









ProTerra Standard

Social Responsibility and Environmental Sustainability

Version 3.0
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ProTerra Standard

Social Responsibility and Environmental Sustainability

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(Approved by the Board of ProTerra Foundation 28, December 2014)

INTRODUCTION

The ProTerra Standard for Social Responsibility and Environmental Sustainability is based on the Basel Criteria on Responsible Soy, published in 2005.

The aim of the ProTerra Standard is to foster good agricultural practice, the protection of high conservation value areas, the environment and biodiversity in general, rural workers as well as communities by linking production and demand of non-GMO commodities in full traceability.

This is Version 3.0 of the ProTerra Standard, which has gone through a transparent and public stakeholder consultation process. The first consultation round took place from 1, August to 30, September 2014; the second phase took place from 15, November to 15, December 2014 with a transparent tracking of the changes. During and after the two consultation rounds, the ProTerra Certification and Standard Committee has discussed and decided on the inputs provided through the consultation process.

For any comment or question with regard to the ProTerra Standard, please contact standards@proterrafoundation.org.

THIS IS A DOCUMENT FOR A CONTROLLED REVISION PROCESS

Any changes to this document must be processed through change control procedures within the Certification and Standards Committee of ProTerra Foundation.

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SECTION I – Scope of Certification

Certification is applicable to distinct levels of operation across the food production chain:

- Level I Agriculture
- Level II Transport and Storage
- Level III Industrial Processing
- Chain of Custody

Production under the ProTerra Standard can be agricultural or industrial. Agricultural production is the growth of crops and seed. Any operation that transforms the agricultural production output, such as a crushing plant or a food product manufacturer, is considered as industrial production. Chain of Custody, on the other hand, is for organisations that only handle the material and pass it on as is.

The production certified organisations also have chain of custody elements as they have to comply with traceability indicators as per requirements in the standard, and also function as gathering points. Chain of custody operators have a more limited scope and only have to comply with criteria and indicators of Principle 10.

ProTerra Certification can apply to raw materials, ingredients or multi-ingredient products. This may be accomplished using two basic approaches:

- (i) Each link in the supply chain can be certified in its own right to the ProTerra program; or
- (ii) Certified organisations that use ingredients from sources that are not ProTerra certified in their own right may implement systems to control and monitor these supply chain(s) to ensure that the ProTerra criteria are met; in this case the verification of this system will be considered as part of the user's own ProTerra certification responsibilities and verified by the certification body.

Because of its broad scope and distinct levels of operations, not all of the indicators are applicable to all types of certified operations. The standard indicates the applicability of each indicator regarding each of the three levels of operation within the food production chain: I Agriculture, II Transport and Storage, and III Industrial Processing. Chain of Custody is addressed in Principle 10.

The ProTerra Standard distinguishes between CORE indicators and other indicators. To be ProTerra certified, organisations have to comply with CORE indicators to 100% and with all the indicators to 80%.

SECTION II – Principles, Criteria, Indicators and Guidance

PRINCIPLE 1 – Compliance with law, international accords and the ProTerra Standard

1.1 Comply with all applicable national and local laws, regulations, and applicable international conventions.

1.1.1 CORE - Certified organisations shall implement procedures to assure Levels I, II and III consistent compliance.

Guidance: Requirement for legal compliance applies with regard to all Principles and their respective Criteria and Indicators.

A list of relevant international treaties and conventions is found in Appendix B.

In the case of smallholders, this responsibility lays with farmer groups, co-operatives or first processors.

1.1.2 CORE - Certified organisations shall document and retain records of compliance for at least 5 years or longer if required by local law.

Guidance: In the case of smallholders, this responsibility lays with farmer groups, co-operatives or first processors.

1.1.3 CORE - Certified organisations and subcontractors shall keep copies of up-to-date national and local legislation on site or demonstrate on-line access to these.

Guidance: In the case of smallholders, this responsibility lays with farmer groups, co-operatives or first processors.

1.1.4 CORE - Certified organisations shall demonstrate clear title to land in accordance with national practice and law.

Guidance: Examples of land title are ownership deed, lease, or other appropriate legal agreement.

1.1.5 If the ProTerra Standard exceeds national or local regulatory requirements, certified organisations shall adhere to the Standard and/ or if the standards set in international treaties or conventions exceed local or national laws of the country where certification is sought, certified organisations shall adhere to the international treaties.

1.1.6 CORE - Suppliers of core inputs and services shall be compliant with Levels II and III the ProTerra Standard.

Guidance: For instance, for a coffee processor's output to be compliant with the ProTerra Standard, the coffee, itself, must be produced in compliance with the ProTerra Standard. Compliance of the processing plant, alone, is not sufficient. Core and non-core suppliers are defined in the Definitions section of the Standard.

1.1.7 Levels I, II and III Where applicable, outgrower suppliers outside the supply area or group for the certification production of the certified organisation must comply with human rights and labour standards set down on Principle 2.

1.2 Continuous improvement

1.2.1 Certified organisations shall demonstrate continuous improvement regarding compliance with ProTerra Standard.

Guidance: Compliance is evidenced from the second year of certification. Examples of evidence can be implementation of corrective action plans, as well as actions as regards social, environmental, agricultural and technical aspects of the operation. Evidence must be proportional to the size and complexity of the operation – for example in a smallholder farm, continuous improvement can be evidenced by better practices and improvements in facilities and equipment.

- 1.3 Use of ProTerra logo, seal, trustmark and certificates
- 1.3.1 ProTerra certified materials and products shall be identified using Levels I, II and III correct claims, ProTerra logo, seal and certificates, according to the Guidelines and Requirements for the Use of the ProTerra Logo and Seal.

PRINCIPLE 2 – Human Rights and Responsible personnel policies, labour practices

- **2.1** Absence of slave and forced labour, child labour, and coercive disciplinary or control methods.
- **2.1.1 CORE** Certified organisations shall not use slave labour, forced labour, land III indentured servants, and their equivalents.

Guidance: This applies also to workers supplied by third parties and contracted labour, including migrant and seasonal workers.

2.1.2 Levels I, II and III **CORE** - No worker will be required to lodge their identity papers with their employer or any third party and workers pay, benefits or other property shall, likewise, not be retained.

- **2.1.3** Accompanying family members (children and spouses) shall not be Level I required to work on the farm.
- **2.1.4 CORE** Child labour, except in contexts permitted within national law and the ILO, shall not be used in certified organisations.

Guidance:

a. Minimum age for labourers shall be 15 years or the age mandated by local law, whichever is older.

b. In family agriculture, child labour can be allowed provided that it is not abusive or dangerous, and does not interfere with the health, education and school attendance of the child.

2.1.5 CO

CORE - Coercive disciplinary or control methods shall not be permitted. This includes corporal or mental coercion, confinement, threats of violence or other forms of physical, sexual, psychological, or verbal abuse/harassment.

- **2.2** Weekly working hours and overtime
- 2.2.1 Levels I, II and III

CORE - The workweek shall be set according to local and national laws, shall be consistent with local industry standards, and shall, at maximum, not routinely exceed 48 hours per week (not including overtime). Collective agreements and agreements with Labour Unions take precedence over the working hours determined by law.

2.2.2 Levels I, II and III **CORE** - Overtime shall be limited as specified in local and national law, and shall not routinely exceed 12 hours per week.

2.2.3 Levels I, II and III Overtime in excess of 12 hours is only allowable if it happens in extraordinary, limited periods where there are time constraints or risk of economic loss and where conditions regarding overtime in excess of 12 hours have been agreed between workers and management.

Guidance: The work time limits are flexible in that it is recognized that there may exist certain unavoidable periods during the year, during which employees will be expected to work substantially longer hours for a restricted period of time. The extraordinary time pressure of harvest time is an example of such a situation. The indicator set down in 2.2.5 shall be respected during such periods.

2.2.4 Levels I, II and III Overtime shall be compensated as required by law or according to collective agreement or agreement with the Labour Union or, in the lack of those, at a premium rate.

Guidance: Legal dispositions which allow exchange of overtime hours for extra days off shall be taken into consideration.

2.2.5 All overtime work shall be voluntary.

Levels I, II and III

2.2.6 In all cases workers are entitled to at least one day off following 6 Levels I, II and III consecutive days of work.

2.3 Personnel Management Program

2.3.1 The certified organisation shall structure, implement and document a Levels I, II and III personnel management program consistent with and proportional to the needs of the organisation.

Guidance: This indicator is not applicable to smallholder/family farmers.

2.3.2 The certified operation shall assign a staff member to implement and Levels I, II and III manage the personnel management program.

Guidance: This indicator is not applicable to smallholder/family farmers.

2.4 Equal opportunities and treatment for workers

2.4.1 Levels I, II and III CORE - All workers, applicants and subcontractors shall have equal employment opportunities, equal opportunities, and equal treatment on the job. No discrimination shall be tolerated including: "any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity or treatment in employment or occupation. Any distinction, exclusion or preference in respect of a particular job based on the inherent requirements thereof shall not be deemed to be discrimination." (Ref: ILO Convention 111, Articles 1 and 2).

Guidance: There shall be no differences in the working conditions of any workers due to employment status (e.g., permanent, temporary or subcontracted workers). However, "equal opportunities" and/or "equal treatment" shall not necessarily prevent certain workers from receiving rewards based on merit or performance, such as pay bonuses, paid vacation time, or other enhancements that are above and beyond the basic compensation due to all workers in the operation.

2.5 Workers' working and living conditions

2.5.1 CORE - All workers, regardless of age or gender, shall enjoy appropriate, legally compliant working conditions.

2.5.2 All workers living on site shall have appropriate, fairly priced, and safe Level I food, water and housing.

Guidance: "Appropriate" includes at least the following: shelter from the elements; exclusion of pests; ready access to facilities for maintaining hygiene; ready access to water, facilities for food preparation and eating; clean sleeping and sitting quarters (including some type of bed), and open space where workers would be able to move around freely during non-working hours.

2.6 Clear and comprehensive labour contracts and legal rights

2.6.1 Levels I, II and III **CORE** - All workers directly employed, contracted, subcontracted including temporary workers shall have an employment contract written in a language understandable by the worker and signed by the employer and employee or the employees' labour representatives. Contracts typically include pay rate, working hours, deductions, overtime conditions, vacation time, conditions for sickness and maternity leave, grounds for dismissal, period of notice.

2.6.2 There shall be a signed work agreement between the certified Levels I, II and III organisation and the subcontractor.

2.6.3 Levels I, II and III Certified organisations shall communicate legal rights, contracts and agreements to their personnel in simple language and style that workers can easily understand and comply with.

Guidance: The operation shall assign a person or persons to be responsible for maintaining and updating such information, and shall identify that person to the Certification Body. This indicator is not applicable to smallholder/family farmers.

2.6.4 Levels I, II and III The certified organisation shall maintain personnel records for each employee for at least 5 years or longer if required by local law.

Guidance: Personnel records will include for each employee their contract, their current status and history, job title, salary, training, hours worked, and vacation time accrued.

This indicator is not applicable to smallholder/family farmers.

- **2.7** Qualification, working experience and training of workers
- **2.7.1** Worker job descriptions, including necessary skills and legal status, and Levels I, II and III salary range shall be set in written form.

Guidance: All employed and/or subcontracted workers shall have the necessary qualifications, experience, meet legal requirements to fulfil their job.

Written description of jobs, skills, legal status and salary range will serve as the basis for the operation's demonstration that this indicator is being met. This indicator is not applicable to smallholder/family farmers.

2.7.2 Levels I, II and III

An ongoing program of job-related training and regular refresher training shall be provided to all workers to ensure that they are competent to conduct their work efficiently, effectively and safely.

Guidance: If this criterion is first being met during the initial year that ProTerra certification is achieved, the certification body will waive the retroactive aspect of it for the first year of certification.

Certified organisation shall provide all employees with training regarding (a) sustainability; (b) GMOs where applicable; and (c) their specific tasks, roles and responsibilities.

This indicator is not applicable to smallholder/family farmers.

2.7.3 Levels I, II and III

Certified organisations shall maintain records for all training for a minimum of 5 years, or longer if specified by local regulations.

Guidance: The following information shall be included in these records: date, time, attendees, trainer, and content material used during training. This indicator is not applicable to smallholder/family farmers.

2.8 Salaries, payments and benefits

2.8.1 Levels I, II and III

CORE - All workers, regardless of age or gender, shall be paid a fair, locally representative wage or salary, which shall meet or exceed the Minimum or Basic Salary or Wage (Minimum Wage) legally established for the region. If no Minimum Wage law exists, compensation shall at least meet the typical salaries usually paid in that region for the equivalent function or job.

Guidance: The operation must demonstrate to the certification body and its auditors how it arrived at its determination that it has met this indicator.

2.8.2 Levels I, II and III

CORE - Piece work shall be paid at a rate that assures workers (female and male) will be capable of earning at least a legal minimum wage.

2.8.3 Levels I, II and III

CORE - Wages or salaries and hours worked shall be regularly and legally paid in the national currency, documented and recorded.

Guidance: Payment shall be at least monthly unless workers or their representatives expressly agree that it can be less frequent, the terms of which are specified in writing and signed by said parties.

2.8.4 Levels I, II and III **CORE** - Employer shall not deduct from wages for disciplinary or similar purposes.

Guidance: Deductions for social security or other legally mandated programs are acceptable.

2.8.5 Levels I, II and III A social security plan shall be established for the workers in regions where such a plan is not required by law or regulation.

Guidance: The plan shall include timelines for implementation, as well as age requirements for receiving benefits and other related conditions/situations where benefits would be available. The impact of such a social security plan on regular worker pay amounts shall be specified in the plan description.

This indicator is not applicable to smallholder/family farmers.

2.9 Safety and health of workers protected

2.9.1 Levels I, II and III The organisations shall have a worker health and safety program that at minimum assures compliance with legal requirements or with indicators of the Standard as set out below, whichever is more protective.

Guidance: Scope and complexity of the program shall be proportional to the scope and complexity of the certified organisation.

In the case of smallholders, this responsibility lays with farmer groups, co-operatives or first processors, where applicable.

2.9.2 Levels I, II and III **CORE** - The certified organisation shall conduct a risk assessment of their operation and use the results of that study to guide mitigation of risks and development and implementation of accident and emergency systems and procedures.

Guidance: This indicator is not applicable to small holders, or farms with no employees.

2.9.3 Levels I, II and III **CORE** - Medical treatment/first aid shall be readily and quickly available if and when accidents or other emergencies occur on the worksite.

2.9.4 Levels I, II and III The certified organisation shall monitor and ensure compliance with its worker safety and health program and keep records of health and safety performance, including accident statistics for the operation.

Guidance: Accident statistics: accidents per number of hours worked and accidents per employee.

This indicator is not applicable to smallholder/family farmers.

2.9.5 Levels I, II and III **CORE** - Hazardous tasks, including the application or handling of pesticides such as insecticides, fungicides, and herbicides, for pests, diseases and non-crop plants, shall be conducted only by qualified and properly trained workers. The following types of employees, shall not be permitted to conduct such tasks, including subcontracted workers: Persons under the age of 18 or above the age of 60 - Pregnant or nursing women - Persons with mental illness - Persons with chronic, hepatic, renal, or respiratory diseases - Persons with other health problems or limitations that would make them more vulnerable to hazardous conditions.

Guidance: The operation shall maintain documentation identifying employees excluded from these activities and require subcontractors to do the same.

The certification body may allow for the minimum/maximum ages to be lower/higher than 18/60 in cases where national legislation and/or other legal permitting procedures are in effect, and provided there are measures in place to adequately protect the health and safety of such workers.

2.9.6 Levels I, II and III Certified organisations shall provide all required personal protective equipment (PPE) and clothing.

2.9.7 Levels I, II and III Wearing of appropriate personal protective equipment (PPE) and clothing is mandatory during handling and application of toxic substances or conduct of other hazardous tasks.

2.10 Training in health and safety

2.10.1 Levels I, II and III **CORE** - Workers shall be trained in health and safety on the job, and particularly those workers handling pesticides and other toxic substances or hazardous equipment shall be trained to store, apply, and dispose of pesticides and other toxic substances and to operate hazardous equipment safely, as specified in the manufacturer's instructions and legal requirements.

Guidance: In addition to conducting all aspects of their work safely, workers shall handle all pesticide use and disposal in a manner that protects the worker and others in the vicinity as well as the environment. An example of additional measures is the marking of areas where pesticides are stored, handled, or used.

In the case of smallholders, training in health and safety should be ensured by groups, co-operatives or first processors.

2.10.2 Levels I, II and III Certified organisations shall maintain records for all health and safety training for a minimum of 5 years, or longer if specified by local regulations.

Guidance: The following information shall be included in these records: date, time, attendees, trainer, and content material used during training.

2.10.3 Levels I, II and III Certified organisations shall employ qualified personnel to instruct workers in safety and health on the job, and especially in the safe handling, storage, and application of pesticides and other toxic materials and the safe conduct of other hazardous tasks.

Guidance: Certified organisations shall ensure that instructors have necessary technical knowledge and legal qualifications.

In the case of smallholders, the instruction should be ensured by groups, co-operatives or first processors.

2.11 Maternity leave

- **2.11.1** Certified organisations shall comply at least with national and state Levels I, II and III regulations regarding maternity leave.
- 2.11.2 Workers taking maternity leave have the right to resume their work under the same conditions existing before taking leave, without discrimination, deduction of wages or loss of seniority.
- 2.11.3 In locations where specific regulations do not cover the topics, certified organisations shall establish reasonable maternity leave, and leave for health treatment.
- **2.12** Freedom for workers to organize and form associations.
- 2.12.1 CORE All workers, contracted and share-croppers shall be allowed to form and join trade unions or other collective bargaining organisations of their choice.

Guidance: Certified organisations must provide evidence demonstrating that the certified organisation respects the rights of all personnel to form and join trade unions or other collective bargaining organisations in accordance with the law.

This indicator is not applicable to smallholder/family farmers.

2.12.2 Certified organisations shall not impede functions of collective bargaining organisations and representatives of collective bargaining organisations shall have access to their members at the workplace.

2.12.3 There shall be no discrimination by management or workers between unrepresented workers and members of labour or trade unions.

PRINCIPLE 3 – Responsible relations with workers and community

3.1 Systems of communication

3.1.1 Levels I, II and III

CORE - Certified organisations shall establish and document an effective and timely system of communication with all workers and with the local communities, and an effective and timely system to receive, investigate and respond to all complaints from these parties.

Guidance: This system shall function at the worksites and in the communities linked to certified organisations.

This indicator is not applicable to smallholder/family farmers.

3.1.2 Levels I, II and III

Complaints, responsive actions, and outcomes shall be documented and records maintained for 5 years or more if required by local law.

Guidance: Auditor will look into the number of complaint resolution processes and verify the number of effective resolutions achieved.

This indicator is not applicable to smallholder/family farmers.

3.1.3 Levels I, II and III

The system shall include a mechanism that allows workers and community members to lodge complaints in a manner anonymous to the management of the certified organisation (if they desire anonymity), yet also allows verification of the validity of the complaints. The certified organisation should also recognize the competence of local labour tribunals, if these are the mechanism chosen by workers for raising grievances.

Guidance: One example of such a system would be to appoint an independent ombudsman who receives complaints, assesses validity and sets in motion appropriate processes for correction/redress. The procedures for electing/appointing the ombudsman must be transparent and must equitably include workers, community members or their representatives in the appointment process.

This indicator is not applicable to smallholder/family farmers.

3.2 Land use does not impair the rights of traditional other users

3.2.1 Levels I, II (transport excluded) and III

Land use in all cases shall not interfere with the agricultural production systems of neighbours, so as to allow coexistence of different production systems.

3.2.2 Levels I, II (transport excluded) and III

CORE - Land rights disputes shall be resolved before certified status can be awarded.

3.3 Supporting local economy

3.3.1 Certified organisations shall demonstrate support for local community development projects.

Guidance: This indicator is not applicable to smallholder/family farmers.

3.3.2 Certified organisations shall contribute to the local economy by Levels I, II and III preferentially offering local businesses the opportunity to supply goods and services that meet the organisation's specifications.

3.3.3 Job opportunities shall be made available first to qualified members of the local community.

PRINCIPLE 4 – Environmental services, effective environmental management plan

4.1 Land conversion

4.1.1
Levels I, II (transport excluded) and III

CORE - For certification under this Standard, areas of native vegetation and other high conservation value areas cannot have been cleared or converted into agricultural areas, or used for industrial or other commercial purposes, after 2004, in particular the following:

- a) Primary Forests (for instance, rainforests)
- b) Riparian Vegetation
- c) Wetlands
- d) Swamps
- e) Floodplains
- f) Steep slopes
- g) Other high conservation value areas as defined by the HCVA Network.

Guidance: An example of a prohibited industrial use of resources would be cutting timber for commercial use or use as fuel for drying grain.

This indicator states the requirement regarding land conversion of native vegetation and HCVAs. The cut-off date can be adjusted for specific regions, and can be modified to include compensatory measures for certain limited periods. However, the fundamental principle of the ProTerra Standard is that conversion of native vegetation and HCVAs is not allowed.

4.1.2
Levels I, II (transport excluded) and III

Certified organisations shall adhere to governmental regulations and international conventions that pose additional limits on conversion of native vegetation to agricultural or other commercial purposes.

Guidance: In the case of smallholders, this responsibility lays with farmer groups, co-operatives or first processors.

4.1.3 Levels I, II (transport excluded) and III **CORE** - In certain limited circumstances in specific regions, measures to compensate for HCVAs that have already been cleared between 1994 and 2004 must be used to augment indicator 4.1.1.

Guidance: Regarding this indicator, certified organisations that run large agricultural operations, on land converted between 1994 and 2004, mainly industrial agriculture, must have an Environmental and Social Impact Assessment (ESIA), and a corresponding Management Plan used to set out a program of compensatory measures that are relevant to their operation and to the local ecosystem and community.

Decisions regarding the need to implement a program of compensatory measures in a given region shall be made by the Certification Body. The CB shall inform the ProTerra Certification Committee about their interpretation and decision. If necessary, the ProTerra Certification Committee will make a final decision on the matter, before implementation.

The key outcome shall be that the compensation measures shall, over time, restore the ability of the ecosystem to continue to deliver essential environmental services.

Two aspects of the compensatory measures must be considered:

i. The type and place of restoration – areas as described in indicator 4.1.1 above should be re-vegetated with native species appropriate to the zone in question, preferably to reproduce as much as possible what was originally destroyed.

ii. The percentage of the originally cleared area that must be restored – this will depend on local, regional, national, and/or international laws and/or conventions as applicable to the biome in question.

For example certified organisations will protect areas that are:

- (a) designated by law or by the relevant competent authority for nature protection purposes; or
- (b) designated for the protection of rare, threatened or endangered ecosystems or species recognized by international agreements or included in lists drawn up by intergovernmental organisations or the International Union for the Conservation of Nature.

In regional interpretations of the standard, compensation criteria and indicators can be stated as necessary. When it is ascertained that compensatory measures are necessary, that requirement becomes a CORE requirement that must be complied with.

Example of a region-specific requirement – Brazil: an evidence of compensatory measures being implemented for situations described in this indicator will be the existence of an Environmental Rural Registration (CAR) for an agricultural operation.

4.2 Maintenance and maximization of biodiversity

4.2.1
Levels I, II (transport excluded) and III

Certified organisations shall maintain or restore areas of natural vegetation around bodies of water and on steep slopes and hills, and other sensitive parts of the ecosystem.

Guidance: The width or area of vegetation shall be sufficient to maintain and foster the continued survival of the natural biodiversity of the area and to avoid erosion.

4.2.2 Level I

Certified organisations shall gather wild species or products from their natural habitat only when permitted by law and shall do so only in a manner that assures those species will continue to flourish in their natural habitat along with other species that normally depend on the gathered species.

4.2.3 Levels I and III The introduction of invasive species and new pests shall be avoided, and past introductions must be controlled and monitored, and any invasive expansion of these shall be reported to the authorities.

4.3 Social and environmental impact assessment and management plan

4.3.1 Levels I, II and III Certified organisations shall perform a comprehensive Environmental and Social Impact Assessment (ESIA) for new large or high risk greenfield expansion or projects and infrastructure to identify potentially harmful or damaging impacts and to define a Management Plan to address these where necessary. This plan also shall include actions to maintain and maximize biodiversity within and surrounding the operation, which will be updated yearly.

Guidance: This indicator is not applicable to agricultural operations of smallholders.

The cut-off date for the need of an ESIA for greenfield expansion, new agricultural areas and new projects will be considered as 2004, respecting the cut-off date for land conversion set on 4.1. The ESIA must be commensurate to the scale of the operation and infrastructure. It must take into account the sustainability of the environment, wildlife and endangered species, and the social impact on the local population including, where relevant, indigenous people. If the organisation does not have expertise in house to effectively conduct the ESIA, guidance from government, academic or other recognized experts shall be accessed. Where these exist, national regulations must be complied with.

4.3.2 Levels I, II and III Certified organisations shall carry out the Management Plan specified in 4.3.1 and will review and revise it annually prior to the ProTerra audit, including consideration of new projects, assessing progress, revising and setting new objectives, as appropriate.

Guidance: ProTerra will audit annually the progress and implementation of the ESIA Management Plan. This plan is expected to become more concrete and comprehensive over time.

PRINCIPLE 5 – Genetically Modified Organisms (GMO) not used

The applicability of this Principle is determined by assessing risk of GMO presence, contamination or use. Auditor should refer to Appendix A for risk assessment. If risk is non-existent this principle is non-applicable.

5.1 GMOs excluded

5.1.1 CORE - Genetically modified organisms (GMO) and their by-products must not be used in the production of ProTerra certified products.

Guidance: This indicator applies to seed and other agricultural inputs, as well as ingredients, processing aids, additives, and other inputs used in processing agricultural products and used in manufacturing food, feed, fibre, derived products, and fuel products.

Not applicable if there are no genetically modified varieties existing or approved in the country where this Standard is being applied.

Where there is GMO risk ProTerra determines that certified organisation meets one of the following: (a) organisation is certified to Non-GM production by a standard such as the Cert ID Non-GMO Standard or equivalent to the same, like for example the American Non-GMO Project Standard (US), the German VLOG "ohne Gentechnik" Standard, the Guidelines on the definition of GMO-free production of Food and its labelling according to the Austrian Codex Alimentarius, respecting their scope of applicability, or b) operates an effective control system that deliver equivalent results.

5.1.2 Levels I, II and III

CORE - All certified organisations shall avoid the unintentional contamination of certified products by GMO's from external sources and shall demonstrate that the Non-GMO control system is set to assure that products have less than 0.1% of adventitious or unintended GMO contamination.

Guidance: Lots of product that meet this specification for unintended adventitious contamination may carry the claim, "ProTerra Certified Non-GMO," and can also state "less than 0.1% GMO," if the certified organisation wishes.

In cases where a given lot of product exceeds the 0.1% threshold but contains less than 0.9% GMO, that lot can still be accepted under the ProTerra Certification Program, but shall not be allowed to make the "ProTerra Certified Non-GMO" claim. Instead, such lots can be sold with the claim "ProTerra Certified less than X% GMO," where X% indicates the measured GMO content of the lot based on quantitative GMO testing.

5.1.3 Levels I, II and III **CORE** - Certified organisations may use certain substances, which are produced by GMOs or which are of non-defined genetic origin, if:

- The substances are not available on a continuous basis in Non-GMO quality as defined in this standard (based on origin, production process, quantity and analysis);
- The substances cannot be replaced with alternative products or methods;
- The substances are necessary for animal health and protection reasons;
- The substances are necessary for the production of food products; or
- The substances' use in food or animal feed is required by law or by regulation in the country or region where they are produced and/ or consumed.

Guidance: Such exemptions shall be limited to a minimum and a time limit shall be imposed, if necessary. Substances that are exempted according to this guideline include food additives, processing aids, flavours, amino acids, other micronutrients, vitamins, animal feed additives. Exemptions are only possible, according to the Recommendations of the Expert Group to the Austrian "platform gmofree" or to the recommendations of the EU Commission based on the labelling of organic food.

5.2 System of Identity Preservation and segregation

5.2.1 Levels I, II and III

Certified organisations shall have in place an adequate system of segregation for GMO materials, achieved by one of the following methods:

- Use of dedicated sites, facilities, equipment, conveyances, handling equipment and/or related infrastructure.
- By inspecting and/or cleaning and/or flushing facilities, equipment and conveyances between use in contact with genetically modified material and Non-GMO material.
- A combination of the above methods.

5.2.2 Levels I, II and III

Certified organisations shall have at least the following procedures and records to provide evidences that segregation is maintained:

- Sampling plan for immunologically based screening using strip tests;
- Sampling plan for PCR analyses;
- Strip test procedure;
- Strip test records;
- PCR analysis reports;
- Records of flushing or cleaning for product change in nondedicated sites;
- Inspection checklist of trucks and other conveyances.

Guidance: Applicability of the above evidences should be proportionate to the type and size of the operation. For example, at farm level in general, one may need only a sampling plan, strip test procedures and records. At country elevators and industrial plants, in addition one will need PCR sampling and testing protocol and results linked to production periods and lots. Auditor will decide what the level of compliance is.

PRINCIPLE 6 – Pollution and waste managed effectively

6.1 Reduction and appropriate disposal of non-biological wastes

6.1.1 Levels I, II and III

CORE - Certified organisations shall minimize the use of waste materials and pollutants and shall handle, store and dispose of these materials properly. Management of these wastes shall at least comply with national laws relevant to the location of the certified operation, as stated in Principle 1 of this standard.

Guidance: These waste materials include but are not limited to pesticides, fertilizers, processing aids, cleaning products, detergents, and oil derivatives.

6.1.2 Levels I, II and III

Non-biological wastes shall be segregated and, where appropriate, recycled. If recycling is not possible, a legal means of disposal or a legal alternative use shall be employed.

6.2 Appropriate disposal of biological wastes

6.2.1 Levels I, II and III

CORE - Certified organisations shall manage biological wastes (e.g., manure, straw, harvest plant residues, and processing by-products thereof) appropriately to avoid pollution and/or to prevent these from becoming a source of pathogenic contamination or pest harbourage. Management of these wastes shall at least comply with national laws relevant to the location of the certified operation, as stated in Principle 1 of this standard.

6.2.2 Levels I, II and III

Biological wastes shall not be incinerated, except when required for phytosanitary purposes, or in some cases when burned for energy or heating, or used for biogas/oil production.

Guidance: Burning or generation of biofuels for energy production, when legal, shall be practiced only in cases where sufficient biomass can also be recycled to the fields by composting or other methods for effectively building healthy soil.

6.2.3 Levels I, II and III

In cases where biological wastes are returned to the agricultural fields as either mulch or compost to build soil organic matter, or as fertilizer, these materials must be treated, where applicable, to assure the absence of chemical or biological contaminants.

6.2.4 Levels I, II and III

Certified organisations shall discharge sewage water/effluents in a manner that does not cause pollution to water supplies for human beings or animals, and does not contaminate the soil or crops with chemicals, heavy metals, by-products, excess nutrients or pathogens. Raw sewage shall not be used to irrigate crops.

Guidance: If sewage is to be used or otherwise incorporated back into any production system, it must be treated and filtered, to assure that water that is released back into the environment is safe. Effluent water must be verified by test to comply with requirement 6.2.3, and at least meets legal requirements regarding presence of contaminants.

Use of raw manure as fertilizer is suboptimal; composting is recommended before application to fields. However, if used, application should be compliant with the law and should not contaminate the soil or crops with chemicals, medicines (such as antibiotics), heavy metals, by-products, excess nutrients or pathogens.

6.2.5 Level III

Certified organisations shall monitor physical, chemical and biological characteristics of water discharged into the environment to ensure safety and legal compliance.

Guidance: COD or BOD and also N and P concentrations must not exceed local environmental regulations.

6.3 Control of water contamination

6.3.1 CORE - Water, soil, pests, fertilization and irrigation shall be managed such that surface and groundwater and other water supplies are not further contaminated.

Guidance: Testing shall be done to assure that contamination does not occur.

Groundwater is already contaminated with fertilizer and pesticide residues in many countries where industrial agriculture is predominant. The certified organisation is expected to manage their operation in a manner that does not further exacerbate the situation.

6.4 Control of atmospheric pollution

Levels II and III

6.4.1

CORE - Certified organisations shall implement systems and procedures to ensure that concentrations of contaminants emitted through smoke pipes, chimneys, boilers, ovens, incinerators, and electricity generators do not exceed established limits set by local, national or regional law, or by individual authorizations delivered by competent national, regional or local authorities.

Guidance: Certified organisations shall document the performance of these control systems.

PRINCIPLE 7 – Water managed conservatively

7.1 Conservation of natural water resources

7.1.1
Levels I, II (except transport) and III

CORE - Certified organisations shall conserve quantity and quality of existing natural water resources, such as lakes, rivers, artificial lakes, dams, water tables and aquifers around their facilities.

7.1.2 Levels I and III Certified organisations shall not undertake new initiatives that reduce the availability of water for neighbouring communities and farms for drinking and irrigation, or for "traditional" uses.

Guidance: "Traditional" uses of water by certified organisations must likewise be shown to still be viable and sustainable. Practices that once were considered sustainable may no longer be due to increased population pressure or other recent ecosystem or climatic changes.

7.1.3 Levels I and III In cases where activities that predate the certification application damage water resources, certified organisations shall undertake improvements in practices according to an agreed time frame that will rectify such interference.

7.2 Best practices for water management

- **7.2.1** Certified organisations shall implement best practices for water Level I management on the farm and for irrigation.
- **7.2.2** Certified organisations shall implement recycling systems and Levels I and III strategies to promote aquifer and water table recharge according to an agreed timeline.
 - **7.2.3** Irrigation shall be managed so as to avoid contamination, salinization Level I and desertification of the soil.

PRINCIPLE 8 – Greenhouse gases and energy managed effectively

8.1 Management of greenhouse gas emissions

8.1.1 Levels I and III

CORE - Certified organisations shall monitor and reduce greenhouse gas emissions such as carbon dioxide, methane, nitrogen and sulphur oxides, etc., and observe restrictions and limits in order to minimize climate change impacts.

Guidance: This is achieved through effective management of energy, soil, fertilizers, native biodiversity and other practices.

This indicator is not applicable to smallholders/family farms.

8.1.2 Levels I, II (except transport) and III

If products are used that are classified as destructive to the ozone layer, a schedule for their elimination and replacement, as described by the Montreal Protocol, shall be followed, or if more stringent national laws exist, those should be followed.

Guidance: Examples of such products are Chlorofluorocarbons (CFCs), halons, Hydrochlorofluorocarbons (HCFCs) and Hydrobromofluorocarbons (HBFCs).

This indicator is not applicable to smallholders/family farms.

8.2 Management of energy use

8.2.1 Levels I, II and III

Over time, certified organisations shall adopt practices to minimize the use of energy, especially energy from non-renewable sources and to derive an increasing proportion of their energy from renewable sources such as solar and wind, or from local, recycled materials.

Guidance: Examples of applicable materials are reforestation wood, bio-fuels, wood chips, and crop residues or food processing waste, such as sugarcane fibre.

Plans should identify timelines, methods, and proposed budgeting of time and company resources needed. Progress shall be documented or otherwise demonstrable.

In the case of smallholders, the responsibility lays with farmer groups, co-operatives or first processors.

PRINCIPLE 9 – Good agricultural practices adopted

9.1 Systems of best practices

9.1.1 CORE - Growers shall adopt agricultural best practices and, where Level I possible, adopt conservation systems such as Integrated Pest Management (IPM) and organic agricultural practices.

Guidance: Best practices include methods that build soil, protect water, reduce chemical usage, and foster biodiversity.

9.2 Control of burning

9.2.1 Certified organisations shall not clear areas for cultivation by burning vegetation, unless this practice is allowed by local and national law, and then only if this method is prescribed by experts as the optimal ecological option.

Guidance: Such recommendations shall be documented.

9.2.2 If experts recommend fire as the most appropriate option for clearing Level I an area, then trained people shall apply the technical procedure and employ all required safety and environmental measures.

Guidance: Terms for qualifications of trained people shall be described by the certified operation.

9.2.3 Although burning may be recommended for a specific current application, certified organisations shall develop alternative methods for use in future years.

Guidance: The development of alternative practices should commence within the year that burning is employed, and should be completed on a timeline, defined in consultation with the certification body.

9.3 Soil and crop management

9.3.1 Certified organisations shall define a soil and crop management regime that monitors soil quality, builds soil, enhances fertility and manages pests and diseases.

Guidance: Examples of useful practices include use of cover crops, management of vegetation, management of crop succession and rotation.

9.3.2 Certified organisations shall evaluate suitability of the soil for Level I production of specific crops and to define a soil management regime.

Guidance: Expert advice on soil science can be accessed outside the organisation if not available on site and soil analysis can be a useful tool for this evaluation.

9.3.3 Best practices are followed in fertilizer use, based on expert opinion or at least the manufacture's recommendations. Whenever possible producers should reduce the use of chemical fertilizer to the optimal minimum level.

9.3.4 Certified organisations shall minimize soil erosion and damage to soil Level 1 structure caused by wind, water, human activity and presence of farm animals.

Guidance: Production practices should maintain vegetative cover for as long as possible throughout the year.

9.4 Documentation of agricultural production

9.4.1 All records referred to in the following indicators should be kept for 5 years or longer if required by local regulations.

Guidance: If this indicator is first being met during the initial year that ProTerra certification is achieved, and local regulations do not prescribe, the certification body will waive the retroactive aspect of it for the initial years of certification.

This indicator is not applicable to smallholders/family farms.

9.4.2 Certified organisations shall maintain all seed records.

Level I

Guidance: Records include:

- a) Invoices of purchase of seeds If the seed invoice does not include the following: supplier's name, date of purchase, variety and/or brand name, quantity and lot number, then this information shall be recorded independent of the invoice;
- b) Seed certificates and seed bag labels;
- c) Records of seeds produced by the farm;
- d) Each season's records identifying the seeds and their source used for planting each crop.
- 9.4.3 Certified organisations shall maintain records of all agricultural $\mbox{\sc Level}\,\mbox{\sc I}$ production.

Guidance: Records typically are harvest records, including:

- a) crop succession and rotation for each field;
- b) crop weight;
- c) yield;
- d) identification of the field from which the crop was harvested;
- e) seed lots and variety used;
- f) harvest date;
- g) pest and diseases;
- h) other soil and crops information and management practices.

9.4.4 Certified organisations shall maintain records of all fertilizer, pesticides, other agrochemicals and other inputs purchased, used, and disposed of, including biocontrol agents. Records of pests, diseases, weather conditions during spraying, and weeds shall also be recorded.

Guidance: Records typically include:

- a) Fertilizer and pesticide applications;
- b) Purchase Invoices of all inputs used in agricultural production;
- c) Application procedures;
- d) Dilution dosages and amounts used;
- e) Crops and field locations to which they were applied;
- f) Dates of application;
- g) Relevant guarantine times before the crop was harvested;
- h) Weather conditions during application.

9.5 Management of propagation material

9.5.1 Seeds, seedlings, and propagation materials shall be selected for Level I quality and performance for the locale.

Guidance: Evidence for this indicator may consist of seed germination and vigour test reports. Such evidence may come from suppliers or technical assistance organisations and extension services. The certification body may waive this indicator in cases where producers save their own seed or propagate from their own existing stocks, especially in the case of smallholders.

9.5.2 When seeds are saved and/or obtained by breeding locally, the Level 1 certified organisation must conduct practices to assure seed quality and performance.

Guidance: Evidence of this indicator may be yield records from the past crop from those seeds and/or germination/vigour test records.

9.5.3 Certified organisations shall retain archive seed samples for a minimum Level I of 1 year.

Guidance: The certified organisation must begin archiving seed during the first year of certification. In cases, where due to conservation conditions seeds deteriorate, as in smallholder operations, this indicator shall be non-applicable.

9.6 Reduction of toxic and polluting materials

9.6.1 Level I

CORE - Growers shall avoid or reduce the use of toxic or polluting materials whenever possible, and shall select agrochemical inputs having the least possible toxicity and environmental impact for the required application.

Guidance: Operations that use agrochemicals for pests, diseases, and non-crop plants shall employ Integrated Pest Management (IPM) and other strategies, like use of ecologically sound biological controls for the target pests or disease where applicable, to minimize agrochemical use.

9.6.2 Levels I, II and III **CORE** - Pesticides listed in the WHO classes Ia, Ib and II lists, Rotterdam Convention, Stockholm Convention, and PAN international list of highly hazardous pesticides, as well as pesticides forbidden by local, national, and regional law, may not be used. Hazardous substances listed in the Rotterdam Convention also are not to be used in agricultural or industrial operations.

Guidance: Lists of all chemicals referenced in this indicator may be found on the websites listed in Appendix C of this Standard.

9.6.3 Levels I, II and III In cases where chemicals included on the lists cited in 9.6.2 can be used legally in the country where agricultural production is conducted, certified organisations shall implement a program of progressive reduction over time. In such cases, products exported to countries where said pesticides are not allowed by law shall be tested before export to assure that residue levels are negligible or are, at least, compliant with residue limits set in the country of import.

9.6.4 Level I

Certified organisations shall use non-chemical weed control methods whenever possible, such as mechanical methods and management of crop rotations, crop succession and intercropping.

Guidance: Operations that use agrochemicals should make stepwise changes in their systems to significantly minimize or eliminate the need for herbicides. There should be a monitoring of substances and quantities applied and the number of application per field.

In the case of smallholders, this responsibility lays with farmer groups, co-operatives or first processor.

9.6.5 Level I

Certified organisations shall only use pesticides on crops and for target species for which they are legally allowed, at the prescribed dosage, during the required timeframe and/or crop conditions, as defined in local laws and regulations and by manufacturers' recommendations or by documented best practices.

Guidance: This will include a program of pesticide rotation designed to minimize development of pest resistance.

9.7	Management of agrochemicals and chemical residues		
	9.7.1 Level I	CORE - Agrochemicals shall be applied using methods that minimize harm to human health, wildlife, plant biodiversity, and water and air quality.	
	9.7.2 Level I	Certified organisations shall not engage in pesticide spraying over bodies of water, or over preserved, protected or residential areas, in compliance with regional, national, and local regulations.	
		Guidance: Pesticides shall not be sprayed within 100 meters of human populated areas, and shall not be sprayed within 50 meters of bodies of water.	
	9.7.3 Level I	In crop areas adjacent to roads or residential areas where access by people is possible, recently sprayed areas shall be marked appropriately to warn people not to enter into such areas.	
	9.7.4 Level I	Aerial spraying shall be conducted only under weather conditions that minimize drift to adjacent areas, and must be in compliance with local, national and regional laws.	
	9.7.5 Level I	Residents within 1 km shall be informed at least one day in advance before aerial spraying is done.	
	9.7.6 Level I	CORE - Aerial spraying shall not be carried out with pesticides listed in the WHO Classes Ia, Ib and II lists, Rotterdam Convention, Stockholm Convention, and PAN international list of highly hazardous pesticides.	
	9.7.7 Level I	Certified organisations shall adhere to quarantine periods, avoiding harvest until applied pesticide hazard for consumers is reduced to acceptable levels.	
	9.7.8 Level I	Pesticides shall be handled, stored, transported, and disposed of according to manufacturers' instructions, legal requirements, or according to procedures documented to be superior.	
		Cuidance Posticides shall be stored and transported in avising	

Guidance: Pesticides shall be stored and transported in original containers or in other appropriate containers clearly labelled to identify contents.

Growers shall follow manufacturer's recommendations and legal requirements for disposing of agrochemical wastes and empty pesticide containers, and for cleaning all application equipment.

Growers shall triple rinse empty pesticide containers with water, then perforate to prevent reuse, and when possible return containers to the supplier, or to facilities designed to handle such wastes.

9.7.9 Organisations shall test agricultural produce on receipt for chemical residues (e.g., pesticides) and harmful contaminants (e.g., mycotoxins), and maintain testing records.

Guidance: Tests should be designed so that they are as relevant as possible to the specific risks involved. Frequency of tests shall be determined on the basis of a risk analysis conducted by the operation and evaluated by the certification body.

PRINCIPLE 10 – Traceable and segregated Chain of Custody

Fulfilment of the indicators outlined in 10.1.1 through 10.3.9 qualify an economic operator to make a sustainability claim on final products offered to consumers and on any intermediate product as well. They apply to all links of the supply chain.

10.1 Chain of Custody System

10.1.1 All records referred to in the following indicators should be kept for 5 years or longer if required by local regulations and records shall be systematically managed and readily available for access.

Guidance: The certification body will waive the retroactive aspect of this indicator for the first years of certification, in case local regulations do not provide for this.

10.1.2 The certified organisation shall have sufficient documentation and records to demonstrate traceability.

Guidance: Examples of records for agricultural production: see 9.4.3. Examples of records for warehouse operations:

- Reception records: crop type, weight, date, driver name, number of vehicle license plates, farm name, as well as analytical results.
- Storage records: volume, number of silo or warehouse.
- Shipment records.

Examples of production records for processing plants:

- Reception records: crop type, weight, date, driver name, number of vehicle license plates, farm or warehouse of origin, as well as analytical results.
- Processing records: date of process, production line or facilities used, volume and identification of raw material, volume of product made, product lot number, as well as analytical results.
- Shipment records.

For chain of custody operators (trader, dealer, distributor, co-packer and handler of certified sustainable material): ProTerra Chain of Custody Certificate (CCC).

- 10.1.3 The certified organisation shall assign lot numbers to each received or shipped raw material or product consignments, as well as processing lots and final product lots, where applicable, linked to the traceability information pertaining to the same.
- 10.1.4 Certified organisations shall maintain chain of custody traceability during transfer of ownership of a consignment of ProTerra certified product by means of a Chain of Custody Certificate (CCC) specific for that transaction. The information contained in the CCC shall include the following: volume of the consignment changing ownership, lot numbers and volumes of each lot of material contained in the consignment, identification of seller and buyer, date of the transaction. The CCC shall be retained by both economic operators.
- 10.1.5 Certified organisation shall maintain and update inventory control documentation, including mass balance documentation verifying that volumes of ProTerra certified materials received are equal to volumes disbursed.
- 10.1.6 For sealed products that are packaged and labelled for the end user, for example, retail packages, use of CCCs is not required. However, the certified organisation shall maintain records that allow them to trace back from the lot number on the package to the lots of ProTerra certified ingredients contained in the product.

10.2 Mass balance chain of custody

Observation: Mass balance is applicable, for example, in situations where agricultural crops used in production do not have GM commercial varieties or risk of GM contamination. Other examples are situations where products do not claim organic status or controlled origin denomination.

10.2.1 A running total mass balance shall be maintained for inputs and outputs correlating the amounts of certified inputs with amounts of certified outputs.

Guidance: For certified industrial operations mass balance will be maintained for certified raw materials and proportional certified products, out of total raw material and total products which will include both certified and non-certified raw materials and products.

For certified chain of custody operations mass balance will be maintained for certified product received quantity to an equal quantity of certified product shipped, out of a total handled product quantity that will include both certified and non-certified product.

10.3 Segregated chain of custody

10.3.1 The economic operator shall have, and shall consistently employ, standard operating procedures for maintaining full segregation for each lot of ProTerra certified product from non-ProTerra materials from the point of receipt to the point of transfer to the next economic operator in the supply chain.

As required in 5.2.2, procedures and records may include, depending on the operation level:

- Sampling plan for immunologically based screening using strip tests;
- Sampling plan for PCR analyses;
- Strip test procedure;
- Strip test records;
- PCR analysis reports;
- Procedures of flushing or cleaning for product change in nondedicated sites;
- 10.3.2 Precautions, including physical labelling of facilities and conveyances, must be in place to prevent co-mingling of ProTerra certified material and other material during transport and during loading and unloading of conveyances.
- 10.3.3 Conveyances used to transport ProTerra certified material shall be inspected before loading to verify freedom from residues of materials that are not ProTerra compliant, and if residues are observed, the conveyance shall be cleaned before loading ProTerra certified materials.
- **10.3.4** Inspection and cleaning of conveyances shall be documented.
- 10.3.5 When ProTerra compliant material is transported as a part-load together with other material, systems and procedures must be in place to prevent mixing during loading, transport and unloading and to prevent errors in selection of the correct ProTerra certified product on delivery to the customer. Certified materials must be clearly identified and physically segregated to effectively prevent cross-contamination by non-compliant material.
- 10.3.6 In the case of ProTerra certified materials that have GMO risk, certified organisation shall comply with Principle 5 and the CCC shall also include information verifying that the specific lot of material referenced in the CCC complies with the relevant threshold for GMO content 0.1% or up to 0.9% depending on the claim made (see 5.1.2 guidance).
- 10.3.7 A ProTerra chain of custody certified organisation will be able to merge or split received consignments of ProTerra certified products. To each new merged or split consignment a unique identification number must be assigned.

Guidance: It should be noted that consignments of products certified under ProTerra Standard received by chain of custody certified organisations may consist of one production lot, or parts of one or more production lots.

- **10.3.8** The use of certified rework in the production of ProTerra certified products must be recorded in the product inventory. Mixing of certified materials with non-certified material is forbidden.
- **10.3.9** Customer service, inventory management, and order fulfilment procedures must be in operation, verifying that the correct ProTerra certified product consignments have been shipped to customers ordering ProTerra certified products.

SECTION III – Definition of Terms

Abuse – mistreat: treat badly; maltreatment: cruel or inhumane treatment either verbal or physical in nature.

Agrochemical – all synthetic or non-agricultural inputs used directly or indirectly in agricultural production, and for the maintenance of equipment and storage, including:

- Detergents
- Pesticide control agents (including fungicides, herbicides, insecticides)
- Fertilizers
- Mineral oil-based products
- Production aids such as cleaning agents

Chain of Custody – the chain of economic operators through whose facilities a given lot of product has passed. A documented chain of custody, such as that required in the ProTerra Certification program, documents, at minimum, the identities of all economic operators in the chain, the unique identifiers for each lot of product passing from one economic operator to the next, and the volume of that product, as well as other important information regarding that lot of product, such as its GMO status. Chain of Custody Certificates (CCC) are the primary means of record keeping within the ProTerra documented chain of custody system.

Consignment – volume of a shipment of product changing custody or ownership in the supply chain, composed of one or more production lots, or split from a given lot. A consignment can be comprised of merged consignments and can be split into various consignments. Each consignment is assigned a unique identification number for traceability purposes and inventory control.

Core Indicator – this indicator is essential and must be met by applicants to be granted the ProTerra Standard certification. The Core Indicator shall be complied with from the beginning and maintained throughout the entire certification period.

CFCs – a fluorocarbon with chlorine; formerly used as a refrigerant and as a propellant in aerosol cans; the chlorine in CFCs causes depletion of atmospheric ozone.

Core Supplier/Service provider – a supplier of an input to the production process that is added to the product stream as part of the formulation of the final product to be certified under the ProTerra program. For instance, the supplier of soybeans is a core supplier to a soy crushing plant. Core service provider is a provider of essential services to the production system, such as outsourcing of labour.

Dedicated – used only for the storage, handling, transport, distribution, production or processing of certified non-GMO product.

Economic Operator – organisation or individual with legal ownership or physical control of agricultural commodities, derived products, and products made with them, from agricultural

production to consumer market, for any node or level in the supply chain. In the context of this Standard a Certified organisation means the same as a Certified Economic Operator.

GM (Genetically Modified or Genetic Modification) – products or processes employing gene splicing, gene modification, recombinant DNA technology, or transgenic technology. Also refers to products produced using one or more GM inputs or process elements. Cloned animals and their progeny are also considered GMOs under this Standard.

GMO-Risk Product – refers to any product derived from a food species of which GM varieties have been commercialized anywhere in the global food production system. Appendix B to this Standard is a list of crops and products that have high GMO risk.

GMO or Genetically Modified Organism – a plant, animal, or other organism whose genetic makeup has been modified using recombinant DNA (gene splicing) methods or food/feed products derived from such an organism. Refers to products derived from a species of which GM varieties have been commercialized somewhere in the global production system.

Greenfield expansion – a new project as well as expansion to an area where the crop has not been planted before, even if the operation is not a new plant.

Greenhouse Gases or Emissions – those gases, such as water vapor, carbon dioxide, tropospheric ozone, nitrous oxide, and methane, which are transparent to solar radiation but opaque to longwave radiation.

Grower – a person or organisation that develops activities required for the cultivation of crop plants and/or management of animals.

Halons – a compound in which the hydrogen atoms of a hydrocarbon have been replaced by bromine and other halogen atoms. Examples of halons are: Hydrobromofluorocarbon (HBFCs) and hydrochlorofluorocarbon (HCFCs).

Identity Preservation/Identity Preserved (IP) – use of segregation and traceability procedures to maintain the identity of specific lots of agricultural or processed products throughout all stages of production, maintenance, transportation, storage and processing. IP is primarily used to preserve the authenticity of defined traits or characteristics of products, one of which is the Non-GMO status of the product.

Indentured Servant – a labourer under contract to work for an employer for a specific amount of time to pay off a debt. Typically the employers provide little if any monetary remuneration; however, they are responsible for accommodation, food, other essentials, and training.

Inputs – any material or substance that becomes a part of the final product, or a component of which becomes a part of the product. These include the following:

- Agricultural inputs, such as seeds, fertilizers, and pesticides
- Unprocessed agricultural products, such as vegetables, grains, fruit, greens, herbs, and other fresh foods etc.
- Feed components, such as grains, forage plants, vitamins, enzymes, minerals
- Manufacturing and processing inputs, including ingredients, flavourings, seasonings,

colourings, additives, and all other substances present in final, manufactured products, such as residues of processing aids.

Integrated Pest Management (IPM) – IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment.

International Treaties and Conventions – an agreement under international law entered into by actors in international law, namely states and international organisations. A treaty may also be known as: (international) agreement, protocol, covenant, convention, exchange of letters, exchange of notes, memorandum of understanding, etc. Regardless of the terminology, all of these international agreements under international law are equally treaties and the rules are the same.

Labour/Trade Unions – an organisation of individuals associated through type of employment, or labour. These organisations may be comprised of individual workers, professionals, past workers, or the unemployed. The most common, but by no means only, purpose of these organisations is "maintaining or improving the conditions of their employment."

Lot – volume of product originated in agriculture or industrial processing assigned a unique identification number linking that production volume to a given period.

Minimum or Basic Salary or Wage – the lowest wage, determined by law or contract, that an employer may pay an employee for a specified job.

Montreal Protocol – a treaty signed in 1987, which governs stratospheric ozone protection and research, and the production and use of ozone-depleting substances. It provides for the end of production of ozone-depleting substances such as CFCS.

Non-Core Supplier – a supplier of inputs or services that are not core to the production system, such as providers of telephone services, equipment or other repair services.

Non-GMO or Non-GM – A plant, animal, or other organism or derivative of such an organism whose genetic structure has not been altered by gene splicing, or a process or product that whose production does not employ GM processes or inputs.

Organisation of growers – a cooperative, association, group or other types of organisation collectively seeking a common objective through combined effort.

Outgrower supplier – external suppliers of the certified operation not included in the certification supply area. The volume of outgrower suppliers must not be counted under the certified volume. Outgrowers have to sign a Code of Conduct to ensure compliance with legal requirements.

PCR analyses – a biochemistry and molecular biology technique for isolating and exponentially amplifying a fragment or sequence of interest of DNA, via enzymatic replication, without using a living organism.

Pesticide – a collective term that refers to all insecticides, fungicides, and herbicides.

Product – that which the certified organisation offers to the marketplace, at whatever stage of the production chain (i.e., final consumer product, ingredient for further manufacturing, raw agricultural crop or commodity, etc., as applicable). "Product" refers to products that are involved in the ProTerra certification program.

Program, or the ProTerra Program – As used in this document, the term Program with a capitalized "P" signifies solely the ProTerra Certification Program.

Segregation – The system of facilities, equipment, and procedures through which an Economic Operator keeps ProTerra certified product physically separate from non-ProTerra certified material from the point of receipt to the point of transfer to the next Economic Operator in the chain of custody.

Smallholder/Family farm – a farm where the majority of labour is provided by family members. This is the same as a family farm or family agriculture.

Stakeholder – a party with an interest or concern in a given program, event, or system.

Standard – the "Standard" herein refers to the Standard for the ProTerra certification program, which is this document.

Strip test – immunologically-based screen-testing strip devices, which analyse the protein expressed by the DNA, and used as a rapid and on-site method for identification of GM seed or crops.

Supplier – any party from whom an input or service is obtained.

Traceability – the system of documentation that enables any economic Operator in the chain of custody to trace the product or raw material or a derivative thereof back through the chain of custody and ultimately to the farm.

Worker Welfare Laws – a program that may include any or all of the following types of worker benefits: retirement benefits, disability income, veteran's pension, public housing and food stamp program.

APPENDIX A: List of commercialized GM crops and their derivatives

Crops - The following crops carry risk of being genetically engineered, because engineered varieties of these crops are grown large scale in at least one country of the world.	Listed here roughly in order of decreasing prevalence in the marketplace.
Soy	
Corn	
Cotton	The seed is also used to make vegetable oil and animal feed.
Canola	
Rice	
Papaya	
Potato	
Alfalfa	Also includes alfalfa produced with GMO <i>Rhizobium</i> inoculants.
Zucchini	
Yellow Crook-neck Squash (summer squash)	
Tomato	
Sugar Beets	Planted after 2007 crop.
Animal Derivatives - These include products derived from cattle, sheep, pigs, chickens, and other common livestock, fowl, and fish, and include the following:	Most animal-derived products have GMO-risk because soy, corn, cottonseed, alfalfa, and canola are commonly used in feed, and because injections of recombinant bovine growth hormone are used to increase milk production.
	GMO veterinary inputs such as vaccines, sperm, and drugs are also commonly used in livestock production systems.
Milk	
Meat	Hides and skins would also be included in this category.
Eggs	
Honey and other bee products	

Dungangad / Dunganging lines to an al	The following is a pay substitute list of
Processed/Processing Inputs and Ingredients, and Related Derivatives:	The following is a non-exhaustive list of derivatives with high GMO risk, which are commonly used in food production. It is meant to provide examples of materials that will be considered high
	risk.
Ascorbic Acid	
Amino Acids	
Aspartame	
Bacterial Starters	
Caramel	Derived from glucose syrup.
Cellulose	Can be derived from GM cotton.
Chymosin	
Citric Acid	Derived from corn.
Cloned Sperm	
Corn Flour	
Corn Gluten	
Corn Grits	
Corn Oil	
Corn Starch	Includes both native and modified corn starch.
Corn Syrup	
Corn Syrup Solids	
Dextrose	Derived from corn.
Enzymes	
Ethanol	Derived from corn or GMO sugar beets.
Flavorings, "natural" and "artificial"	Also the carrier may be GM.
Fructose	Derived from corn.
Glucose	Derived from corn.
Glucose Syrup	Derived from corn.
Glycerides	Derived from corn.
Hydrolyzed Vegetable Protein	
Maltodextrins	Derived from corn.
Molasses	Derived from sugar beets, beginning
Moldsses	2008 crop.

rBGH, rBST, recombinant bovine growth hormone	
Sodium Ascorbate	Derived from corn.
Sodium Citrate	Derived from corn.
Soy Fiber	
Soy Flour	
Soy Grits	
Soy Lecithin	
Soy Milk	
Soy Oil	
Soy Protein Isolate/Concentrate	
Soy Sauce, Black Soybean Sauce	
Sucrose	Derived from sugar beets, beginning 2008 crop.
Textured Vegetable Protein	Including soy protein.
Tofu, Bean Curds, Soy Curds	
Xanthan Gum	
Vaccines	
Veterinary Medicines	
Vitamin A	
Vitamin B6 (pyridoxine)	
Vitamin B12 (cyanocobalamin)	
Vitamin C	
Vitamin E	Includes other/mixed tocopherols.
Yeast and Yeast Products	

APPENDIX B: List of relevant international treaties and conventions

PRINCIPLE	CONVENTION OR TREATY
Minimum age for admission to employment	ILO Convention No 138 (1973)
Prohibition and immediate action for the elimination of the worst forms of child labour	ILO Convention No 182 (1999)
No forced or compulsory labour	ILO Convention No 29 (1930)
Abolition of forced labour	ILO Convention No 105 (1957)
Freedom of association and protection of the right to organise	ILO Convention No 87 (1948)
Right to organise and to bargain collectively	ILO Convention No 98 (1949)
No discrimination in respect of employment and occupation	ILO Convention No 111 (1958)
Equal remuneration	ILO Convention No 100 (1951)
No discrimination of employment for migrants	ILO Convention No 97 (1949)
Social policy	ILO Convention No 117 (1962)
Indigenous and tribal people	ILO Convention No 169 (1969)
Rights of the indigenous people	UN Declaration on Rights of the Indigenous People (2007)
No racial discrimination	Convention on the Elimination of All Forms of Racial Discrimination (1969)
Economic, social, and cultural rights	International Covenant on Economic, Social and Cultural Rights (1976)
Cultural and natural heritage protection	World Heritage Convention Concerning the Protection of the World Cultural and National Heritage
Safety and health in agriculture	ILO Convention 184 (2001)

PRINCIPLE	CONVENTION OR TREATY
Control of dangerous chemicals and pesticides	Stockholm Convention on Persistent Organic Pollutants (2001)
Hazardous chemicals and pesticides	Rotterdam Convention on Prior and Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade (1998)
Proper handle, store and use of pesticides	FAO International Code of Conduct on the Distribution and Use of Pesticides (1985 revised 2002)
Preserve wetlands	Ramsar Convention on Wetlands of International Importance (1971)
Biological biodiversity	UN Convention on Biological Diversity (1992)
Conservation of biological diversity	The Cartagena Protocol on Biosafety (2003)
Wild fauna and flora	The Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973)
Sustainable soy production	Basel Criteria on Sustainable Soy Production (2004)

APPENDIX C: Pesticides listed in WHO classes 1a, 1b and II, Rotterdam Convention and Stockholm Convention, and Pan International List of Highly Hazardous Pesticides

Please refer to the websites listed below regarding pesticides and other hazardous chemicals that may not be used in the production of ProTerra certified materials.

WHO classes 1a, 1b and II

http://www.who.int/ipcs/publications/pesticides_hazard/en/index.html

Rotterdam Convention

http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx

Stockholm Convention

http://chm.pops.int/Convention/ThePOPs/The12InitialPOPs/tabid/296/Default.aspx http://chm.pops.int/Convention/ThePOPs/TheNewPOPs/tabid/2511/Default.aspx http://chm.pops.int/Convention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx

Pan International List of Highly Hazardous Pesticides

http://www.panna.org/issues/publication/pan-international-list-highly-hazardous-pesticides

NOTE - Observe that the names of all the materials listed in these websites are just generic chemical names. Brand names/commercial products are not provided. It is necessary that all certified operations compare all products labels with these lists. The Certification Body and their auditors shall verify if all labels properly list the names of all the components of commercial formulations of the agrochemical products.

Document Revision History			
Title	Date	Pages	Type of Document
CERT ID ProTerra Standard Version 1.0	April 17, 2006	1- 28	Normative document and code of practice for certification of responsible production of food and feed in agriculture, transport, storage and industrial processing - Initial release for public. CONTROLLED COPY.
Revision No.	Revision Date	Pages	Modification Information
CERT ID ProTerra Standard Version 2.0 (DRAFT)	January 11, 2008	1- 53	Full revision of the standard based on input from stakeholders since April 2006
CERT ID ProTerra Standard Version 2.0	April 24, 2008	1- 54	Revision of Version 2.0 (DRAFT) based on stakeholder feedback.
ProTerra Standard Version 2.2	September 1, 2010	1- 56	Revision of Version 2.0 in response to comments from the certification body, from inspectors, from industry members, from standards experts, and from non-profit organizations.
ProTerra Standard Version 2.9	July 22, 2011	1-61	Revision of Version 2.2 in response to comments from economic operators, certification body auditors, industry members, environmental consultants and non- profit organizations.
ProTerra Standard Version 2.9.5	December 27, 2011	1-61	Revision of Version 2.9 to correct minor errors in the text.

ProTerra Standard Version 3.0 (DRAFT)	July 15, 2014	1-54	Changes in the structure of Version 2.9.5 to make auditable only indicators and not criteria. Reduction of the number of principles from 18 to 10 by grouping of similar issues, integration of some indicators as well as exclusions of others such as: Principle 17 - Continuous improvement and Principle 18 - Correct labelling and logo use. These principles were converted into indicators of Principle 1. Exclusion of Appendix A - ProTerra Certification Procedures.
ProTerra Standard Version 3.0	December 28, 2014	1-45	Revision of Version 3.0 based on stakeholder feedback after 2 rounds of public consultation. Definition of exemptions for smallholder and family run farms; including the actual lists of hazardous pesticides.