.1, by means which are appropriate to the local reality, when the harvest of such products has the potential to impact local subsistence use.

2.3. NTFP.3. Through culturally appropriate* engagement* with the local communities* identified in 2.3. NTFP.1, the following are documented and/or mapped:
1) Their legal* and customary rights* of tenure*;
2) Their legal* and customary* access to, and use rights*, of the forest* resources and ecosystem services*;
3) Their legal* and customary* rights* and obligations that apply;
4) The evidence supporting these rights and obligations;
5) Areas where rights are contested between local communities*, governments and/or others;
6) Summary of the means by which the legal* and customary rights*, and contested rights are addressed by The Organization*; and
7) The aspirations and goals of local communities* related to NTFP harvesting.

PRINCIPLE 4: COMMUNITY RELATIONS AND WORKER'S RIGHTS
Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.
Criterion 4.1. The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.
4.1. NTFP.1 Local communities are given preference in terms of the use of NTFP resources in the forest management area before other third parties.

Criterion 4.2. Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.
4.2. NTFP.1 Wages and other benefits (health, retirement, workers' compensation, housing, food) for workers involved in NTFP harvest operations are consistent with (not lower than) prevailing local standards.

4.2. NTFP.2 NTFP harvest and processing methods and facilities protect the safety and health of both workers and end consumers. In particular:

- workers are informed and implement the developed health and safety practices that meet or exceed the "ILO Code of Practice on Safety and Health in Forestry Work";
- Internal control over compliance with labor and safety requirements is carried out;
- Workers* have personal protective equipment appropriate to their assigned tasks and use it.

4.2. NTFP.3 All works carried out within the territories with radionuclide contamination density 5 Ci/km^2 and more are carried out with obligatory radiation control in accordance with the requirements for radiation control in forests and forestry enterprises[1].

4.2. NTFP.4 Harvesting of NTFP is not carried out within the territories where radioactive contamination exceeds the limit value for NTFP harvesting in conditions of radioactive pollution according to the above-mentioned "Recommendations ..."[1]

Criterion 4.4. Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations.
4.4. NTFP.1 Social impacts of NTFP harvest and commercialisation by the FME or third parties on local communities are addressed through culturally appropriate* engagement* with local communities* and other relevant organizations and incorporated into management planning, particularly respecting subsistence NTFP users.

4.4. NTFP.2 Negative social and cultural impacts on local communities resulting from the influx of NTFP harvesters or commercialisation of NTFPs are minimised and where possible avoided.

4.4. NTFP.3 The evaluations of social impact, planning and monitoring of NTFP harvesting are carried out with the involvement of affected stakeholders, NTFP harvesters and local users and consider their perspective.

4.4. NTFP.4 The possibility of NTFP harvesting and / or cultivation in sites of special cultural, ecological, economic, religious or spiritual significance identified by local communities and recognized by the Enterprise to which local communities* have legal* rights* is agreed with local communities* according to local legal acts and national legislation

PRINCIPLE 5: BENEFITS FROM THE FOREST
Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.
Criterion 5.1 Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.
5.1. NTFP.1 Efficient harvesting and processing equipment and methods are used in order to minimise ecological impacts and maximise the economic viability of the NTFP harvest operation.

5.1. NTFP.2 FMEs balance the introduction of new technologies and practices with respect for traditional cultural practices.

5.1. NTFP.3 Costs related to preventing, mitigating or compensating for negative social and environment impacts of management activities are quantified and documented in the management plan*.

5.1. NTFP.4 In the case of externally supported NTFP harvest operations, a plan exists to reduce the level of dependency on external support and to maximise levels of self-sufficiency and control.

Criterion 5.3. Forest management minimizes or try to avoid waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.
5.3. NTFP 1. The FME or NTFP harvester(s) explore(s) options to utilise or commercialise NTFP processing waste, when feasible and appropriate.

5.3. NTFP 2. Harvesting and extraction practices for non-timber forest products* are implemented in a manner that conserves environmental values.

[1] According to "The Recommendations on Forest Management under Conditions of Radioactive Contamination" (Approved by Scientific and Technological Council of SAFRU of 02.03.2017, Minutes No2)

5.3. NTFP 3. Harvesting practices optimize the use of NTFPs.

5.3. NTFP 4. Harvesting practices avoid damage to other forest ecosystem components including other parts of harvested plants.

Criterion 5.4. Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.
5.4. NTFP.1 The range of NTFPs that could strengthen and diversify the local economy are identified by The Organization with the involvement of stakeholders.

5.4. NTFP.2 Consistent with management objectives*, NTFPs are produced by The Organization* and/or made available for others to produce, to strengthen and diversify the local economy.

Criterion 5.6. The rate of harvest of forest products shall not exceed levels which can be permanently sustained.
5.6. NTFP.1 The intensity, frequency and seasonality of NTFP harvest, by area and volume, are based on a combination of scientific study and/or long-term local experience and knowledge and do not exceed sustainable levels.

5.6. NTFP.2 NTFP harvest rates, cultivation technologies and harvest methods are appropriate for the particular plant part used (exudate, reproductive propagule, vegetative structure; See Annex 2 for guidance) and management activities maintain viable populations of target NTFPs. Part of non-timber forest products remains during harvesting in an amount sufficient to maintain forest ecological services, NTFP population viability and biodiversity

5.6. NTFP.3 Appropriate NTFP harvest prescriptions shall be implemented in the field.

PRINCIPLE 6: ENVIRONMENTAL IMPACT
Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.
Criterion 6.1. Assessment of environmental impacts shall be completed appropriate to the scale, intensity of forest management and the uniqueness of the affected resources and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.
6.1. NTFP.1 Environmental assessments during NTFP harvesting planning include the impacts resulting from commercial harvesting of NTFPs.

6.1. NTFP.2 The results of impact assessment for commercial NTFP harvesting are contained in the forest management plan and in the preparatory documents for management activity within definite site

6.1. NTFP.3 Where negative impacts of commercial harvesting of NTFPs to environmental values* occur, measures are adopted to prevent further damage, and negative impacts are mitigated and/or repaired.

Criterion 6.2. Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.
6.2. NTFP.1 NTFPs on either local and/or international endangered or threatened species lists (e.g., CITES Appendix 1, "critically endangered" IUCN list, national lists, etc.) as well as NTFPs within the habitats of rare and endangered species are not harvested.

6.2. NTFP.2 Effective measures are taken to manage and control NTFP harvesting to ensure that naturally occurring native species*, their diversity within species and their natural distribution are maintained.

Criterion 6.3. Ecological functions and values shall be maintained intact, enhanced, or restored, including:
a) Forest regeneration and succession.
b) Genetic, species, and ecosystem diversity.
c) Natural cycles that affect the productivity of the forest ecosystem.
6.3. NTFP.1 NTFP harvest and management minimizes or tries to avoid impacts to forest composition and structure and soil structure and fertility.

6.3. NTFP.2 NTFP harvest and management takes into account the ecological role and requirements of the target NTFP and other associated species, e.g. food for frugivorous birds and mammals, animal dispersal of seeds, maintenance of specific ecological interdependencies, etc.

6.3. NTFP.3 Measures are taken to maintain the natural composition and structure of NTFP populations (e.g. management of natural regeneration, enrichment planting, selection and protection of seed trees).

6.3. NTFP.4 NTFP management or harvesting doesn't lead to the significant simplification of forest species composition from the level of management unit to the level of separate forest stands.

Criterion 6.5. Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.
6.5. NTFP.1 Impacts of NTFP harvest and management on soil and water resources, especially access trails and roads, are minimised.

Criterion 6.6. Management systems shall promote the development and adoption of environmentally friendly non chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.
6.6. NTFP.1 The FME or NTFP harvester(s) employ(s) NTFP production and collection systems, integrated pest management and vegetation control strategies that result in the least adverse environmental impact. Pesticides are used only when non-chemical management practices have been proven ineffective or cost prohibitive.

6.6. NTFP.2 Integrated pest management, including selection of silviculture systems, is used to avoid, or aim to eliminate, the frequency, extent and amount of chemical pesticide* applications. The ultimate goal is non-use or overall reductions in applications of chemical pesticides

6.6. NTFP.3 Chemical pesticides* prohibited by FSC's Pesticide Policy are not used or stored in the Management Unit* unless FSC has granted derogation.

6.6. NTFP.4 Records of pesticide* usage are maintained, including trade name, active ingredient, quantity of active ingredient used, period of use, location and area of use and reason for use.

6.6. NTFP.5 The use of pesticides* complies with the ILO document "Safety in the use of chemicals at work" regarding requirements for the transport, storage, handling, application and emergency procedures for cleanup following accidental spillages.

Criterion 6.8. Use of biological control agents are documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.
6.8. NTFP.1 Genetically modified organisms* are not used for NTFP cultivation.

PRINCIPLE 7: MANAGEMENT PLAN

A management plan – appropriate to the scale and intensity of the operations – shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

Criterion 7.1. The management plan and supporting documents shall provide:

a) Management objectives;

b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio economic conditions, and a profile of adjacent lands;

c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories;

d) Rationale for rate of annual harvest and species selection;

e) Provisions for monitoring of forest growth and dynamics;

f) Environmental safeguards based on environmental assessments;

g) Plans for the identification and protection of rare, threatened and endangered species;

h) Maps describing the forest resource base including protected areas, planned management activities and land ownership;

i) Description and justification of harvesting techniques and equipment to be used.

7.1. NTFP.1 The management plan, or appendices to the plan, specifically address(es) and incorporate commercially-managed NTFPs, including:

- NTFP Management objectives;
- Resource use rights and socio-economic conditions of harvesters;
- Harvest areas (described in a map, if possible);
- Rate, timing, and quantity of NTFPs to be harvested, based upon plant part used (exudate, reproductive propagule, vegetative structure) and established best management practices for each NTFP;
- Description of and justification for the amount of each NTFP harvested, the implemented harvesting technique and the equipment used;
- Sources of information that sustain the rationale behind NTFP management activities (i.e., based on site-specific field data, local knowledge or published regional forest research and government requirements).

7.1. NTFP.2 Verifiable targets*, and the frequency that they are assessed, are established for monitoring the progress towards NTFP management objective*

Criterion 7.2. The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.

7.2. NTFP.1 The NTFP harvesting plan is revised and updated periodically to incorporate:

1) Monitoring results, including results of certification audits;
2) Evaluation results;
3) Stakeholder engagement* results;
4) New scientific and technical information, and
5) Changing environmental, social, or economic circumstances.

Criterion 7.3. Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

7.3. NTFP.1 NTFP harvesters receive information, training and/or supervision to ensure the management plan is implemented in the field.

Criterion 7.4. While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.

7.4. NTFP.1 A summary of the management plan in a format comprehensible to stakeholders including NTFP harvesting information and maps and excluding confidential information* is made publicly available* at no cost.

7.4. NTFP.2 Relevant components of the management plan, including NTFP harvesting information and excluding confidential information*, are available to affected stakeholders* on request at the actual costs of reproduction and handling.

PRINCIPLE 8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

Criterion 8.2 Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:

a) Yield of all forest products harvested.
b) Growth rates, regeneration and condition of the forest.
c) Composition and observed changes in the flora and fauna.
d) Environmental and social impacts of harvesting and other operations.
e) Costs, productivity, and efficiency of forest management.

8.2. NTFP.1 The monitoring plan includes the observed changes in conditions related to:
- NTFP populations (impact of harvest, growth rates, loss or vigour or decline, recruitment);
- Any outstanding environmental changes from NTFP management affecting flora, fauna, soil and water resources;
- Socioeconomic aspects of NTFP use and harvest (changes in community and worker relations or conditions, changes in NTFP use or demand, etc.)

Criterion 8.3. Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the "chain of custody".

8.3. NTFP.1 The data about volumes and harvesting sites of NTFP lots are traced to the centers of their processing or to the point(s) of their first sale and trade.

8.3. NTFP.2 Information about all NTFP sold is compiled and documented, including:
1) Common and scientific species name;
2) Product name or description;
3) Volume (or quantity) of product;
4) Information to trace the material to the source of origin logging block;
5) Logging date;
6) If basic processing activities take place in the forest, the date and volume produced; and
7) Whether or not the material was sold as FSC certified.

8.3. NTFP.3 Sales invoices or similar documentation are kept for a minimum of five years for all NTFP products sold with an FSC claim, which identify at a minimum, the following information:
1) Name and address of purchaser;
2) The date of sale;
3) Common and scientific species name;
4) Product description;
5) The volume (or quantity) sold;
6) Certificate code; and
7) The FSC Claim "FSC 100%" identifying products sold as FSC certified.

Criterion 8.5. While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.

8.5. NTFP.1 A summary of NTFP monitoring results, in a format comprehensible to stakeholders including maps and excluding confidential information* is made publicly available* at no cost.

PRINCIPLE 9: MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

Management activities in high conservation value forests shall maintain or enhance the attributes that define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

Criterion 9.1. Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.

9.1. NTFP.1 Consultations to determine the status of a HCVF specifically include NTFPs as an element of the social analysis section covering forest importance to local communities, as per

Sub-Clause "e" of Indicator 9.1.1 of "NEPCon Interim Standard for Assessing Forest Management in Ukraine".

9.1. NTFP.2 If NTFPs are harvested within HCVFs, the maintained HCVs aren't damaged.

PRINCIPLE 10: PLANTATIONS

Plantations shall be planned and managed in accordance with Principles and Criteria 1–9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

Criterion 10.2. The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.

10.2. NTFP.1 Intensive management, enrichment planting, or cultivation of understory NTFPs in natural forests don't adversely impact the overstorey or understorey diversity across the forest landscape.

Criterion 10.6. Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.

10.6. NTFP.1 Intensive management or cultivation of understory NTFPs in natural forests doesn't cause erosion, reduce water quality or adversely impact soil structure or fertility.

Criterion 10.8. Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.

10.8. NTFP.1 Establishment of NTFP plantations doesn't adversely impact resources or rights of local communities or local people.

10.8. NTFP.2 NTFP plantations don't contribute to reducing the value of the environmental, social and economic functions of similar or other NTFPs in natural forests.

Annex 1: FSC Glossary of terms

Affected stakeholder: Any person, group of persons or entity that is or is likely to be subject to the effects of the activities of a Management Unit. Examples include but are not restricted to (for example in the case of downstream landowners), persons, groups of persons or entities located in the neighborhood of the Management Unit.
The following are examples of affected stakeholders:

- Local communities
- Indigenous peoples
- Workers
- Forest dwellers
- Neighbors
- Downstream landowners
- Local processors
- Local businesses
- Tenure and use rights holders, including landowners
- Organizations authorized or known to act on behalf of affected stakeholders, for example social and environmental NGOs, labor unions, etc

Source: FSC-STD-01-001 V5-2

Applicable law: Means applicable to The Organization as a legal person or business enterprise in or for the benefit of the Management Unit and those laws which affect the implementation of the FSC Principles and Criteria. This includes any combination of statutory law (Parliamentary-approved) and case law (court interpretations), subsidiary regulations, associated administrative procedures, and the national constitution (if present) which invariably takes legal precedence over all other legal instruments.
Source: FSC-STD-01-001 V5-2

Biological control agents: Organisms used to eliminate or regulate the population of other organisms (Source: Based on FSC 1994 and World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).
Source: FSC-STD-01-001 V5-2

Biological diversity: The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems. (Source: Convention on Biological Diversity, 1992, Article 2).
Source: FSC-STD-01-001 V5-2

Chain of custody: The path taken by products from the forest, or in the case of recycled materials from the moment when the material is reclaimed, to the point where the product is sold with an FSC claim and/or is finished and FSC-labelled. The CoC includes each stage of sourcing, processing, trading, and distribution where progress to the next stage of the supply chain involves a change of product ownership.
Source: FSC-STD-40-004 V3-0

Confidential information: Private facts, data and content that, if made publicly available, might put at risk The Organization*, its business interests or its relationships with stakeholders, clients and competitors.
Source: FSC-STD- 60-004 V2-0

Conservation/Protection: These words are used interchangeably when referring to management activities designed to maintain the identified environmental or cultural values in existence long-term. Management activities may range from zero or minimal interventions to a specified range of appropriate interventions and activities designed to maintain, or compatible with maintaining, these identified values.
Source: FSC-STD-01-001 V5-2

Criterion (pl. Criteria): A means of judging whether or not a Principle (of forest stewardship) has been fulfilled.
Source: FSC-STD-01-001 V5-2

Culturally appropriate [mechanisms]: Means/approaches for outreach to target groups that are in harmony with the customs, values, sensitivities, and ways of life of the target audience.
Source: FSC-STD-60-004 V1-0

Customary rights: Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.
Source: FSC-STD-01-001 V5-2
Ecosystem: A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (Source: Convention on Biological Diversity 1992, Article 2).
Source: FSC-STD-01-001 V5-2
Ecosystem services: The benefits people obtain from ecosystems.
These include:
a. provisioning services such as food, forest products and water;
b. regulating services such as regulation of floods, drought, land degradation, air quality, climate and disease;
c. supporting services such as soil formation and nutrient cycling;
d. and cultural services and cultural values such as recreational, spiritual, religious and other non-material benefits.
(Source: Based on R. Hassan, R. Scholes and N. Ash. 2005. Ecosystems and Human Well-being: Synthesis. The Millennium Ecosystem Assessment Series. Island Press, Washington DC).
Source: FSC-STD-01-001 V5-2
Endangered species: Any species which is in danger of extinction throughout all or a significant portion of its range.
Engaging or engagement: The process by which The Organization communicates, consults and/or provides for the participation of interested and/or affected stakeholders ensuring that their concerns, desires, expectations, needs, rights and opportunities are considered in the establishment, implementation and updating of the management plan.
Source: FSC-STD-01-001 V5-2
Environmental values: The following set of elements of the biophysical and human environment:
a. ecosystem functions (including carbon sequestration and storage)
b. biological diversity
c. water resources
d. soils
e. atmosphere
f. landscape values (including cultural and spiritual values).
The actual worth attributed to these elements depends on human and societal perceptions.
Source: FSC-STD-01-001 V5-2
Forest: A tract of land dominated by trees (Derived from FSC Guidelines for Certification Bodies, Scope of Forest Certification, Section 2.1 first published in 1998, and revised as FSC-GUI-20-200 in 2005, and revised again in 2010 as FSC-DIR-20-007 FSC Directive on Forest Management Evaluations, ADVICE-20-007-01).
Source: FSC-STD-01-001 V5-2
Forest management/manager: The people responsible for the operational management of the forest resource and of the enterprise, as well as the management system and structure, and the planning and field operations.
Forest stewardship: forest management which, in conformity with the FSC Principles and Criteria for Forest Stewardship, is environmentally responsible, socially beneficial, and economically viable.
Genetically modified organisms: An organism in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination. (Source: Based on FSC-POL-30-602 FSC Interpretation on GMO (Genetically Modified Organisms)).
Source: FSC-STD-01-001 V5-2
High Conservation Value Forests: High Conservation Value Forests are those that possess one or more of the following attributes:
a) Forest areas containing globally, regionally or nationally significant: concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance
b) Forest areas that are in or contain rare, threatened or endangered ecosystems
c) Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)

d) Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Indicator: a quantitative or qualitative variable which can be measured or described, and which provides a means of judging whether a forest management unit complies with the requirements of an FSC Criterion. Indicators and the associated thresholds thereby define the requirements for responsible forest management at the level of the forest management unit and are the primary basis of forest evaluation.

Source: FSC-STD-60-004 V1-0

Interested stakeholder: Any person, group of persons, or entity that has shown an interest, or is known to have an interest, in the activities of the organization.

Adapted from FSC-STD-01-001 V5-2

Landscape: A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area. (Source: Based on World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).

Source: FSC-STD-01-001 V5-2

Legal: In accordance with primary legislation (national or local laws) or secondary legislation (subsidiary regulations, decrees, orders, etc.). 'Legal' also includes rulebased decisions made by legally competent agencies where such decisions flow directly and logically from the laws and regulations. Decisions made by legally competent agencies may not be legal if they do not flow directly and logically from the laws and regulations and if they are not rule-based but use administrative discretion.

Source: FSC-STD-01-001 V5-2

Local communities: Communities of any size that are in or adjacent to the Management Unit, and also those that are close enough to have a significant impact on the economy or the environmental values of the Management Unit or to have their economies, rights or environments significantly affected by the management activities or the biophysical aspects of the Management Unit.

Source: FSC-STD-01-001 V5-2

Local laws: The whole suite of primary and secondary laws (acts, ordinances, statutes, decrees) which is limited in application to a particular geographic district within a national territory, as well as secondary regulations, and tertiary administrative procedures (rules / requirements) that derive their authority directly and explicitly from these primary and secondary laws. Laws derive authority ultimately from the Westphalian concept of sovereignty of the Nation State.

Source: FSC-STD-01-001 V5-2

Long-term: The time-scale of the forest owner or manager as manifested by the objectives of the man-agement plan*, the rate of harvesting, and the commitment to maintain permanent forest cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given ecosystem to recover its natural structure and composition following harvesting or disturbance, or to produce mature or primary condi-tions (Source: FSC-STD-01-002 V1-0 FSC Glossary of Terms (2009)).

Management objective: Specific management goals, practices, outcomes, and approaches established to achieve the requirements of this standard.

Source: FSC-STD- 60-004 V2-0

Management plan: The collection of documents, reports, records and maps that describe, justify and regulate the activities carried out by any manager, staff or organization within or in relation to the Management Unit, including statements of objectives and policies (Source: FSC-STD-01-001 V5-0).

Management unit: A spatial area or areas submitted for FSC certification with clearly defined boundaries managed to a set of explicit long-term management objectives which are expressed in a management plan. This area or areas include(s):

- all facilities and area(s) within or adjacent to this spatial area or areas under legal title or management control of, or operated by or on behalf of The Organization, for the purpose of contributing to the management objectives; and
- all facilities and area(s) outside, and not adjacent to this spatial area or areas and operated by or on behalf of The Organization, solely for the purpose of contributing to the management objectives.

Source: FSC-STD-01-001 V5-2

Native species: Species, subspecies, or lower taxon, occurring within its natural range (past or present) and dispersal potential (that is, within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans) (Source: Convention on Biological Diversity (CBD). Invasive Alien Species Programme. Glossary of Terms as provided on CBD website).
Source: FSC-STD-01-001 V5-2
Natural cycles: Nutrient and mineral cycling as a result of interactions between soils, water, plants, and animals in forest environments that affect the ecological productivity of a given site.
Natural Forest: Forest areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present, as defined by FSC approved national and regional standards of forest management.
Non-timber forest products (NTFP): Any forest-based product except wood (timber), including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products. Examples include, but are not limited to, bamboo, seeds, fruits, nuts, honey, palm trees, rubber, cork, ornamental plants, and other products originating from a forest matrix.
Source: FSC-STD-40-004 V3-0
Organization (The): The person or entity holding or applying for certification and therefore responsible for demonstrating compliance with the requirements upon which FSC certification is based.
Source: FSC-STD-01-001 V5-2
Pesticide: Any substance or preparation prepared or used in protecting plants or wood or other plant products from pests; in controlling pests; or in rendering such pests harmless. (This definition includes insecticides, rodenticides, acaricides, molluscicides, larvaecides, fungicides and herbicides).
Source: FSC-POL-30-001
Plantation: A forest area established by planting or sowing with using either alien or native species, often with one or few species, regular spacing and even ages, and which lacks most of the principal characteristics and key elements of natural forests. The description of plantations may be further defined in FSC Forest Stewardship Standards, with appropriate descriptions or examples, such as:
Areas which would initially have complied with this definition of 'plantation' but which, after the passage of years, contain many or most of the principal characteristics and key elements of native ecosystems, may be classified as natural forests.
Plantations managed to restore and enhance biological and habitat diversity, structural complexity and ecosystem functionality may, after the passage of years, be classified as natural forests.
Boreal and north temperate forests which are naturally composed of only one or few tree species, in which a combination of natural and artificial regeneration is used to regenerate forest of the same native species, with most of the principal characteristics and key elements of native ecosystems of that site, may be considered as natural forest, and this regeneration is not by itself considered as conversion to plantations.
Source: FSC-STD-01-001 V5-2
Precautionary approach: An approach requiring that when the available information indicates that management activities pose a threat of severe or irreversible damage to the environment or a threat to human welfare, The Organization will take explicit and effective measures to prevent the damage and avoid the risks to welfare, even when the scientific information is incomplete or inconclusive, and when the vulnerability and sensitivity of environmental values are uncertain (Source: Based on Principle 15 of Rio Declaration on Environment and Development, 1992, and Wingspread Statement on the Precautionary Principle of the Wingspread Conference, 23–25 January 1998).
Source: FSC-STD-01-001 V5-2
Principle: An essential rule or element; in FSC's case, of forest stewardship.
Source: FSC-STD-01-001 V5-2
Protection: See definition of 'Conservation'.
Publicly available: In a manner accessible to or observable by people generally (Source: Collins English Dictionary, 2003 Edition).
Source: FSC-STD-01-001 V5-2
Ratified: The process by which an international law, convention or agreement (including multilateral environmental agreement) is legally approved by a national legislature or equivalent legal mechanism, such that the international law, convention or agreement becomes

automatically part of national law or sets in motion the development of national law to give the same legal effect.
Source: FSC-STD-01-001 V5-2

Silviculture: The art and science of controlling the establishment, growth, composition, health and quality of forests and woodlands to meet the targeted diverse needs and values of landowners and society on a sustainable basis (Source: Nieuwenhuis, M. 2000. Terminology of Forest Management. IUFRO World Series Vol. 9. IUFRO 4.04.07 SilvaPlan and SilvaVoc).
Source: FSC-STD-01-001 V5-2

Tenure: Socially defined agreements held by individuals or groups, recognised by legal statutes or customary practice, regarding the "bundle of rights and duties" of ownership, holding, access and/or usage of a particular land unit or the associated resources there within (such as individual trees, plant species, water, minerals, etc.). (Source: World Conservation Union (IUCN). Glossary definitions as provided on IUCN website).
Source: FSC-STD-01-001 V5-2

Threatened species: Species that meet the IUCN (2001) criteria for Vulnerable (VU), Endangered (EN) or Critically Endangered (CR), and are facing a high, very high or extremely high risk of extinction in the wild. These categories may be reinterpreted for FSC purposes according to official national classifications (which have legal significance) and to local conditions and population densities (which should affect decisions about appropriate conservation measures) (Source: Based on IUCN. (2001). IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN. Gland, Switzerland and Cambridge, UK.).
Source: FSC-STD-01-001 V5-2

Use rights: Rights for the use of resources of the Management Unit that can be defined by local custom, mutual agreements, or prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption or particular harvesting techniques.
Source: FSC-STD-01-001 V5-2

Verifiable targets: Specific goals, such as desired future forest conditions, established to measure progress towards the achievement of each of the management objectives*. These goals are expressed as clear outcomes, such that their attainment can be verified and it is possible to determine whether they have been accomplished or not.
Source: FSC-STD-60-004 V2-0

Workers: All employed persons including public employees as well as 'selfemployed' persons. This includes part-time and seasonal employees, of all ranks and categories, including laborers, administrators, supervisors, executives, contractor employees as well as self-employed contractors and sub-contractors (Source: ILO Convention C155 Occupational Safety and Health Convention, 1981).
Source: FSC-STD-01-001 V5-2

Annex 2: General NTFP Management Considerations

Exudates

Plants produce many useful exudates including, latex, resin, oleoresin and gums. Exudates are commonly employed as sealants, medicines, foods and in industrial applications. Harvest of exudates may entail tapping the tree or the creation of incisions within a tree's bark. The impact of this type of harvest is determined by the maturity of the plant and the frequency and intensity of harvest. If properly conducted, tapping will not kill the exploited tree. However, in addition to felling a tree to collect exudates, excessive tapping can result in the death of the individual. Moderate tapping of a tree may weaken its vigour by diverting energy needed to produce seeds to be used in the production of latex. When extracting exudates, the physiological demands on the tree to produce additional latex or oleoresin compete with the tree's ecological necessity to produce seeds (Peters, 1994).

Vegetative Structures: Apical bud, Bark, Root, Leaves (Needles)

Vegetative structures signify a variety of different plant parts such as stem, leaf, root, bark and apical bud (the primary growing point at the tip of the stem). This vast array of NTFP products is regularly harvested for use as food, medicine, crafts, and building materials. The impact of harvesting plant tissues will depend upon the type of growth of the plant and the technique and intensity of harvest. Intense and uncontrollable harvest of vegetative structures may result in the death of the plant. However, with proper harvesting techniques, plants may recover from damage due to harvesting of leaves, sprouts and branches as they develop compensatory growth. This can result in a net higher biomass production compared to an undisturbed plant. The ability to produce a higher net biomass or to remain stable depends upon: a) harvesting techniques; b) harvesting intensity, and c) type of growth of the plant (Tropenbos, 1995; Peters, 1994).

Reproductive Propagules: Fruit, Seed

The reproductive propagules of a plant, its fruits, nuts and oil seeds, are frequently harvested for use as food, oil, crafts and medicines. Harvest of fruits and seeds may, in the short term, represent the least amount of direct damage to any NTFP as a population produces more offspring (seeds) and immature individuals (seedlings, saplings, juveniles) than is necessary to maintain its number of reproducing adults. The surplus of seeds is necessary to compensate for the extremely high risk of mortality in the juvenile phase.

However, the continual removal of significant quantities of offspring can directly affect the ability of a plant to reproduce. Over the long-term mortality may exceed recruitment. A shortfall in recruitment can cause a notable change in population structure, resulting in decreased plant densities and modified size-class structure. Continued harvest can also affect the genetic composition of the tree population being exploited. In addition, in areas where commercial collectors diminish the quantities of fruits and seeds, frugivores which play a critical role in germination and seed dispersal and may migrate to more isolated forests (Peters, 1994).

Note: The following paragraphs present generic guidance for management of all NTFPs and their plant structures; whenever applicable, specific indicators and verifiers for "Exudates, Apical Buds, Bark, Roots, Leaves and Reproductive Propagules" are identified by showing in bold face the plant structure under consideration in the respective text box.

The following management guidance are applicable to all NTFPs, except where reference is made to a specific plant part.

1. Species selection

Multi-stemmed species that have the ability to coppice are harvested preferentially.

2. Knowledge

Rates of harvesting intensity, frequency, and seasonality are defined based on a combination of scientific study and/or long-term local experience and knowledge.

- Scientific information is available;
- Local management/use of selected species exists;
- Harvest rates are documented in writing;
- Analysis of implications of different harvest rates is available.

3. Diameter and/or age

Minimum diameter at breast height (DBH), age, or height at which plant part may be harvested has been determined in a manner which explicitly aims to reduce negative impacts on long-term vigour and production and on species population.

- Minimum age, DBH or height for first harvest is specified;
- Individuals are harvested at or above the minimum age/DBH/height.

4. Quantity

The quantity of material removed (e.g.: bark, leaves) that minimises any negative impacts on long-term vigour and production has been determined.

- Volumes extracted are documented;
- Volumes extracted do not exceed stipulated volumes;
- Data (or visual observations) on the relationships between volume extracted and plant growth, development and reproductive biology are available.

Leaves

- The appropriate proportion of healthy leaves needed for photosynthesis is determined;
- A sufficient proportion of healthy leaves remain on each individual to allow for photosynthesis.

Reproductive propagules

- The productive capacity of the species has been determined through weighing, counting, or measuring the quantity of the resource produced by different sample trees during the harvest season;
- No more than a determined percentage of the harvestable yield is extracted.

5. Frequency

The frequency of harvest from a population or individual in a given time period has been determined and is conducted in a way that reduces negative impacts on vigour and production.

- Frequency of harvest does not exceed stipulated frequency;
- Frequencies are adjusted according to the DBH, age, size or height of the harvestable tree;
- Records of harvest frequency are documented;
- Information on frequency is based on the observations of a number of different sources.

Leaves

- Sufficient time is allowed between successive harvests for plants to produce new leaves (new leaves must be present on previously harvested individuals).

6. Timing / Seasonality

Harvesting is explicitly timed and designed to reduce stress during reproductive periods and minimise impacts on reproductive capacity.

- Harvesting takes place according to specified timing/seasonality;
- Information is available on the reproductive cycles;
- Instructions on periods to avoid and concentrate harvesting exist;
- Harvesting minimises a negative impact on the plant's reproductive capacity.

7. Density / abundance

The percentage of individuals harvested from the entire population will allow for the retention of mature, reproducing individuals.

- The portion and/or number of mature, reproducing individuals to retain is specified.
- The number of mature, reproducing individuals specified is retained.
- The number of individuals harvested is in agreement with a pre-established density (trees per hectare).

8. Genetic diversity and population structure

The management system obtains technical information from different sources that guarantees in the long term that a minimum number of mature, reproducing individuals are retained and that the population will reflect natural diversity in composition and structure.

- Structural and genetic diversity is specified;
- Structural and genetic diversity is maintained.

9. Harvest techniques

Harvest techniques are applied according to defined best management practices.

- Plants are not felled or destroyed during harvest, unless part of approved silvicultural system (e.g. coppicing);
- Negative, indirect impacts of harvesting are minimised;
- Harvesting takes place according to specified techniques.

Exudates

- Appropriate heights for taps/incisions are determined;
- Taps/incisions are located at specified height;
- Appropriate depth of tap is determined;
- Tap does not exceed specified depth.

Leaves

- Reproductive structures and apical buds remain intact and do not show signs of post-harvest damage;
- Branches are not removed for picking of leaves;
- Leaves are not to be collected from felled trees unless part of approved silvicultural operations.

Reproductive propagules

- Fruits, seeds and nuts are harvested from the tree itself or directly from the ground after falling from the tree;
- Trees are not damaged to induce premature fruiting;
- A determined portion of fruits remains in the forest for wildlife (disperser) populations.

10. Growth and regeneration rates

Growth rates and regeneration are regularly monitored using a well-designed inventory system that is appropriate to the complexity, scale and intensity of the management system.

- Frequency of monitoring is specified;
- Periodic regeneration surveys are conducted as specified;
- Size class distribution includes seedlings to large adults;
- Seeding or sapling densities as recorded in a vegetation or regeneration survey remain equal to or above baseline values;
- If over time seedling or sapling densities significantly decline, harvest adjustments are made by:
    a) Limiting the total area from which the resource can be harvested;
    b) Regulating the number or size of the plants being harvested;
    c) Regulating the number of fruits or seeds being harvested; and/or
    d) Enrichment planting of harvested species.

11. Visual appraisal of health and vigour

Regular visual appraisals of the behaviour and condition of harvestable plants/trees are conducted pre- and post-harvest.

- Over a specified period of time, harvestable plants/trees do not display loss of vigour, disease, aborted fruit/leaves or stunted growth;
- If harvested individuals display a weakened condition, harvest volumes are reduced to allow for individual and population recovery;
- If visual assessments and inventories indicate a decline in the density of non-targeted species in the area of harvest, adjustments are made in the management regime to recover density.

12. Wildlife / dispersers

Periodic assessments are conducted in order to evaluate populations of animals that disperse seeds and fruits.

- Within the harvest area, populations of animals that disperse seeds remain stable;

- If populations of animals that disperse seeds decline, harvest adjustments are made in the frequency, quantity, seasonality and techniques of the harvest.