

# BETTER COTTON PRINCIPLES AND CRITERIA

## 2<sup>ND</sup> DRAFT FOR PUBLIC CONSULTATION

DECEMBER 2016

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## Introduction

Thank you for participating to the BCI Standard review process!

As a key step of its Standard revision process, BCI consults stakeholders to ensure that revised principle and criteria reflect BCI Sustainability objectives that meet producers' realities as well as traders, suppliers, manufacturers and investors' expectations. Therefore, we invite you to participate in this second public consultation on the BCI Standard.

You are kindly invited to consult the Guidelines detailing how to efficiently provide you input [here](#)

To complete the survey online please click [here](#)

Please submit your comments to [gregory.jean@bettercotton.org](mailto:gregory.jean@bettercotton.org) between 5 December 2016 and 15 January 2017.

For further information, please contact BCI standard manager:

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## PREAMBLE

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Information about you:

1. Please provide us with information about your organization so that we can analyse the data precisely and contact you for clarifications if needed. The results of the survey will only be presented in an aggregated form and all respondents' information will be kept confidential.

» Name of your organization:

» Name of contact person:

» Email address of contact person:

» Country:

2. What is your responsibility in the supply chain (if applicable)?

Producer

Ginner

Brand

Retailer

Spinner

Trader

Licencee

Other, please specify (e.g, advocacy group, NGO, Union)

3. Are you a BCI member?

Yes

No

4. If you are a BCI member please select your category

Civil Society

Retailer and Brand

Producer

Supplier and manufacturer

Associate member

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## PREAMBLE

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5. In your opinion, what sustainability aspects deserve special attention during the standard revision?

How important are each of them?

- Crop protection
- Water Stewardship
- Soil health
- Biodiversity enhancement
- Fiber protection
- Decent work
- Management

Please explain you answer:

6. Please indicate your perception of the knowledge you have about Cotton production practices in general?

- Strong knowledge
- Moderately good knowledge
- Average knowledge
- Moderately weak knowledge
- Weak knowledge

7. Please indicate your perception of the knowledge you have about Better Cotton Initiative Principle and Criteria and their implementation?

- Strong knowledge
- Moderately good knowledge
- Average knowledge
- Moderately weak knowledge
- Weak knowledge

## **PREAMBLE**

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**Principle 4:** Better Cotton farmers enhance biodiversity

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## **PREAMBLE**

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### **A - Effective date**

After approval of this Version, this section will include:

- Standard effective date
- Information on the transition period towards the new version of the Principle and Criteria
- Information on future reviews of the Better Cotton Principles and Criteria

### **B - History and objectives**

The Better Cotton Principles and Criteria (P&C) are a practice-based standard that form the global definition of Better Cotton.

They were first developed in 2010 on the basis of input and consultations with Regional Working Groups in Brazil, India, Pakistan and West & Central Africa; Advisory Committee members; Better Cotton Partners; Experts, Friends and public consultation.

After 5 years of implementation, a comprehensive revision process has been launched in February 2015, in accordance with the BCI Standard Setting and Revision Procedure.

This procedure was developed in compliance with the ISEAL Code of Good Practice for Setting Social and Environmental Standards (Public Version 6-0, December 2014) and under the guidance of ISO/IEC Guide 59 Code of Good Practice for Standardization (February 1994).

The Better Cotton Principles and Criteria are a critical component of the Better Cotton Standard System, which aims to improve livelihoods and economic development in cotton producing areas and reduce the environmental impact of cotton in accordance with BCI theory of change. The P&C provides rules and guidance to farmers participating in BCI programs on how to reach BCI social and environmental sustainability objectives.

The identification of appropriate better management practices and implementation techniques to best deal with these issues in a given situation is left to farmers and their partners to meet the Better Cotton Principles and Criteria.

To be licensed to grow Better Cotton, producers must first reach a set of **core indicators**. These ensure that Better Cotton meets clearly defined standards for pesticide use, water management, decent work, record keeping, training and other factors. At the same time, reflecting the fundamental concept of continuous improvement, producers are encouraged to develop further through **improvement indicators**. Improvements Indicators are measured through a concise questionnaire telling the on-going story of how things are changing for the better. Producers receive a score based on their answers and their results are presented transparently in performance bands for each category of farmers. High scoring producers are rewarded through extended Better Cotton licence periods. The better the score the longer the licence.

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## PREAMBLE

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The improvement indicators presented in this document only give the cornerstone of expected improvement over time per principle. They can be subject to modification while adapted to farmers' working documents and templates.

This document aims to achieve the following objectives:

- Detail prescription and guidance related to sustainable cotton production according to the BCI mission and objectives;
- Improve the consistency of P&C interpretation; notably by assisting BCI Implementing Partners interpret the P&C and help them explain to cotton farmers both the importance of addressing the issues covered by the P&C , and the practical implications of growing Better Cotton;
- Support other audiences interested in Better Cotton, such as retailers, ginners, spinners, traders, NGOs, trade unions, producer organisations and large independent cotton farmers, to better understand the Better Cotton Production Principles and Criteria;
- Ensure the consistent implementation of the Principles and Criteria at global level;
- Improve and strengthen the credibility of the BCI System;

### **Question 1:**

**Do you agree with all aspects presented in the “History and objectives” section?**

- Yes
- No
- I don't have an opinion

**Please explain/specify your answer:**

## **PREAMBLE**

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### **C - Scope**

The Principles and Criteria cover the most significant global issues associated with cotton cultivation and explain the intended outcomes by having the Principles and Criteria met. The P&C are tailored to be applied at global level.

They generally apply to farming areas used for the purpose of growing Better Cotton within the geographic boundaries under the farmer's responsibility. This means all areas within or adjacent to BCI licenced farmers cotton fields. However, areas which are not used for cotton production are not subject to the Principles and Criteria, unless they are covered by prescriptions in management plans.

BCI distinguishes between 3 categories of farmers (smallholders, medium farms and large farms) in recognition of the differences in production methods and workforces they use. A set of 40 criteria applies to the three criteria.

Underpinning the Principles and Criteria is the fundamental premise that growing Better Cotton respects national and other applicable law. Cotton producers should always abide by national legislation, unless that legislation sets standards which are below the referenced internationally recognised standards and conventions, in which case, the international standards prevail. However, where national legislation sets higher requirements on a specific issue than these standards, then national legislation shall apply.

Responsibility for ensuring compliance with the Better Cotton Principles and Criteria lies with entity(ies) that is/ are the licence holder. For the purpose of Better Cotton Standard System implementation, this/these person/ people or entities are referred to as 'The Producer'. The Producer is responsible for decisions and production/ management activities related to the Production Unit. The Producer is also responsible for demonstrating that other people or entities that are permitted or contracted by The Producer to operate in, or for the benefit of the Production Unit, comply with the requirements of the Better Cotton Principles and Criteria. Accordingly, The Producer is required to design and implement corrective action plans in case such entities not being in compliance with the Principles and Criteria.



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## PREAMBLE

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**Question 2:**

Do you agree with all aspects presented in the “Scope” section?

- Yes
- No
- I don't have an opinion

**Please explain/specify your answer:**

## **PREAMBLE**

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### **D - References**

The following references are indispensable for the application of the Principles and Criteria. For references without a version number, the latest edition of the referenced document (including any amendments) applies.

3.1 - ISEAL Code of Good Practice for Setting Social and Environmental Standards (v. 6.0)

3.2 - Better Cotton Assurance Program and its appendices – Applicable from 2014 harvest season

3.3 - BCI-PRO-01-V2 “Better Cotton Standard Setting and Revision Procedure”, Jan 2014

## PREAMBLE

### E - PRINCIPLES AND CRITERIA

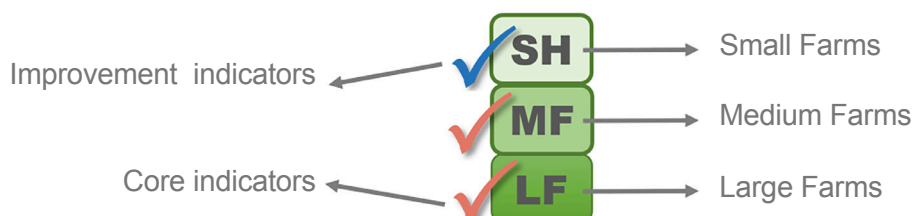
#### 1 - Structure

This document is composed of nine sections:

- Preamble
- Principle 1: Better Cotton farmers minimise the Harmful impact of crop protection practices
- Principle 2: Better Cotton farmers promote water stewardship
- Principle 3: Better Cotton farmers care for the health of soil
- Principle 4: Better Cotton farmers enhance Biodiversity
- Principle 5: Better Cotton farmers care for and preserve the quality of fibre
- Principle 6: Better Cotton farmers promote decent work
- Principle 7: Better Cotton farmers operate an effective management system
- Annexes

The presentation of each principles is as follows:

- **“Principle”** are the overarching sustainability requirement
- **“Criteria”** are conditions that need to be met in order to adhere to a Principle.
- **“Intent”** are explanatory note providing rationale behind the requirement.
- **“Indicators”** are measurable states which allow the assessment of whether or not associated criteria are being met.
- **“Guidance for implementation”**: Support on how to best comply with the requirement
- **“Farmer category”**: On the right side of each indicator, a 3 parts box representing the 3 farmer categories notifies to which category the requirement applies (see below). A tick is placed in the corresponding box.
- **“Core/Improvement indicators”**: Ticks in the farmer categories boxes have a colour code: Red for Core indicators and Blue for Improvement indicators.



- **“Theme”**: Criteria are grouped together according to certain themes. Each Principle is divided into one or several themes. Themes are notified in the top right side of criteria pages.

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## PREAMBLE

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### 2 - Drafting rules:

The following Drafting Rules have been applied to the Principles and Criteria during the revision process.

1. BCI standards follow a defined structure: **Principles**, **Criteria** and **Indicators** (see section above).
2. The compulsory nature of each requirements is expressed according to a simplified form of the ISO 'verbal forms for the expression of provisions':
  - "must": indicates Instructions strictly to be followed.
  - "should": indicates that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others.
  - "may": indicates a course of action permissible within the limits of the standard.
  - "can": is used for statements of possibility and capability, whether material physical or causal.

The "Producer" is the term chosen to define the Unit of licencing that include either Producer Unit or Individual farmer.

Criteria are written at the active form, using "The Producer" as subject.

→ **Example:** *The Producer must adopt a Water Management Plan towards water stewardship*

Core indicators are written with passive and affirmative form.

→ **Example:** Water resources are identified, mapped and understood

Improvement indicators are written either with interrogative form

→ **Example:** *Do wage records show that workers are paid regularly in the form requested by them?*

Or in passive form requiring an answer with quantitative data

→ **Example:** *Estimated number of farms with workers employed with written contract*

*Core indicators are designed in line with ISO drafting rules. They must be:*

3. Clear: Plain language should be applied so that requirements are understandable and relevant. Length of sentences should be kept as concise as possible.
4. Specific: Each indicator should preferably refer to a single aspect of performance to be evaluated. An indicator which includes more than one aspect to be evaluated shall be sub-divided in several indicators reflecting those aspects.
5. Measurable: Indicators shall specify outcomes or levels of performance that are measurable during an evaluation at a reasonable cost. The level of performance required to comply with the indicators should be clear to the reader.
6. Achievable: Indicators shall not be defined in terms of design or descriptive characteristics, and shall not favour a particular technology or patented item.

## PREAMBLE

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7. Relevant: Indicators shall only include elements that contribute to the achievement of the objective of the applicable BCI Criterion.
8. Tangible: Indicators shall be written using a clear and consistent vocabulary, free from subjective elements. The use of such phrases as “ordinarily”, “substantial”, “proactive”, “wherever possible”, “thorough”. Etc...should be avoided.
9. Each indicator applies to The Producer, as stated in the Principles and Criteria. As a result, the indicator will not state “The Producer shall/should [...]” so that duplication is avoided between criteria and indicators

Each indicator is stated in the present tense, meaning that it expresses what is meant to be in place at the time of assessment/audit and not at some future date.

**The three following questions relating to transversal subjects do not specifically address aspects embedded in the “Preamble” section.**

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## PREAMBLE

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### Question 3:

In this second draft, the Environmental principles now have a revised structure. Principle 2 (water stewardship), 3 (soil health), and 4 (biodiversity enhancement) require the establishment and monitoring of a management plan. The new approach is materialized by the fact that each of the principles embed only one criterion, followed by indicators breaking down the plan setting-up and monitoring steps by farmer categories.

**After review of the new structure under the three principles, do you agree with this new approach?**

- Yes
- No
- I don't have an opinion

**Please explain your answer:**

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## PREAMBLE

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### Question 4:

The results of the first consultation confirmed that climate aspects are a cross-cutting issue and should be reflected in all environmental principles. In this second draft, climate mitigation and adaptation aspects are scattered in the Crop Protection, Water, Soil and Biodiversity principles intent sections. Furthermore, a dedicated annex explain how climate mitigation and adaptation aspects are addressed throughout the new draft.

### Do you agree with this approach?

- Yes, it is sufficient to describe interlinks between farming practices and climate in the “intent” sections
- No, BCI should specifically flag up criteria/indicators with positive impacts on climate change
- I don't have an opinion

### Please explain your answer:

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## PREAMBLE

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**GENERAL COMMENT:**

Do you have any other general or specific comment to make on the Preamble?

- Yes
- No

If yes, please develop:



## PRINCIPLE 1 – CROP PROTECTION

## *Integrated Pest Management*

### PRINCIPLE 1 - BETTER COTTON FARMERS MINIMISE THE HARMFUL IMPACT OF CROP PROTECTION PRACTICES

#### **Introduction to the Principle:**

Cotton is attractive to a range of pests, and subject to diseases and weed infestations. A range of techniques are available for their control and management: this includes the use of bio-control agents, pheromones and hormones; plant breeding and appropriate cultivar selection; various cultural and mechanical techniques; the application of conventional pesticides (both natural and synthetic) and more recently, the use of genetically modified plants.

However, the use of synthetic pesticides is a dominant form of crop protection. Given this dominance, and that inappropriate or improper use of pesticides can adversely affect human health, contaminate water sources, food crops and the environment more broadly, the focus of the Criteria under this Principle is two-fold:

1. The adoption of Integrated Pest Management (IPM) and an emphasis on the use of pest control techniques other than pesticide application, in order to reduce reliance on pesticides. In addition to the risks associated with pesticide use, over-reliance has led to pest resistance, disruption to populations of natural pest enemies and secondary pest outbreaks, all of which make crop protection more challenging and costly;
2. The use of practices that minimise the potential harmful effects of pesticides.

As a mainstream initiative, BCI works with all farmers, including those who choose to grow transgenic (also referred to as 'GM' or 'biotech') cotton varieties, such as Bt cotton. BCI has adopted a position of being 'technology neutral' with respect to transgenic cotton. This means that BCI will neither encourage farmers to grow it, nor seek to restrict their access to it, provided it is legally available to them. Instead, the focus is on enabling farmers to make informed choices about the availability of technologies, and how to appropriately use them. BCI encourages informed decision-making at the farm level, to change practices that ensure improved outcomes - environmentally, socially and economically.

High atmospheric carbon content can influence plant growth and the nutritional needs of most species. Increased temperature causes migration of species northwards and into higher latitudes, while in the tropics higher temperatures might adversely affect specific pest species. Climate change will influence the ecology of weeds, pests and disease, with possible implications for the effectiveness of current IPM strategies in term of crop protection and pesticide use. BCI supports farmers in having a better knowledge and understanding of pest behaviour under different projected scenarios and develop new IPM technologies to respond to threats resulting from climate change.

## PRINCIPLE 1 – CROP PROTECTION

## *Integrated Pest Management*

### CRITERION 1.1

**The Producer must adopt** an Integrated Pest Management Programme that includes **all of** the following principles:

- i. growing of a healthy crop; and
- ii. prevention of build-up of pest populations and of the spread of disease; and
- iii. preservation and enhancement of populations of beneficial organisms; and
- iv. regular field observations of the crop's health and key pest and beneficial insects; and
- v. management of resistance.

#### Intent

The objectives and benefits of implementing IPM include:

- Reduced use of pesticides and associated levels of human and environmental toxicity, and the subsequent reduced risk to human health and the environment.
- Use of a wider range of control techniques and reduced reliance on a single method of pest control, leading to a more resilient approach to crop protection and better control of input costs.

### CORE INDICATORS

1.1.1 The Producer Unit has a locally adapted and time-bound plan based on agro-ecosystem analysis that identifies the appropriate specific practices to implement the 5 principles of Integrated Pest Management.



1.1.2 An Integrated Pest Management Programme is implemented that includes **all of** the following components:

- I. growing of a healthy crop; and
- II. prevention of build-up of pest populations and of the spread of disease; and
- III. preservation and enhancement of populations of beneficial organisms; and
- IV. regular field observations of the crop's health and key pest and beneficial insects; and
- V. management of resistance.



1.1.3 There is no calendar or random spraying.



## PRINCIPLE 1 – CROP PROTECTION

## Integrated Pest Management

### Rationale for change:

This core indicator, previously specific to SH, is extended to MF and LF in order to clarify that there shall be no random or calendar spraying also in MF and LF. This was previously implied with the requirement for MF and LF to adopt of a full IPM program – incompatible with random or calendar spraying - but some stakeholders erroneously interpreted that the criteria was stricter for SH than for MF and LF.

### IMPROVEMENT INDICATORS

- 1.1.4 Estimated number of farmers adopting the 5 principles of IPM, in accordance with the list of practices defined in the locally adapted and time-bound plan
- 1.1.5 Timeline against which 100% adoption on the 5 principles of IPM is expected to be achieved



### Guidance for implementation:

*Rather than being a specific set of rules, IPM is better considered as the fundamental guiding approach for how a cotton farmer should protect their cotton crop from the many and varied pests attracted to it. The principles that underpin an IPM Programme should include:*

- The interests of, and impacts on, producers, society and the environment are taken into account in the choice of crop protection techniques, such as the potential health and environmental impacts of pesticide use, and the need to manage genetically-modified varieties to prevent resistant insect and/or weed populations, and the risk of cross-fertilisation of any neighbouring cotton that is not genetically modified.*
- A range of pest control strategies should be used in an integrated manner, with no single strategy (particularly pesticide application) being overly relied upon, and that both preventative and curative measures are used.*
- The presence of pests should not automatically lead to control measures being applied.*
- When the control of pests becomes necessary, non-chemical pest control methods should be considered first; the use of pesticides (especially those with broad-spectrum activity) should be seen as a last resort.*

*An IPM program is built, implemented, and improved over time, reflecting the progress that farmers make in their knowledge and performance. This is very much in line with the concept of continuous improvement. BCI expects all Better Cotton farmers to understand the objectives of IPM, and to be knowledgeable about its 5 components. Large and Medium Farms are expected to be able to demonstrate the analysis of issues or the implementation of practices related to all 5 components - all combined under a comprehensive and operational IPM program. Producer Units of smallholders are expected to draft a comprehensive IPM plan that addresses all 5 components, and progressively put in place appropriate practices under a time-bound plan.*

## PRINCIPLE 1 – CROP PROTECTION

### *Integrated Pest Management*

*Some practices however are incompatible with the IPM approach as a baseline, such as the use of pesticides that are not legally registered for use on cotton, or the spraying of pesticides on a random basis or on a calendar schedule. This implies that every Better Cotton farmers must have the capacity, on an individual basis or through expert support, to trigger their pest management decisions based on a minimum level of field observations and analysis, and based on such concepts as economic thresholds for pest or predator to pest ratios. Pesticide application that does not follow this concept must be considered a non-compliance. In exceptional circumstances, farmers may spray pesticides on a date (relative to the crop cycle) that has been previously scheduled. For example, an early season, scheduled, “prophylactic” insecticide spray can be considered acceptable, as long as this is triggered by an official recommendation from a credible research body. This may occur in case a risk of early pest or disease infestation exist, which can be difficult to address in a timely manner after scouting and threshold assessment, and in the absence of any other effective alternative prevention methods. Furthermore, there are theoretical examples where, following up on an initial treatment triggered by observation, a 2nd spray could be implemented at a set interval (therefore “scheduled”), following a specific recommendation. These exceptional cases are only acceptable if producers are able to refer to an official recommendation that builds on credible, recent, and locally-relevant research, and if all other decisions to spray chemical pesticides are effectively based on field observations and in accordance with the producers’ IPM plan or program. Producers should also be able to demonstrate that alternative control methods are being investigated – either by the research body providing the recommendation, or by themselves.*

The specific techniques that can be implemented in any one farmer’s field will depend upon a range of agro-climatic, seasonal, socio-economic and political factors, and BCI will not endeavour to prescribe what these should be. The identification and promotion of the specific and most appropriate pest management techniques suitable in a given location is best left to local experts. Nevertheless, there is a range of broad strategies available, examples of which are provided here to help paint a picture of what field-level practices might be included within an IPM Programme:

- Preserving and enhancing populations of beneficial organisms: tactics include planting refuge and / or intercrops - crops that provide a habitat for beneficial animal species; use of attractants; release of beneficial insects; choosing the least disruptive (i.e. a narrow-spectrum) insecticide if this type of control is deemed necessary; maintaining on-farm habitat biodiversity
- Prevention of pest population build-up: tactics include use of crop rotation to break pest and disease cycles; keeping the farm weed-free; avoiding planting crops that host pests
- Ensuring a healthy crop that can withstand some degree of damage: tactics include good soil and bed preparation; choice of appropriate variety and planting date; appropriate water and nutrition management; and harvest management and timing
- Regular monitoring of the crop for pests, beneficial insects and crop damage, in conjunction with the use of appropriate pest thresholds so that some degree of toleration of crop damage can be accepted
- Management of resistance: tactics include rotation of insecticide groups; adoption of pest and damage thresholds; limiting the total number of applications of any one class of insecticide; use of trap crops; use of mechanical means to control a pest (e.g. destruction of overwintering pupae through cultivation); selection of insecticides that are least disruptive to beneficial insects
- Managing the crop to early maturity to reduce the length of time the crop is exposed to pests, and especially late-season pests

## **PRINCIPLE 1 – CROP PROTECTION**

### ***Integrated Pest Management***

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- Use of non-chemical means of control: tactics include encouraging bird and bat species that act as predators to cotton pest populations; use of pheromones
- Use of border crops (e.g. maize, sorghum) around cotton fields to provide a physical barrier to pests and which mask the odours given off by cotton plants.

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## PRINCIPLE 1 – CROP PROTECTION

## *Integrated Pest Management*

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### CRITERION 1.2

**The Producer may only use pesticides that are:**

- (i) Registered nationally for the crop being treated; and
- (ii) Correctly labelled in the national language.

#### Intent

The use of pesticides can pose risks to humans, animals and the environment. Different types of pesticides carry different types and degrees of risk that need to be taken into account. It is therefore important to understand the specific risks associated with each particular type of pesticide so that appropriate precautions can be taken. The labels provided with legally registered pesticides contain important information regarding the properties of the product being used, directions for use and the precautions and measures that should be adopted when using it, all of which need to be followed. The label should contain information on: the type of application equipment and protective equipment that should be used; the appropriate rate and volume of water to be used; any restrictions on use; first aid information; the crop(s) the product is registered for, product compatibility and container disposal requirements. Further information on these matters is available from the product Material Safety Data Sheet (MSDS).

Registration of a particular pesticide for a crop indicates that the relevant regulatory authority has assessed the risks associated with using the pesticide on the crop(s) it has been registered for, and that suitable, crop-specific directions for use have been developed. In particular, the rate (volume per unit area) at which a pesticide is to be applied, and any withholding period (the time that must be allowed to elapse after the application of a pesticide before the crop can be harvested) that must be observed, will be influenced by the crop being treated. Use of a pesticide on a crop for which it is not registered – especially food crops – increases the risk of pesticides entering the food chain, as the appropriate application rates and withholding periods will not have been determined. Lack of registration may be due to a decision that the pesticide should not be registered for the crop.

Furthermore, high application rates may damage the crop or result in unacceptably high residues, while rates that are too low may be ineffective and lead to the development of pest resistance.

## PRINCIPLE 1 – CROP PROTECTION

## Integrated Pest Management

### CORE INDICATORS

- 1.2.1 All pesticides used are registered nationally for the use on cotton.
- 1.2.2 All pesticides used are correctly labelled in the national language.
- 1.2.3 All natural substances are registered in the OISAT database



#### Guidance for implementation:

*For the purpose of this criteria, the term pesticide includes insecticides, herbicides, fungicides and acaricides, growth regulators, defoliants, conditioners and dessicants, as well as bio-pesticides. No distinction is made between synthetic or natural substances that are applied for any of these purposes.*

*It is strongly recommended to consult the Online Information Service for Non-Chemical Pest Management in the Tropics (OISAT) website - <http://www.oisat.org/> - to access a global database listing natural substances reviewed and registered by the Pesticides Action Network. It is an easy to read web-based information platform, relevant for small scale farmers in the tropics on how to produce key crops using affordable, preventive and curative non-chemical crop and pest management practices in a way that prevents pests and diseases by using non-chemical pest control measures.*

## PRINCIPLE 1 – CROP PROTECTION

## *Integrated Pest Management*

### **Rationale for change:**

The BCI Standard Setting and Revision Committee has acknowledged the concerns of some stakeholders regarding the fact that some natural substances can also be highly toxic. Members have therefore decided to require that natural substances used in BCI farms must be registered in the OISAT database. PAN uses dedicated protocols to review and validate those pest control methods. The quality management of the information processed is quite high. Sources include scientific publications, project reports and documented non-scientific reports from training and extension agencies and local information providers. PAN sends control methods descriptions to scientists, specialized in the particular field for their review. There are internet links that lead directly to sources that offer information which details practices.

BCI therefore trusts the rigor and high quality validation process of the OISAT database.

### **Question 1:**

Do you agree to require that natural substances must be registered in the OISAT database to allow for their use in BCI farms?

- Yes
- No
- I don't have an opinion

### **Please explain your answer:**



## PRINCIPLE 1 – CROP PROTECTION

## *Pesticides restriction*

### CRITERION 1.3

**The Producer must not use any pesticide listed in**

- (i) annex A and B of the Stockholm Convention; or**
- (ii) annexes of the Montreal Protocol; or**
- (iii) annex III of the Rotterdam convention**

#### **Intent**

Chemicals listed under the Stockholm Convention on Persistent Organic Pollutants (POPs) as well as substances listed in the annexes of Montreal Protocol on Substances that Deplete the Ozone Layer (a protocol of the Vienna Convention for the Protection of the Ozone Layer) poses unacceptable levels of hazards to human health or the environment and are to be eliminated from use in agriculture. If a substance is established to meet the parameters of these conventions and is listed in their respective annexes, Better Cotton farmers shall not use them.

### CORE INDICATORS

#### 1.3.1 Pesticides listed in:

- i. Annex A and B of the Stockholm Convention; or
- ii. Annexes of the Montreal Protocol; or
- iii. Annex III of the Rotterdam Convention



are not used.

#### **Rationale for Change:**

There are two main change to criterion 1.3:

- Ban Rotterdam convention listed pesticides that are required to be phased out as improvement indicators in version 1-0 of the Principles and criteria. It is suggested to turn them into Core indicator. An evaluation has been conducted to assess impact on BCI farmers resulting from that proposal. It showed clearly that the impact would be minimum as only a few of those pesticides are used in the BCI system.
- Add the Montreal protocol (part of the Vienna Convention for the Protection of the Ozone Layer) to banned pesticides in order to bring coherence. Indeed, most of standard systems operating in the field of land use and Forestry have banned chemicals listed under the three conventions  
The Montreal protocol entered into force in 1989 in order to protect the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion. Among these, only one substance is used as a pesticide: Methyl Bromide. It is customary in voluntary standard systems to address the three international conventions, which seek the restriction of chemicals that have been assessed to pose particularly high levels of hazards on human health or the environment.

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## PRINCIPLE 1 – CROP PROTECTION

### *Pesticides restriction*

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#### **Guidance for implementation:**

*A list of substances listed in the Stockholm and Rotterdam conventions as of 17 May 2004 and 24 February 2004 respectively is provided as Annexure 2. However, The Producer is responsible to remain current with the most updated version of the list.*

#### **Question 2:**

Do you agree with the proposal of banning the use of pesticides listed under Montreal protocol and Rotterdam convention by BCI farmers as it is already the case for Stockholm conventions?

- Yes
- No
- I don't have an opinion

#### **Please explain your answer:**

## PRINCIPLE 1 – CROP PROTECTION

### *Pesticides restriction*

#### CRITERION 1.4

**The producer must phase out the use of any pesticide active ingredients and their formulations that are known or presumed to be extremely or highly hazardous respectively by 2020 and 2023.**

#### Intent

BCI considers that it is in the interest of both the health of the farmer and the farming community, and of the environment, for there to be a reduction in the total toxicity of the pesticides applied to the crop. One method for reducing the total toxicity is to restrict access to certain types of pesticides, based on their toxicity. As FAO notes, restricting access to certain toxic pesticides, such as WHO Class I “may be desirable if other control measures or good marketing practices are insufficient to ensure that the product can be handled with acceptable risk to the user.”

However, BCI recognises that a blanket restriction on the use of a range of generally available pesticides may not be able to take into account either:

- The specific and immediate local impacts of such a restriction. For example, will a farmer have access to alternative products?
- The degree of risk associated with using the pesticide in different regional contexts, i.e. regions with access to different technologies will have differing abilities to minimise the risks associated with applying pesticides. Again, as noted by FAO: “Pesticides whose handling and application require the use of personal protective equipment that is uncomfortable, expensive or not readily available should be avoided, especially in the case of small-scale users in tropical climates”.

#### CORE INDICATOR

**1.4.1** The Producer has a plan to phase out by 2020 pesticides listed in categories 1 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS); 1A of the World Health Organization classification (WHO)



**1.4.2** The Producer has a plan to phase out by 2023 pesticides listed in categories 2 of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS); 1B of the World Health Organization classification (WHO)



## PRINCIPLE 1 – CROP PROTECTION

### *Pesticides restriction*

#### **Rationale for Change:**

The WHO Recommended Classification of Pesticides by hazard sets out a classification system to distinguish between the more and the less hazardous forms of selected pesticides based on acute risk to human health (that is the risk of single or multiple exposures over a relatively short period of time). It takes into consideration the toxicity of the technical active substance and also describes methods for the classification of formulations. WHO document lists common technical grade pesticides and recommended classifications together with a listing of active ingredients believed to be obsolete or discontinued for use as pesticides, pesticides subject to the prior informed consent procedure (Rotterdam Convention), limitations to trade because of the Stockholm Convention (POPs), and gaseous or volatile fumigants are not classified under these recommendations.

BCI, through its Standard Setting and Revision Committee, recommends phasing out WHO 1a and 1b (extremely and highly hazardous) pesticides within a period of respectively 2020 for WHO Class 1a and 2023 for WHO Class 1b. The rationale behind this decision is to ensure that the phase-out process comes to a close.

[http://www.who.int/entity/ipcs/publications/pesticides\\_hazard\\_2009.pdf?ua=1](http://www.who.int/entity/ipcs/publications/pesticides_hazard_2009.pdf?ua=1)

#### **Question 3:**

Do you agree with the idea of requiring specific phasing out deadlines for WHO Class 1a and 1b, GHS category 1 and 2 pesticides?

- Yes
- No
- I don't have an opinion

#### **Please explain your answer:**

#### **IMPROVEMENT INDICATOR**

1.4.3 Estimated number of farmers who have phased out WHO Class 1a

1.4.4 Estimated number of farmers who have phased out WHO Class 1b



## PRINCIPLE 1 – CROP PROTECTION

## *Pesticides restriction*

### CRITERION 1.5

The producer must phase out the use of any pesticide active ingredients and their formulations that are known or presumed to be human carcinogenic, mutagen and reproductive toxicant

### CORE INDICATOR

- 1.5.1 The Producer has a plan to phase out Pesticides meeting the criteria of carcinogenicity, mutagenicity and reproductive toxicity Categories 1A and 1B of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS); 1A and 1B of the World Health Organization classification (WHO) and Group 1 and 2A of International Agency for Research on Cancer (IARC).



### IMPROVEMENT INDICATOR

- 1.5.2 Estimated number of farmers who have phase out Pesticides meeting the criteria of carcinogenicity, mutagenicity and reproductive toxicity Categories 1A and 1B of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS); 1A and 1B of the World Health Organization classification (WHO) and Group 1 and 2A of International Agency for Research on Cancer (IARC).



#### **Rationale for Change:**

With this new criterion, BCI reinforces its approach towards phasing out of Highly hazardous pesticides (HHPs) as defined by the FAO/WHO International Code of Conduct on Pesticide Management. Indeed, the code recognizes HHPs as pesticides that are acknowledged to present particularly high levels of acute or chronic hazards to health or environment according to internationally accepted classification systems such as the World Health Organization (WHO) or the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), International Agency for Research on Cancer (IARC) or their listing in relevant binding international agreements or conventions (Rotterdam, Stockholm conventions and Montreal protocol). It was therefore important to insert GHS classification system to principle 1.

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## PRINCIPLE 1 – CROP PROTECTION

## *Pesticides restriction*

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### CRITERION 1.6

**The Producer must ensure that any person who prepares and applies pesticides are:**

- (i) **Healthy; and**
- (ii) **Skilled and trained in the application of pesticides; and**
- (iii) **18 or older; and**
- (iv) **not pregnant or nursing.**

#### **Intent**

Given the hazards associated with pesticide use, it is important that the people who use them are both healthy and trained. Workers who are not healthy, for example who are fatigued or sick, are more likely to have an accident than workers who are healthy, while workers with illnesses — especially liver or kidney diseases — may be at a greater risk. Equally, workers with open wounds have an increased risk of pesticides entering their body through the wound.

Farmers and workers must be provided with the appropriate information and training that allows them to perform their work safely and without risk to their health. This facilitates understanding about the extent of the hazard, associated risks, why risk controls are used and how to manage the risks. Training enables people to work more safely in the context of the hazards. The specific content of training is situation-specific and should be tailored with respect to the local context.

People under the age of 18 should not apply pesticides as pesticide application is work ‘which by its nature ... is likely to harm their health’ and therefore classified as hazardous child labour. Reasons for restricting the application of pesticides to people aged 18 and older include the physical nature of pesticide application, and the increased risk of fatigue, injury and poisoning for young workers, and also the likelihood that personal protective equipment, being designed for adults, may not fit properly and therefore not work properly — if it is used at all.

Pregnant and nursing women should not be involved in pesticide application, given the greater risks associated in exposing their developing foetus or nursing child to pesticides. Unborn and young children may be especially sensitive to pesticides for a number of reasons: the development of the foetus’ nervous system may be adversely affected; young children do not have the same ability to detoxify pesticides, and their lower body weight makes them more susceptible than adults to the adverse effects of pesticides. As a woman may not be aware that she is pregnant in the early stages of her pregnancy, the ideal situation would be that women of child-bearing age do not apply pesticides at all.

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## PRINCIPLE 1 – CROP PROTECTION

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### *Pesticides restriction*

#### CORE INDICATOR

- 1.6.1 All person who prepare and apply pesticides are:
- 1.6.1.1.1 Healthy; and
  - 1.6.1.1.2 Skilled and trained in the application of pesticides; and
  - 1.6.1.1.3 18 or older; and
  - 1.6.1.1.4 not pregnant or nursing;



## PRINCIPLE 1 – CROP PROTECTION

### *Pesticides restriction*

#### CRITERION 1.7

**The Producers must ensure that any person who prepares and applies pesticides always uses appropriate protective and safety equipment in a correct manner.**

##### Intent

Pesticides can enter a person's body through a person's mouth (oral), their skin (dermal), or breathing (inhalation). The risk of entry will be affected by the formulation of the pesticide (e.g. liquid or dust), and how it is handled. Oral ingestion can result from eating or smoking while working with pesticides, from mistakenly consuming a pesticide stored in a food or drink container, from not washing hands thoroughly after working with pesticides or through use of a pesticide container for household purposes. Dermal absorption is a major route of poisoning, and can occur during handling, mixing and loading of pesticides, as well as during application, for example as a result of a leaking backpack applicator. Inhalation of pesticide dust and spray droplets can also occur during mixing and application.

The use of Personal Protective Equipment (PPE) should be seen as the last resort to protecting applicators from pesticide exposure. The best method is to remove the source of risk: that is, not to use the pesticide in the first place. Adoption of an IPM programme can assist in making use of pesticides a last resort. If a pesticide application is required, consideration then needs to be given to selecting one that poses the least risk to the user. For example, through the choice of a less hazardous active ingredient, or the least hazardous formulation for a given active ingredient. Preventing applicators being exposed to pesticides is essential for managing the risks of acute or chronic health injuries. The label should contain information on the appropriate protective and safety equipment to be used, based on the risks posed by the pesticide.

Where PPE is used to control risks associated with pesticides, it is essential that certain conditions be met in order for it to be effective. It should correctly fit each wearer and users need to understand how and why to use it. All PPE should be readily available, functional and correctly maintained and cleaned.

#### CORE INDICATORS

1.7.1 Pesticides are prepared and applied by persons who correctly use appropriate protective and safety equipment



1.7.2 Minimum Personal Protective Equipment is worn while preparing and applying pesticides.





## PRINCIPLE 1 – CROP PROTECTION

### *Pesticides restriction*

1.7.3 Pesticide labels are checked regularly (at least every spray season) to ensure that the appropriate PPE is available for the pesticides being used.

1.7.4 All staff who work with pesticides have received training on safe work procedures and the maintenance, use and proper storage of PPE.



### IMPROVEMENT INDICATORS

1.7.5 Estimated number of farms where pesticides are prepared and applied by persons who correctly use appropriate protective and safety equipment.



1.7.6 Frequency at which PPE is checked for wear and tear, and replaced if required.

1.7.7 Frequency at which refresher training on safe work procedures and the maintenance, use and proper storage of PPE is provided.



#### Guidance for implementation:

BCI recognizes that there are situations where appropriate equipment is not available or affordable for farmers. However, at minimum, when handling or applying any pesticides farmers must wear:

- Work clothing with long pants and long sleeves
- Unlined, liquid-proof, chemical-resistant gloves
- Shoes and socks

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## PRINCIPLE 1 – CROP PROTECTION

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### *Pesticides restriction*

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#### **Rationale for Change:**

There has been debate among stakeholders regarding the Minimum Personal Protective Equipment definition (see guidance for implementation section above). There was indeed the option of listing specific garments that are supposed to ensure minimum safety during pesticides handling or ensure all sensitive parts of the body are well covered (face, hands, legs and arms). The current version adopts the first option. Besides, it is suggested to make the indicator become core indicator as it has been improvement until now.

#### **Question 4:**

Do you agree with the definition of Minimum Personal Protective Equipment as suggested in the “Guidance for implementation” section?

- Yes
- No
- I don't have an opinion

Please explain your answer:

#### **Question 5:**

If not, what definition would you apply to Minimum PPE?

Please explain your answer:

## PRINCIPLE 1 – CROP PROTECTION

## *Pesticides restriction*

### CRITERION 1.8

**The Producer must** ~~are~~ store, handle and clean pesticide application equipment and containers so as to avoid environmental harm and human exposure.

#### Intent

Pesticide containers are a source of risk to the environment and human health, and appropriate storage will help to minimise this risk. Determining what is appropriate will be affected by both the quantity and type of pesticide being stored. The local context will also strongly influence the storage options available to a farmer. Ideally, pesticides would be purchased only in the amounts required for immediate use, and used as soon as they are purchased so that the need for storage by the farmer is eliminated. However, it is recognised that this may not always be possible or practical.

### CORE INDICATORS

- 1.8.1 The farm has dedicated areas for the storage, mixing and handling of pesticides, and for cleaning of pesticide containers and application equipment that fully complies with the relevant legislation for storage, handing and disposal of pesticides and ensures that all rinsate and run-off is completely captured and poses no contamination risk.



### IMPROVEMENT INDICATORS

- 1.8.2 Estimated number of farms with separate and safe storage and cleaning sites available
- 1.8.3 Frequency at which application equipment is inspected and cleaned.



#### Rationale for Change:

Indicator 1.8.1 is currently an improvement indicator. It is suggested here to turn it into a Core indicator for large farms as it is expected that Large operation storage, mixing and handling capacity is sufficient to be a basic requirement.

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## PRINCIPLE 1 – CROP PROTECTION

### *Pesticides restriction*

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#### **Guidance for implementation:**

*If pesticides need to be stored, they should be stored separately from all other substances, and storage should protect the containers from the weather, to minimise the risks of the containers corroding or the pesticide degrading. Storage also needs to be in a secure and well-ventilated area so that they are protected from unauthorised access, and so that fumes do not pose a risk.*

*Pesticides should never be stored in drink or food containers. If it is necessary to store a pesticide in a container other than its original container, then the container must be clearly and appropriately marked.*

*Mixing and cleaning of pesticide containers and application equipment should be undertaken only while wearing appropriate personal protective equipment, and away from sensitive areas, especially water bodies and water courses, so that any run-off drains away from water bodies. Applicators should not eat, smoke or drink while applying pesticides, or when handling and cleaning containers and application equipment, and should have access to appropriate facilities for washing hands and changing clothes after handling or spraying pesticides.*

## PRINCIPLE 1 – CROP PROTECTION

## Waste management

### CRITERION 1.9

**The Producers must** apply pesticides in appropriate weather conditions, according to label directions, and/or manufacturers' directions, with appropriate and well-maintained equipment.

#### Intent

The risk of off-target movement of pesticides is related to both the prevailing weather conditions, and the suitability of the equipment used to apply the pesticide. Temperature affects the rate of evaporation, and high rates of evaporation may result in a reduced droplet size for water-based formulations, leading to an increased risk of drift (small droplets are more likely to drift off-target than large droplets).

Leaks in application equipment pose a threat to the applicator and the environment, and worn parts may result in incorrect application rates and less effective treatment.

#### CORE INDICATOR

1.8.1 The farm has a formal plan for conducting pesticide application that details, at a minimum, the following:

- Requirements for compliance with the label requirements
- The relevant weather conditions under which applications will and will not be undertaken for each field (including wind direction and taking into account the pesticide being applied), spray parameters (e.g. speed, pressure, nozzle size, spray volume, boom height etc.), and all relevant sensitive areas, which are clearly identified on a farm map.



#### IMPROVEMENT INDICATORS

1.8.2 Estimated number of farms applying pesticides in appropriate weather conditions, according to label directions with appropriate and well-maintained equipment.



1.8.3 Does the Producer have weather monitoring equipment that is used to monitor temperature, wind speed and direction and humidity prior to and during the application, with readings recorded?



1.8.4 Does the Producer have procedures for ensuring that workers are aware of and observe re-entry periods for any treated areas?

## PRINCIPLE 1 – CROP PROTECTION

### **Waste management**

#### **Guidance for implementation:**

*Weather conditions to take into account are wind speed and direction, temperature and relative humidity, and atmospheric stability. Ideally, wind speed should be between 3 and 15 kilometres per hour (2 and 9 miles per hour), and blowing away from any sensitive areas. The application should be carried out in a crosswind, with the operator working into the wind towards the untreated area.*

*Application should not take place when rainfall is imminent. If it rains soon after application there is a real risk of off-site contamination (through the rain washing the recently-applied pesticides off the plant), and the efficacy of the application will be adversely affected.*

*As noted under Criterion 1.2, pesticide labels contain important information regarding the properties of the product being used, directions for use and the precautions and measures that should be adopted when using it, all of which need to be followed. The label should always be consulted for specific advice on appropriate weather conditions and application equipment.*

*Pesticides can be delivered in a number of forms (e.g. emulsions, wettable powders, granules), and can be applied with a range of equipment. Application equipment is designed and manufactured to be operated under certain parameters, and the equipment used needs to be appropriate to the form of the pesticide being applied. The equipment should also be in good condition, with no leaks or worn parts. Application equipment should be cleaned after each use, to reduce the risk of contamination, and to keep it in good working order.*

## PRINCIPLE 1 – CROP PROTECTION

## Waste management

### CRITERION 1.10

**The Producer must** dispose of used pesticide containers safely, or through a collection and recycling programme.

#### Intent

The focus of this Criterion is to prevent pesticide containers ever being used, either accidentally or intentionally, for any other purpose. Even if it is possible to clean containers to be free from residues, it is impossible to tell whether a container is clean or contaminated. Therefore, this Criterion seeks to ensure that no pesticide containers are used for any household or other purposes, so as to reduce the risk of accidental poisoning through use of a contaminated container.

Used pesticide containers are also a potential source for environmental contamination, and proper disposal needs to reduce the risk of environmental contamination.

### IMPROVEMENT INDICATORS

1.9.1 Estimated number of farms that dispose of pesticide containers safely



1.9.2 Percentage of pesticide containers that are triple-rinsed, with the rinsate added to the spray tank, or disposed of safely



1.9.3 Percentage of pesticide containers that are recycled.

#### Guidance for implementation:

The best disposal method will depend upon the nature of the packaging. Where possible, options for disposing of the container should be taken into account when making the decision to purchase a pesticide.

The label should contain advice on options for safe disposal. BCI recognises that many farmers may not have access to a container recycling or collection programme, and that external support will be important.

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**PRINCIPLE 1 – CROP PROTECTION**

***Waste management***

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**GENERAL COMMENT:**

Do you have any other general or specific comment to make on this principle 1?

- Yes
- No

If yes, please develop:



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## PRINCIPLE 2 – WATER STEWARDSHIP

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### PRINCIPLE 2 - BETTER COTTON FARMERS PROMOTE WATER STEWARDSHIP

#### Introduction to the Principle:

Cotton production impacts freshwater resources in terms of water quantity through irrigation (use of surface and groundwater) and the use of rainwater stored in land, and in terms of water quality through the application of agrochemicals (use of pesticides and fertilisers) and farm runoff.

Water is a major limiting factor in cotton production. While cotton is a relatively drought tolerant crop, farmers who use water efficiently (on both rain fed and irrigated systems farms) can achieve greater yields and consume and pollute less water if appropriate management practices are applied. This contributes not only to more efficient and sustainable water use, it also helps producers build resilience to climate change.

Freshwater is a shared and limited resource within a certain river basin/catchment or aquifer making water scarcity and pollution matters of concern. It is estimated that half a billion people in the world currently face severe water scarcity all year round<sup>1</sup>, whilst almost half of the global population lives in regions where fresh water bodies' assimilation capacity for nitrogen is exceeded<sup>2</sup>.

To use freshwater resources sustainably, three perspectives should be considered: environmental sustainability; social sustainability; and economic sustainability. Environmental sustainability is met by using fresh water within sustainable limits such that the ecosystem and subsistence uses of water are met at the river basin, or aquifer scale. Social sustainability is met through allocating water equitably between uses and users, both locally and globally. Economic sustainability is met through maximizing water productivity i.e., by reducing the quantity of water consumed, or the pollution created, per unit of production. All the three sustainability components include both water quantity and water quality aspects.

Water stewardship is the use of water that is socially equitable, environmentally sustainable and economically beneficial. It is achieved through a stakeholder-inclusive process that involves site and catchment-based actions. Good water stewards understand their own water use, the catchment context and the shared risk in terms of water governance, water balance, water quality and important water-related areas. They then engage in meaningful individual and collective actions that benefit both people and nature<sup>3</sup>.

Hence, to use water more sustainably, cotton producers must not only practice good water management at the farm level, they must also take collective action amongst themselves as well as with other water users, such as local communities and authorities within a given river catchment or aquifer. In order to do so, it is crucial that cotton producers understand the water resources context of their production areas and plan and implement an effective water resources management strategy.

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1 Mekonnen, M.M. and Hoekstra, A.Y. (2016) Four billion people facing severe water scarcity, *Science Advances*, 2(2): e1500323

2 Mekonnen MM, Hoekstra AY; Global Gray Water Footprint and Water Pollution Levels Related to Anthropogenic Nitrogen Loads to Fresh Water, *Environ. Sci. Technol.* 49: 12860-12868, 2015

3 The AWS International Water Stewardship Standard, <http://www.allianceforwaterstewardship.org/>

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## PRINCIPLE 2 – WATER STEWARDSHIP

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### CRITERION 2.1

The Producer must adopt a Water Management Plan towards water stewardship, that identifies opportunities for climate change adaptation, and that includes all of the following components:

- I. Mapping and understanding of water resources
- II. Soil moisture management
- III. Efficient irrigation practices to optimise water productivity (**applicable to irrigated farms only**)
- IV. Water quality management
- V. Collaboration and collective action towards local sustainable use of water

### Intent

The objectives and benefits of adopting a Water Management Plan towards good water stewardship include:

- Better understanding of the water resources context upon which cotton production is dependent so that water availability and quality are known and can be better managed.  
Mapping local water resources enables producers to understand their local water environment. It informs them of where the water used for their cotton production originates, where it flows beyond the farm's borders, and of the main water issues (water quantity and quality aspects) in the catchment, or aquifer.
- A more efficient management of soil moisture  
Reduction/elimination of non-productive evaporation losses of water improves crop performance, reduces the amount of water needed for irrigation and optimises the use of rainwater. Reducing the evaporative losses of rainfall stored in the soil increases availability of soil moisture to support plant growth. Reducing evaporation from the soil can also decrease the amount of irrigation water needed and can build greater resilience in the farm system to climatic changes.
- Reduced water pollution for an improved water quality  
Cotton production impacts fresh water quality (surface and groundwater) through its use of pesticides and fertilisers as well as irrigation and soil management practices. The quality of water used for cotton irrigation (e.g. level of salinity) influences plant growth, yield and soil. It is, therefore, important for cotton producers to understand the importance of the quality of the water being used for cotton growth and to ensure that the impacts of their production on water quality are minimised. Water management planning needs, therefore, to be linked and integrated with pesticides application, fertilisation, and soil management. The reduction of impacts on local freshwater resources not only contributes to better water quality for irrigation use, but also improves the sustainability of the freshwater resources at the catchment level.
- Promotion of the fair use and allocation of water resources amongst users  
For cotton production to become more sustainable, it is not sufficient to manage water at the cotton field or farm level only. Cumulative impacts of many cotton producers and other water users in a catchment can result in groundwater and surface water bodies being used beyond maximum

## PRINCIPLE 2 – WATER STEWARDSHIP

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sustainable limits. Any water user in an unsustainably managed catchment or aquifer contributes to the unsustainable use of water within that catchment. Cotton is frequently grown in places that are water scarce or have high water pollution levels. Therefore, it is essential that, in addition to practicing good water management at farm level, cotton producers participate in resolving issues of unsustainable water use at catchment level through collective actions. This will not only promote sustainable cotton growth, it will also avert, or allow the management of, water related risks to producers.

The best way to start working collectively is to engage with neighbouring farms. It is very likely that these farms share the same challenges and opportunities and synergies can be established to maximise effort results, in the identification of problems, initiatives and stakeholders. Likewise, in initiatives' participation, association with neighbouring cotton producers or other types of farms, will help finding common grounds for action.

**Note:** All indicators and guidance are applicable to both irrigated and rain fed farms except when mentioned otherwise

## PRINCIPLE 2 – WATER STEWARDSHIP

### Water mapping

#### CORE INDICATORS

- 2.1.1 A Water Management Plan is defined that addresses each of the following components:
- I. Mapping and understanding of water resources
  - II. Soil moisture management
  - III. Efficient irrigation practices to optimise water productivity (**applicable to irrigation farms only**)
  - IV. Water quality management
  - V. Collaboration and collective action towards local sustainable use of water



- 2.1.2 A timeline for implementing the five components of the Water Management Plan is established and feeds into the Continuous Improvement Plan (see criteria 7.4)



- 2.1.3 Water resources are identified, mapped and understood

- 2.1.4 Soil moisture management practices to reduce evaporation from soil water are implemented as per the Water Management Plan.

- 2.1.5 Irrigation methods and technologies are implemented towards irrigation efficiency as per the Water Management Plan (applicable to irrigation farms only)

- 2.1.6 Irrigation timing is planned towards maximisation of water productivity (applicable to irrigation farms only)

- 2.1.7 Irrigation is not conducted on a predetermined calendar schedule (applicable to irrigated farms only)

- 2.1.8 Risk to water quality is considered when managing and applying nutrients and pesticides as per the Water Management Plan.



- 2.1.9 Opportunities for collaboration and collective actions (beyond the Producer's unit of production) towards local sustainable use of water are identified.



## PRINCIPLE 2 – WATER STEWARDSHIP

### Water mapping

#### IMPROVEMENT INDICATORS

- 2.1.10 Are water resources identified, mapped and understood?
- 2.1.11 Are soil moisture management practices to reduce evaporation from soil water implemented as per the Water Management Plan?
- 2.1.12 Are irrigation methods and technologies implemented towards irrigation efficiency as per the Water Management Plan (applicable to irrigation farms only)?
- 2.1.13 Is irrigation timing planned towards maximisation of water productivity (**applicable to irrigation farms only**)?
- 2.1.14 Is irrigation not conducted on a predetermined calendar schedule (**applicable to irrigated farms only**)?
- 2.1.15 Is risk to water quality considered when managing and applying nutrients and pesticides as per the Water Management Plan?
- 2.1.16 Are collaboration and collective actions (beyond the Producer's unit of production) towards local sustainable use of water implemented as per opportunities identified in the Water Management Plan?



#### Guidance for implementation of the Water Management Plan:

##### Component I. Mapping and understanding of water resources

The mapping and understanding of water resources includes the following components:

- a) Identification of the river catchment(s) where the farm is located
- b) Identification of water sources for cotton irrigation and mapping location(s) in the catchment(s) and/or aquifers from which water is sourced (**applicable to irrigation farms only**)
- c) Identification of water availability and water quality issues:
  - a) at the farm location (if available)
  - b) in the catchment(s) where the farm is located
  - c) in the catchment(s) and/or aquifers from which where water for irrigation is sourced (**applicable to irrigation farms and to farms that source water for irrigation from a different river basin/catchment from the farm location**)
  - d) Exploration of potential of rainwater harvesting during rainy season to be used during dry season to decrease pressure on scarce surface and groundwater resources
  - e) Mapping of wetlands (swamps, ponds and lakes, either permanent or seasonal) and riparian vegetation areas in the farm and its borders

Link with  
P3 soil

For mapping it is necessary to provide a farm's and water abstraction points' (applicable to irrigation farms only) locations in a map or to provide coordinates. Local authorities may provide support in locating farms and water abstraction points in maps.

**PRINCIPLE 2 – WATER STEWARDSHIP**

***Water mapping***

Guidance for the Identification of the river catchment and water sources for cotton irrigation - Component (I.a and I.b)

|  |   |
|--|---|
| <p>To identify river catchment(s), Producers may obtain information from:</p> <ul style="list-style-type: none"> <li>- Local or national authorities (e.g., Municipality, water authorities , Ministry of Agriculture)</li> <li>- Global or regional and local databases available online, such as the Interactive Database of the World’s River Basins from CEO Water Mandate: <a href="http://riverbasins.wateractionhub.org/">http://riverbasins.wateractionhub.org/</a></li> </ul> | <p>To identify aquifers, Producers may obtain information from:</p> <ul style="list-style-type: none"> <li>- Local or national authorities (e.g., Municipality, water authorities , Ministry of Agriculture)</li> <li>- Global online data such as the Global Groundwater Network: <a href="https://ggmn.un-igrac.org/">https://ggmn.un-igrac.org/</a></li> <li>- Regional and local online maps, e.g.:</li> <li>- United States Geological Services: <a href="http://groundwaterwatch.usgs.gov/">http://groundwaterwatch.usgs.gov/</a></li> <li>- India Water Tool: <a href="http://www.indiawatertool.in">http://www.indiawatertool.in</a></li> </ul> |
|--|---|

## PRINCIPLE 2 – WATER STEWARDSHIP

### *Water mapping*

Guidance for implementation for Identification of water availability and water quality issues (Component I.c.):

| Recommended parameter<br>(not all data may always be available)  | Possible data sources   |
|--|---|
| <ul style="list-style-type: none"> <li>- <b>Precipitation patterns: amount, inter and intra annual variations and trends (based on historical data or associated with climate change forecasts)</b></li> <li>- <b>Water availability/scarcity</b></li> <li>- <b>Inter and intra-annual water availability/scarcity variations</b></li> <li>- <b>Drought frequency</b></li> <li>- <b>Groundwater level, depletion or stress</b></li> <li>- <b>Surface and groundwater quality aspects which:</b> <ul style="list-style-type: none"> <li>- <b>indicate overall water quality of freshwater bodies</b></li> <li>- <b>indicate adequacy of water for cotton irrigation</b></li> </ul> </li> <li>- <b>include aspects such as salinity and turbidity (applicable to irrigation farms only)</b></li> <li>- <b>indicate pollution caused by the use of fertilisers and pesticides in cotton production</b></li> </ul> | <ul style="list-style-type: none"> <li>- <b>Data collected locally by the farmer on precipitation, surface water flows, groundwater levels and/or water quality</b></li> <li>- <b>Data available from local or national authorities (monitoring programmes, surveys, river basin plans, etc.)</b></li> <li>- <b>Data available from global or regional online tools, e.g. :</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>World Map on river basin water scarcity (data on water scarcity available per river basin and per country): <a href="http://worldmap.harvard.edu/maps/riverbasinscarcity">http://worldmap.harvard.edu/maps/riverbasinscarcity</a></b></li> <li><input type="checkbox"/> <b>Aqueduct Water Risk Atlas (water risk assessment tool which provides information about water physical risk (quantitative and qualitative), regulatory risk and projected changes: <a href="http://www.wri.org/applications/maps/aqueduct-atlas/">http://www.wri.org/applications/maps/aqueduct-atlas/</a></b></li> <li><input type="checkbox"/> <b>Transboundary Water Assessment Programme (water assessment information on water quantity and quality aspects of the world's 286 transboundary river basins): <a href="http://twap-rivers.org/indicators/">http://twap-rivers.org/indicators/</a></b></li> <li><input type="checkbox"/> <b>Water Footprint Assessment Tool (geographic sustainability assessment based on water scarcity and nitrogen): <a href="http://waterfootprint.org/en/resources/interactive-tools/water-footprint-assessment-tool/">http://waterfootprint.org/en/resources/interactive-tools/water-footprint-assessment-tool/</a></b></li> </ul> </li> <li>- <b>Example of local database for India</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> <b>India Water Tool (data on surface and groundwater availability, quality and stress and projected changes in India): <a href="http://www.indiawatertool.in/">http://www.indiawatertool.in/</a></b></li> </ul> </li> </ul> |

## PRINCIPLE 2 – WATER STEWARDSHIP

### *Water retention*

Guidance for implementation for Mapping of wetlands (Component I.e.):

Develop cotton production farm map, which includes location and delineation of:

- swamps, ponds, lakes and any other areas that flood, either permanently or seasonally
- specific vegetation which develops in and around these areas
- vegetation along rivers and streams which cross the farm or run within its borders

Link  
with P4  
biodiv

Establish links with issues addressed in the Biodiversity Management Plan (see criteria 4.2

### **Component II. Soil moisture management**

Link with  
P3 soil

Total evaporation is partitioned into productive evaporation (water used by plants and transpired) and non-productive evaporation (rainfall that is intercepted in places such as a roof or road, water that stays in the soil surface and open water evaporation).

#### **Guidance for implementation:**

Examples of appropriate practices and strategies include:

- Adopt cotton varieties, which are best adapted to the region's current and forecasted climacteric conditions, and to soil characteristics. In some regions, adopting a high density planting system, with adequate variety, has resulted in higher water productivity by decreasing soil area exposed to evaporation
- Good forecasting of rains, based on meteorological data collected by farmer or available from local data providers, to determine when seeds should be sown
- Optimise sowing timing: appropriately timed planting relative to soil moisture and onset of rainy season can increase yields
- Promote deep soil loosening and sow seed below surface for soil moisture use optimisation. In loamy soils, conducting regular soil harrowing during first rains has shown to retain soil moisture, while using enclosed hilling, maintains soil moisture during late season
- Adopt mulching and conservation tillage, which reduce evaporation from the soil surface. Mulching can be organic, with the use of manure (composting) or green crops; or can be synthetic (films are usually more efficient but also imply higher costs)
- Adopt a soil moisture monitoring system and use it to schedule irrigation accurately (**applicable to irrigation farms only**). Simple soil moisture and plant physiology observation (such as flower appearance, intermodal distance of plants, level of red/pink streak in the main stem) can be adopted to decide on irrigation. Other systems can range from simple methods such as the Gravimetric Soil Moisture determination Method to more sophisticated computer-controlled probes.



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## PRINCIPLE 2 – WATER STEWARDSHIP

### *Irrigation*

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#### **Component III- Applying more efficient irrigation practices to optimise water productivity (applicable to irrigated farms only)**

In some context, it may be desirable to implement deficit irrigation as it represents one of the most efficient method to improve irrigation efficiency. Deficit irrigation means applying the minimum amount of water necessary to achieve optimal plant growth, which is often less than the full crop water requirement – and results in maximisation of water productivity. Deficit irrigation can increase the length and strength of cotton fibres<sup>4</sup> and reduces pollution caused by nutrients. By maximising water productivity, farmers may achieve the same yields using less water.

#### **Guidance for implementation:**

- Good forecasting of rains, based on meteorological data collected by farmer or available from local data providers:
  - o To define irrigation scheduling to meet the plant's water needs
  - o To determine when seeds should be sown (for applicable climates). Planting earlier may require irrigation that would not be necessary if planted just before rainy season
- Avoid excessive irrigation. Irrigation should be carried out only in situations when it can enhance the quantity and quality of cotton
- Change/adapt irrigation technologies to more efficient ones (with less evaporative losses, lower soil erosion and lower risks of leaching pollutants, salinization and toxic build-up in soils), such as subsurface drip irrigation and micro irrigation. Adopt furrow bed irrigation and alternate ridge instead of flood and conventional furrow irrigation.
- Manage and maintain water conveyance and storage structures and means to prevent or reduce leakages and evaporation
- Record water volumes used for irrigation per source. Analyse and use data on water productivity (yield per volume of water used) to improve water efficiency

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<sup>4</sup> "Deficit irrigation scheduling based on plant growth stages showing water stress tolerance" (C. Kirda, FAO corporate document repository, <http://www.fao.org/docrep/004/y3655e/y3655e03.htm>)

## PRINCIPLE 2 – WATER STEWARDSHIP

### *Water quality*

#### **Question 1:**

Irrigation scheduling based on plants' water needs, instead of conducted on a predetermined calendar, is critical to ensure irrigation efficiency and plants' optimal growth conditions. However, the availability of water for irrigation may not always be under the farmer's control. In this case, farmers can mitigate the issue by creating water storage structures, an intervention that requires investments that Medium and Large Farms may be able to afford. With regard to calendar irrigation (indicator 2.1.7), do you think BCI should:

- Keep Indicator 2.1.7 core for MF and LF and improvement for SH as proposed, considering its critical importance, and the fact that storage structures can be put in place by MF and LF when required.
- Indicator 2.1.7 should become an Improvement Requirement for all farm categories instead of a core requirement
- Keep Indicator 2.1.7 as a core requirement but allow for exceptions for cases where irrigation scheduling can be demonstrated to be dependent on a water supply managed by third parties

Please explain/specify your answer:

## PRINCIPLE 2 – WATER STEWARDSHIP

*Collective action*

### IV. Water quality management

#### Guidance for implementation:

- Pesticide application rates and timing are managed and optimised to maximise effectiveness whilst reducing the amounts that may run off or leach to fresh water bodies
- Use of high-toxicity pesticides are eliminated and use of natural pest control is increased
- Preference is given to the use organic pesticides (e.g., neem oil) with low toxicity and high efficacy against multiple target pests
- Mechanical weeding is applied in order to minimise the use of pesticides
- Adequate storage of pesticides is ensured and it is guaranteed that areas used for mixing and filling pesticides, as well as sprayer wash-down, will not contaminate surface drains. Covered, contained areas for mixing pesticides and filling sprayers are used
- Nutrients are applied as needed, based on the requirement of the cotton crop as well as on the quality and nutrient state of the soil
- Fertiliser supply (NPK and micronutrients) is synchronised with crop demand
- Irrigation technologies (from furrow to subsurface drip) are adapted to prevent soil erosion, runoff and leaching of nutrients (**applicable to irrigation farms only**)
- Application of nutrients are optimised in combination with irrigation (**applicable to irrigation farms only**)
- Wetlands areas (lakes, pounds, rivers and streams, either seasonal or permanent) and associated vegetation are protected from the farming practices, such as ploughing, sowing and chemical application. (Wetlands' vegetation acts as a filter for many agro-chemicals; it can reduce runoff and leaching. It can also control soil erosion and promote biodiversity)

Link with  
P1

Link with  
P1

Link with  
P3

Link  
with P4  
biodiv

### V. Collaboration and collective action towards local sustainable use of water

#### Guidance for implementation:

- Producer Unit should have an understanding of competing use of water by other water uses and users in the same river catchment(s) and/or aquifers
- Producer Unit should include the following in its water management plan:
  - o Documentation of the local water issues with regard to water quantity and water quality
  - o Identification of local initiatives related to water and involved organisations and institutions
  - o Participation with other water users, government and civil society in catchment or aquifer water planning and management
  - o Participation in public-private partnerships, or established water initiatives aimed at reducing water scarcity and improving water quality

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**PRINCIPLE 2 – WATER STEWARDSHIP**

**Collective action**

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**Question 2:**

Do you consider that undertaking collective action on water management (2.1.10) should be core instead of Improvement Requirement as it is currently the case?

- Yes
- Yes, but only for large and medium farms
- No
- I don't have an opinion

Please explain/specify your answer:

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## PRINCIPLE 2 – WATER STEWARDSHIP

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*Collective action*

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**Rationale for change:**

While version 1 of Principle 2 was primarily focusing on a general requirement to use water in an efficient manner, this second version introduces a more holistic management planning approach and prescribes the five components that need to be addressed and implemented, with the aim to make better cotton farmers true water stewards. The criteria and guidance also makes a more specific reference to climate change, in recognition to the fact that many cotton farmers are, and will continue to be impacted by climate change primarily in the form of disturbed rain patterns as well as worsening droughts in already water scarce areas.

**GENERAL COMMENT:**

Do you have any general or specific comment to make on principle 2?

- Yes
- No

Please explain your answer:

## PRINCIPLE 3 – SOIL HEALTH

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### PRINCIPLE 3 - BETTER COTTON FARMERS CARE FOR THE HEALTH OF THE SOIL

#### Introduction to the Principle

A healthy soil is the fundamental resource for agricultural production. Soil contains the nutrients and water essential to crop growth. Cotton production by its nature, however, can adversely affect the very properties of a soil that make it valuable to farmers. Poor soil management can lead to large reductions in yield and off-site contaminations. Soils need to be properly managed - cared for – to ensure cotton and other crops can continue to be grown.

Besides, Soil is an important element of the climate system. It is the second largest carbon store, or 'sink', after the oceans. Depending on the region, climate change might result in more carbon being stored in plants and soil due to vegetation growth, or more carbon being released into the atmosphere. Mitigation measures in farming practices are therefore a cornerstone of sustainability.

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## PRINCIPLE 3 – SOIL HEALTH

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### CRITERIA 3.1

The Producer must adopt a soil management plan that maintain and enhance soil health and that includes all of the following components:

- I. Identification of soil type
- II. Maintenance and enhancement of soil structure and fertility
- III. Continuous improvement of nutrient cycling
- IV. Improvement of soil organism's lifecycle

#### Intent

Intensification of agriculture on land currently used for traditional farming requires a thorough knowledge of the soil as a resource and attributes of the land. Information on distribution, potential and constraints of major soils is needed, so that the most appropriate soil management systems can be designed. In addition knowledge on land capability and suitability is also essential to determine the best land use for sustained crop production.

Good soil management practices are required to maintain and enhance soil structure and fertility that are optimal for plant growth over the long term. For example, zero or no-tillage, conservation tillage and minimum tillage systems that incorporate the use of cover crops and maintain crop residues help protect soil from erosion and promote good soil structure by protecting the organic matter, reducing the disturbance of soil micro-organisms, reducing soil compaction, increasing water infiltration and encouraging earthworm activity. The use of cover crops may also reduce nutrient leaching and help suppress weeds, while legume rotations can provide an alternative source of nitrogen as well as improving soil structure. Cultivating the soil stimulates the breakdown of soil organic matter, incorporates crop residues under the soil surface (where it breaks down faster), disrupts soil structure and increases the risk of compaction.

For economic and environmental reasons, it makes sense for plants to more efficiently utilize nutrient cycling on the farm. Goals should include a reduction in long-distance nutrient flows, as well as promoting “true” on-farm cycling, in which nutrients return in the form of crop residue or manure to the fields from which they came. There are a number of strategies to help farmers reach the goal of better nutrient cycling and that should be developed by BCI farmers.

Soil organisms are responsible, to a varying degree depending on the system, for performing vital functions in the soil. Soil organisms make up the diversity of life in the soil. This soil biodiversity is an important but poorly understood component of terrestrial ecosystems. Soil biodiversity is comprised of the organisms that spend all or a portion of their life cycles within the soil or on its immediate surface. Soil organisms carry out a range of processes important for soil health and fertility in soils of both natural ecosystems and agricultural systems.

## PRINCIPLE 3 – SOIL HEALTH

### CORE INDICATORS

3.1.1 A soil management plan is defined that addresses each of the following components:

- i. Identification of soil type
- ii. Maintenance and enhancement of soil structure and fertility
- iii. Continuous improvement of nutrient cycling
- iv. Improvement of soil organism's lifecycle



3.1.2 A timeline for implementing the 4 components of the Soil Management Plan is established and feeds into the continuous improvement plan (see Criteria 7.4)



3.1.3 Soils types are identified, including texture and PH

3.1.4 Addition of organic matter is regularly conducted

3.1.5 Tillage methods are conducted in a way that reduce soil compaction

3.1.6 Erosion is controlled so that soil movement is minimized

3.1.7 Nutrients are applied in amounts and rates that do not exceed plants' requirements

3.1.8 Crop diversity is ensured to regenerate soil



### IMPROVEMENT INDICATORS

3.1.9 Is there any process in place to identify soils types, including texture and PH?

3.1.10 Is addition of organic matter regularly conducted?

3.1.11 Is there any tillage methods conducted in a way that reduce soil compaction?

3.1.12 Is erosion controlled so that soil movement is minimized?

3.1.13 Are nutrients applied in amounts and rates that do not exceed plants' requirements?

3.1.14 Is crop diversity ensured to regenerate soil ?



3.1.15 Number of farms adopting recommended soil management practices to maintain and enhance the structure and fertility of the soil in line with soil management plan

3.1.16 number of farms with nutrient application based on soil test results

3.1.17 number of farms adopting recommended soil management practices to minimise erosion





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## PRINCIPLE 3 – SOIL HEALTH

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- 3.1.18 Is soil condition monitored with test conducted on potential problems?
- 3.1.19 Is a nutrition budget that considers all nutrient sources and crop exports of nutrients developed?
- 3.1.20 Are soil tests and leaf tests to assess nutrient levels and fertilizers needs during the season used?
- 3.1.21 Are fertilizers applied using precision agriculture technologies?
- 3.1.22 Are long-term nutrition trends monitored?
- 3.1.23 Are eroded areas, and areas at risk of erosion if any identified?
- 3.1.24 Are actions to remedy and mitigate erosion identified?
- 3.1.25 Are all actions to remedy and mitigate erosion implemented?
- 3.1.26 Are eroded areas and areas at risk of erosion regularly monitored (at least annually and after every significant storm event)?



## PRINCIPLE 3 – SOIL HEALTH

### Soil type identification

#### Guidance for implementation of the Soil Management Plan:

##### i. Identification of soil type

First element of the management plan is to identify the differences between different soil types and structures. There are 5 main types of soil: sandy and light silty soils, medium soils, heavy soils, chalk and limestone soils and peaty soils.

To check the structure of soil, exposed soil that includes topsoil and subsoil should be examined. Characteristics of well-structured and poorly structured soils should be identified.

|                   | Topsoil   | Subsoil   |
|-------------------|---|---|
| Well structured   | Plenty of spaces or pores between the aggregates. You can easily crumble moist soil clumps between your thumb and finger. | Larger blocks or clumps than the topsoil, with many vertical cracks or channels. It can easily be broken apart when moist.  |
| Poorly structured | Dense aggregates of soil with few pores. You will find it hard to break the clumps apart even when the soil is moist.     | Also dense and may form a hard pan with few pores or cracks in the soil. Below the pan, the soil structure may be satisfactory, or the compaction may go deeper into the subsoil. |

Good soil structure is very important for agriculture, as it can:

- increase crop yields
- improve the quality of crops and grassland
- reduce the risk of environmental damage - such as water pollution, risks of drought and flooding

If soil is poorly structured, this can also cause problems, including:

- patchy germination of grass or crops
- poor growth and greater vulnerability to disease
- poor drainage - which can lead to increased runoff, erosion and diffuse pollution of watercourses
- surface capping - which can make it hard for plants to grow and can also cause runoff and erosion

##### ii. Maintenance and enhancement of soil structure and fertility

Some management practice can directly positively impact soil structure and fertility:

## PRINCIPLE 3 – SOIL HEALTH

### Soil structure and fertility

Organic matter management. Regular additions feed the organisms that build soil structure.

**Tillage practices.** Over time, tillage increases the decomposition of soil organic matter and breaks up aggregates - especially when tillage is done in wet soil. Residue left at the surface protects surface aggregates from rain and encourages the growth of fungi that help stabilize aggregates. Besides, tillage practices strongly impact carbon retention. Ploughing the soil is known to accelerate decomposition and mineralisation of organic matter. Reduced tillage involves less breaking and turning of the soil and therefore keeps carbon in the soil. However, reduced or no-till methods are often associated with higher use of chemical fertilisers, which can have other negative effects on the environment.

**Compaction prevention.** Compaction pushes aggregates together and eventually breaks them down. It is possible to reduce this by taking certain measures:

- avoid cultivating wet soil, where possible
- reduce the use of heavy vehicles on fields
- loosen the top soil regularly
- regularly conduct a check of the subsoil in fields for signs of compaction, especially after wet weather and during cultivation or harvest
- remove any already compacted soil identified

**Erosion control.** Erosion results in the loss of top soil (the portion of the soil that which contains the greatest level of organic matter and nutrients) reduced potential rooting depth and lower soil water holding capacity, all of which reduce soil structure. Soil erosion can also have significant off-site affects, such as reduced water quality (through sedimentation and movement of farm pesticides that may be attached to that soil) and the eutrophication of water bodies through the transport of nitrogen and phosphorus. While erosion control is a critical concern for both irrigated and rain-fed farming systems, each system may have different techniques and strategies able to be implemented.

Link with P2  
water  
stewardship  
biodiv

Where is the most fertile land on your farm? What makes it more productive than other fields? The soil may test high in nutrients, but it probably has additional characteristics that make it a good land. Soil fertility is not just the amount of nutrients, but whether plants can get the nutrients when they need them. In other words, a fertile soil needs to benefit from the following good practices:

- **Good rooting environment.** To grow and find nutrients, roots (and mycorrhizal fungi) need well-drained soil with a crumbly, uncompacted structure.
- **Adequate water.** Soil with good “tilth” will have good water infiltration and water-holding capacity.
- **High organic matter.** Organic matter is a source of many nutrients, improves the rooting environment, and helps hold water in the soil.
- **Active soil community.** Soil organisms release and retain nutrients, protect plants from pests, and even enhance plant growth. Their activity depends on food availability, pH, and moisture and temperature levels.
- **Appropriate PH.** When pH changes, many nutrients can become either more or less available to plants, depending on the nutrient. pH also affects microbial activity. For example, Rhizobia form nitrogen-fixing nodules poorly in acid soils.

## PRINCIPLE 3 – SOIL HEALTH

### Nutrient cycle

Link with P2 water stewardship

#### iii. Continuous improvement of nutrient cycling

The following management practices are important to nutrient cycling:

- **Organic matter management.** Organic matter supplies nutrients for plants and feeds the soil organisms responsible for cycling nutrients. It is a “slow release” fertilizer.
- **Tillage practices.** Tillage triggers the decomposition of organic matter and the release of nutrients, and mixes nutrients throughout topsoil. Excessive tillage reduces organic matter and the nutrient-holding capacity of your soil.
- **Compaction prevention.** Preventing compaction improves the ability of roots to grow through soil to reach available nutrients.
- **Fertilizer management.** You have choices about which form and how much of a nutrient to use, and when and how to apply it.

The timing, placement and quantity of any fertilisers and soil conditioners applied are important factors that affect the uptake of nutrients by the crop, and the minimisation of nutrient losses to the environment. Timing and quantity need to ensure that the nutrients being supplied match the demands of the crop, while placement will influence the availability of the nutrients to the crop, and how efficiently they can be used. The optimal timing, placement and quantity applied will depend on the stage of crop growth, the nutrient being applied and form it is being applied in. The application of nutrients should match the needs of the crop to ensure that:

- 1) Money is not wasted on purchasing and applying nutrients that are superfluous to the needs of the crop; and
- 2) That the risk of excess nutrients leaving the farm and causing off-farm pollution (especially eutrophication) is minimised.

Furthermore, excess nitrogen may cause rank (excessive) growth of the cotton crop, leading to a longer growing season and greater exposure to pests, and weak, immature fibres. Rank growth also makes the crop more difficult to defoliate, and increases the potential for a high trash content in the lint cotton.

Soil nitrogen in particular is vulnerable to being lost to the crop either through leaching or denitrification, while phosphorus quickly becomes fixed in soil, and less available to the cotton crop; proper placement of P is crucial for optimal uptake by the crop. The potential for nitrogen and phosphorous to cause eutrophication, or to contaminate ground or surface water depends to a large extent on the local site and soil conditions. Locally-adapted better management practices need to be implemented to ensure that nutrients are applied effectively, and to mitigate and control the loss of these nutrients from the farm. As nitrous oxide is a greenhouse gas, efficient use of nitrogen will also help reduce the greenhouse gas emissions associated with cotton production.

#### iv. Improvement of soil organism’s lifecycle

## PRINCIPLE 3 – SOIL HEALTH

### *Soil organism*

Soil organisms life cycles are an integral part of the formation of soil structure and nutrient cycles, and their activity is highly dependent on the water status of soil. Temperature, food supply, and pH are other factors that determine what lives in your soil and when they are active.

The food web of organisms living underground is at least as diverse and complex as the ecosystem of plants and animals living above ground. Practically all the energy for the food web comes from the sun. Plants and other photosynthesizers convert the sun's energy and carbon dioxide into the carbon compounds used by other organisms. Plant-eaters create compounds that other organisms need. As bacteria, fungi, earthworms, microscopic insects, and other organisms consume and transform carbon compounds, they release carbon dioxide back into the atmosphere and make nutrients available to plants. Farmers depend on these life cycles for their livelihood.

The following management practices can improve soil's ecosystem:

- Organic matter management. Soil organisms need a regular supply of organic matter for food
- Increase diversity. It is generally beneficial to increase the diversity of organisms in the soil. Diversity is increased by using different management practices, including long crop rotations, changing tillage practices from year to year, supplying several types of organic matter, or creating buffer strips or other vegetation that adds variety to the landscape.

Link with P4  
biodiversity

#### **Rationale for change:**

Under current version of the standard, principle 3 has no core indicators.

As for the other environmental principles, intent is now to support farmers sustainably caring for soil through adopting a management planning approach. Again, in this case, farmers can consider a stepwise process starting with resource identification and subsequent good management practices implementation. This management plan is now suggested to become core for all farmer category.

## PRINCIPLE 3 – SOIL HEALTH

### *Soil organism*

#### **Question 1:**

Soil type identification is addressed by Indicator 3.1.3, 3.1.9 and 3.1.20.

3.1.3 is core for Medium and Large farms while 3.1.9 is an Improvement indicator for Smallholders and 3.1.20 an improvement for Large farms.

First consultation results highlight that some soil type identification methods such as soil testing should be core.

However, some side consultations show there are some hesitation on that issue. Do you think BCI should:

- Maintain soil type identification for all categories
- Apply soil type identification only for Large Farms
- Apply soil type identification only for Medium and Large farms
- Soil type identification does not apply - Remove both indicators
- I don't have an opinion

**Please explain your answer:**

## PRINCIPLE 3 – SOIL HEALTH

### *Soil organism*

#### **Question 2:**

Organic matter such as animal manure is recommended as a best practice by many experts to ensure soil moisture retention, nutrient supply, soil structure building...etc. as explained in the guidance. This best practice has been captured under indicator 3.1.3. However, manure may be hard to apply every year because of the difficulty of organic matter supply.

Do you think BCI should:

- Require application of organic manure every year
- Require application of organic manure only regularly (as currently drafted)
- Do not require application of organic manure at all
- I don't have an opinion

**Please explain your answer:**

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**PRINCIPLE 3 – SOIL HEALTH**

***Soil organism***

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**GENERAL COMMENT:**

Do you have any other general or specific comment to make on principle 3?

- Yes
- No

**Please explain your answer:**



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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### PRINCIPLE 4 - BETTER COTTON FARMERS ENHANCE BIODIVERSITY

#### Introduction to the Principle:

Biodiversity refers to the variety or range of life in a particular habitat. On-farm biodiversity is what constitute the agricultural ecosystems (agro-ecosystem): the variety and variability of animals, plants and micro-organisms, at the genetic, species and ecosystem levels, which are necessary to sustain key functions of the agro-ecosystem, its structure and processes. Biodiversity can be of utilitarian, aesthetic, recreational, intrinsic or ethical value to people, and is also linked to ecosystem resilience.

Biodiversity is directly impacted by the existence and quality of habitats. Land used for the production of crops has typically been cleared of vegetation and natural habitats, and this clearing of habitat has a direct and significant negative impact on biodiversity. The need to conserve and ultimately enhance natural habitats, and therefore biodiversity, is important for a number of reasons. A reduction in habitat reduces or eliminates the breeding, foraging or migratory routes of many species. The cultivation of single crops over a large area reduces the total number of species able to live within that area, and promotes the establishment of dominant populations that may also be pests. A more diverse habitat supports a more diverse range of species able to live there, and thus more potential competitors for potential pests. For these reasons, enhancing biological diversity is ultimately beneficial for fauna and flora in an around the farm but also increases yields and therefore profits.

It is now widely recognized that climate change and biodiversity are interconnected. Due to climate change, the ability of many ecosystems to adapt naturally is likely to be put at risk with associated disturbances such as flooding, drought, wildfire, insects...etc. Cotton farmers are likely to suffer complex, localized impacts of climate change which already affect the ecosystem services on which agricultural biodiversity rely. Likewise, biodiversity loss due to agricultural activities such as land-use change, pollution, over-exploitation of water and soil resources is also a cause of climate change that farmers have the responsibility to mitigate and the right to adapt. Consequently, enhancing and sustainably managing biodiversity is critical to address climate change.

To lessen their impact on biodiversity, cotton farmers can conserve or enhance areas of natural habitat on their land, and adopt practices that minimise the negative impact on the habitat that surrounds their farm. Mapping biodiversity as a way to undertake a diagnosis of existing fauna and flora in and surrounding the farm is a first important step.

Farmers also need to ensure that social and environmental values of significant importance (such as High Conservation Values (HCVs), are not damaged by conversion (from non-agricultural land to agricultural land), and are managed and monitored over time.

The application of the HCV approach in the context of expansion or new cotton farms must also be done in a socially responsible way that respects the rights of local communities and indigenous people. As a consequence, it is recommended to conduct stakeholder consultation and negotiation of land and resource use rights through free, prior and informed consent (FPIC) is paramount. Finally, management practices adopted to help achieve other Criteria, such as IPM, pesticide choice (using the least disruptive option), soil fertility, and erosion control, will all contribute to enhancing biodiversity both on and off the farm.

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### CRITERION 4.1

**The Producer must adopt a Biodiversity Management Plan that conserves and enhances biodiversity on and surrounding the farm and that includes all of the following components:**

- I. Identification and mapping of biodiversity resources
- II. Identification and restoration of degraded areas
- III. Supporting natural pest control as per Integrated Pest Management plan (Principle 1).
- IV. Ensuring Crop rotation
- V. Protection of riparian buffers

#### Intent

A Biodiversity Management Plan is a practical tool for conserving and enhancing biodiversity on and surrounding the farm. The objectives and benefits of adopting a Biodiversity Management plan include the following:

- Better understanding of the Biodiversity Resources upon which cotton production depends and impacts.

Mapping Agricultural biodiversity resources helps farmers to better understand what are the animal, vegetal and microbial species present in and around their farms as well as interactions among resources, the environment and the management systems and practices used by farmers. Through mapping, farmers can also establish a diagnostic on biodiversity state of degradation, if any.

- A proper methodology to manage areas under critical situations  
Soil compaction, eroded areas, salt-affected or nutrient depleted areas are well-known case of land degradation. Productivity of those lands is severely threatened and economic loss derived from this situation is now a major challenge in agriculture. Identify those areas in and around the farms and development of solutions to partially or fully restore these areas overtime help farmers to enhance biodiversity and ultimately increase their yields.
- Better management of natural pest control  
Natural pest control is a real vector of biodiversity enhancement. It means Farmers need to create a balance of organisms in their farms. Development of this balance relies on products that minimize harm to pollinators and other beneficial insects (traps, lures, repellents, biopesticides, botanical insecticides...). When biocontrol includes introduction of non-native beneficial insects, precautionary approach must be respected, notably through implementation of appropriate protocol.

## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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- Improved crop rotation management

Diverse crop rotations increase farm biodiversity, improve soil, and boost crop yields. High-quality soils encourage dense populations of micro-organisms, enhance natural biological control of pathogens, slow turnover of nutrients, encourage communities of beneficial insects and improve soil aeration and drainage.

- Reduced pressure on riparian areas through setting of buffers.

Riparian buffer strips are most of the time farmland biodiversity hotspots. They ensure habitat diversity and connectivity with other habitats. Those vegetated areas next to water resources also protect water resources from pollution and provide bank stabilization as well as aquatic and wildlife habitat. It is recommended for farmers to develop strategy to preserve those areas.

## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### CORE INDICATORS

- 4.1.1 A Biodiversity Management Plan is defined that addresses each of the following components:
- I. Identification and mapping of biodiversity resources
  - II. Identification and restoration of degraded areas
  - III. Supporting natural pest control as per Integrated Pest Management Plan
  - IV. Crop rotation
  - V. Protection of riparian buffers



- 4.1.2 A timeline for implementing the components of the Biodiversity Management Plan is established and feeds into the continuous improvement plan (see Criteria 7.4)



- 4.1.3 Biodiversity resources are identified and mapped



- 4.1.4 Degraded areas on the farm are identified

- 4.1.5 Degraded areas are restored as per the Biodiversity Management Plan



- 4.1.6 Protection of water courses and wetlands in and adjacent to the farm, including maintaining and/or restoring appropriate riparian and other buffer zones is ensured.

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### IMPROVEMENT INDICATORS

- 4.1.7 Is there a long-term plan for crop rotation?
- 4.1.8 Are degraded areas restored?
- 4.1.9 Is there a Demonstrated increase in number and diversity of species?
  
- 4.1.10 Is there a demonstrated increase in number and diversity of animal, plant and micro-organism species?
- 4.1.11 Is there a protection plan for Rare, Threatened and Endangered species listed under CITES convention?
- 4.1.12 Are Aquatic ecosystems protected?



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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### *Biodiversity resources mapping*

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#### **Guidance for implementation of the Biodiversity Management Plan:**

The five components listed in 4.1.1 are relevant for all cotton producers. While implementing all components of the plan are considered at core indicator level for medium and large farms, smallholders should only implement XX elements as core level and the other as improvement.

The biodiversity management plan is primarily intended for implementation “on farm”, but actions by the farmer to conserve and enhance biodiversity will impact the surrounding area in most cases. Most notably, the use of chemicals and or actions that may lead to soil erosion or siltation of waterways could negatively impact surrounding areas like chemical contamination downstream or food chain disturbance in the local natural habitat. Likewise, appropriate management practices like degraded areas restoration or riparian buffers setting can significantly increase animal, plant and micro-organism presence in the farm and its surrounding areas.

“Surrounding areas” means areas like those adjacent to the cotton field but also more distant areas nevertheless impacted by on-farm management activities.

The Producer must be aware of the potential negative and positive impacts of their production activities on biodiversity surrounding the farm, and ensure that good agricultural practices are used to mitigate this. Opportunities to enhance off-farm biodiversity through local/national Producer collaboration may be also possible, and should be explored.

#### **Component I - Identification and mapping of biodiversity resources**

Biodiversity identification and mapping is required for all farms, both existing and expansions. In the case of conversion of non-agricultural land to agricultural land (see Criterion 4.2), the biodiversity identification and mapping can be combined with the High Conservation Value (HCV) assessment that also includes resources identification to maximise efficiency. However, for cases where no land conversion is planned, the following guidance applies:

Smallholders (improvement requirements): At each Learning Group level (or across several neighbouring Learning groups), farmers, must map the area that contain all LG members’ farms, and identify biodiversity values within this area. Biodiversity values may include patches of natural vegetation, water bodies, seasonal streams, riparian buffers, important plant and animal species (especially any nationally protected species and any known cases of biocontrol for cotton pests). At a minimum, a rough sketch need to be prepared with input from all Learning Group members through participatory mapping (map-making process that attempts to make visible the association between land and farmers/local communities by using cartography and resources inventory tools). If access to external experts (e.g. governmental environmental offices, environmental NGOs working in the area) or mapping tools (e.g. GIS technology and data) is available, the quality of this exercise will be improved.

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### *Degraded areas restoration*

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Medium and large farms (core requirements): The Producer is responsible for the identification and mapping of biodiversity values on the farm (e.g. patches of natural vegetation, water bodies, seasonal streams, riparian buffers, important plant and animal species, especially any nationally protected species and any known cases of biocontrol for cotton pests). This could also include inventories of biological and ecological information for selected species and/or habitats, and an assessment of the conservation status of species within specified ecosystems or habitats. The Producer is expected to include consultation with outside experts (e.g. Ministry of Environment, conservation NGOs...) and biodiversity mapping is to be carried out (through mapping tool or GIS technology), in order to produce maps to be used for management.

#### Component II - Identification and restoration of degraded areas

Identification of areas degraded by overgrazing, erosion or waterlogging is required for all farms within and adjacent to the boundaries of the farm. It may include areas of erosion near roads and streams or areas of natural vegetation (e.g. patches or corridors) that requires restoration with extra planting of native species or protection from overharvesting. Farmers must identify degraded areas and define ways to restore the areas and enhance biodiversity as defined in the management plans. They may join existing public or NGO conservation or restoration programs within which their farms are eligible.

Smallholders: Farmers must coordinate at Learning Group level (or across several neighbouring Learning groups), to map the area that contain all LG members' farms, and identify degraded areas within this area. PU must foster exchange across farmers to define restoration and conservation management practices, potentially through existing government or NGO programs.

Medium and Large farms: For larger farms, Producers must individually identify and map degraded areas in and adjacent to the boundaries of its farm. In large scale Farms with more intensive practices, managers should ensure that their operating practices (e.g. irrigation, chemical application) do not contribute to degradation (reduction in biodiversity) and should restore degraded areas.

## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### *Natural pest control/ crop rotation/riparian buffers*

Component III - Supporting natural pest control as per the Integrated Pest Management plan

Encouraging natural pest control on the farm, such as managing habitat for pest predators, use of bacterial, botanical or semiochemical pest control agents, cultural control (change in irrigation practices), mechanical control (e.g. trapping ...etc). leads to a reduced need for chemical control, which in turn has benefits for water and soil health, as well as the biodiversity more generally.

Link with  
P1 Crop  
protection

Introduction of non-native pest control organisms requires that the Producer monitor and control the use of biological control agents. He must have access to relevant information and get capacity for assessing and managing risks related to the use of those technologies.

Component IV - Crop rotation

Crop rotation is one of the most effective cultural control strategies that helps enhancing biodiversity. It means the planned order of specific crops planted on the same field. It also means that the succeeding crop belongs to a different family than the previous one. Crop rotation is an important means for improving and maintaining soil health, for example through breaking disease cycles, fixing nitrogen and biological ripping of the soil.

Component V - Protection of riparian buffers

A riparian buffer is a vegetated area (a “buffer strip”) near a stream, usually forested, which helps shade and partially protect a stream from the impact of adjacent land uses. It plays a key role in increasing water quality in associated streams, rivers, and lakes, thus providing environmental benefits.

The protection of riparian land is particularly important, as it is often the most fertile and productive part of the landscape. As riparian land is associated with water, it generally supports a greater diversity of plant and animal life than non-riparian land, and provides a refuge for animals during times of stress, such as drought, fire or hunting. It is important that riparian land is not cleared of vegetation and that it is protected from farm run-off and erosion. Removal of riparian vegetation can lead to the destabilisation of stream and river banks, as well as increased erosion. Practices implemented to address Soil health criteria also help protect riparian zones, but given its crucial importance in the landscape, riparian land may require special attention to ensure protection from farm run-off. For example, it may be possible to divert runoff leaving the farm away from riparian land, or to ensure the presence of suitable well-vegetated buffer strips placed between riparian land and the crop.

Link with  
P2 water  
stewardship



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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### *Natural pest control/ crop rotation/riparian buffers*

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Guidance for mapping and understanding of water sources is provided in P2. What is important for compliance with P4 is that water bodies and their buffer zones are protected over time in terms of their extent and quality.

The width of buffer zones should be determined by the function of the buffer (e.g. biodiversity conservation, filtration of chemical run-off), the slope of the buffer area, and the size (width) of the river or stream. In some countries, buffers size are defined by regulation. The Producer should seek whether this information is available.

Protection of water courses and wetlands should include management activities to:

- delineate and protect buffer zones
- train farmers and/or workers on activities permitted or prohibited in buffer zones
- verify that buffers are being maintained (i.e. not degrading or reducing in size)

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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**Question 1:**

Do you agree with the five components of the biodiversity management plan?

- Yes
- No
- I don't have an opinion

**Please explain your answer:**

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### Question 2:

Biodiversity enhancement and conservation is a transboundary topic and is often the subject of governmental or Non-Governmental Organization development programs. BCI Farmers may have possibility to look beyond the boundaries of their farms and contribute to biodiversity enhancement through collective action. Should criterion 4.1 integrate a collective action component to the plan as under criterion 2.1 detailing BCI Water management plan?

- Yes, as Improvement indicator for all farmer category
- Yes, as Improvement indicator for Medium and Large Farms
- No, it does not apply to biodiversity management.
- I don't have an opinion

**Please explain your answer:**

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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**Question 3:**

Riparian areas management is suggested to be an improvement indicator for smallholders (4.1.6). Do you consider it should be a core indicator?

- Yes, maintaining riparian areas even at a basic level should be mandatory
- No, but it should apply to smallholders as an improvement indicator
- No, Smallholders do not have the means to set and manage conservation buffers in riparian areas
- I don't have an opinion

**Please explain your answer:**

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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**Question 4:**

Are you satisfied with the improvement indicators for Medium and Large farms (indicator 4.1.10 to 4.1.12)?

- Yes
- No
- I don't have an opinion

**Please explain your answer:**

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### *Land-use change*

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#### CRITERION 4.2

**For the conversion of land used to grow cotton, the Producer must adopt the High Conservation Value (HCV) approach and respect the right of local communities and Indigenous People**

##### **Intent:**

A High Conservation Value (HCV) is a biological, ecological, social or cultural value of outstanding significance or critical importance. There are six HCV categories ranging from biodiversity, habitats, and ecosystem services to livelihoods and cultural values (see Guidance for definitions). One of the main strengths of the HCV approach is that it includes both biological/ecological and social/cultural values. The HCV approach is about identifying and then maintaining over time (through management and monitoring), these special values. In the case of land use change, or conversion from non-agricultural land to agricultural land, the HCV approach acts as a safeguard against damaging important environmental and social values – which could in turn create conflict and risk for the Producer.

By introducing the HCV approach, this new criterion is intended to provide a framework to ensure that the rights of local communities and indigenous peoples are respected in cases of new expansion (land use change from non-agricultural to agricultural land). Cases of new expansion may pose a risk to local people if the expansion overlaps areas with unclear tenure, or where the access or use rights of people would be impacted by cotton expansion; e.g. where a proposed expansion overlaps with areas important for livelihoods, or cultural or spiritual areas. The principles of FPIC are relevant to the identification of HCVs, particularly when:

- o Areas or resources used by local people may be proposed for conservation purposes
- o Resources (e.g. fishing or hunting grounds, drinking water) could be negatively impacted by cotton production

Over 2017, BCI will collaborate with the High Conservation Value Resource network (HCVRN) to develop the HCV assessment stepwise approach with procedures adapted to BCI farmer's context. The analysis required to define the level of risk posed on HCV and the resulting HCV assessment methodologies will be eventually tested before final approval.

## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### Land-use change

#### CORE INDICATORS

4.2.1 In case of any proposed conversion from non-agricultural land to agricultural land after January 1, 2017<sup>5</sup> an HCV assessment, appropriate to the level of potential risk to HCVs, must be conducted.



4.2.2 Likelihood of planned conversion is evaluated each time there is expansion or inclusion of new farmers within the Producer Unit.



#### Guidance for implementation:

BCI recognises that there is intrinsic and extrinsic value attached to social and environmental elements in the landscape, and that these values must not be lost in the process of accommodating the production of cotton. Land use change comes with increased risk to biodiversity and other resources used by local people, therefore it is important to identify any values early on so that they are not damaged by expanding cotton operations. BCI requires the use of the HCV approach to identify, maintain and monitor those values. The HCV Resource Network categorises HCVs as follows:

- HCV 1: Concentrations of biological diversity including endemic species, and rare, threatened or endangered species, that are significant at global, regional or national levels.  
E.g. the presence of several globally threatened bird species.
- HCV 2: Intact Forest Landscapes and large landscape-level ecosystems and ecosystem mosaics that are significant at global, regional or national levels, and that contain viable populations of the great majority of the naturally occurring species in natural patterns of distribution and abundance.  
E.g. a large tract of forest, grasslands or wetlands (or mosaic of these ecosystems) with healthy populations of wide-ranging species (e.g. large mammals), as well as smaller species.
- HCV 3: Rare, threatened, or endangered ecosystems, habitats or refugia.  
E.g. patches of a regionally rare type of freshwater swamp or a rare forest type.
- HCV 4: Basic ecosystem services in critical situations, including protection of water catchments and control of erosion of vulnerable soils and slopes.  
E.g. forest on steep slopes with land slide risk above a town.
- HCV 5: Sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples (for livelihoods, health, nutrition, water, etc.), identified through engagement with these communities or indigenous peoples.  
E.g. important hunting or gathering areas for communities who depend on these resources as part of their basic household economy.

<sup>5</sup> The cut-off date corresponds to the date when the new version of the standard comes into force. Indeed, several other standards set dates in the past beyond which conversion is not allowed, notably for commodities causing land degradation and deforestation, which is not the case of Cotton. For that reason, BCI does not retain a past cut-off date.

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### *Land-use change*

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- HCV 6: Sites, resources, habitats and landscapes of global or national cultural, archaeological or historical significance, and/or of critical cultural, ecological, economic or religious/sacred importance for the traditional cultures of local communities or indigenous peoples, identified through engagement with these local communities or indigenous peoples.  
E.g. sacred burial grounds, old village remains, shrines, sacred groves

For an overview of the HCV approach (which includes risk analysis, HCV identification, management and monitoring), including examples of HCVs and useful information sources, refer to HCV Resource Network Guidance<sup>6</sup>. While all conversion of natural landscapes will involve some impact on biodiversity and ecosystems, it is essential that projects seeking the BCI licence can demonstrate no loss of High Conservation Value(s). The process is as follows:

- 1- In case of a farmer within an existing PU expanding its activities or a new farmer joining it, likelihood of conversion is identified according to the BCI internal management system defined by the Producer.
- 2- An analysis to define the level of risk that conversion pose to HCVs is necessary. The risk analysis will for example look into the likelihood of the site to harbour HCVs, whether local people use resources there, the size of the farm and the amount of conversion of natural habitat that is planned.
- 3- The risk defined can be low, medium or high. For each level of risk, a specific process to properly categorize, maintain and monitor HCV must be implemented.

In low and medium risk contexts<sup>7</sup>, the HCV Resource Network is developing simplified and intermediary approaches to HCV assessment that can be used by farmers. A set of conditions that qualify the Producer to use the simplified and intermediary HCV approaches in BCI context will be made available. The conditions include the amount (ha) of conversion of natural vegetation proposed, the location of the planned conversion (e.g. In a sensitive ecological area or in an area with land tenure conflicts – where local people depend on natural resources). The simplified HCV assessment would be conducted by someone with relevant qualifications (understanding of HCV concept, expertise in environmental and/or social issues), but is less onerous in terms of fieldwork and reporting requirements. Depending on capacity, it may be possible for Producer Unit Managers to conduct the HCV assessment.

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6 Weblink to English version: <https://www.hcvnetwork.org/resources/cg-identification-sep-2014-english>

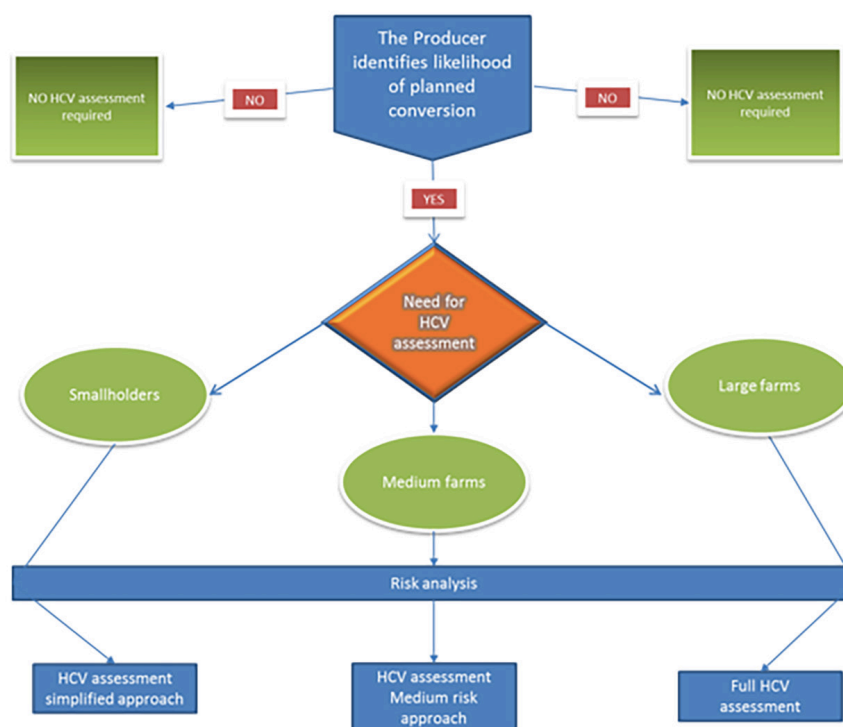
Available in multiple languages: <https://www.hcvnetwork.org/resources/folder.2006-09-29.6584228415>

7 Over 2017, BCI and the HCV Resource Network will collaborate in developing and testing procedures on simplified approach towards HCV assessment.



**PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT**

*Land-use change*



Generally, this simplified HCV assessment involves the following:

1. Completion of an “Assessment Questionnaire” which would help flag up potential values that might be affected by the proposed cotton expansion.
2. Following up on the questionnaire results with field visits and consultation, which could include:
  - o a scoping study (brief field visit)
  - o compilation of focal species lists (if relevant)
  - o participatory mapping to identify HCV 4-6
3. Identification of (potential) threats to HCVs.
4. Recommendations for management and monitoring measures to be integrated into wider management plans.
5. Public notification of HCV assessment results.
6. Decision from the Producer regarding recommended areas for cotton production and HCV management areas

In cases where land use change is considered particularly risky for HCVs, BCI will require the Producer to hire an independent HCV assessor licensed by the HCV Resource Network (see: <https://www.hcvnetwork.org/als/>).

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### *Land-use change*

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The HCV assessment consists in identifying, managing and monitoring those critical areas:

- HCV identification involves interpreting what the six HCV definitions, listed above, mean in the local or national context and determining which HCVs are present or potentially present in the area of interest (e.g. new cotton farm) or which HCVs in the wider landscape may be negatively impacted by production activities (e.g. impacts on water or wetland HCVs may occur well beyond plantation border). The assessment consists in desk-based study, field study and stakeholder consultation. The outcome of the assessment should be a report on the (potential or confirmed) presence or absence of the six values, their location, status, and as far as possible should provide information on areas of habitat, key resources, and critical areas that support the values.
- This will be used to develop management recommendations to ensure that HCVs are maintained and/or enhanced over time in the production landscape.
- A monitoring system of the management plan must eventually be designed. The overarching purpose of monitoring is to determine whether HCV management strategies are being implemented and management objectives are being met (i.e. are HCVs being maintained?). Monitoring results can provide Producers with up-to-date information on the HCVs for which they are responsible, and serve as a basis for management intervention or adjustment of management plans.

For cases where conversion of non-agricultural land to agricultural land for cotton is planned, the identification and mapping of biodiversity resources (Indicator 4.1.1) can be conducted as part of the HCV assessment to maximise efficiency. If national law requires an Environmental and Social Impact (ESIA) study, then the results of that study may contribute to the HCV assessment. In fact, ESIA and HCV can be conducted in coordination.

In countries where a BCI start-up process is implemented to launch a program and where there is a planned evaluation prior to project development or extension, the Producer should assess level of equivalence between the regulatory evaluation and the HCV assessment, identifying overlaps and gaps. Once the gaps are identified, the Producer should develop a plan to ensure all missing steps embedded in the HCV assessment are implemented.

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**PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT**

***Land-use change***

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**Question 5:**

BCI and HCV Resource Network have worked together on a methodology to conduct High Conservation Value assessment as described under the guidance above.

Do you agree with the risk-based approach proposed by the HCV methodology to evaluate the level of risk that production activities pose to HCVs?

- Yes
- No
- I don't have an opinion

**Please explain your answer:**

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**PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT**

***Land-use change***

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**Question 6:**

In smallholders and medium farms context, who would be in a position of conducting risk analysis and resulting HCV assessment in your opinion?

- Implementing partner (IP)
- Producer Unit (PU) manager
- Field facilitators (FF)
- I don't have an opinion

**Please explain your answer:**

## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### *Land-use change*

4.2.3 Where High Conservation Values are identified, a management and monitoring plan is established to maintain those values, for cases of conversion after January 1, 2017.



#### **Guidance for implementation:**

The overall management objective for HCVs is to maintain them over time in the cotton production landscape. The HCV management plan would include a consideration of:

- HCVs that were identified
- Conditions necessary to maintain those HCVs (e.g. protection of a certain vegetation type that harbours rare species, protection of a waterway that harbours an important fish species)
- Threats that may affect HCVs and how to address them
- A map showing the location of HCVs and management areas for maintaining HCVs
- A plan to monitor the effectiveness of the HCV management actions and strategies

Whenever possible, synergies and cross-references should be sought amongst various management plans (e.g. Biodiversity Management Plan, HCV Management Plan, Water Management Plan) to ensure efficient use of resources and to avoid duplication of efforts.

4.2.4 Where compensation (monetary or otherwise) is proposed to local communities or indigenous people for the loss of legal, customary or user rights, a process shall be established to enable such people, local communities, and other potentially affected parties to select their own representation in such negotiations.



4.2.5 Where set-aside areas for existing rights of local communities and or maintenance of High Conservation Values 5 and 6 are established, there is evidence of an agreement reached in compliance with the principles of free, prior and informed consent (FPIC).



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**PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT**

***Land-use change***

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Question 7:

Should smallholders benefit from a simplified approach to apply Free, Prior and Informed Consent (FPIC) as they do for High Conservation Value assessment?

- Yes, FPIC should be applied everywhere local communities and Indigenous people interest are at stake. BCI smallholders should also undertake a proper assessment but through adapted procedures.
- No, Smallholders should apply normal FPIC procedures. Level of credibility should stay the same for all sizes of project expansion
- No, FPIC is usually designed for large producers. Smallholders activities never are the cause of human right violation.
- I don't have an opinion

**Please explain your answer:**

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

### *Land-use change*

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#### **Guidance for implementation:**

Local communities and/or indigenous peoples should play a key role in proposing and identifying potential HCVs through a participative process. Especially when evaluating sites and resources as HCV 5 and 6 it is necessary to consult widely and ensure that participatory mapping and social surveys include representatives from minority, vulnerable and marginalised groups. Local communities need to be involved in a consultative process and agree to decisions through a FPIC process. This means that any decision or consent derived should be made without coercion or intimidation, with all relevant information provided and prior to commencement of any damaging activities or operations. In addition to local consultation, experts, local authorities and NGOs can provide helpful information and context.

The FPIC concept is widely recognised and used by voluntary standards to ensure that no licence holder is engaged in project development that violates the rights of local communities or indigenous people.

In the event of delegation of control over project development or set-aside areas establishment, a binding agreement between The Producer and the local communities shall be concluded through FPIC. The agreement shall define its duration, provisions for renegotiation, renewal, termination, economic conditions and other terms and conditions. The agreement shall make provision for participatory monitoring by local communities within its terms and conditions. Binding agreements may be, but are not limited to written agreements. They may also be based on oral and honour systems, to be applied in cases where written agreements are not favoured by indigenous peoples, either for practical reasons or on principle. The Producer must maintain appropriate records of these agreements which may include written accounts, audio or film records, etc.

The process of FPIC applies not only in the case of legally recognised rights, but may also include cases where rights of local communities or indigenous peoples are unclear or under negotiation (e.g. customary rights). It is paramount to identify right holders and their representative institutions as well as their respective claims and rights. Once this is done, local communities and indigenous people should select their own representatives. For further guidance, refer to the following guidance:

- o FAO: <http://www.fao.org/3/a-i3496e.pdf>
- o IFAD: <https://www.ifad.org/documents/10180/beec86e1-270d-45a1-8786-4b749c9db733>

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## PRINCIPLE 4 – BIODIVERSITY ENHANCEMENT

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### *Land-use change*

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#### **Rationale for change:**

In the current version of the Production Principle and Criteria, the Land Use requirement is to abide by applicable national and other applicable laws. However, it has been flagged by stakeholders that national legislation governing land use as a way to directly and indirectly protect natural habitats and biodiversity may not be adequate in many countries, particularly those with weak governance. The proposed version is an alternative to go beyond national legislation.

After first consultation, no objection to use HCV methodologies has been notified. BCI launched discussion with the High Conservation Value Resources Network (HCVRN) to apply their methodologies, notably in low risk situations to BCI context. Those methodologies are expected to be developed and tested during the first semester of 2017. The guidance in the draft 2 has been developed in close collaboration with their experts.

#### **GENERAL COMMENT:**

Do you have any other general or specific comment to make on principle 3?

- Yes
- No

**Please explain your answer:**



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## PRINCIPLE 5 – FIBRE PROTECTION

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### PRINCIPLE 5 - BETTER COTTON FARMERS CARE FOR AND PRESERVE THE QUALITY OF FIBRE

#### Introduction to the Principle:

As cotton is grown first and foremost for its fibre, the quality of the fibre grown by the farmer is fundamental to its marketability and value. The efficiency of the gin will be affected by the level of trash and contamination of the seed cotton, and the quality and therefore value of yarn that can be spun is directly related to the quality of the lint cotton delivered to the spinning mill (the cost of the cotton can represent up to 65 % of the total operating costs for a spinning mill). Continuing advances in spinning technology are placing greater and greater pressure on cotton farmers to supply cotton that is generally longer, stronger, finer, more uniform and free from contaminants. These characteristics of the cotton are of particular importance to the spinning mills, to maximise the speed and efficiency at which they operate.

Three broad characteristics of the cotton are important: the inherent fibre characteristics, the level of trash (i.e. waste), and the level of contamination. The seed cotton delivered to gins should be as low in trash as possible, free of contaminants, and not too wet or dry. The value of cotton lint is related to both the quality of yarn that can be produced from it, and the efficiency with which this yarn can be produced. It is therefore essential that farmers consider the needs and requirements of these users of the cotton that they grow. It is also generally the case that the higher the quality of the cotton, the higher its value, which should lead to a better price for the farmer.

Annex 1 on terms and definitions details the major fibre attributes either measured by or of importance to the spinning mill and includes a brief indication as to why the attribute is important.

The diverse range of quality characteristics includes both aspects that are directly influenced by genetic and seasonal considerations and conditions – and which can nevertheless also be influenced by farm management decisions —and aspects under the direct control of the farmer, such as the level of contamination. The focus on quality therefore includes the need to manage intrinsic fibre characteristics to the extent possible (Criterion 5.1), as well as man-made contamination and trash content (Criterion 5.2).

## PRINCIPLE 5 – FIBRE PROTECTION

### *Fibre features*

### CRITERION 5.1

The Producer should adopt management practices that maximise the fibre quality.

#### Intent

Cotton cultivars vary in their fibre quality attributes, and the choice of cultivar is a significant factor in determining fibre quality. Also, the characteristics of the lint actually grown by a farmer will vary according to seasonal conditions.

BCI recognises that the ability of a farmer to influence the characteristics of the fibre they produce will vary according to the characteristic in question (some are more sensitive to farm management than others), and the geographic and seasonal conditions, such as rainfall, daytime and night time temperatures, soil type and pest pressure. Nevertheless, there is a range of management practices that are within the control of the farmer, which if implemented, will help ensure (in the absence of unseasonal weather conditions) that the full potential of the fibre attributes of the cultivar can be reached.

#### IMPROVEMENT INDICATORS

5.1.1 number of best practices (validated locally) to maximise fibre quality shared with farmers through appropriate dissemination material in local language



5.1.2 Estimated number of farms adopting recommended practices to maximise fibre quality in line with continuous improvement plan



5.1.3 A plan for managing fibre quality that includes the following elements: varietal selection, planting date, planting rate, row spacing, crop growth and weed management is developed.



5.1.4 Overall results for the quality of the crop at the end of the last season is reviewed.

## PRINCIPLE 5 – FIBRE PROTECTION

### *Fibre features*

- 5.1.5 When problems with fibre quality are identified, attempt to understand the reasons for the problems (eg. discuss these with other relevant people such as consultants, agronomists, researchers, merchants) is undertaken and actions to remedy the problems are implemented.

#### **Guidance for implementation:**

*BCI is not establishing a base quality grade that has to be achieved to meet this Production Principle. Rather the focus is on promoting the adoption of practices that are aimed at producing the best quality cotton possible under the prevailing circumstances – taking into account the market that the cotton is being produced for.*

Crop management practices that can significantly affect fibre quality include:

- Choice of cultivar: is it appropriate for the local climatic conditions and the planting date?
- Planting date: does it take into account likely seasonal conditions and pest pressures?
- Planting rate and row spacing: are they appropriate for the variety, soil type and seasonal conditions?
- Nutrition management: poor nutrition can result in lower quality lint, while excess nitrogen can lead to excess growth, delayed harvest and excess levels of trash;
- Irrigation management: for irrigated farms, it is important to ensure that the crop is not water-stressed during the critical stages of fibre development;
- Disease management: diseases can stunt crop growth and lead to reduced cotton fibre quality;
- Insect management: damage to bolls needs to be controlled, and late-season aphids and whiteflies need to be controlled to avoid 'sticky' cotton;
- Weed management: weeds in the cotton crop may lead to contamination of the seed cotton and lint.

Generally, good management of these issues for their own sake will result in good fibre quality; thus proper irrigation scheduling to avoid stress and maximise yield will also maximise the quality of the fibre, and good insect management, as well as ensuring a crop yield, will avoid the risk of fibre damage or sticky cotton.

## PRINCIPLE 5 – FIBRE PROTECTION

### *Seed management*

#### CRITERION 5.2

**The Producer must harvest, manage and store seed cotton to minimise trash, contamination and damage.**

#### Intent:

Trash refers to the degree of cotton leaf remaining in the lint cotton after it has been ginned. Contamination refers to anything found in the lint cotton that is not cotton fibre, or cotton leaf. It includes weeds, bark from the cotton plant, and any man-made substances. Damage refers to degradation of the fibre, and can result from fire, or microbial activity. For example, if cotton is stored when it is too moist, or in conditions that are too moist, damage from microbes is likely.

BCI is focused on the farm and therefore on those aspects of cotton production that are under the control of the farmer. When it comes to transporting cotton from the farm, and managing the contamination risks associated with transport – given the importance of this stage of the cotton production system for maintaining this aspect of quality — BCI recognises that responsibility and therefore the ability to manage contamination risks will vary. However, as it is possible that the farmer may be directly responsible for transporting cotton from the farm to the gin, this situation is included within the scope of this Principle, under Criterion 5.2.

#### CORE INDICATOR

5.2.1 Good management practices for the harvest and storage of seed cotton are adopted



#### IMPROVEMENT INDICATOR

5.2.2 Polypropylene, polyethylene or any synthetic bags are not used for cotton harvesting



## PRINCIPLE 5 – FIBRE PROTECTION

### Seed management

#### Guidance for implementation:

*While many of the characteristics of the fibre, such as length and strength, will already have been determined by the time the crop is ready to harvest, good management of the harvest – including of defoliation (where this practice is used), and of storage and transport of the seed cotton is essential to maintain the quality of the fibre, and to ensure that the cotton is not contaminated or damaged. Harvest timing and management will affect the level of trash, and as soon as people start handling the cotton, a contamination risk arises.*

*Contaminants can be very difficult to remove from cotton, and contamination can result in a significant downgrading – or outright rejection – of a lot of yarn, fabric or garments. Contamination is most likely to occur as a result of poor management practices during harvest, storage and transport, and ginning and baling (pressing). Care needs to be taken therefore to ensure that practices are adopted that reduce the risk of contamination. For example, choosing appropriate materials and methods for wrapping and storing cotton, and observing hygiene ‘rules’ during storage and handling.*

*Issues to consider therefore are: harvest management and general hygiene, choice of materials in which to pick and carry/move cotton, how and where cotton is stored, and how cotton is transported.*

*As noted above, cotton may be at risk of microbial damage if it is stored at too high a moisture content. Further, high moisture can increase the risk of fire. The choice of location for storing cotton is therefore important to minimise these risks.*

#### Rationale for change:

During the first consultation some stakeholders expressed the will to be more demanding regarding the risk of foreign contamination given the significant impact on the overall quality of BCI cotton fibre. The current draft therefore suggests to prohibit synthetic bags during picking as threads pieces of these bags spread into cotton and significantly contribute to increase contamination level. Storage and transportation is not covered as it is assumed that protection at harvesting level is already a great achievement.

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## PRINCIPLE 5 – FIBRE PROTECTION

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### *Seed management*

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#### **Question 1:**

Many stakeholders expressed the need to be more prescriptive on the need to use proper bags during cotton harvesting in order to reduce foreign contamination. Do you think the new indicator 5.2.2 prohibiting the use of synthetic bags (polyethylene, polypropylene) should be a core or improvement?

- Core indicator. BCI fibre quality needs to be improved at all cost and it is always feasible to find an alternative solution
- Improvement indicator. It is not feasible to exclude synthetic bags, too many farmers rely on it. Other methods allow to improve fibre quality
- Improvement indicators for Smallholders and Core indicator for Medium and Large Farms
- I don't have an opinion

**Please explain your answer:**

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**PRINCIPLE 5 – FIBRE PROTECTION**

***Seed management***

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**GENERAL COMMENT**

Do you have any other general or specific comment to make on this principle?

- Yes
- No

**If yes, please develop:**

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## PRINCIPLE 6 – DECENT WORK

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### PRINCIPLE 6 – BETTER COTTON FARMERS PROMOTE DECENT WORK

#### Introduction to the Principle:

Decent Work is understood by the BCI as the concept originated by the International Labour Organisation (ILO) to describe work that provides opportunities for women and men to work productively in conditions of freedom, equity, security and human dignity. For the ILO, Decent Work encompasses four 'pillars': fundamental principles and rights at work and international labour standards; employment and income opportunities; social protection and social security; and social dialogue.

As a means of describing how work contributes to equitable, inclusive and sustainable development, the concept of Decent Work enables BCI to develop a broad-based and consistent approach to the diversity of contexts in which cotton is grown, from family smallholdings to large-scale farms.

Evidently, not all four 'pillars' of the Decent Work Agenda are 'normative' – that is, giving rise to standards. The part of the Decent Work Agenda most relevant to the BCI Principles and Criteria is the respect of labour rights, expressed in international labour standards and in national labour legislation.

#### *International labour standards*

BCI considers the ILO, the UN specialised agency on work and employment, to be the international authority on labour matters. The ILO has developed a system of international labour standards. These standards primarily take the form of Conventions. In 1998, the ILO issued its Declaration on Fundamental Principles and Rights at Work which identified eight of these Conventions as 'fundamental'. These Conventions cover the four so-called 'core labour standards': freedom of association and the right to collective bargaining; the elimination of forced labour; the abolition of child labour and the elimination of discrimination in respect of employment and occupation. The 1998 Declaration commits all 183 ILO Member States to respect and promote principles and rights in these four areas, whether or not they have ratified the relevant Conventions.

In determining the content of its Decent Work Principle, BCI has referred to both other private voluntary standards bearing on primary agriculture and, primarily, the Conventions of the ILO which form the basis for these voluntary standards. While the BCI Decent Work Criteria are worded in their own terms, references are given to the key international standards (ILO Conventions) that BCI follows.

#### *National labour and occupation health and safety legislation*

The fundamental premise that growing Better Cotton respects national law underpins all the BCI Principles and Criteria. This is particularly relevant to the Decent Work Principle. Many, and in some cases all, of the areas covered in the Principle are regulated by national law in cotton-producing countries. BCI therefore requires that all cotton producers abide by national labour and occupation health and safety legislation, unless that legislation sets standards which are below the referenced internationally recognised standards and conventions, in which case the international standards prevail. (This may, for instance, be the case in countries where agriculture is excluded



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## PRINCIPLE 6 – DECENT WORK

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from the scope of labour and occupation health and safety legislation.) However, where national legislation sets higher requirements on a specific issue than these standards, then national legislation shall apply.

### **Intent of the Principle:**

The sustainability of global cotton production entails not only environmental but also social considerations. For BCI, Better Cotton is 'Better' only to the extent that it entails improvements for farming communities and farm workers, as well as the environment.

BCI understands that downward economic pressures bearing on cotton producers, particularly in developing countries, are an effective bar on improving both the environmental and social performance of cotton farming. In seeking to support the development of skills and institutions – particularly producer organisation – alongside facilitating access to information, BCI's commitment is to seek to change the circumstances which perpetuate and entrench unsustainable labour practices in many cotton-growing regions, and to enable investment in improvements for community, environment and workforce.

The meaningful application of 'labour standards' to global cotton cultivation is by no means straightforward. Within the sector, there are fluid boundaries between self-employment, family/community labour and waged labour. It is also important to note that agricultural waged workers do not form a homogeneous group of people: they may be full-time, seasonal, temporary, migrants, child labourers, indigenous workers, piece-rate workers or a combination of these. Moreover, the distinction between farmer and worker may be blurred, as many small farmers also work regularly for other farmers to supplement their income.

The numerical majority of cotton farmers worldwide are small-scale producers whose capacity to modify employment practices is closely related to farm economics. This is why BCI has adopted the broad perspective of Decent Work, in order to **position** the promotion of labour rights within the broader context of BCI's commitment to farm-level capacity building on the basis of need. It also serves to explain why BCI has developed, in close consultation with stakeholders worldwide, a differential series of Decent Work Criteria, reflecting the different working realities of varying scales of cotton cultivation.

## PRINCIPLE 6 – DECENT WORK

### *Child Labour*

#### CRITERION 6.1

The Producer must ensure there is no child labour in accordance with ILO convention 138.

In the case of family smallholdings, children may help on their family's farm provided that the work is not liable to damage their health, safety, well-being, education or development, and that they are supervised by adults and given appropriate training.

#### **Rationale for change:**

The previous use of 'Exceptionally' was misleading, as this provision is not an exception to ILO 138. It is more of an interpretation of the ILO allowance for light work, specifically in the context of smallholder agriculture.

#### **Intent**

Child labour is work that is mentally, physically, socially, or morally dangerous and harmful to children. It interferes with their schooling by depriving them of the opportunity to attend school, obliging them to leave school prematurely, or to combine school attendance with excessively long and heavy work.

The issue of child labour is usually at the forefront of discussions when dealing with labour concerns in the cotton sector. It is reported in many cotton-producing countries, mostly though not exclusively, in those characterised by smallholder production. Children contribute labour to cotton growing in these countries, primarily in cotton picking and to a lesser degree in weeding activities.

BCI considers that child labour is both a symptom and cause of poverty. Given the importance and complexity of the issue, BCI has given considerable thought to its approach and consulted a broad range of parties, including the Regional Working Groups. This process brings to light the following key issues.

Contracted child labour is employed in some cotton-producing regions, including those regions where children's contributions are commonly described as 'family-based' work. There is agreement that national and international standards should apply to the employment of children, governed by C138, or where national legislation sets a higher minimum age, by the law of the country in question. This minimum age of employment is at least 15 years of age, except in those developing countries that have temporarily set a lower threshold at 14 years, in accordance with ILO C138.

BCI's approach to child labour in family smallholdings seeks to foreground the basic issues at stake – the child's right to education, health, and developmental well-being according to age and activity – while recognising the context of family smallholder agriculture in many developing country settings. For this reason, **an allowance is made for smallholders to help on their family's farm under certain defined, cumulative conditions (listed in Criterion 6.1.3).**

## **PRINCIPLE 6 – DECENT WORK**

### ***Child Labour***

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This follows the logic of both ILO Convention 138 and with other social sustainability standards in smallholder agriculture, including the recommendations of the ISEAL Alliance SASA Harmonisation Project. The provisions of ILO C138 exclude 'family and small-scale holdings producing for local consumption and not regularly employing hired workers' (Art.5).

## PRINCIPLE 6 – DECENT WORK

### Child Labour

#### CORE INDICATORS

6.1.1 There are no workers below the age of 15 (14 in certain specified countries), or below the minimum age for employment defined by local law (whichever is higher).



#### Rationale for change:

Previously, there were no indicators distinct from the generic criterion for MF and LF, and for smallholders, the core indicator was to have a time-bound plan on the progressive eradication of child labour. This is why 6.1.1 is suggested in this new version. BCI acknowledges the unfeasibility of guaranteeing immediate and total eradication of child labour in the context of smallholder Producer Units. BCI's Assurance Program allows for PU compliance even where isolated, non-systemic breaches of criteria have occurred, through its concept of "incidental noncompliance". Therefore, implementation of this indicator is relevant for smallholders too. Because of the elevated risk of child labour in the smallholder context, and potentially high frequency of incidental noncompliance, the indicator on the time-bound plan should be retained for smallholders as an additional safeguard (see 6.1.2).

6.1.2 The Producer has a time-bound plan for the prevention and progressive eradication of child labour in accordance with ILO convention 138 and feeds into the continuous improvement plan (see criterion 7.4)



6.1.3 In the case of family smallholdings, children who are under 15 (14 in certain specified countries), or under the legal minimum age for access to employment (whichever is higher), may only help on their family's farm under ~~certain defined~~, these cumulative conditions ~~are~~:

- (i) their work is structured so as to enable them to attend school;
- (ii) their work should not be so demanding as to undermine their education;
- (iii) they should not perform tasks that are hazardous for them because of their age;
- (iv) they must be guided – both in terms of learning skills and supervision of tasks – by a family member; and
- (v) they have attended appropriate training.



## PRINCIPLE 6 – DECENT WORK

### Child Labour

- 6.1.4 A written code of conduct/child labour policy, making explicit under which circumstances children can or cannot work and why, has been communicated to farmers/workers.



#### Rationale for change:

This indicator is proposed to get promoted from an improvement to a core requirement, as this is considered an essential component of the mandatory child labour elimination plan, and essential basis for farmer awareness raising and training activities on Child Labour.

### IMPROVEMENT INDICATORS

- 6.1.5 Are there any procedures in place for checking the age of workers including record keeping at farm level?
- 6.1.6 Are there any child protection/monitoring committees established?
- 6.1.7 Is there a complete elimination of child labour in accordance with ILO convention 138?
- 6.1.8 Estimated number of child labourers appropriately transferred to education
- 6.1.9 Estimated number of family of child labourers provided with alternative sources of income (through local partnerships initiatives)



#### Rationale for change:

Issues of child labour remediation activities (such as transfer to education and alternative source of income) have been integrated.

#### Guidance for implementation:

*Not all work done by children is classified by the ILO as child labour that should be eliminated. Work that does not affect children's health and personal development or schooling can be a good thing, such as helping around the home or in a family business or earning pocket money outside school time. Whether a job is classified as 'child labour' depends on the child's age and the type and hours of work performed.*

## PRINCIPLE 6 – DECENT WORK

### Child Labour

#### **ILO Conventions and national legislation**

In reality, there is no clear line separating ‘good’ children’s work from ‘bad’ child labour. It is more practical to refer to two approaches to defining child labour, as does the ILO in its Conventions on child labour (C138 on minimum age and C182 on Worst Forms of Child Labour). These approaches focus on age and activity, respectively.

- **Age:** according to the first approach, children under a certain age should not work. ILO Convention 138 sets this at 15 (14 in certain developing countries), or statutory school-leaving age, whichever is higher. The two main exceptions are: a lower minimum age of 13 (12 in certain developing countries) for ‘light work’ – which neither harms a young person’s development nor prejudices school attendance – and a higher minimum age of 18 for hazardous work, defined below.
- **Activity:** according to the second approach, child labour is defined according to its negative effects on children. While ‘light work’ may be undertaken by younger workers from age 13, ‘hazardous work’ should not be performed by anyone under age 18. ‘Hazardous work’ is work that jeopardises children’s physical or psychological well-being, due to the nature or conditions of the work. This aspect is key in understanding the concept of child labour in cotton, because several activities relating to cotton cultivation may be deemed hazardous, including pesticide application and harvesting. Convention 182 calls upon ILO member countries to determine through national legislation the list of activities that would give rise to Hazardous Child Labour if performed by a worker under age 18.

#### **Guidance for implementation:**

The combination of age and activity in defining what constitutes child labour is summarised below:

| Source: International Labour Organisation   | The minimum age at which children can start work | Possible exceptions for developing countries |
|---|--|--|
| <b>Hazardous work</b><br>Any work that is likely to jeopardize children’s physical or mental health, or safety or morals should not be done by anyone under the age of 18.                                      | <b>18</b><br>(16 under strict conditions)        | <b>18</b><br>(16 under strict conditions)    |
| <b>Basic Minimum Age</b><br>The minimum age for work should not be below the age for finishing compulsory schooling, which is generally 15.   | <b>15</b>  | <b>14</b>                                    |
| <b>Light work</b><br>Children between the ages of 13 and 15 years may do light work, as long as it does not threaten their health and safety, or hinder their education or vocational orientation and training. | <b>13</b>  | <b>12</b>                                    |

## PRINCIPLE 6 – DECENT WORK

### Child Labour

#### CRITERION 6.2

The Producer must ensure that for hazardous work, the minimum age is 18 years.

#### Intent

While 'light work' may be undertaken by younger workers from age 13, 'hazardous work' should not be performed by anyone under 18. 'Hazardous work' is work that jeopardises children's physical or psychological well-being, due to the nature or conditions of the work.

#### CORE INDICATOR

6.2.1 Hazardous work is not carried out by workers under 18



#### Rationale for change:

Previously, there was no specific indicator for the hazardous work criterion. ILO Convention 182 stipulates the list of activities constituting hazardous work is determined at the national level.

#### Guidance for implementation:

*Not all work done by children is classified by the ILO as child labour that should be eliminated. Work that does not affect children's health and personal development or schooling can be a good thing, such as helping around the home or in a family business or earning pocket money outside school time. Whether a job is classified as 'child labour' depends on the child's age and the type and hours of work performed.*

Link with  
P1 Crop  
protection

#### ILO Conventions and national legislation

*In reality, there is no clear line separating 'good' children's work from 'bad' child labour. It is more practical to refer to two approaches to defining child labour, as does the ILO in its Conventions on child labour (C138 on minimum age and C182 on Worst Forms of Child Labour). These approaches focus on age and activity, respectively.*

- *Age: according to the first approach, children under a certain age should not work. ILO Convention 138 sets this at 15 (14 in certain developing countries), or statutory school-leaving age, whichever is higher. The two main exceptions are: a lower minimum age of 13 (12 in certain developing countries) for 'light work' – which neither harms a young person's development nor prejudices school attendance – and a higher minimum age of 18 for hazardous work, defined below.*

## PRINCIPLE 6 – DECENT WORK

### Child Labour

- *Activity: according to the second approach, child labour is defined according to its negative effects on children. While ‘light work’ may be undertaken by younger workers from age 13, ‘hazardous work’ should not be performed by anyone under age 18. ‘Hazardous work’ is work that jeopardises children’s physical or psychological well-being, due to the nature or conditions of the work. This aspect is key in understanding the concept of child labour in cotton, because several activities relating to cotton cultivation may be deemed hazardous, including pesticide application and harvesting. Convention 182 calls upon ILO member countries to determine through national legislation the list of activities that would give rise to Hazardous Child Labour if performed by a worker under age 18.*

The combination of age and activity in defining what constitutes child labour is summarised below:

| Source: International Labour Organisation  | The minimum age at which children can start work | Possible exceptions for developing countries     |
|--|--|--|
| <b>Hazardous work</b><br><i>Any work that is likely to jeopardize children’s physical or mental health, or safety or morals should not be done by anyone under the age of 18.</i>                                      | <b>18</b><br><b>(16 under strict conditions)</b> | <b>18</b><br><b>(16 under strict conditions)</b> |
| <b>Basic Minimum Age</b><br><i>The minimum age for work should not be below the age for finishing compulsory schooling, which is generally 15.</i>   | <b>15</b>  | <b>14</b>  |
| <b>Light work</b><br><i>Children between the ages of 13 and 15 years may do light work, as long as it does not threaten their health and safety, or hinder their education or vocational orientation and training.</i> | <b>13</b>  | <b>12</b>  |

For Guidance on Implementation, please refer to 6.1



## PRINCIPLE 6 – DECENT WORK

### *Forced Labour*

#### CRITERION 6.3

The Producer must ensure there is no forced or compulsory labour, including bonded or trafficked labour.

#### Intent

Forced labour is a documented phenomenon in different cotton growing regions. It is a concern in some countries in the form of debt bondage. There are also reports of forced child labour in cotton cultivation in several cotton growing regions.

BCI considers that forced labour is principally rooted in poverty, inequality and discrimination, and most often affects vulnerable and unprotected workers. Children, young workers, migrant workers and tribal or ethnic minorities are often among the least protected of workers, and at most risk of forms of coercion tantamount to forced labour. The BCI Criterion on forced labour is therefore closely linked to the Criteria on child labour and non-discrimination.

#### CORE INDICATORS

- 6.3.1 All forms of forced or compulsory, including bonded or trafficked labour are prohibited
- 6.3.2 Workers' wages are not withheld, and workers are not required to make financial deposits.
- 6.3.2 Workers' identity documents or valuable personal possessions, are not retained.
- 6.3.3 The movement of workers is not restricted.
- 6.3.4 If loans are made to workers, the terms and conditions of repayment are just and reasonable, a loan agreement is signed by both parties, and any loan repayments are clearly noted in pay records.



#### **Rationale for change:**

Previously, no specific indicators existed for Forced Labour. These new indicators are defined based on the ILO's indicators of forced Labour.

## PRINCIPLE 6 – DECENT WORK

### **Forced Labour**

#### **Guidance for implementation:**

Forced labour is work exacted under the threat of penalty and for which the person has not offered himself or herself voluntarily. In essence, persons are in a forced labour situation if they enter work or service against their freedom of choice, and cannot leave it without penalty or the threat of penalty. Penalties can be extreme, such as beatings, torture, sexual assault, or threats of physical violence, but can also include the withholding of identity documents or wages and threats of deportation.

Another penalty may involve imposing debt on workers (for instance, through large pay advances or transportation fees) that is difficult or impossible to repay on low wages: this is debt bondage, or bonded labour.

The underlying factors that contribute to forced labour and bonded labour include:

- » The use of labour agencies with unreasonable service fees that can be repaid only by continued work;
- » Social exclusion, often connected to caste or tribe;
- » Asymmetric information, whereby illiterate workers are not aware of their rights and of whom can be taken advantage;
- » Labour migration – particularly the situation of (irregular) migrant workers, who are commonly unaware but also unable to assert their legal labour rights;
- » Financial and labour market monopolies, which limits the workers' employment and credit options; inequitable loan or credit schemes managed by the employer;
- » In-kind remuneration, which allows employers to exacerbate dependent relations and hide low wages;
- » Coercion on the part of state authorities; or
- » There may also be situations whereby guards are present on the farm for protection; these guards may protect the farm, but not intimidate or prevent a worker from leaving.

The most important safeguard for all cotton farm employers is to fully disclose terms and conditions of employment prior to workers' recruitment, and to ensure that workers understand these terms.

#### ***ILO Conventions and national legislation***

*The ILO has adopted two conventions on forced labour: The Forced Labour Convention, 1930 (No. 29), and the Abolition of Forced Labour Convention, 1957 (No. 105). These two conventions are among the most widely ratified of the ILO and they are considered as 'fundamental' conventions. The ILO Forced Labour Convention (No. 29) defines forced or compulsory labour as 'all work or service, which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily'. Additionally, forced or compulsory labour performed by under-18s is considered as one of the worst forms of child labour in the Worst Forms of Child Labour Convention, 1999 (No. 182). Forced labour is normally unlawful under national legislation.*

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## PRINCIPLE 6 – DECENT WORK

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### *Non-discrimination*

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#### CRITERION 6.4

**The Producer must not practice discrimination (distinction, exclusion, or preference) that denies or impairs equality of opportunity, conditions, or treatment based on individual characteristics and group membership or association.**

#### **Intent**

Freedom from discrimination is widely recognised as a basic human right. Discrimination at work is harmful to both employers and employees, preventing workers from making their fullest possible contribution to the workplace and impeding the creation of a harmonious, motivated and productive working environment. More broadly, employment discrimination generates socio-economic inequalities that undermine social cohesion, solidarity and impedes poverty reduction efforts. Given its fundamental importance, the BCI Criterion on non-discrimination applies to all farms, large and small. BCI also considers the principle of non-discrimination key outside the employment sphere, for instance in the establishment and operation of producer groups.

Gender discrimination remains one of the greatest challenges to workplace equality in the cotton sector, partly as a result of pre-existing social attitudes and beliefs about gender roles. Women are frequently paid less than their male counterparts, despite the crucial role they play in the labour force. Rural women in many smallholder contexts provide substantial labour input to the cotton cultivation cycle as ‘unpaid’ family labour or low-paid day labourers. They commonly perform some of the most arduous tasks, with over-representation in manual work such as picking and weeding. In addition, women workers may face significant difficulties in gaining access to credit, and their views may be overlooked in decision-making as a result of entrenched gender bias in farming families. Discrimination against indigenous, tribal, or migrant workers is another important issue in the cotton sector. Migrant workers and members of ethnic minorities make up a large part of the cotton cultivation labour force in some regions and often face discrimination in relation to wages, working conditions, and health and safety (e.g. performing more difficult tasks over longer working hours for less pay). These groups are particularly vulnerable to discrimination for a number of reasons. They may not have a strong awareness of their employment rights and may not even be eligible for the same protection under national legislation as citizens or permanent residents. Poverty, lack of proficiency in the local language, and cultural misunderstanding may also invite prejudice and unfair treatment.

Combating discrimination is an essential part of promoting Decent Work and BCI seeks to ensure equal and respectful treatment in all matters for all workers engaged in cotton cultivation.

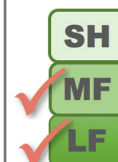
## PRINCIPLE 6 – DECENT WORK

### *Non-discrimination*

#### CORE INDICATORS

6.4.1 All form of discrimination are prohibited

6.4.2 A system is in place to detect, remediate any incident of discrimination on the basis of age, gender, ethnicity, nationality, social origin, religion, or any other characteristics that are not related to merit or the inherent requirements of the job.



#### **Rationale for change:**

Previously, no indicator existed for this criterion except for the ‘time-bound plan’ indicator for smallholders. The time-bound plan indicator can be retained for smallholders as an additional safeguard, but a more robust indicator is required to ensure fulfilment of the criterion. As the Assurance Program allows for incidental noncompliance, the more robust indicator is still feasible in the smallholder context.

6.4.3 The PU has a time-bound plan to improve the position of disadvantaged groups and feeds into the continuous improvement plan



**PRINCIPLE 6 – DECENT WORK**

**Non-discrimination**

**IMPROVEMENT INDICATORS**

6.4.4 Is there a written code of conduct/non-discrimination policy communicated to farmers and workers?

6.4.5 Are there women facilitator to conduct specific outreach to women farmers and workers?

6.4.6 Do women workers have access to training?



**Question 1:**

Gender is a crosscutting issue to which many indicators across Principle 6 refer to (criterion 6.4 but also 6.18 and 6.21.). Some stakeholders, however, expressed the idea to develop one special criterion for gender issues.

Do you consider a specific criterion should be developed to ensure Gender equality?

- Yes, a criterion explicitly requiring that the Producer promote gender equality in employment, training opportunities, process of recruitment, salary payment
- No, gender equality covered by existing criteria (6.4 Non-discrimination, 6.18- Salary , 6.21 – work contract)
- I don't have an opinion

**Please explain your answer:**

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**PRINCIPLE 6 – DECENT WORK**

***Non-discrimination***

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**Question 2:**

Should non-discrimination question become Core for Smallholders (indicators 6.4.4 to 6.4.5)?

- Yes
- No
- I don't have an opinion

**Please explain your answer:**

## PRINCIPLE 6 – DECENT WORK

### *Non-discrimination*

#### **Guidance for implementation:**

Discrimination in employment means treating people differently and less favourably because of characteristics that are not related to their merit or the inherent requirements of the job. Common grounds for discrimination include – but are not limited to – gender, race, age, ethnicity, religious belief, disability, sexual orientation, marital status, family responsibilities, trade union membership or HIV/AIDS status. Distinctions based on the inherent requirements of a job are not be deemed to be discrimination.

Discrimination can take place at many different stages of a working relationship: hiring, on the job (e.g. allocation of work, remuneration, discipline, access to training or promotion, working conditions) and at the end of the relationship (dismissal). It can include intimidation, harassment (including sexual harassment) or bullying. Non-discrimination measures should apply to all workers.

#### **ILO Conventions and national legislation**

Among the ILO's eight fundamental conventions, two are related to equality of opportunity and treatment. The Equal Remuneration Convention, 1951 (100) enshrines the principle of equal remuneration for men and women workers for work of equal value. The term 'remuneration' is broadly defined to include the ordinary, basic or minimum wage or salary and any additional benefits payable directly or indirectly, whether in cash or in kind, by the employer to the worker and arising out of the worker's employment. The term 'equal remuneration for men and women workers for work of equal value' refers to rates of remuneration established without discrimination based on sex.

The Discrimination (Employment and Occupation) Convention, 1958 (111) provides a basic definition of the concept of discrimination as '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'. 'Employment or occupation' is defined to include access to vocational training, access to employment and to particular occupations, and terms and conditions of employment. Workplace discrimination is generally prohibited by national legislation, although the prohibited grounds and extent of protection differ between countries.

## PRINCIPLE 6 – DECENT WORK

### *Health and Safety*

#### CRITERION 6.5

The Producer must guarantee all workers the right to set up and join organisations of their own choosing, and to draw up their own constitutions and rules, elect representatives, and formulate programmes.

#### **Rationale for change:**

Proposal to remove “employers” as it does not make sense to require employers to guarantee their own rights. Although the freedom of association of “employers” is also referenced in the relevant ILO Conventions, in this case the Employer effectively is “The producer” on which the responsibility of compliance lies.

#### **Intent**

BCI recognises the fundamental importance of the right of association in order to represent and defend interests, and considers this right to enable to effective realisation of other labour rights. Freedom of association paves the way for improvements in social and labour conditions, for example through collective bargaining.

Within the global cotton context, however, this right takes on different inflections, given that in many producer countries in the developing world, cotton work is performed by smallholders who are neither exclusively ‘employers’ or ‘employees’.

In the context of family smallholdings where the majority of labour inputs derive from family members, organisation logically relates in the first instance to producer organisation. The term ‘workers’ organisation’ as used in the Decent Work Principle refers to any organisation of workers with the aims of furthering and defending the rights and interests of workers. BCI considers independent trade unions the best means for achieving this. The recognition of a workers’ organisation for the purposes of representation and negotiation would typically take the form of the employer recognising in writing – and in practice – the right of all workers to establish and to join workers’ organisations of their own choosing and to collectively negotiate their working conditions.

Given the low rates of union density in any cotton production setting other than large-scale plantations, BCI has opted to iterate the fundamental right for workers to enjoy adequate protection against acts of anti-union discrimination solely in the context of medium and large farms. This in no way reflects a belief on the part of BCI that such discrimination is acceptable in other settings, but rather a desire to formulate standards which speak most directly and concisely to the particular context of farming to which they apply. The same rationale guides the inclusion of rights of access and facilities for union organisers only in the context of medium and large farms. This Criterion means that the employer allows trade unions not based at the farm to meet and share information with the workforce at an agreed time and place without the interference of farm management.



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## PRINCIPLE 6 – DECENT WORK

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### *Health and Safety*

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#### CORE INDICATORS

6.5.1 There is no evidence of interference with the establishment and growth of workers' organisations or their activities.



**Rationale for change:**

Previously, there was no specific indicator for this freedom of association criterion, and the criterion was not applicable to smallholders. This criterion/indicator should be applicable to all farmer categories, as smallholders also employ workers in many cases, and these workers lack visibility.

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## PRINCIPLE 6 – DECENT WORK

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*Health and Safety*

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### CRITERION 6.6

**The Producer must guarantee all workers the right to bargain collectively.**

#### Intent

The process of **collective** bargaining aims to reach mutually acceptable agreements on issues including wages, contracts of employment, hours of work, leave, occupational health and safety, and so on. The ability for workers to bargain collectively with their employers is a major factor influencing workers' terms and conditions of employment.

### CORE INDICATOR

6.6.1 There is no evidence of interference with the right of workers to bargain collectively.



**Rationale for change:**

No previous indicator for this criterion.

## PRINCIPLE 6 – DECENT WORK

### Health and Safety

#### CRITERION 6.7

The Producer should guarantee all workers the right to belong to a trade union and carry out lawful union activities without any fear of anti-union discrimination. Producer should also provide access and reasonable facilities for worker’s representatives.

#### Intent

Given the low rates of union density in any cotton production setting other than large-scale plantations, BCI has opted to iterate the fundamental right for workers to enjoy adequate protection against acts of anti-union discrimination solely in the context of medium and large farms. This in no way reflects a belief on the part of BCI that such discrimination is acceptable in other settings, but rather a desire to formulate standards that speak most directly and concisely to the particular context of farming to which they apply. It is also important that Producers employer allows trade unions not based at the farm to meet and share information with the workforce at an agreed time and place without the interference of farm management.

#### IMPROVEMENT INDICATORS

6.7.1 Estimated number of farms with workers who are members of a trade union

6.7.2 Estimated number of farms with providing access and reasonable facilities for workers’ representatives.



6.7.3 % employees that are members of a Trade Union.

6.7.4 Frequency at which The Producer, or a senior staff member, meets with employees.

6.7.5 Do Union representatives have dedicated facilities available to them when they visit the farm?



#### Rationale for change:

Indicators 6.8.2, 6.8.5 and 6.8.6 were previously related to a separate criteria (related to access to facilities). It is proposed to merge all under this criteria 6.8

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## PRINCIPLE 6 – DECENT WORK

### *Health and Safety*

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#### **Guidance for implementation:**

*Freedom of association refers to the right of workers and employers to freely form or join organisations that promote and defend their interests at work, without interference. The right to organise applies to all workers and employers, including persons in the informal economy.*

*Collective bargaining is a voluntary process through which employers (or their organisations), and trade unions (or in their absence, workers' representatives) discuss and negotiate their relations and interaction at the workplace. This process of bargaining aims to reach mutually acceptable agreements on issues including wages, contracts of employment, hours of work, leave, occupational health and safety, and so on. The ability for workers to bargain collectively with their employers is a major factor influencing workers' terms and conditions of employment.*

*The key reference points in this area are ILO Conventions No. 87 (Freedom of Association and Protection of the Right to Organise Convention, 1948) and No. 98 (Right to Organise and Collective Bargaining Convention 1949). A more specific Convention (No. 141) relating to rural workers was adopted by the ILO in 1975. This convention provides that all categories of rural workers, whether they are wage earners or self-employed, shall have the right to establish and to join organisations of their own choosing.*

## PRINCIPLE 6 – DECENT WORK

### Health and Safety

#### CRITERION 6.8

The Producer should provide access to potable and washing water.

#### Intent

Health and Safety constitutes another key component of Decent Work central to a productive and sustainable agriculture. This is clearly reflected in the cross-reference to the agronomic Principle on Crop Protection which outlines the BCI approach to minimising impacts of Crop Protection practices on farmers, farm-workers, producer community and environment. The intent of this reference to the Crop Protection Principle is to ensure that the specified types of workers (under-18s, pregnant or nursing women, untrained and unskilled workers, and workers suffering from illness or injury) do not carry out potentially hazardous work, such as application of pesticides.

#### IMPROVEMENT INDICATORS

6.8.1 Estimated number of farms with drinking and washing water facilities placed within reasonable proximity to the workplace and accessible to all



6.8.2 Do all workers have access to potable and washing water?

6.8.3 Does the Producer regularly test the quality of the drinking water?



Guidance for implementation: *(to be drafted following public consultation)*

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## PRINCIPLE 6 – DECENT WORK

### *Health and Safety*

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#### CRITERION 6.9

**The Producer should provide workers with regular health and safety training appropriate to the work they perform.**

#### **Intent**

Most work related accidents and illness are preventable. Given the nature of activities in the cotton cultivation cycle, worker and farmer health and safety is a critical issue in cotton farming. It is also a key to the livelihoods of worker and small farmers in cotton cultivation: unlike in factory or office settings, there is no clear distinction between working and living conditions on smallholder farms. Moreover, it should be noted that investments in health and safety improvements can help to reduce absenteeism due to accidents and improve productivity.

The key risks for worker health and safety are that workers – family or hired, depending on regional context – are exposed to harmful toxins. This has grave implications for women farmers/workers, in particular, in terms of the impact of pesticides on women’s reproductive health. Moreover, children who work on farms – and particularly on family farms – are especially vulnerable to unsafe and unhealthy working practices, resulting in injuries such as cuts and wounds, eye infections, skin problems, and fever and headaches caused by exposure to pesticides. In attributing employer responsibilities for worker health and safety, BCI has sought to balance the capacity of diverse cotton farms to meet the standard without compromising risks to the well-being of workers.

Training enables workers to work more safely in the context of the hazards that they are presented with. The appropriate level of training to be made available to employees of smallholders, medium farms, and large farms will depend largely on context and is most likely to be provided as part of an Integrated Pest Management Programme, described under the Crop Protection Principle above. In the case of certain key hazardous tasks, including spraying, working with hazardous chemicals, substances and materials and other potentially hazardous tasks such as operating vehicles and other machinery, good practice entails that workers’ participation in training is formally recorded and regularly reviewed.

## PRINCIPLE 6 – DECENT WORK

### Health and Safety

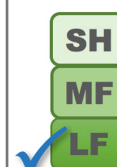
#### IMPROVEMENT INDICATORS

6.9.1 Estimated number of farms with a health and safety policy available and communicated to workers.

6.9.2 Estimated number of farms with formal workers training program that covers all relevant workplace health and safety requirements.

6.9.3 Is a written occupational health and safety policy available at the farm and has it been communicated to workers?

6.9.4 Does the Producer have a formal staff induction and training program for new employees that covers all relevant workplace health and safety requirements?



#### Guidance for implementation:

*BCI follows ILO Convention 155, which aims 'to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment'.*

*The other key international reference points for labour standards in this area are the Safety and Health in Agriculture Convention 2001 (No.184), and the Plantations Convention, 1958 (No. 110). In particular, Convention 184 covers preventive and protective measures regarding machinery safety, handling and transport of materials, chemicals management, animal handling, and the construction and maintenance of agricultural facilities. Other provisions address the specific needs of young workers, temporary and seasonal workers, and of women workers before and after childbirth.*

*National legislation will typically establish minimum standards for policies and practices on health and safety in agriculture that will apply to the cotton sector, although this is not the case in all cotton producing countries. Where national legal requirements on occupational health and safety are more comprehensive than the Criteria above, as is the case in many producer states, these statutory standards must be met.*

**PRINCIPLE 6 – DECENT WORK**

**Employment conditions**

**CRITERION 6.10**

The Producer should provide all workers with safe and hygienic sanitation facilities, a clean place to eat, and access to adequate medical care at no charge.

Intent

*To be drafted following public consultation*

**IMPROVEMENT INDICATORS**

6.10.1 Estimated number of farms providing to workers a clean place to eat, clean toilets, potable drinking water, adequate living quarters (if they reside on the farms) and access to adequate medical care at no charge.



6.10.2 Do all workers have access to a clean place to eat, clean toilets, potable drinking water, adequate living quarters (if they reside on the farms) and access to adequate medical care?



6.10.3 Do all workers receive regular (at least annual) medical examinations at the employer's expense, or are they provided with benefits covering medical examinations?

**Rationale for change:**

Feedback from certain contexts has highlighted the fact that there is no precedent for farms providing employees with medical examinations, but there is a precedent for medical benefits to be provided as part of the employee contract.

*For Guidance for Implementation, refer to 6.11*



## PRINCIPLE 6 – DECENT WORK

### *Employment conditions*

#### CRITERION 6.11

The Producer should identify work hazards, inform workers of safe work practices, and adopt preventive measures to minimise hazards in the workplace.

The Producer must maintain records of any accidents and occupational illnesses.

#### Intent

Work processes, workplaces, machinery and equipment on the farm should be as safe as reasonably feasible. Medium and large Producers are expected to carry out a formal risk assessment of health and safety issues to identify risk areas and potential hazards.

#### IMPROVEMENT INDICATORS

6.11.1 Estimated number of farms that have conducted a formal assessment of all potential workplace hazards leading to safe work procedures being established for all hazards.



6.11.2 Has a formal assessment of all potential workplace hazards, involving workers, been conducted and led to the establishment of safe work practice procedures for all hazards?



6.11.3 Are records maintained of any accidents and occupational illnesses?

*For Guidance for Implementation, refer to 6.11*

**PRINCIPLE 6 – DECENT WORK**

***Employment conditions***

**CRITERION 6.12**

The Producer should ensure that measures are in place to deal with accidents and emergencies, including first aid and access to appropriate transportation to medical facilities

**Intent**

The BCI Decent Work Principle also entail that medium and large farms train a reasonable number of workers (in relation to the size of the operation) in first aid, that suitably stocked first aid boxes are readily accessible at all times, and that transportation to medical facilities is made available.

**IMPROVEMENT INDICATORS**

6.12.1 Estimated number of farms with accident and emergencies procedures including first aid and access to appropriate transportation to medical facilities



6.12.2 Does the Producer have an accident and emergency procedure including first aid and access to appropriate transportation to medical facilities



*For Guidance for Implementation, refer to 6.13*

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## PRINCIPLE 6 – DECENT WORK

### *Employment conditions*

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#### **Guidance for implementation:**

BCI follows ILO Convention 155, which aims 'to prevent accidents and injury to health arising out of, linked with or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment'.

The other key international reference points for labour standards in this area are the Safety and Health in Agriculture Convention 2001 (No.184), and the Plantations Convention, 1958 (No. 110). In particular, Convention 184 covers preventive and protective measures regarding machinery safety, handling and transport of materials, chemicals management, animal handling, and the construction and maintenance of agricultural facilities. Other provisions address the specific needs of young workers, temporary and seasonal workers, and of women workers before and after childbirth.

National legislation will typically establish minimum standards for policies and practices on health and safety in agriculture that will apply to the cotton sector, although this is not the case in all cotton

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## PRINCIPLE 6 – DECENT WORK

### *Employment conditions*

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#### CRITERION 6.13

**The Producer should ensure that waged workers are paid wages at least equivalent to the applicable legal national minimum wage or regional norm, whichever is higher**

#### **Intent**

Due to the importance of wage employment in cotton cultivation and its relation with poverty, the issue of employment conditions is central to the promotion of Decent Work. The different Criteria under employment conditions are applicable to medium and large farms, but not to smallholders.

Terms and conditions of employment vary tremendously across the agricultural waged workforce. Working terms and conditions in the cotton sector are influenced by a range of factors such as the type of working arrangement (e.g. permanent, casual, seasonal, migrant, piece rate), the nature of the job and the employer's geographic location and size. The extent to which national labour law regulates working conditions varies according to the level of development and local living standards in each country.

In general, wages in the agricultural sector are low and many agricultural workers live below the poverty line. Wages may be affected by conditions beyond workers' control, such as adverse weather conditions, which mean that workers are not paid for unproductive time. Many workers may need to work long hours to earn a basic wage, especially where they rely on piece work rates. To protect these workers, national labour legislation and collective agreement may establish a minimum wage, a minimum monetary rate that employers may pay employees for their labour. It is often expressed as an hourly rate and may vary across sectors or regions. However, the agricultural sector is often exempted from the requirement to pay a minimum wage, or may be subject to a lower rate. Alternatively, certain categories of workers that are common in agriculture may be excluded from minimum wage protection, such as casual, piece-rate and seasonal workers. Regional wage norms may exceed the legal minimum wage, particularly where minimum wage rates are low and insufficient to meet basic needs, and workers should be paid whichever is higher. Where workers rely on piece work rates, it is important that this rate permits them to earn at least the minimum wage or regional norm.

**PRINCIPLE 6 – DECENT WORK**

***Employment conditions***

**IMPROVEMENT INDICATORS**

6.13.1 Is the Producer aware of the legally applicable minimum wage/s (statutory national or regional minimum wage applicable to agriculture, collectively agreed wage, industry minimum) ?

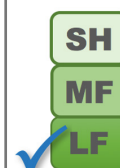
6.13.2 Is the wage rate paid to workers by the Producer equal or higher than the applicable minimum wage?

6.13.3 Estimated number of farms aware of the legally applicable minimum wage/s (statutory national or regional minimum wage applicable to agriculture, collectively agreed wage, industry minimum)?

6.13.4 Estimated number of farms with employees paid more than 15% higher than the applicable minimum wage?

6.13.5 Estimated number of farms providing piece rate adequate for workers to earn the applicable national minimum wage or regional norm (whichever is higher) during normal working hours and under normal operating conditions?

6.13.6 If any workers are paid on a piece rate basis, is the rate adequate for workers to earn the applicable national minimum wage or regional norm (whichever is higher) during normal working hours and under normal operating conditions?



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## PRINCIPLE 6 – DECENT WORK

### *Employment conditions*

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#### **Guidance for implementation:**

*Wages are undoubtedly among the most important working conditions, with an obvious and critical link to the living standards of workers and their families. The term ‘wages’ refers to the total remuneration paid to workers for their labour, including monetary compensation provided on an hourly, daily, weekly or monthly basis, piece work rates, bonuses and in-kind payments, such as food and housing. Piece work rates are wage payments on the basis of a fixed rate according to units or actions completed, such as a certain amount of cotton picked, rather than on the basis of time worked.*

*BCI does not consider it appropriate to determine ‘cash standards’ for cotton production, such as wages and working hours. Collective and individual agreement establishes these in national legislation, collective bargaining agreements and individual contracts of employment. BCI requires producer-employers to comply with national employment legislation and that national legislation prevails where it sets higher standards on particular issues than the BCI Criteria.*

*A number of ILO conventions set standards relating to working conditions; these are directed towards legislating governments. Agricultural workers are not covered by the two main conventions on hours of work (ILO C1 and C30) or weekly rest (C14 and C106). In terms of wages, Convention C 99 requires states to establish minimum wages for the agricultural sector; the Equal Remuneration Convention, 1951 (No. 100) lays down the principle of equal remuneration for men and women workers for work of equal value (see ‘Discrimination’ above). The Plantations Convention, 1958 (No. 110) deals with conditions of employment of plantation workers. It covers conditions of work, contracts of employment, collective bargaining, methods of wage payment, paid leave, weekly rest, maternity protection, accident compensation, freedom of association, labour inspection, housing and medical care. It also covers the recruitment and engagement of migrant workers.*

**PRINCIPLE 6 – DECENT WORK**

***Employment conditions***

**CRITERION 6.14**

The Producer should ensure that workers are paid regularly in the form requested by them (cash, bank transfer, or cheque).

**Intent**

Wages should be paid regularly and on time. In extreme situations, debt bondage or forced labour can arise where wages are not paid for long periods of time. This can also be a problem if a large component of wages consists of in-kind payment rather than cash, as it reduces workers’ discretionary income and their freedom to decide on how to meet their own needs. Consequently, the provision of in-kind payment is often strictly regulated by national legislation or collective agreement and restricted to a percentage of the overall wage.

**IMPROVEMENT INDICATORS**

6.14.1 Estimated number of farms with wage records showing that workers are paid regularly in the form requested by them



6.14.2 Do wage records show that workers are paid regularly in the form requested by them?



## PRINCIPLE 6 – DECENT WORK

### Employment conditions

#### CRITERION 6.15

The Producer should observe the principle of equal pay for equal work

#### Intent

To be drafted

#### IMPROVEMENT INDICATORS

6.15.1 Estimated number of farms providing equal wages to people who perform the same job, irrespective of gender



6.15.2 Are equal wages paid to people who perform the same job, irrespective of gender?



#### Guidance for implementation:

*The principle of equal pay for work of equal value means that men and women are paid the same rate for performing work that is the same, broadly similar or of comparable value. Determining whether jobs are of comparable value can be complex, but rates should be established without reference to gender. 'Pay' should be understood as a broad concept that includes all payments, including basic wages, bonuses and non-monetary benefits.*

**Guidance for implementation: to be expanded**



**PRINCIPLE 6 – DECENT WORK**

***Employment conditions***

**CRITERION 6.16**

The Producer must obtain the worker’s consent in advance regarding all working conditions

**Intent**

*To be drafted*

**IMPROVEMENT INDICATORS**

6.16.1 Estimated number of farms that consult with workers about working conditions (including requirements relating to working hours and overtime) as part of the hiring process



6.16.2 Are workers consulted about working conditions (including requirements related to working hours and overtime) as part of the hiring process?



**PRINCIPLE 6 – DECENT WORK**

***Employment conditions***

**CRITERION 6.17**

The Producer should employ workers under legally binding (preferably written) contracts of employment.

**Intent**

An employment contract is an agreement between the employer and the employee on the employee’s basic terms and conditions of employment. In general, contractual arrangements in the agricultural sector tend to be concluded verbally rather than in writing. However, regardless of the form of agreement, any changes to an employee’s working conditions (such as working hours) represent a change to this agreement and should therefore be made with the prior consent of the employee.

**IMPROVEMENT INDICATORS**

6.17.1 Estimated number of farms with workers employed with written contract



6.17.2 Percentage of workers with a written contract



## PRINCIPLE 6 – DECENT WORK

### *Employment conditions*

#### CRITERION 6.18

The Producer should keep adequate records on employment obligations which are in accordance with national law and sufficient to enable monitoring.

#### Intent

To be drafted

#### IMPROVEMENT INDICATORS

6.18.1 Estimated number of farms keeping records on the following:

- i) details on legal requirements for wages, including rates, working hours and overtime requirements
- ii) information on wages (including form of payment)
- iii) date of birth (age),
- iv) **gender statistics**
- v) working times (working hours and overtime)
- vi) date of entry and period of employment
- vii) number of permanent/seasonal workers in line with Annex 5



6.18.2 Are records kept on the following?:

- i) details on legal requirements for wages, including rates, working hours and overtime requirements
- ii) information on wages (including form of payment)
- iii) date of birth (age),
- iv) **gender statistics**
- v) working times (working hours and overtime)
- vi) date of entry and period of employment
- vii) number of permanent/seasonal workers in line with Annex 5



*Guidance to be drafted*

**PRINCIPLE 6 – DECENT WORK**

***Employment conditions***

**CRITERION 6.19**

**The Producer should ensure that temporary, seasonal, and (sub-) contracted workers receive equivalent benefits and employment conditions to permanent workers in relation to their period of employment**

**Intent**

The content of contracts in the agricultural sector varies hugely, as a result of the wide variety of employment and other working relationships; for example, seasonal, daily and permanent employment; task or piece rate work; sharecropping or contract farming. Temporary working arrangements, such as seasonal, casual, daily, and contract labour, are prevalent in the agricultural sector. Workers under these arrangements do not enjoy the length of tenure or employment security as permanent workers, but should receive equivalent benefits and employment conditions relative to their period of employment, such as wages, overtime payments, rest times and health and safety protection.

**IMPROVEMENT INDICATORS**

6.19.1 Estimated number of farms with a policy on the treatment of temporary, seasonal and (sub-)contracted workers



6.19.2 A policy on the treatment of temporary, seasonal and (sub-) contracted workers is available



## PRINCIPLE 6 – DECENT WORK

### Employment conditions

#### CRITERION 6.20

The Producer should ensure that working hours comply with national laws or relevant collective agreements, whichever is more favourable to the worker

#### Intent

Working hours are another basic working condition with a strong impact on workers' health and quality of life. Maximum limits for daily and weekly working hours, rest times, shift time and overtime are often set by national legislation, although the agricultural sector is commonly exempted from these laws. This is an important gap in the protection of agricultural workers, as many workers regularly perform arduous manual labour for long hours, which can be extended further during peak periods such as planting and harvesting. Despite health risks, workers may request these longer hours and even forego rest days in order to raise their income. Overtime hours must always be carried out with due regard for requirements in national legislation and collective agreements, including wage rates and health and safety.

#### IMPROVEMENT INDICATORS

6.20.1 Estimated number of farms aware of minimum legal requirements and relevant collective agreements on working hours



6.20.2 Is the Producer aware of the minimum legal requirements and relevant collective agreements on working hours



6.20.3 Are the normal working hours clearly displayed in a place accessible to all workers?

*Guidance for implementation: to be drafted*

**PRINCIPLE 6 – DECENT WORK**

**Employment conditions**

**CRITERION 6.21**

The Producer should ensure that overtime work is voluntary and remunerated in accordance with the law or applicable collective agreements

Intent

*To be drafted*

**IMPROVEMENT INDICATORS**

6.21.1 Estimated number of farms paying overtime hours at a premium, in line with legal requirements



6.22.2 Overtime hours are paid at a premium, in line with legal requirements



**Rationale for change:**

Previous indicators are used for 6.14 (previously 6.15) on minimum wage. Indicators specific to overtime had to be introduced.

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## PRINCIPLE 6 – DECENT WORK

### *Employment conditions*

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#### **Guidance for implementation:**

Wages are undoubtedly among the most important working conditions, with an obvious and critical link to the living standards of workers and their families. The term 'wages' refers to the total remuneration paid to workers for their labour, including monetary compensation provided on an hourly, daily, weekly or monthly basis, piece work rates, bonuses and in-kind payments, such as food and housing. Piece work rates are wage payments on the basis of a fixed rate according to units or actions completed, such as a certain amount of cotton picked, rather than on the basis of time worked.

BCI does not consider it appropriate to determine 'cash standards' for cotton production, such as wages and working hours. Collective and individual agreement establishes these in national legislation, collective bargaining agreements and individual contracts of employment. BCI requires producer-employers to comply with national employment legislation and that national legislation prevails where it sets higher standards on particular issues than the BCI Criteria.

The principle of equal pay for work of equal value means that men and women are paid the same rate for performing work that is the same, broadly similar or of comparable value. Determining whether jobs are of comparable value can be complex, but rates should be established without reference to gender. 'Pay' should be understood as a broad concept that includes all payments, including basic wages, bonuses and non-monetary benefits.

A number of ILO conventions set standards relating to working conditions; these are directed towards legislating governments. Agricultural workers are not covered by the two main conventions on hours of work (ILO C1 and C30) or weekly rest (C14 and C106). In terms of wages, Convention C 99 requires states to establish minimum wages for the agricultural sector; the Equal Remuneration Convention, 1951 (No. 100) lays down the principle of equal remuneration for men and women workers for work of equal value (see 'Discrimination' above). The Plantations Convention, 1958 (No. 110) deals with conditions of employment of plantation workers. It covers conditions of work, contracts of employment, collective bargaining, methods of wage payment, paid leave, weekly rest, maternity protection, accident compensation, freedom of association, labour inspection, housing and medical care. It also covers the recruitment and engagement of migrant workers.

## PRINCIPLE 6 – DECENT WORK

### *Basic treatment and disciplinary measures*

#### CRITERION 6.23

The Producer must not engage in or tolerate the use of corporal punishment, mental or physical coercion, sexual or other harassment or physical or verbal abuse or harassment of any kind

#### Intent

It is essential that every employee is treated with respect and dignity. While this may be self-evident, BCI considers it important to explicitly address this issue within the Decent Work Principle in order to reflect the importance of fairness and transparency in disciplinary practices.

Disciplinary practices are often regulated by national legislation, although the degree and nature of coverage varies considerably by country. In particular, many countries have specific national legislation making abuse in the workplace a criminal offence, as well as requirements that must be complied with where disciplinary measures lead to dismissal. It should also be noted that collective agreements often contain clauses on disciplinary procedures. The ILO does not have a specific convention addressing disciplinary practices. However, different UN agreements are relevant, such as the Universal Declaration of Human Rights, and most voluntary initiatives for managing working conditions in supply chains contain standards on disciplinary procedures.

#### CORE INDICATOR

6.23.1 Use of corporal punishment, mental or physical coercion, sexual or other harassment or physical or verbal abuse or harassment of any kind, is prohibited



*Guidance for implementation to be drafted*



## PRINCIPLE 6 – DECENT WORK

### *Basic treatment and disciplinary measures*

#### CRITERION 6.24

The Producer must have a transparent policy and system for disciplinary measures, and must communicate this to workers

#### Intent

Fair disciplinary procedures not only help to eliminate inhumane treatment of workers: they are a basic tool for sound people management that help to create a productive and harmonious workplace. In the case of medium and large farms, policies on disciplinary practices should provide a clear statement of what constitutes acceptable behaviour in the workplace and establish a fair and transparent framework to follow where there are allegations of misconduct. This ensures that all workers are aware of their rights and receive fair and consistent treatment.

#### CORE INDICATORS

- 6.24.1 A policy and system for disciplinary measures is available and communicated to workers
- 6.24.2 Any disciplinary actions are proportionate to the conduct in question and the system in place include fair warning principles



#### **Rationale for change:**

Previously, no indicators defined for this criterion.

**PRINCIPLE 6 – DECENT WORK**

**Collective partnership**

**CRITERION 6.25**

The Producer must develop partnership and collaboration on decent work at local, regional or national level

**IMPROVEMENT INDICATORS**

- 6.25.1 Number of alliance / partnership established with local organisations on Decent Work
- 6.25.2 Number of outreach activities to specific target groups beyond farmers (e.g. women, children, casual workers, migrant workers, local authorities, school teachers, pesticide applicators, cotton pickers, etc.)
- 6.25.3 Estimated number of farms with specific person or groups in place to actively promote Decent Work within their communities (e.g. Decent Work committees, child labour monitoring committees, local pressure group, lead farmer, etc.)



**Question 3:**

Do you agree that BCI farmers should incorporate their Decent work activities into initiatives developed by external organizations to ensure better work conditions?

- Yes, a new criterion on decent work collective action is needed. These questions of outreach, strengthened local capacities and partnership are key for success in decent work.
- No, it is not necessary to join external initiatives. Much can be done at farm level already. A new criterion is not needed.
- I don't have an opinion

**If yes, please develop:**

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**PRINCIPLE 6 – DECENT WORK**

***Collective partnership***

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**GENERAL COMMENT:**

Do you have any other general or specific comment to make on Principle 6?

- Yes
- No

**If yes, please develop:**

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## PRINCIPLE 7 – MANAGEMENT

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### PRINCIPLE 7 - BETTER COTTON FARMERS OPERATE AN EFFECTIVE MANAGEMENT SYSTEM

#### Introduction to the Principle:

This 7th principle dedicated to management has a special status as it functions as the backbone of the standard by supporting the achievement of the other 6 principles and criteria. BCI's standard system places special emphasis on driving change through continuous improvement, and on demonstrating results through the annual collection of field level data. The Standard System also utilises self-assessment as one of the fundamental assurance mechanisms, shifting the primary responsibility for assessing and reporting on performance to the Producer. These essential features of BCI's approach depend upon effective management at the Large Farm or Producer Unit level. Management activities are essential to ensuring that farmers are trained to adopt improved practices, that risks to noncompliance are identified and remediated, that progress against production criteria is monitored and assessed, and that field level data is accurately maintained and systematically reported.

The management system also plays a vital role in safeguarding the credibility of the group assurance model used for smallholders and medium farms. Smallholders and medium farms are organised into Producer Units and receive licences at the Producer Unit level. The internal management system coordinated by the Producer Unit Manager instils confidence that the individual farmers in the unit are adopting the practices promoted through training and fulfilling the requirements of the standard. Internal monitoring maintains the integrity of the self-assessment process by reflecting the consistency of farmer performance across the group. Management activities require ongoing farmer engagement and the promotion of self-regulation, creating a sense of ownership amongst Producer Unit members.

While it is the responsibility of the Producer to determine and structure management activities in a way that fits their needs, BCI has defined a set of common criteria considered to be the essential components of an effective management system.

## PRINCIPLE 7 – MANAGEMENT

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**NOTE** : Principle 7 has not been entirely reviewed by the BCI Standard Setting committee and is therefore incomplete. Besides, further guidance documents on critical parts of the Principle (e.g. Continuous improvement plan” are still in development. “Intent” and “guidance” sections will be therefore further developed after the second round of public consultation. In the meantime, you are of course very much welcome to provide suggestion on how this new Management principle should be designed.

## PRINCIPLE 7 – MANAGEMENT

### *Data management*

#### CRITERION 7.1

The Producer must operate a data management system

Intent:

To be completed

#### CORE INDICATORS

7.1.1 The Producer collects and maintains descriptive PU data in the format required by BCI (see Assurance Model). This will include (but not be limited to) name and contact information of PU Manager; list of farmers organised into Learning Groups; age, gender, education level of farmers; expected seed cotton production per farmer; geo-location of PU; name of gins. The PU data is updated annually, at the latest one month after sowing.



7.1.2 The Producer operates a system to ensure that farmers can maintain a farmer field book and learn from it or essential production data on inputs, outputs of farmers are captured in the most accurate manner.

7.1.3 The Producer creates and maintains a profile of the on-farm labour force, including estimates of numbers of workers per the BCI-defined worker categories and disaggregated by gender. The labour profile is updated annually, at the latest one month after sowing.



7.1.4 PU Manager operates a system to collect, compile and report accurate Results Indicator data in accordance with assurance model requirements.

#### Guidance for implementation:

To be completed

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**PRINCIPLE 7 – MANAGEMENT**

***Data management***

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**Question 1:**

Do you agree that the farm labour force mapping requirement applied to smallholders as proposed under 7.1.3?

- Yes
- No
- I don't have an opinion

**Please explain your answer:**

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## PRINCIPLE 7 – MANAGEMENT

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### *Capacity-building*

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#### CRITERION 7.2

The Producer must strengthen staff capacity and retention through training and leadership

Intent

To be completed

#### CORE INDICATORS

- 7.2.1 Training opportunities for the PU manager have been identified through self-evaluation to improve its capacity and skills.
- 7.2.2 The skills and competencies of Field Facilitators are developed through ongoing training
- 7.2.3 All field facilitators are recruited according to a pre-defined job description
- 7.2.4 Annual staff performance are reviewed based on job description and programme activities





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## PRINCIPLE 7 – MANAGEMENT

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*Capacity-building*

### CRITERION 7.3

The Producer must ensure that field facilitators receive decent employment contracts.

Intent:

To be completed

### CORE INDICATORS

7.3.1 Filed facilitators are employed with a written contract

7.3.2 Contracts of employment are not seasonal as per the national legislation on labour

#### Question 2:

Do you agree with the decision of securing relationships with filed facilitators?

- Yes, it is critical filed facilitators action is planned over the long-term
- No, it is not possible for PU managers and
- I don't have an opinion

Please explain your answer:

## PRINCIPLE 7 – MANAGEMENT

### *Continuous improvement plan*

#### CRITERION 7.4

The Producer must ensure that farmers and workers receive regular training on practices to achieve the BCI Principles and Criteria Core Indicators and relevant Continuous Improvement Plan targets

Intent:

To be completed

#### CORE INDICATORS

- 7.4.1 A training plan identifying BCI Principles and criteria, PU/LG Codes, target groups, name of training provider(s), and scheduling, is available
- 7.4.2 Training materials for farmers and workers are available to cover all of BCI Principles and Criteria Core Indicators
- 7.4.3 The Producer reports annual data on number of farmers and workers trained by gender / topic / methodology.



#### IMPROVEMENT INDICATORS

- 7.4.4 Best practices (validated locally) related to production are shared with farmers through appropriate dissemination material in local language
- 7.4.5 Training materials for farmers and workers are available to cover the BCI Principles and Criteria Improvement Indicators



#### Guidance for implementation:

To be completed

## PRINCIPLE 7 – MANAGEMENT

### *Continuous improvement plan*

#### CRITERION 7.5

##### The Producer must develop and implement a Continuous Improvement Plan

##### Intent:

This Criteria and its indicators indicate that the Continuous improvement plan must be prepared and approved prior to the start of management activities.

It covers the whole process of management planning for each of the production principles. That is the setting of policies (visions and values) and corresponding objectives, development and implementation of corresponding plan, evaluation of success in achieving their defined objectives and monitoring.

The design of the continuous improvement plan depends on the farmer category and objectives of The Producer. This ensures that every type of farmers has planning and a management system, but provides flexibility to adapt these to the type and situation of management area and the objectives of The Producer.

The amount of documentation needs to be sufficient to guide staff in the implementation of the management plans, to provide justification of management decisions to internal and external verification.

‘Continuous improvement’ is defined as a systematic process of continually improving management policies and practices by learning from the outcomes of existing measures (see Terms and definition).

7.5.1 A documented plan identifying time-bound objectives and measures of success for the 6 Production Principles and criteria is available and kept up to date based on monitoring

7.5.2 The Continuous Improvement Plan is reviewed annually to integrate lessons learnt from the past year and corrective actions and/or recommendations identified during external assessment



## PRINCIPLE 7 – MANAGEMENT

### *Continuous improvement plan*

#### **Guidance for implementation:**

The Core indicators under Management Criteria, require a ‘Continuous improvement plan available at farmer level and reviewed by the farmer on an annual basis.’ A Continuous Improvement Plan provides a way for farmers to measure, manage, improve and promote their performance in relation to the Better Cotton Production Principles and Criteria.

The Producer should list goals and/or ongoing improvement projects that pertain to these Principles. They can select Principles to focus on rather than list goals for all six categories, and may also refer to any existing internal policies or plans that support progress in their chosen improvement areas. Where possible, they should relate their goals to the achievement of specific BCI criterion/criteria within a given Production Principle.

The specific Environmental Resources Management plans detailed under Principle 2 (Water stewardship), Principle 3 (Soil Health) and Principle 4 (Biodiversity enhancement) should be incorporated in the overall CIP.

Objectives need to be measurable to facilitate representation of rates of progress. Examples may include graphs, tables or other forms that are easy to visualize or something easy to verify on the ground. The Producer should develop management objectives and resulting practices under each relevant production principle, taking into account that some of them overlap as identified in guidance.

A continuous improvement plan template is available in assurance documents appendixes (one per farmer category).

#### **Question 3:**

Do you consider a continuous improvement plan template should be made available by BCI?:

- Yes, the plan template will provide a framework and help structuring management objectives
- No, the way the management plan is designed and implemented is left to the Producer’s choice, a given template would be too prescriptive.
- I don’t have an opinion

**Please explain your answer:**

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## PRINCIPLE 7 – MANAGEMENT

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### *Monitoring*

### CRITERION 7.6

The Producer must monitor and review levels of adoption, risks of noncompliance, and implementation of corrective actions

Intent:

To be completed

### INDICATORS

- 7.6.1 The Producer operates a system to:
- assess the level of adoption of practices promoted in training; and
  - identify and address risks associated with implementation or potential noncompliance; and
  - Plan/Enforce implementation of Corrective Actions resulting from monitoring activities



Guidance for implementation:

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**PRINCIPLE 7 – MANAGEMENT**

**Monitoring**

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**GENERAL COMMENT:**

Do you have any other general or specific comment to make on Principle 7?

- Yes
- No

**Please explain your answer:**