Leading Harvest Farmland Management Standard 202<u>5</u>4

What the Leading Harvest Standard Does

The Leading Harvest Farmland Management Standard (Leading Harvest Standard*) identifies sustainable farming practices based on 13 Principles, 13 Objectives, 33 Performance Measures, and 732 Indicators. It addresses economic, environmental, social, and governance issues and includes measures to efficiently use water, agricultural chemicals, and energy to grow crops for useful agricultural products; minimize waste; and conserve soils, water resources, and biodiversity. It also takes into consideration the well-being of tenants/lessees of farmland, employees, contract management company employees, contract farm labour, and local communities. Conformance to the Leading Harvest Standard requires awareness and appropriate use of agricultural best management practices to advance sustainable agriculture.

What Is Addressed by the Leading Harvest Standard?

The Leading Harvest Standard applies to any organization that owns or has management authority for farmland (Standard User) and the farmland that it chooses to enroll. It does not apply to animal agriculture operations. Objectives 1 and 7 through 13 apply to the Standard User and the management system it uses to manage enrolled farmland, except for Indicators 7.2.3, 7.3.1, and 9.4.1. Objectives 2 through 6 and Indicators 7.2.3, 7.3.1, and 9.4.1 apply to all farmland enrolled under the Leading Harvest Standard. The activities of farmland tenants/lessees may contribute to the performance of the Standard User for Objectives 2 through 6 and Indicators 7.2.3, 7.3.1, and 9.4.1, but the Standard User is responsible for conformance to these Objectives, Performance Measures, and Indicators. Indicator 13.1.4 applies to all farmland tenants/lessees of leased farmland enrolled under the Leading Harvest Standard.

Geographic Application of the Leading Harvest Standard

This standard is applicable worldwide through licensing with Leading Harvest. The contained glossary is relevant for Canada.

Leased Farmland Under the Leading Harvest Standard

The Standard User can credibly conclude that tenant/lessee operations are in conformance with the Leading Harvest Standard where inspection of leased farmland and other supporting evidence can demonstrate that lessor operations are in conformance with Objectives 2 through 6 and Indicators 7.2.3, 7.3.1, and 9.4.1 of the Leading Harvest Standard. Inspections, annual interviews, and desk audits may be permissible for verifying whether farmland tenant operations are within the scope of the Leading Harvest Standard when used to the scope and scale of the lessor's operations. For farmland leased and operated by tenants/lessees, Objectives 1 and 8 through 13

^{*} All terms in italics are defined in the glossary

(except for Indicators 7.2.3, 7.3.1, and 9.4.1) apply to the *Standard User* and the management system it uses to manage *farmland*.

Impact of Scope, Scale, and Size Under the Leading Harvest Standard

The Leading Harvest Standard can be applied to farms and farmlands of any size. All Standard Users are held to the same Leading Harvest Standard, but the expectation of evidence of conformance may vary with the scope (i.e., type of crop, type of operation, geographical regions) and scale of the Standard User as well as the size of enrolled farmlands, because these parameters influence the risk of adverse impacts to society and the environment from agricultural operations. Standard Users managing large acreage areas may need a greater level of conformance evidence than those managing modest acreage areas in order to demonstrate risk management sufficient to meet the requirements of the Leading Harvest Standard.

References

This standard incorporates, by dated or undated reference, provisions from other publications. For dated and undated references, the latest edition of the publication applies.

Normative References

Leading Harvest Certification Body Administration

Leading Harvest Standards Management

Leading Harvest Standard Interpretations

Leading Harvest Group Certification Module

Relevant Leading Harvest glossaries

Core Conventions of the ILO[None for now]

Informative References

i. ISO 14001:2004 Environmental Management Systems Specification with guidance for use.

ISO 14001:2015 Environmental Management Systems — Specification with guidance for use.

ISO/IEC 17021-1:2015 Conformity assessment — Requirements for bodies providing audit and certification of management systems.

Leading Harvest Farmland Management Principles

Standard Users believe farmland owners and producers have a vital stewardship responsibility and commitment to society and future generations. They recognize the importance of maintaining viable commercial and family farmland and supporting an agricultural system that renews its ability to provide food and other agricultural products and sustains rural communities and natural resources. They seek to appropriately apply and improve agricultural best management practices on the farmland that they manage and promote such practices on other farmland to advance sustainable agriculture. Consistent with these responsibilities, the Leading Harvest Standard requires that Standard Users have a written policy (or policies) demonstrating their commitment to implement and achieve the following principles:

Principle 1. Sustainable Agriculture

To practice sustainable agriculture to meet the needs of the present without compromising the ability of future generations to meet their own needs. This means practicesing a farmland stewardship ethic that integrates profitable agricultural production with efficient use of inputs; the conservation of natural resources, including farmland; attention to climate change and land rights; and consideration for tenants/lessees, employees, contract workers, Indigenous Peoples, and local communities.

Principle 2. Soil Health and Conservation

To maintain or enhance long-term soil health and soil productivity and to protect soil from degradation.

Principle 3. Protection of Water Resources

To conserve and protect *groundwater* and *surface water* resources by managing impacts from water use and *runoff*.

Principle 4. Protection of Crops

To ensure long-term *crop productivity* by applying *biosecurity* principles and *appropriate* use of *crop protectants* while protecting the environment.

Principle 5. Energy Use, Air Quality, and Climate Change

To increase use of *energy-efficient agricultural practices* and equipment and to *minimize* atmospheric emissions. To be resilient and prepared for adverse climatic and weather events.

Principle 6. Waste and Material Management

To promote the efficient production of agricultural products and to minimize waste by seeking other uses of waste.

Principle 7. Conservation of Biodiversity

To manage *farmland* in a manner that maintains agricultural production while conserving biological diversity—including animal and plant species, *wildlife habitats*, and natural or ecological community types—and avoids *habitat* conversion.

Principle 8. Protection of Special Sites

To manage *farmland* that is geologically or culturally important in a manner that considers its unique qualities.

Principle 9. Local Communities

To contribute to the economy and well-being of rural communities through jobs, local purchases, other contributions, efforts to maintain community health and safety, and by respecting land and resource rights of local communities and *Indigenous Peoples*.

Principle 10. Employees and Farm Labour

To provide a safe and respectful working environment, fair compensation, and training for employees; *contract management company* employees; and farm labour necessary to improve the practice of sustainable agriculture.

Principle 11. Legal and Regulatory Compliance

To comply with applicable national and sub-national laws, statutes and regulations relating to agriculture.

Principle 12. Management Review and Continual Improvement

To continually improve the practice of agricultural management and to monitor, measure, and report performance in achieving the commitment to sustainable agriculture.

Principle 13. Leased Operations

To promote the application of *agricultural best management practices* on tenant-operated/leased *farmland*.

Leading Harvest Standard Objectives

The Leading Harvest Standard is broken down into 13 Objectives, which are summarized below.

Objective 1. Sustainable Agriculture Management

To practice sustainable agricultural stewardship to improve *crop* production and ensure long-term agricultural sustainability.

Objective 2. Soil Health and Conservation

To maintain or enhance *soil health* to optimize *crop* yield and protect long-term *soil productivity* on *agricultural lands*.

Objective 3. Water Resources

To protect water resources and manage water for efficient agricultural productivity.

Objective 4. Crop Protection

To achieve *crop protection* goals while protecting people and the environment.

Objective 5. Energy Use, Air Quality, and Climate Change

To conserve energy used by agriculture operations and *minimize* adverse impacts to the atmosphere and the global climate; and to be resilient and prepared for adverse climatic and weather events.

Objective 6. Waste and Material Management

To manage food waste, *agricultural chemicals*, and other materials from agricultural operations to *minimize* their adverse impacts on people and the environment.

Objective 7. Conservation of Biodiversity

To manage *farmland* in a manner that maintains agricultural production while conserving *biodiversity* where *appropriate* or legally required.

Objective 8. Protection of Special Sites

To manage *special sites* on *farmland* that are geologically or culturally important in a manner that recognizes and respects their unique qualities.

Objective 9. Local Communities

To operate safely and responsibly; contribute to the economic well-being, social networks, and health of local communities; and recognize and respect the rights of local communities and *Indigenous Peoples* in regions of agricultural operations.

Objective 10. Employees and Farm Labour

To provide a safe and healthy working environment, fair compensation and training for *Standard User* personnel, *contract management company* employees, and *contract farm labour* necessary to improve the practice of sustainable agriculture.

Objective 11. Legal and Regulatory Compliance

To comply with applicable national and *sub-national* laws, statutes, and regulations relating to agriculture.

Objective 12. Management Review and Continual Improvement

To promote continual improvement in the practice of sustainable agriculture by conducting management reviews and monitoring performance.

Objective 13. Tenant/Leased Operations

To promote the use of *agricultural best management practices* on leased *farmland* to broaden the practice of sustainable agriculture and to promote the efficient use of agricultural inputs and the management of environmental impacts.



Objective 1. Sustainable Agriculture Management

To practice sustainable agricultural stewardship to improve *crop* production and ensure long-term agricultural sustainability.

Performance Measure 1.1 Sustainable Agricultural Stewardship: *Standard Users* shall demonstrate their commitment to sustainable agricultural stewardship of *farmland*.

Indicator 1.1.1 *Farmland* Stewardship Commitment: A written commitment statement and list of goals that describes the sustainable agricultural stewardship of *farmland*.

Indicator 1.1.2 *Farmland* Stewardship: Demonstration of the management of major synergies and tradeoffs between the economic, social, and environmental dimensions of sustainable agricultural stewardship of *farmland* while ensuring long-term profitability and sustainability.

Indicator 1.1.3 Farmland Conservation: Demonstration that measures are in place and implemented to minimize conversion of prime farmland. Conservation of prime farmland to avoid its conversion to non agricultural uses when conversion would adversely impact regional agriculture.

Performance Measure 1.2 *Critical External Factors*: *Standard Users* shall manage for potential impacts of *critical external factors* to help ensure long-term profitability and sustainability of each farm or farm management unit by the *Standard User*.

Indicator 1.2.1 Adapting to *Critical External Factors*: A *process* for periodically identifying *critical external factors* and adapting to their impacts to ensure the long-term profitability and sustainability of agricultural production of a farm or farm management unit.

Objective 2. Soil Health and Conservation

To maintain or enhance *soil health* to optimize *crop* yield and protect long-term *soil productivity* on *agricultural lands*.

Performance Measure 2.1 Soil Health: *Standard Users* manage nutrients and apply practices to achieve *crop yield* and maintain or enhance *soil health* of *cropland*.

Indicator 2.1.1 Soil Quality: Application of *agricultural best management practices* (e.g., tillage systems, *cover cropping*, addition of *soil amendments*) to maintain or enhance *soil fertility* and physical and biological characteristics of soil.

Indicator 2.1.2 *Soil Health* Monitoring: Monitoring of *soil health* characteristics, including nutrients from different sources necessary to maintain or enhance *appropriate* nutrient balance and *soil health*.

Indicator 2.1.3 *Nutrient Management Program*: Demonstration of the implementation of Aan up-to-date *nutrient management program* that efficiently uses nutrient inputs and

Commented [SH1]: REASON FOR CHANGE CATEGORY: AUDITABILITY LANGUAGE

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH2R1]: No further changes after public consultation. The topic of "prime farmland" was discussed among standards committee with important insight from a LH auditor on LH definitions and audit-ability. Committee also discussed "minimize" vs a stakeholder-suggested term of "avoid" and collectively decided that "minimize" is more appropriate.

Committee concluded to leave the language alone.

Commented [SH3]: REASON FOR CHANGE CATEGORY: AUDITABILITY LANGUAGE

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH4R3]: No feedback received regarding this draft change, so no further actions taken after stakeholder consultation period.

nutrients in the soil and *crops* to create optimum conditions for *crop* production and nutrient utilization and avoids nutrient loss to water and air.

Indicator 2.1.4 *Crop Residues*: Application of *agricultural best management practices* to use *crop residues* to maintain or improve *soil health* and long-term *soil productivity* where *appropriate*.

Performance Measure 2.2 Soil *Conservation*: *Standard Users* shall implement *agricultural practices* to *minimize soil erosion* and avoid degradation of *agricultural lands*.

Indicator 2.2.1 *Cropland* Soil Management: Application of *agricultural best management practices* to *minimize soil erosion* and physical damage (e.g., compaction) of *cropland* and restore *soil health* where *appropriate*.

Indicator 2.2.2 Degradation of *Agricultural Lands*: A *process* to avoid the widespread loss of *agricultural lands* to *soil mismanagement* (e.g., failure to prevent extensive *soil erosion*, acidification, salinization, and accumulation of other adverse compounds).

Objective 3. Water Resources

To protect water resources and manage water for efficient agricultural productivity.

Performance Measure 3.1 Water Use: Standard Users shall conserve water resources and manage water use to avoid long-term depletion and maintain crop productivity.

Indicator 3.1.1 Agricultural *Water* Withdrawal: A *process* for avoiding the depletion of available *groundwater* resources beyond the recharge capacity of the watershed or catchment and by direct withdrawal where *groundwater depletion* is an issue as determined by a *groundwater regulatory agency*.

Indicator 3.1.2 Regional Water *Conservation*: Participation individually or collaboratively in regional water *conservation programs* where *appropriate* to help foster responsible use and conservation of *groundwater* and *surface water* used for agriculture.

Indicator 3.1.3 Water *Conservation*: A water management *program* that uses *appropriate* technology (including *crop*/irrigation system design) and applies *agricultural best management practices* to utilize water efficiently; to provide water tailored to *crop* needs; and to control *pests*, pathogens, salinization, and accumulation of other adverse compounds.

Performance Measure 3.2 *Water Quality: Standard Users* shall apply a *program* to properly manage the use of *fertilizers* and other *soil amendments*, *crop protectants*, and other inputs and avoid the release of sediment and nutrients from *agricultural lands* into *groundwater* and *surface water*.

Indicator 3.2.1 Input Application on Agricultural Lands: Application of agricultural best management practices when applying fertilizers and other soil amendments, crop

protectants, and other agricultural inputs to avoid and control the infiltration of nutrients, crop protectants, and pathogens into groundwater.

Indicator 3.2.2 Water Quality Protection: Application of agricultural best management practices to manage water runoff from cropland into surface water and protect wetlands, riparian areas, and water quality of groundwater and surface water.

Objective 4. Crop Protection

To achieve *crop protection objectives* while protecting people and the environment.

Performance Measure 4.1 *Integrated Pest Management: Standard Users* shall protect *crops* against *pests* by implementing an *Integrated Pest Management program* that uses *appropriate biosecurity* to achieve *crop protection objectives*.

Indicator 4.1.1 *Pest* Monitoring: Monitoring of *pests* to prevent excessive *crop* loss and economic injury to *crop* plants.

Indicator 4.1.2 *Crop Protection*: Implementing A Implementation of a process for preventing excessive *crop* loss from *pests*, *crop protectant* resistance, and buildup and spread of *pests*.

Indicator 4.1.3 *Pest* Control Practices: Prioritization of the use of *lowest risk*, *most selective treatment options* to achieve *crop protection* goals whenever *appropriate*.

Performance Measure 4.2 Crop Protectant Management: *Standard Users* shall select, use, and store *crop protectants* in accordance with label instructions and regulatory requirements.

Indicator 4.2.1 Application and Storage of *Crop Protectants*: Application and storage of *crop protectants* according to label instructions and regulatory requirements and application of practices to protect employees, farm workers, public health, and the environment and avoid drift of *crop protectants* offsite.

Objective 5. Energy Use, Air Quality, and Climate Change

To conserve energy used by agricultural operations and *minimize* adverse impacts to the atmosphere and the global climate; and to be resilient and prepared for adverse climatic and weather events.

Performance Measure 5.1 Agricultural Energy Use and *Conservation: Standard Users* shall conserve energy resources, especially fossil fuels, used by agricultural operations.

Indicator 5.1.1 Energy *Conservation*: Use of technologies and application of *agricultural* best management practices to conserve energy where appropriate.

Indicator 5.1.2 Renewable Energy: Use of renewable energy technologies and application of agricultural best management practices where appropriate.

Commented [SH5]: REASON FOR CHANGE CATEGORY: AUDITABILITY LANGUAGE

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH6R5]: Following stakeholder consultation period, replaced "Implementing a..." with "Implementation of a..." based on feedback from a standard user. It is more consistent with other indicators and also requires a process to already be in place.

Performance Measure 5.2 Air Quality: *Standard Users* shall *minimize* adverse impacts to air quality from agricultural operations.

Indicator 5.2.1 Air Emissions: Use of *low-emission technologies* when compatible with *agricultural best management practices*.

Indicator 5.2.2 Airborne Dust Control: Application of *agricultural best management* practices to minimize airborne dust where and when it adversely affects human health and/or the environment.

Performance Measure 5.3 *Climate-Smart Agriculture*: *Standard Users* shall apply the principles of *climate-smart agriculture* and/or *carbon farming* to reduce adverse impacts on the global climate and adapt to *climate change*.

Indicator 5.3.1 Greenhouse Gas Emissions: Application of climate-smart agricultural best management practices that minimize greenhouse gas emissions from agricultural operations and farmland and/or sequester greenhouse gases that contribute to climate change where appropriate. Examples could include, but are not limited to, application of low emission technologies and practices that reduce the use of agricultural inputs or their volatilization, increase soil carbon sequestration using farmland, and reduce volatilization of greenhouse gases.

Indicator 5.3.2 Climate Change Adaptation and Resilience: Application of climate-smart agricultural best management practices to adapt to climate change impacts and enhance farm or management unit resilience where appropriate. Examples could include, but are not limited to, the use of drought resistant crop varieties, new crop species, practices that improve soil moisture retention and soil drainage, and training on the management of new crop pests.

Indicator 5.3.3 Preparedness for Severe Climate and Weather Events: Application of *climate-smart agricultural best management practices* to prepare for and mitigate the impact of severe climate and weather events on agricultural operations. Examples could include, but are not limited to, establishing monitoring practices and emergency plans for various types of natural disasters (e.g. wildfire, flood, extreme drought) and using insurance policies that cover natural disasters.

Objective 6. Waste and Material Management

To manage waste, *agricultural chemicals*, and other materials from agricultural operations to *minimize* their adverse impacts on agriculture and the environment.

Performance Measure 6.1 Management of Waste and Other Materials: *Standard Users* shall *minimize solid waste* and *hazardous waste* from agricultural operations and manage *waste* and *agricultural chemicals* in compliance with applicable laws, statutes, regulations, and best management practices and *programs*.

Indicator 6.1.1 Waste Disposal: Implementation of a process for properly handling and disposing of hazardous and solid waste, avoiding the burning of rubber, plastics,

Commented [SH7]: Consider removing examples for consistency and moving them to guidance materials.

Commented [SH8R7]: During the stakeholder consultation period, feedback was received that "climate-smart" is not well defined enough for use in the LH standard.

"Climate-smart agriculture" has a definition in the glossary, so it makes sense to leave the term in these indicators. No actions were taken on this indicator following stakeholder consultation.

Commented [SH9]: Consider removing examples for consistency and moving them to guidance materials.

Commented [SH10R9]: No feedback received regarding this suggestion.

Commented [SH11]: Consider removing examples for consistency and moving them to guidance materials.

Commented [SH12R11]: No feedback received regarding this suggestion.

Commented [SH13]: REASON FOR CHANGE CATEGORY: AUDITABILITY LANGUAGE

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH14R13]: No feedback received regarding this suggestion.

chemically treated materials, or other materials which produce excessive or noxious smoke, unless combustion results in usable energy or some other demonstrably beneficial byproduct, or where viable alternatives do not exist.

Indicator 6.1.2 Resource Recovery: Implementation of Aa process for properly handling waste to be reused, repurposed, or recycled or converted to energy, where appropriate.

Indicator 6.1.3 Management of *Agricultural Chemicals* and Other Materials: Management, use, and storage of *agricultural chemicals* and equipment gases, fluids, and fuels according to regulatory requirements and application of practices to manage spills and protect employees, farm labour, and the environment.

Performance Measure 6.2 Food and Agricultural Surplus and Waste Resource Recovery: Standard Users shall ensure efficient handling and recovery of agricultural products, surplus, and agricultural waste.

Indicator 6.2.1 Food and Agricultural Product Waste: Prevention of excessive loss of food *crops* and other *agricultural products* during harvest and on-farm storage.

Indicator 6.2.2 Resource Recovery of *Agricultural Surplus* and *Waste*: Reuse, repurpose, and/or recycle surplus product or *crop residues*, manure, other *agricultural wastes*, and/or agricultural inputs (e.g., tailwater recovery) where *appropriate*.

Objective 7. Conservation of Biodiversity

To manage farmland in a manner that maintains agricultural production while conserving biodiversity where appropriate or legally required.

Performance Measure 7.1 Species Protection: Standard Users shall protect species at risk.

Indicator 7.1.1 Species at Risk Protection: Protection of species at risk when they occur on enrolled farmland and management of agricultural operations with consideration of species at risk in the local watersheds catchments and landscapes of operation.

Indicator 7.1.12 Species at Risk: A program to locate and protect known viable occurrences of species at risk on enrolled farmland. A protection program may be developed independently or collaboratively and may use easements, conservation land sales, exchanges, or other conservation strategies.

Indicator 7.1.2 *Species at Risk Protection: Protection* of *species at risk* when they occur on *enrolled farmland* and management of agricultural operations with consideration of *species at risk* in the local watersheds catchments and landscapes of operation.

Performance Measure 7.2 Wildlife Habitat Conservation: Standard Users shall conserve native habitats, wildlife habitat, natural communities, and Ecologically Important Sites on enrolled farmland.

Commented [SH15]: REASON FOR CHANGE CATEGORIES: INDUSTRY TRENDS AND STAKEHOLDER FEEDBACK

Stakeholders report that burning waste is still occurring on some operations where legally permissible yet is below best management practices.

Commented [SH16R15]: Feedback received from a stakeholder (standard user) that adding "or where viable alternatives do not exist" would add flexibility, which the committee agreed was fitting, as the suggested edits are more specific than other parts of the standard.

Commented [SH17]: REASON FOR CHANGE CATEGORY: AUDITABILITY LANGUAGE

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH18R17]: Feedback was received that both "implementation of a process" and "where appropriate" could make it difficult to implement and audit.

The committee discussed and settled on leaving the language, as "where appropriate" gives flexibility in circumstances where waste is not an issue or where regions where opportunities to reuse, repurpose, or recycle waste is not available. Otherwise standard users are compelled to prove a negative.

Commented [SH19]: REASON FOR CHANGE CATEGORY: STAKEHOLDER FEEDBACK

Stakeholders reported that food loss is a big problem in certain agriculture sectors so the addition of "surplus" is meant to distinguish it from waste.

A monitoring program requirement is also under consideration and may need to be explored through pilot activities

Commented [SH20R19]: Stakeholders requested "surplus" be added to the glossaries, which will occur before publication. Post-consultation period committee discussions led to adding "surplus" in 6.2.2 to better align with the rest of the performance measure indicators.

Commented [SH21]: Feedback was received from stakeholders during the consultation period that definitions to terms such as "species at risk" will need careful definitions in the glossaries, and that other synonymous terms should be referenced in the different country glossaries.

Committee discussions at October 2024 meeting also led to switching the order of the two indicators in this PM, as identification should come before protection.

Indicator 7.2.1 *Native Habitats* and *Natural Communities*: Maintenance or *conservation* of *native habitats* and *natural communities* in areas not used for agricultural production.

Indicator 7.2.2 *Ecologically Important Sites*: Participation individually or collaboratively in plans or *programs* that manage *Ecologically Important Sites* in a manner that takes into account their unique qualities.

Indicator 7.2.3 Cropland for Wildlife Habitat: Application of agricultural best management practices on cropland to create temporary wildlife habitat where appropriate. Examples could include, but are not limited to, no-till practices, cover cropping, adding soil amendments made up of organic matter, bird boxes, soil erosion control structures (e.g., grassed waterways), delayed mowing/slashing, intercropping, seeding areas with native grassland seed mixes, tailwater recovery ponds managed as wetlands, and water level management of rice fields for waterbirds.

Performance Measure 7.3 Avoided Conversion: *Standard Users* shall avoid conversion of *natural forests*, other *natural communities*, and *Ecologically Important Sites*.

Indicator 7.3.1 *Habitat* Conversion: Demonstration of commitment and due diligence to avoid the *land use conversion* and fragmentation of *natural communities* and *Ecologically Important Sites* on enrolled *farmland*.

Indicator 7.3.2 *Deforestation*: Demonstration of commitment to prevent *deforestation* of *natural forest* when farming where biome-specific or geography-specific *deforestation* protocol(s) are in place, by:

(a)—A written *policy* to demonstrate the *Standard User's* commitment to a zero *deforestation policy* that identifies the regions of application, relevant *natural forest* types, and *appropriate deforestation cut-off date(s)* in areas with biome-specific or geography-specific *deforestation* protocols, and

(b) Indicator 7.3.3 Responsible Land Acquisition: Demonstration of due diligence to prevent the acquisition of farmland that was converted from natural forest after an appropriate deforestation cutoff date(s) identified by the Standard User in areas with biome-specific or geography-specific deforestation protocols.

Performance Measure 7.4 *Crop* **Diversity**: Support *crop* diversity on *cropland*.

Indicator 7.4.1 *Crop* and *Genetic Diversity*: Use of a variety of *crop* species, *crop* varieties, companion crops (e.g., *cover crops*, cross-pollination donors), and/or crop rotation where *appropriate*.

Objective 8. Protection of Special Sites

To manage *Special Sites* on *farmland* that are geologically or culturally important in a manner that recognizes and respects their unique qualities.

Commented [SH22]: Consider removing examples for consistency and moving them to guidance materials.

Commented [SH23R22]: No feedback received during public stakeholder consultation period.

Commented [SH24]: REASON FOR CHANGE CATEGORIES: AUDITABILITY LANGUAGE AND AUDIT FINDING TRENDS

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH25R24]: Several stakeholders voiced support for the addition of "due diligence". Others stated that clear definitions need to be made regarding terms like "ecologically important sites", "natural communities", etc. Still other stakeholders voiced that grasslands should not be added, or at least needs further input to justify adding it.

The committee read through and discussed all the feedback in detail and concluded that the draft addition is justified, the terms are clearly defined in the glossaries, and that other land-types such as grasslands should be explored in pilot activities with willing standard users, potentially using the term "high conservation value" areas to encompass all land-types, including forests.

Commented [SH26]: The topic of "grasslands" has been greatly discussed among the Standards Committee, Resource Group, and LH Staff, considering the inclusion of policy mandates and cutoff dates, similar to forest conversion. This may be another topic for further pilot projects or voluntary indicators to test future inclusion in the standard.

Commented [SH27R26]: See comment above.

Commented [SH28]: REASON FOR CHANGE CATEGORY: AUDIT FINDING TRENDS

Audit results show non-conformances often being issued for either "a" or "b", so the word "and" is removed and the former "b" becoming its own indicator.

Commented [SH29R28]: No feedback received during public stakeholder comment period.

Performance Measure 8.1 *Special Site* **Management**: *Standard Users* shall manage *Special Sites* in a manner *appropriate* for their unique qualities.

Indicator 8.1.1 *Special Site* Identification: Use of information such as existing heritage databases (from national or *sub-national* administrations) or expert advice in identifying or selecting *Special Sites*.

Indicator 8.1.2 Special Site Management: Appropriate mapping, cataloging, and management of identified Special Sites in a manner that recognizes their unique qualities.

Objective 9. Local Communities

To operate safely and responsibly; contribute to the economic well-being, social networks, and health of local communities; and to recognize and respect the rights of local communities and *Indigenous Peoples* in regions of agricultural operations.

Performance Measure 9.1 Economic Well-Being: *Standard Users* shall foster the economic vitality of local communities through business practices that support sustainable agriculture and the local economy.

Indicator 9.1.1 Economic Contributions: Payment of all applicable taxes and, as *appropriate*, employment of staff from local communities and local procurement of supplies and services.

Performance Measure 9.2 Community Relations: *Standard Users* shall engage local communities to increase community awareness and support for the practice of sustainable agriculture and maintain or enhance *Standard User* reputation.

Indicator 9.2.1 Community Engagement: Engagement in positive relationships with neighbours and local communities thus raising the awareness of sustainable agriculture.

Performance Measure 9.3 Local Communities and Indigenous Peoples: *Standard Users* shall recognize and respect the rights of local communities and *Indigenous Peoples*.

PROPOSED NEW INDICATOR: Local Community and Indigenous Peoples Identification: Demonstration of due diligence to identify local community and indigenous peoples groups that may have rights within the land areas being managed by the Standard user.

Indicator 9.3.1 Local Community and *Indigenous Peoples* Policy: A written *policy* demonstrating a commitment to recognize and respect the rights of local communities and *Indigenous Peoples*.

Indicator 9.3.2 Land Tenure Rights of Local Communities and *Indigenous Peoples*: Demonstration of due diligence to identify and prevent infringing on the land tenure rights of local communities and the land tenure rights, access to and use rights, customary rights, and legal rights of *Indigenous Peoples* when purchasing and managing land.

Commented [SH30]: REASON FOR CHANGE CATEGORIES: INDUSTRY TRENDS, STAKEHOLDER FEEDBACK, AND CONSISTENCY WITHIN THE STANDARD

Similar schemes such as UN SDGs have more in-depth social criteria, and while this is not reason enough to add an indicator, our standard requires "identification" as part of a process or program in 8.1.1 regarding special sites.

Commented [SH31R30]: Feedback from stakeholders was overwhelmingly against adding this new indicator, though the intent to add identification was brought up as important. In lieu of adding this indicator, "identify" has been added to 9.3.2. Adding "identification" allows the certification body to clarify their approach to this performance measure, including whether aspects are not applicable. Additionally, adding "identification" aligns this section with requirements in 7.1 and 7.2, as well as 8.1.

Commented [SH32R30]: Following discussions with Leading Harvest Resource Group members, the addition of "identify and" has been removed in the final draft standard. Through these discussions, the topic of land tenure has been highlighted as one that needs further study and enhanced guidance and education for standard users and auditors. Future guidance materials and standard iterations will enhance this topic.

Indicator 9.3.3 Local Communities' and *Indigenous Peoples*' Inquiries: Demonstration of commitment to be receptive to local communities' and *Indigenous Peoples*' inquiries and concerns.

Performance Measure 9.4 Public Health: *Standard Users* shall apply measures to protect public health from adverse impacts of *enrolled farmland*.

Indicator 9.4.1 Public Health and Safety: Application of health and safety *agricultural best management practices* that protect public health from adverse impacts of *agricultural chemicals*, excessive nutrients, equipment gases and fluids, fuels, and air pollution and that train employees to operate equipment safely.

Objective 10. Personnel and Farm Labour

To provide a safe and healthy working environment and fair compensation and training for *Standard User* personnel, *contract management company* employees, and *contract farm labour* necessary to improve the practice of sustainable agriculture.

Performance Measure 10.1 Safe and Respectful Working Environment: *Standard Users* shall foster a culture of safety and respect among *Standard User* personnel and *contract management company* employees to *minimize* injuries, help establish safe routines, and enhance employee productivity.

Indicator 10.1.1 *Equal Opportunity Employment*: Provision for equal opportunity employee recruitment and occupations, including equitable access to professional development.

Indicator 10.1.2 Respectful Work Environment: Maintain a safe, *gender-equitable*, and *professional work environment*.

Performance Measure 10.2 Occupational Training: *Standard Users* shall provide training for *Standard User* personnel and ensure adequate training for *contract management company* employees necessary to improve the knowledge and practice of sustainable agriculture.

Indicator 10.2.1 Personnel and Contract Worker Training: Workplace health and safety education and training for *Standard User* personnel and *contract management company* employees.

Performance Measure 10.3 Supporting Capacity for Sustainability: *Standard Users* shall require *appropriate* training of *Standard User* personnel and *contract management company* employees so that they are competent to fulfill their responsibilities under the *Leading Harvest Standard*.

Indicator 10.3.1 Sustainability Policy Commitment: *Standard Users* shall provide a written *policy* demonstrating commitment to the *Leading Harvest Standard* that is communicated throughout the organization, particularly to facility and farm managers.

Commented [SH33]: REASON FOR CHANGE CATEGORY: INDUSTRY TRENDS

Similar schemes such as UN SDGs have more in-depth social criteria. The suggested addition of professional development addresses gender, age, and social classes.

Commented [SH34R33]: One stakeholder commented on this proposed addition, voicing support.

Indicator 10.3.2 Employee Roles and Responsibilities for Sustainability: Assignment and understanding of roles and responsibilities for achieving the *Objectives* of the *Leading Harvest Standard*.

Indicator 10.3.3 Employee Sustainability Training: Staff education and training for Standard User personnel and contract management company employees sufficient to fulfill their roles and responsibilities under the Leading Harvest Standard. Examples could include, but are not limited to, postsecondary degrees and professional certificates, inhouse training, continuing education programs for managing waste, recycling, and erop protectant safety, professional development opportunities, and participation in agriculture related professional organizations.

Performance Measure 10.4 Compensation: *Standard Users* shall ensure adequate livelihood for employees and *contract management company* employees to attract and retain a stable workforce.

Indicator 10.4.1 Wages and Pay: Compensation to ensure an equitable and fair wing wage for Standard User personnel and contract management company employees.

Performance Measure 10.5 Farm Labour: *Standard Users* shall monitor *contract management companies* or *farm labour contractors* to help ensure farm labour working conditions consistent with the *Principles* and *Objectives* of the *Leading Harvest Standard*.

Indicator 10.5.1 Farm Labour Monitoring *Program*: A *program* to monitor *farm labour contractors* employed by *Standard Users* or *Contract mManagement Companies* to ensure compliance with applicable labour laws, statutes, and regulations by reviewing policies, practices, and training addressing workplace environment, equal opportunity, workplace health and safety, and compensation, including *livingequitable and fair wage* and, where *appropriate*, housing and transportation.

Objective 11. Legal and Regulatory Compliance

To comply with applicable national and *sub-national* laws, statutes, and regulations relating to agriculture.

Performance Measure 11.1 Legal Compliance: *Standard Users* shall comply with applicable national and *sub-national* agricultural and related social and environmental laws, statutes, and regulations.

Indicator 11.1.1 Access to Compliance Information: A *process* by which personnel have access to information on relevant laws, statutes, and regulations in *appropriate* locations.

Indicator 11.1.2 Standard User Compliance Program: A program to achieve compliance with applicable national and sub-national laws, statutes, and regulations.

Indicator 11.1.3 Compliance Commitment: Demonstration of commitment to legal compliance through available *regulatory action information*.

Commented [SH35]: Consider removing examples for consistency and moving them to guidance materials.

Commented [SH36R35]: No comments received from stakeholders regarding removing examples.

Commented [SH37]: REASON FOR CHANGE CATEGORY: AUDITABILITY LANGUAGE

Feedback from auditors is this indicator is difficult to evaluate evidence for and that the suggested language change make it more clear for them and program users.

Commented [SH38R37]: Three stakeholders commented on this change, with one voicing support and the other two saying "equitable and fair" is just as difficult to implement/audit as "living wage".

Committee discussed at October 2024 meeting and decided on not making any further edits, leaving "equitable and fair". Living Wage is formally defined, and implementing a management system that fully complies with that definition is simply not feasible for any program user. Identifying living wages for all staff would require in engaging in discrimination due to varying marital and family status, since they would all determine different living wages. Equitable and fair allow auditors a more concrete comparison point to contrast wages paid with prevailing, industry average, and minimum wages.

Commented [SH39]: Feedback was provided by a stakeholder that this performance measure and indicator do no account for safety. The committee discussed at the October session that the intent of this indicator is a monitoring program of the farm labor contractors. No action was taken.

Performance Measure 11.2 Legal Compliance Policies: *Standard User* shall take *appropriate* steps to comply with all applicable social laws at national and *sub-national* levels in the jurisdictions where the *Standard User* operates.

Indicator 11.2.1 Written Compliance Policy: A written *policy* demonstrating commitment to comply with social laws, such as those addressing civil rights, equal employment opportunities, anti-discrimination and anti-harassment measures, workers' compensation and *living wageequitable and fair wage*, *Indigenous Peoples*' rights, workers' and communities' right to know, prevailing wages, workers' right to organize, and workplace health and safety.

Indicator 11.2.2 Consistency with International Labour Organization (ILO) Conventions: Demonstration of commitment to respect the principles concerning fundamental rights set out in the ILO Declaration on Fundamental Principles and Rights at Work.

Indicator 11.2.3 Consistency with Farmland Tenant/Lease Laws: Demonstration of commitment to respect the rights of *tenants/lessees* of leased lands with respect to the *covenant of quiet enjoyment* as determined by applicable national and *sub-national* laws, statutes, and regulations.

Objective 12. Management Review and Continual Improvement

To promote *continual improvement* in the practice of sustainable agriculture by conducting management reviews and monitoring performance.

Performance Measure 12.1 Farm Review and Continual Improvement: *Standard Users* shall establish a management review system to examine findings and progress in implementing the *Leading Harvest Standard*, improve resource-use efficiency of agricultural production, make *appropriate* improvements in *programs*, and inform their employees of changes.

Indicator 12.1.1 Performance Review: A system to review commitments, *programs*, procedures, and measures of progress; evaluate their effectiveness; and review progress toward achieving goals for employees, tenants, use of agricultural inputs, management of adverse and positive environmental impacts, and agricultural production, including greater resource-use efficiency.

Indicator 12.1.2 Monitoring Performance: A *program* for collecting, reviewing, and reporting information to management regarding progress in achieving *Leading Harvest Standard Objectives* and *Performance Measures*.

Indicator 12.1.3 Agricultural Innovation: A *process* for identifying and considering opportunities for achieving improved farming efficiency, deploying improved technologies, and using new markets for under-utilized *agricultural products*, new *crops*, and low-grade agricultural materials (e.g., bioenergy markets).

Indicator 12.1.4 Annual Review and Improvement: An annual review of progress by management and determination of changes and improvements necessary to continually improve agricultural efficiency and farm conformance to the *Leading Harvest Standard*.

Performance Measure 12.2 Support for Sustainable Agriculture: *Standard Users* shall individually and/or through cooperative efforts support science-based agricultural research programs or partnerships or other efforts by associations to improve *soil health*, agricultural productivity, and sustainable agriculture.

Indicator 12.2.1 Support for Agricultural Research: Participation individually or collaboratively in agricultural research or other science-based programs that improve the knowledge and practice of sustainable agriculture. Examples could include, but are not limited to, test plots for seed or *crop* trials or new practices; citizen science projects; demonstration days; and/or research or partnerships to address agricultural productivity, water quality, community issues, or similar topics that broaden the understanding of the benefits and impacts of sustainable agriculture.

Objective 13. Tenant/Leased Operations

To promote the use of agricultural best management practices on tenant/leased farmland to broaden the practice of sustainable agriculture and to promote the efficient use of agricultural inputs and the management of adverse environmental impacts.

Performance Measure 13.1 Leased-Land Management: *Standard Users* shall clearly define and implement strategies to ensure that *tenant/lessee* activities adhere to the principles of sustainable agriculture.

Indicator 13.1.1 Leased-Land *Program*: A *program* to help ensure that *farmland* management complies with the *agricultural best management practices* and the *Principles* and *Objectives* of the *Leading Harvest Standard* as determined by a *Standard User* and *tenant/lessee*.

Indicator 13.1.2 Farmland Lease Agreements: Written agreements with tenants/lessees demonstrating their commitment to applying agricultural practices consistent with agricultural best management practices.

Indicator 13.1.3 Communicating Leased-Land *Objectives*: A written statement clearly defining sustainable agriculture goals of the *Standard User* for leased *farmland* that is shared with *tenants/lessees* and made available to *appropriate* stakeholders upon request.

Indicator 13.1.4 *Tenant/Lessee* Social Responsibility Commitment: A written statement by *tenants/lessees* demonstrating their commitment to operate safely and responsibly; provide a safe working environment; and comply with applicable country, state/provincial, and local laws, statutes, and regulations.

Commented [SH40]: Consider removing examples for consistency and moving them to guidance materials.

Commented [SH41R40]: No stakeholder comments received.

Performance Measure 13.2 Leased-Land Monitoring: Standard Users shall monitor agricultural practices used by tenants/lessees to ensure their consistency with agricultural best management practices.

Indicator 13.2.1 Verifiable Monitoring System: Use of a verifiable monitoring system with:

Indicator 13.2.1a A process for monitoring the agricultural practices used by tenants/lessees; and

Indicator 13.2.1b A *process* for evaluating the application of *agricultural practices* by *tenants/lessees* and identifying and communicating areas where tenants/lessees can improve their performance and achieve greater consistency with *agricultural best management practices* and the *Principles* and *Objectives* of the *Leading Harvest Standard*.

Indicator 13.2.2 Improvement of the *Verifiable Monitoring System*: A *process* for using information from the *verifiable monitoring system* to identify and demonstrate areas of performance improvement for the *verifiable monitoring system*.

Commented [SH42]: REASON FOR CHANGE CATEGORY: AUDITOR FEEDBACK AND STANDARD PHILOSOPHY

Auditor feedback that this indicator is often not meaningful, as there is no call to action. "Continuous improvement" is also a core element to the Leading Harvest philosophy.

Commented [SH43R42]: One stakeholder commented on this addition, acknowledging that it will be more difficult for users to be in conformance. This was the intent of the change.

Glossary

Introduction

This glossary serves as a companion to the Leading Harvest Farmland Management Standard and provides internationally agreed- upon definitions for key terms related to sustainable agriculture certification. The terms defined herein are applicable across all regions and crop types, ensuring consistency and clarity in the implementation of the standard on a global scale. However, in recognition of regional variations, Standard Users operating in countries or areas where different definitions for certain terms exist may apply those definitions, provided they can supply adequate evidence during the audit process to justify the use of country- or region-specific terminology. This flexibility allows for local relevance while maintaining the integrity of the certification process.

Agricultural chemicals: Any substance used to help manage an agricultural ecosystem, or the community of organisms in a farming area. Agrochemicals include: (i) fertilizers; (ii) liming and acidifying agents; (iii) soil conditioners; (iv) pesticides; (v) rodenticides; (vi) fungicides; (vii) insecticides; (viii) chemicals used in animal husbandry, such as antibiotics and hormones as well as chemicals used for mating disruption in agricultural crops (Adapted from <u>IPBES</u>)

Agricultural land: Agricultural land is defined as the land area that is either arable, under permanent crops, under permanent pastures, or utilized in controlled environments such as greenhouses and hydroponic systems. Arable land includes land under temporary crops such as cereals, temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded. Land under permanent crops is cultivated with crops that occupy the land for long periods and need not be replanted after each harvest, such as orchards and vineyards, excluding land under trees grown for wood or timber. Permanent pasture is land used for five or more years for forage, including natural and cultivated crops. Controlled environments allow for the cultivation of crops with optimized conditions for growth. Additional agro-environmental indicators include organic farmland and transgenic cropland. This indicator is presented as a total and per type of agricultural land and is measured in hectares and in percentage. (definition inspired by the OECD)

Agricultural practices: Specific methods including tillage system, planting, irrigation, application practices for fertilizers and crop protectants, harvesting and other cropping practices that are applied to grow and harvest annual or perennial crops for food, animal feed, forage, fiber, oilseed and other agricultural products.

 $\label{eq:Agricultural products: Any product or commodity, raw or processed, that is marketed for human consumption (excluding water, salt and additives) or animal feed (\underline{FAO})$

Agricultural waste: Refers to solid waste that is generated by the rearing of animals or the production and harvest of agricultural products. This may include, but is not limited to, poultry and livestock manure and residual materials in liquid or solid form generated from the production

and marketing of poultry, livestock, furbearing animals, other livestock products and crop residues from row crops and permanent crops (US EPA)

Appropriate: Suitable or proper in the circumstances for a particular purpose. Considerations may include whether an activity will achieve the goal of an indicator or performance measure in a specific setting, is practical and reasonable and contributes to achieving regulatory compliance or obtaining social license.

Appropriate deforestation cutoff date: A cutoff date marks the latest date a company or country will source from lands that have been converted for agricultural purposes. For example, a food company may decide that it will no longer buy soy from any area converted after 2015. (WWF)

Biodiversity: The variety of life on earth. As defined by the United Nations Convention on Biological Diversity it includes the diversity of ecosystems in the biosphere, the number and variety of species within an ecosystem, the genetic variation within these species, and the ecological processes that support them <u>World Land Trust (worldlandtrust.org)</u>

Biodiversity for food and agriculture: The diversity of plants, animals and microorganisms at genetic, species and ecosystem levels, present in and around crop, livestock, forest and aquatic production systems. It includes the diversity of domesticated crops, livestock and farmed fish and aquatic invertebrates, forest trees and wild-harvested aquatic species. It also includes the diversity of all the non-domesticated species that enable production to occur – for example, pollinators, soil-dwelling organisms, the natural enemies of pests, and the microorganisms that enable ruminant animals (cattle, sheep, goats, etc.) to digest fibrous feed – and all the wild species gathered or hunted for food and for other purposes. Ecosystems essential to food and agriculture include forests and grasslands, oceans and a variety of inland and coastal wetlands, including mangroves, coral reefs and seagrass beds. (FAO)

Biosecurity: Biosecurity refers to the "implementation of practices that create barriers in order to reduce the risk of the introduction and spread of disease agents. The three principal elements of biosecurity are: 1) Segregation The creation and maintenance of barriers to limit the potential opportunities for infected animals and contaminated materials to enter an uninfected site. This step, properly applied, will prevent most infection. 2)Cleaning Materials (e.g. vehicles, equipment) that have to enter (or leave) a site must be thoroughly cleaned to remove visible dirt. This will reduce the risk from a contaminant (organism). 3)Disinfection Properly applied, disinfection will inactivate any contaminant that is present on materials that have already been thoroughly cleaned. (FAO, World Organisation for Animal Health (OIE), and the World Bank, 'Biosecurity for Highly Pathogenic Avian Influenza', 2008)

Certification body: An independent third party that is accredited and competent to conduct certifications to the Leading Harvest Standard.

Climate change: Change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. It may be due to natural internal processes or

external forcings or to persistent anthropogenic changes in the composition of the atmosphere or in land use (Intergovernmental Panel on Climate Change).

Climate-smart agriculture (practices): Practices and principles that promote sustainable increases in agricultural productivity (including sustainable intensification) while adapting to climate change and reducing greenhouse gas emissions (Food and Agriculture Organization of the United Nations).

Conservation: 1. The practice of protecting and preserving the abundance and variety (biodiversity) of all species, regardless of classification, ecosystems, and genetic diversity, on the planet. 2. Management of a renewable natural resource with the objective of sustaining its productivity in perpetuity while providing for human use compatible with sustainability of the resource. (Adapted from <u>UN IFAD</u> and Leading Harvest)

Contract management company: A third-party company used by a Standard user to directly operate enrolled farmland.

Covenant of quiet enjoyment: A covenant that promises that the grantee or tenant of an estate in real property will be able to possess the premises in peace, without disturbance by hostile claimants. Quiet enjoyment is a right to the undisturbed use and enjoyment of real property by a tenant.

Cover cropping: Cover crops are defined as a "close-growing crop that provides soil protection, seeding protection, and soil improvement between periods of normal crop production, or between trees in orchards and vines in vineyards. When plowed under and incorporated into the soil, cover crops may be referred to as green manure crops" (SSSA, 2008). Cover crops are also found called "Living mulch" or "Green manure". In some cases, cover crops can remain permanently on the soil, which constitutes a living soil cover. (FAO)

Critical external factor: Any off-farm attribute or factor that is materially and substantially relevant to the viability, long-term profitability, and sustainability of agricultural production of a management unit or farm. These may include economic factors (e.g., labor availability, regional market demand and opportunities, regulatory changes, farmland tenant availability, supplier availability and technological advancements), environmental factors (e.g., climate change, regional availability of water, and other inputs), and social factors (e.g., social license).

Crop: Plant species that are purposefully grown and/or harvested to satisfy human and livestock needs. They can include plants grown for food, feed, forage, fiber, decorative purposes, oilseed, medicine, cultural practices, fermentation products or fuel, including, but not limited to, field crops, hay or forage, fruits, vegetables, nuts, grains and horticultural specialties. Cover crops and companion crops may be considered crops if purposefully grown.

Cropland: A Land cover/use category that includes areas used for the production of adapted crops for harvest. Two subcategories of cropland are recognized: cultivated and noncultivated. Cultivated cropland comprises land in row crops or close-grown crops and also other cultivated cropland, for example, hayland or pastureland that is in a rotation with row or close-grown crops. Noncultivated cropland includes permanent *hayland* and *horticultural c*. (USDA NRCS)

Crop productivity/yields: Crop yields are the harvested production per unit of harvested area for crop products. In most of the cases yield data are not recorded, but are obtained by dividing the production data by the data on area harvested. (OECD)

Crop protectants (Plant protection products): Plant protection products are substances, or mixtures of substances, of a chemical or biological nature, or formulated preparation of microorganisms (fungi, viruses, bacteria, protozoa or other microscopic self-replicating biotic entities), intended for use in agriculture, horticulture, forestry, gardens and amenity areas, on stored plant products and on land not intended for cropping, for the purpose of:

- protecting plants or plant products by destroying, repelling or limiting the growth of pests;
 - destroying or limiting the growth of weeds or undesired plants;
 - controlling or modifying the growth of plants (other than as nutrients). (<u>European and Mediterranean Plant Protection Organization</u>)

Crop residues: Crop residue refers to the biomass left in the field after harvesting the economic components of crops, such as grains. It is a significant source of fibers, energy, and plant nutrients, with a composition dominated by cellulose, hemicellulose, and lignin. (Encyclopedia of Soils in the Environment)

Crop genetic diversity: The total number of genetic characteristics in the genetic makeup of the plant species used in agriculture and their close evolutionary related wild species (<u>FAO</u>)

Deforestation: 1. Deforestation is the process of clearing naturally occurring forests by logging or burning for purposes such as agriculture, fuel or urban development. Deforestation also occurs naturally or unintentionally though wildfires and overgrazing. This results in loss of habitat and biodiversity and is a significant contributor to soil erosion. 2. Long-term reduction of the tree canopy cover below the minimum 10 percent threshold. (Adapted from World Land Trust and FAO)

Due diligence: The process through which an organization identifies, prevents, mitigates, and accounts for how it addresses its actual and potential adverse impacts which can be related to employment, human rights, the environment, bribery, and consumers. (GRI)

Ecologically Important Sites: Sites of exceptional ecological importance including areas with critically endangered or endangered species or natural communities, rare natural communities or unique ecological landscape features.

Energy-efficient agricultural practices: Practices that deliver more services for the same energy input or the same services for less energy input (modified from International Energy Agency definition of energy efficiency).

Enrolled lands: Lands managed by the Standard user and enrolled under the Leading Harvest Standard and subject to third-party audit to the Leading Harvest Standard.

Equal Opportunity Employment: Employment process that seeks to level the playing field so that gender, ethnicity, birthplace, family background and other characteristics that are beyond an individual's control do not influence a person's outcomes. Success should depend on people's choices, effort, and talents, not on their circumstances at birth. (World Bank)

Equitable: Equity is the absence of unfair, avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically or by other dimensions of inequality (e.g. sex, gender, ethnicity, disability, or sexual orientation). (WHO)

Fair wage or fair compensation: Often used interchangeably with living wage. However, a fair wage is a broader concept that encompasses the idea of equitable compensation for work performed. It means paying workers a wage that is reasonable, and in line with their skills, experience, and market conditions.

Farmland: Land that includes cropland, rangeland, grassland, pasture land, incidental forest land and wetlands that are part of an agricultural operation (USDA NRCS).

Farmland tenant: A lessee of farmland where the lease is managed by a Standard user.

Farm labor contractor: Any person, other than an agricultural employer, an agricultural association, or an employee of an agricultural employer or agricultural association, who, for any money or other valuable consideration paid or promised to be paid, performs any farm labor contracting activity. (FAO)

Fertilizer: A substance that is used to provide nutrients to plants, usually via application to the soil, but also to foliage or through water in rice systems, fertigation, hydroponics or aquaculture operations. (FAO)

Forest: Land with tree crown cover (or equivalent stocking level) of more than 10 percent and area of more than 1.2 acres (0.5 hectares) with tree species largely of indigenous origin. The trees should be able to reach a minimum height of 16.4 feet (5 meters) at maturity in situ. It may consist either of closed forest formations where trees of various heights and undergrowth cover a high proportion of the ground or open forest formations with a continuous vegetation cover in which tree crown cover exceeds 10 percent. It does not include land that is predominantly under agricultural or urban land use (Food and Agriculture Organization of the United Nations).

Gender equitable: The fair treatment for men and women according to their respective needs. This may include equal treatment or treatment that is different, but which is considered equivalent in terms of rights, benefits, obligations and opportunities (UNESCO). Equivalency between men and women does not mean that women and men have to become the same, but that their rights, responsibilities and opportunities will not depend on whether they were born male or female.

Grasslands: Natural or semi-natural land defined by the following characteristics:

- 1. a non-wetland formation:
- 2. vascular vegetation has at least 10 percent cover;
- 3. graminoids have at least 25 percent cover (but if less than 25 percent cover, graminoids exceed that of other herbaceous and shrub cover);
- 4. broad-leaved herbs (forbs) may have variable levels of cover and dominance;
- 5. shrubs have less than 25 percent canopy cover;
- 6. and trees: (i) in temperate zones, typically have less than 10 percent canopy cover, are less than 5 meters tall and single-layered or (ii) in tropical regions, typically have

less than 40 percent canopy cover, are less than 8 meters tall and are single layered (Dixon et al. 2014).

Greenhouse gases: Greenhouse gases (GHGs) are gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of radiation emitted by the Earth's surface, by the atmosphere itself, and by clouds. This property causes the greenhouse effect. (IPCC)

Groundwater: Water that exists underground in saturated zones beneath the land surface. The upper surface of the saturated zone is called the water table (USGS).

Groundwater depletion: Groundwater depletion refers to a long-term decline in levels of groundwater caused by sustained groundwater pumping within a watershed or catchment (USGS). This decline can be exacerbated by factors such as prolonged drought conditions and reduced snowpack, which diminish natural replenishment of aquifers. These environmental changes lead to increased reliance on groundwater resources, further intensifying depletion and impacting both water availability and ecosystem health.

Groundwater regulatory agency: A public authority of any jurisdiction or government agency with statutory authority to exercise regulatory or supervisory oversight in the use and/or extraction of groundwater.

Habitat: With respect to any species of animal, plant or other organism, an area on which the species depends, directly or indirectly, to carry on its life processes, including life processes such as reproduction, rearing, hibernation, migration or feeding, and includes places in the area, whichever is applicable, that are used by members of the species as dens, nests, hibernacula or other residences. (FAO)

Hazardous waste: Any waste or combination of wastes with the potential to damage human health, living organisms or the environment. Hazardous wastes usually require special handling and disposal procedures which are regulated by national and international laws. (FAO)

Imperiled (**species**): At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors. (<u>NatureServe</u>)

Indicator: A specific metric that provides information about an organization's agricultural and environmental performance and that is integral to assessing conformance to the Leading Harvest Standard.

Indigenous Peoples: Indigenous Peoples are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy or from which they have been displaced. The land and natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, as well as their physical and spiritual well-being.

The following are important characteristics of Indigenous Peoples:

- Self- identification as indigenous peoples at the individual level and accepted by the community as their member
- Historical continuity with pre-colonial and/or pre-settler societies

- · Strong link to territories and surrounding natural resources
- Distinct social, economic or political systems
- · Distinct language, culture and beliefs
- · Form non-dominant groups of society
- Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities. (Adapted from World Bank, Secretariat of

the Permanent Forum on Indigenous Issues, FSC)

Integrated Pest Management: The careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms. (FAO)

Land use conversion: A change in the extent or composition of an ecosystem or habitat where there is a shift from one land use to another that is considered significant or irreversible.

Living wage: Compensation for a regular work week that is sufficient to meet the worker's basic needs and provide some discretionary income. (FLA)

Low-emission technologies: Low-carbon emitting technologies are referred to as innovative technical solutions that are characterized by a low emission intensity, compared to state-of-theart alternatives. In a way, they can be seen as best-in-class technologies with a focus on environmental impact, (World Economic Forum)

Lowest risk, most selective treatment options: A treatment used to control site-specific pests that minimizes impact to non-target organisms and people and has the least overall impact while meeting management objectives. Considerations may include the target pest, the degree of control needed, cost, the season and timing of application, rates and methods, terrain, crop conditions and the presence or absence of water bodies.

Minimize: To do only that which is necessary and appropriate to accomplish the task or objective described.

Native habitats: Land and water areas where the ecosystems biological communities are formed largely by native plant and animal species and human activity has not essentially modified the area's primary ecological functions. (EEA)

Natural communities: An assemblage of interacting plant species and animal species and their common environment, recurring across the landscape, in which the effects of human intervention are minimal. The vegetation is largely indigenous origin defined by a characteristic range of species composition, diagnostic species occurrence, habitat conditions and physiognomy. They reflect sub-regional to local topo-edaphic factors of substrates, hydrology, disturbance regimes and climate (NatureServe). Three characteristics distinguish natural communities: 1) plant species composition, 2) vegetation structure (e.g., forest, shrubland or marsh) and 3) a specific combination of physical conditions (e.g., water, light, nutrient levels and climate). Grassland and shrub areas that have been plowed or otherwise have had extensive soil disturbance and removal

of the vegetation in the past are typically not natural communities. Forests on sites that have been converted to other land uses (e.g., agriculture) in the past and subsequently allowed to regrow trees are typically not natural communities. Human-made wetlands from wetland mitigation projects on sites that have been converted in the past from other land uses (e.g., agriculture) or cleared forest and graminoid and/or shrub wetlands occupying sites once plowed or having extensive soil disturbance in the past are typically not considered to be natural wetlands.

Natural forest: Forest composed of indigenous trees and not classified as a plantation forest. Plantation forest is defined as an intensively managed planted forest that at maturity is composed of one or two species, has one age class, and has regular tree spacing. Forest that is planted for ecosystem restoration or protection and forest that resembles natural forest at stand maturity is not defined as plantation forest. (Adapted from <u>FAO</u>).

Nutrient management: To manage the amount, source, placement, form and timing of the application of nutrients and soil amendments to ensure adequate soil fertility for plant production and to minimize the potential for environmental degradation, particularly water quality impairment (USDA NRCS) and unnecessary air emissions.

Objective: A fundamental goal.

Pasture: (1) Grazing lands comprised of introduced or domesticated native forage species that are used primarily for the production of livestock. They receive periodic renovation and/or cultural treatments such as tillage, fertilization, mowing and weed control, and may be irrigated. They are not in rotation with crops. (2) A grazing area enclosed and separated from other areas by fencing or other barriers; the management unit for grazing land. (3) Forage plants used as food for grazing animals. (4) Any area devoted to the production of forage, native or introduced, and harvested by grazing (USDA).

Performance measure: A means of judging whether an objective has been fulfilled.

Pests: Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants and plant products, materials or environments and includes vectors of parasites or pathogens of human and animal disease and animals causing public health nuisance. (FAO)

Policy: A written statement of commitment to meet an objective or to implement a defined program or plan to achieve an objective or outcome.

Prime farmland (prime cultivated land): Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Its soils are permeable to water and air. Prime farmland is not excessively eroded or saturated with water for long periods of time, and it either does not flood frequently during the growing season or is protected from flooding. (Adapted from USDA NRCS).

Process: A series of purposeful actions or operations that leads to a sought-after end or outcome. This can include a set or sequence of informal or formal practices, procedures or routines.

Professional work environment: A non-discriminatory workplace environment free from harassment and composed of competent, respectful, mature and accountable employees working toward a common goal.

Program: An organized system, process, or set of activities to achieve an objective, performance measure or indicator.

Protection: Maintenance of the status or integrity, over the long term, of identified attributes or values including management where appropriate, giving consideration to past disturbance, land use, and pest risk when determining appropriate conservation strategies.

Rangeland: Commonly described as an area of shrub and/ or grass receiving less than about 750 mm of annual rainfall. Within this definition rangeland may vary from mild sub-arid wooded savanna to desert. (FAO)

Regional agricultural best management practices or good agricultural practices: A set of principles, regulations and technical recommendations applicable to a region for the production, processing and food transport, addressing human health care, environment protection and improvement of worker conditions and their families. (Adapted from FAO)

Regulatory action information: Information related to compliance with government regulations such as permits, reports and corrective action documentation.

Renewable energy: Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed. Sunlight and wind, for example, are such sources that are constantly being replenished. (UN)

Riparian area (**Riparian habitats**): They are found along the edges of streams and rivers. They perform important ecosystem services: the plants in the riparian zone prevent soil erosion and can reduce water pollution. They also provide important habitat for many species. In many countries riparian habitats are protected, and they can act as wildlife corridors through a deforested landscape. World Land Trust (worldlandtrust.org)

Runoff: Water from precipitation or irrigation on an area that does not infiltrate, but instead is discharged from the area. The water that flows off the surface of the land without sinking into the soil is called surface runoff. Water that enters the soil before reaching surface water is called groundwater runoff or seepage flow from groundwater (USDA).

Soil amendments: Materials that typically are added to soil, plants or the plant-growth environment to enhance plant growth. These include fertilizers, compost, sludge, manure, microbes, additives, materials improving soil condition (i.e., adjusting the pH of the soil, improving soil structure and texture, aeration adjustment and moisture conservation among others), materials controlling or suppressing crop pests, and others or combinations thereof. Inorganic soil amendments are composed of synthetic chemicals and/or minerals, while organic soil amendments are often composed of organic matter from plant/animal sources and/or microbes, and may include materials such as manure, earthworm castings, soil, sphagnum peat,

grass clippings, straw, wood chips, various composts, seaweed, guano, or naturally occurring mineral deposits (e.g., saltpeter), and living microorganisms, among others (USDA).

Soil erosion: Soil erosion is defined as the accelerated removal of topsoil from the land surface through water, wind and tillage (\underline{FAO}).

Soil fertility: The ability of a soil to sustain plant growth by providing essential plant nutrients and favorable chemical, physical, and biological characteristics as a habitat for plant growth. (FAO)

Soil health: The capacity of soil to function as a living system, with ecosystem and land use boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and promote plant and animal health. (FAO)

Soil loss: Soil erosion where the removal of topsoil occurs faster than the soil-forming processes can replace it due to natural, animal and human activity.

Soil degradation: is defined as a change in the soil health status resulting in a diminished capacity of the ecosystem to provide goods and services for its beneficiaries. Degraded soils have a health status such, that they do not provide the normal goods and services of the particular soil in its ecosystem. (FAO)

Soil mismanagement: Agricultural operations, practices and/ or treatments that result in the decline of soil health and soil productivity, including soil loss.

Soil productivity: Soil productivity is defined as the capacity of a soil to produce a certain yield of agricultural crops or other plants using a defined set of management practices (Karlen, 2005).

Solid waste: Any solid, semisolid, liquid or contained gaseous materials discarded from agricultural operations. It includes garbage, construction debris, commercial refuse, sludge from water supply or waste treatment plants and other discarded materials (RCRA US EPA).

Special sites: Sites that include unique geological features or unique culturally important features that are recognized regionally or nationally or by Indigenous Peoples.

Species at-risk: A species facing an extremely high risk of extinction in the wild in the immediate future. (FAO)

Standard user: An organization certified or committed to being certified by an accredited certification body to be in conformance with the Leading Harvest Standard.

Sub-national: Subnational (including local) governments are governance units at various levels, within countries, and are accountable to national governments to varying degrees. (CBD)

Surface water: All waters on the surface of the Earth including water found in streams, rivers, ponds, lakes, marshes or wetlands, and ice and snow. (GEMET-LANDY/BJGEO)

Surplus food: A food that is still perfectly edible and safe for human consumption, but exists, for example, because it has failed to meet aesthetic specifications, or is past its 'sell by' or 'best before' dates. Much of this food ends up as waste. If diverted in time, a sizeable share of this food can instead be redirected for human consumption, helping to alleviate hunger, and creating several benefits for the generating firms. (FAO)

Treaty rights: Treaty rights are rights set out in either a historic or modern treaty agreement. Treaties define specific rights, benefits and obligations for the signatories that vary from treaty to treaty. Treaties and treaty rights also vary depending on the time and circumstances in which they were negotiated. (RCAANC)

Unique culturally important features: Features having significance for or being representative of human activities or beliefs. Examples could include, but are not limited to, documented areas such as archaeological sites, unusual historical sites, cemeteries and sacred sites. Typically, these sites have been documented in databases established by governments and have been significant historically.

Unique geological features: Naturally occurring physical features on Earth's surface, which are unique or locally rare, typically limited in extent (0.1 to 100 acres), often less than 10 acres. Examples could include, but are not limited to, exceptional waterfalls, stream or river gorges, canyons, arches, caves or mine entrances, outcrops of fossil beds or rare mineral deposits, bluffs, buttes and cliffs.

Universal waste: A category of waste materials designated as hazardous waste but containing materials that are very common. It includes batteries, crop protectants, mercury-containing equipment and lamps (U.S. EPA).

Verifiable monitoring system: A system capable of being audited by a third party that includes:

- 1. a means to characterize farmland under the authority of a Standard user,
- 2. a process to identify and use sources of available data regarding the use of regional agricultural best management practices, and 3. a method to assess farmland tenant performance.

Viable occurrences: Occurrences of species with good or excellent viability according to NatureServe, including occurrences that exhibit favorable characteristics with respect to population size and/or quality and quantity of occupied habitat, and, if current conditions prevail, the occurrence is likely to persist for the foreseeable future (i.e., at least 20-30 years) in its current condition or better (NatureServe)

Water quality: The chemical, physical and biological characteristics of water, with respect to its suitability for a particular purpose e.g., drinking water for humans or livestock, commercial and industrial use, aquatic species habitat and crop irrigation. (USGS)

Wetlands: Wetlands have been defined as areas that have free water at or on the surface for at least the major part of the growing season. The water is sufficiently shallow to allow the growth of a wetland crop or of natural vegetation rooted in the soil. (FAO)

Wildlife: Animals and plants that grow independently of people, usually in natural conditions. (GEMET/CAMB)