

## **Bonsucro Draft Production Standard Version 5**

As a multi-stakeholder organisation, Bonsucro seeks to engage stakeholders when changes are proposed and made to our standards. Here you will find detailed information about this process and current work on standards development, as well as information on how these key documents were created.

The Bonsucro Production Standard is at the heart of everything Bonsucro does. It sets out a definition of what sustainable cane production should look like, providing a comprehensive metric tool for sustainable farming and milling. Bonsucro wants to maximise the impact the Standard has on the future of the sugarcane sector and enhance the value added for the producers who implement, use and comply with it.

The “Bonsucro Production Standard” contains principles and criteria for achieving sustainable production of sugarcane and all sugarcane derived products in respect of economic, social and environmental dimensions. Its primary purpose is to define a set of principles, criteria and indicators, along with explanatory notes, for the assessment of the performance of operators against the three pillars of sustainability. The Standard is used by Bonsucro members who wish to achieve certification. It is also used by Licensed Certification Bodies and auditors when carrying out certification audits.

The Bonsucro Standard development and revision procedure is based on the [ISEAL Standard Setting Code](#). It requires a multi-stakeholder consultation and decision-making process to ensure clear and auditable conditions in the standard itself. The process is driven by stakeholder led Standard Revision Working Group and supported by the Technical Advisory Board and the Members Council.

[Standard Development and Revision Procedure](#).

**On 18 May, Bonsucro launched the public consultation on the proposed changes to the Production Standard. The consultation will run until 31 July. Bonsucro members, non-members and all interested stakeholders are invited to participate and submit their feedback. The more input gained, the more robust the Standard will be.**

Below you will find the Bonsucro Draft Production Standard Version 5. Please feel free to provide comments on the draft Standard by completing Bonsucro Production Standard Consultation questionnaire before the 31<sup>st</sup> of July. Please refer to the Draft Bonsucro Production Standard V5 and the summary of changes before answering the form. The questionnaire can be downloaded from our website: <http://www.bonsucro.com/production-standard-revision-public-consultation/>

Bonsucro will be hosting a series of webinars in English, Spanish and Portuguese on the changes to the Production Standard. To attend, please register via this link: <http://www.bonsucro.com/production-standard-revision-public-consultation/>

Please note:

- Indicators highlighted in **yellow** are core indicators.
- All guidance in the Draft Standard is only indicative. A full guidance document and revised calculator will be released to accompany the revised Production Standard.
- EU – RED principle is removed from the scope of this revision. It will continue to be included in the Standard as it currently stands as Principle 6. The Standard will automatically adopt all changes that are needed to comply with EU-RED II once released.

For any questions please contact Nahuel Tuñon on [nahuel@bonsucro.com](mailto:nahuel@bonsucro.com)

### *PRINCIPLE 1 - ASSESS AND MANAGE ENVIRONMENTAL, SOCIAL & HUMAN RIGHTS RISKS*

<b>CRITERIA</b>	<b>INDICATOR</b>	<b>Scope</b>	<b>Standard</b>	<b>NOTES</b>
1.1 – Leadership demonstrated through enactment of commitment, context analysis, stakeholder mapping & risk assessments	1.1.1 Sustainability policies are in place	Mill Agriculture  Whole supply area	Yes	<p><b>CORE INDICATOR</b></p> <p>In line with the scope of application of the Bonsucro Production Standard, the operator shall have policies or work orders in place for respect for human rights, indigenous peoples' rights, labour rights, worker health, environment, the Bonsucro Standard, Anti-Corruption/Anti-Bribery/money laundering, anti-harassment and non-discrimination. The operator shall implement these policies and practices in the unit of certification and progressively implement these in the whole supply area. The operator's commitment shall be made available to personnel, suppliers, clients and other stakeholders.</p> <p>The policies shall clearly state that respect for these values is an active duty involving ongoing due diligence of actual and potential impacts. <i>For further information, see Guidance.</i></p> <p>Guidance: Policy statements are written by area experts within an operation and approved by senior management. Implementation of policies is a process that involves buy-in and engagement across the enterprise to be effectively implemented.</p>

1.1.2 - Mapping of Internal, External, and Vulnerable Stakeholders is conducted	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> The operator shall have an identification, prioritization and engagement plan with interested and affected parties (i.e. internal, external, directly, indirectly impacted, and vulnerable stakeholders, as well as indigenous, tribal and traditional communities). The plan shall be revised at least annually. <i>For further information, see Guidance.</i></p> <p><b>Guidance:</b> The process of engaging with indigenous and tribal communities shall take into consideration ILO Convention 169, guaranteeing indigenous peoples the right to free, prior and informed consent consultation and guaranteeing good faith.</p>
1.1.3 Land & water claims that are legitimately contested by other users	Mill Agriculture Whole supply area	0 has & 0 / m3	<p><b>CORE INDICATOR</b> The operator which is involved in legal action, either as claimant or defendant, shall take appropriate actions to resolve the conflict. The operator shall resolve and conform to any justice court case, court rulings, or appeals. The operator shall act toward the definitive settling of the dispute using recognized judicial and/or non-judicial mechanisms. Claims against land and water are applicable to the entirety of the supply area (mill) or production area (farms), irrespective of inclusion in the unit of certification. <i>For further information, see Guidance.</i></p> <p><b>Guidance:</b> There are various means by which legal, extra-legal, community based, and other socially-appropriate protocols may demonstrate that the settlement of the dispute has been reached. A recognised judicial or non-judicial grievance mechanism can be a national or international court of law, an international grievance mechanism such as the OECD National Contact Point, or a mechanism through investors or MSIs including the grievance mechanisms of international lenders (E.G. IFC CAO). Where judicial rulings benefit the operator to the detriment of traditional communities, the operator shall establish engagement processes with displaced populations, implement a livelihood impact management plan, and track livelihood outcomes and mitigate and/or reverse all adverse impacts of displacement.</p>
1.1.4 - Risk and Impact Assessment are conducted	Mill Agriculture  Whole supply area	Yes	<p><b>CORE INDICATOR</b> The operator must have in place a Risk and Impact Assessment that includes (1) A business context analysis &amp; (2) A social and environmental risk analysis &amp;</p>

				<p>(3) An identification of impacts (potential and actual) on the human rights of workers, environment and communities. At minimum, the impact assessment must cover the core indicators of the Standard including actual and potential impacts of the operation on the environment, workforce, and communities. A summary shall be made available to personnel, suppliers, clients and other identified stakeholders. The operator shall conduct the assessment for the unit of certification and progressively incorporate the whole supply area. <i>For further information, see Guidance.</i></p> <p>Guidance: The context analysis should consider a range of relevant contextual factors including national/regional financial health, conflict risks, and transportation/logistics challenges, opportunities associated with trade innovations, political stability, social dialog issues, contracting and subcontracting risks, and other facilitators/barriers to doing business. If it determines the context is politically fragile or conflict-affected, the analysis should articulate how the workforce will be protected from violence and what actions the operator will take to avoid contributing to conflict. The social and environmental risk analysis is inclusive of emergency preparedness (e.g. natural/environmental disasters, pandemics, and others), to account for potential effects on workload requirements, workplace risks, and other externalities.</p>
1.2 Management strategies are documented and implemented	1.2.1 - Systems in place to demonstrate compliance with applicable laws, commitments, rights & other requirements.	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> The operator must have a documented system in place to identify, update track &amp; promote compliance with applicable laws, commitments, rights and requirements. The operator must also list and evidence legal due diligence of all contracted third parties, recruitment agencies, service providers and labour contractors. <i>For further information, see Guidance.</i></p> <p>Guidance: Applicable laws, commitments, rights and requirements refers to laws (including ratified and integrated international conventions), pertinent to the scope of application of the Bonsucro Production Standard. This indicator is specific to laws on:</p> <ul style="list-style-type: none"> <li>- Waste, pollution &amp; environmental protection,</li> <li>- Nature conservation &amp; natural ecosystems,</li> <li>- Water quality &amp; extraction</li> <li>- Energy &amp; GHG emission,</li> <li>- Labour conditions, including occupations H&amp;S</li> <li>- Operational licenses,</li> </ul>

				<ul style="list-style-type: none"> <li>- Social benefits/obligations</li> <li>- Human rights and traditional community rights</li> <li>- Land and water title and -use rights,</li> <li>- Soil protection</li> <li>- Agricultural and processing practices, transportation.</li> </ul> <p>Note that in some cases, the Standard can go beyond the national laws and in such cases, the Standard shall prevail. If the Bonsucro Standard and national law conflict, the operators shall seek ways to honour the principles of the Bonsucro Production Standards wherever possible; Where the domestic context renders it impossible to meet this responsibility fully, operators are expected to respect the principles of the Bonsucro Production Standard to the greatest extent possible in the circumstances, and to be able to demonstrate their efforts in this regard.</p>
	1.2.2 - Cane Supply Agreements complied with	Mill	Yes	<p><b>CORE INDICATOR</b> All terms of cane supply agreements are complied with, including payments which shall be made according to contractual agreement (including value and timing of payment). <i>For further information, see Guidance.</i></p>
	1.2.3 – Objectives and plans are set to control for highest identified risks	Mill Agriculture  Whole supply area	Yes	<p><b>CORE INDICATOR</b> The operator shall establish objectives to control the highest risks identified related to indicators of the Bonsucro Production Standard in the unit of certification and work progressively to implement these in the whole supply area to achieve 100%. The operator shall demonstrate that adequate resources and competent personnel (with capacity to address environmental, social, human rights, labour, OHS and other concerns) are allocated to manage identified risks. A summary shall be made available to personnel, suppliers, clients and other stakeholders. <i>For further information, see Guidance.</i></p> <p><b>Guidance</b> Where indigenous and traditional communities are identified, free, prior and informed consent (FPIC) will be required before any operations are established or expanded.</p>
	1.2.4 Corrective actions are implemented and management	Mill Agriculture  Whole supply area	Yes	<p>The organisation shall conduct an annual internal audit to determine whether the organisation;</p> <ul style="list-style-type: none"> <li>- Conforms to the requirements in the Bonsucro Production Standard</li> <li>- Effectively implements and maintains the standard requirements within its organisation. Any non-conformities found as part of the internal audit shall direct</li> </ul>

	review conducted			<p>corrective actions to be taken. The outcomes of the internal audits and all actions taken to correct nonconformities shall be subject to management review at least annually. The organisation shall maintain the internal audit records and reports.</p> <ul style="list-style-type: none"> <li>- Corrective actions taken as a result of any nonconformities identified in the internal audit shall be documented, including dates and descriptions of actions taken to resolve them.</li> <li>- The procedure for the annual internal audit process shall be documented.</li> </ul> <p>The internal audit should be conducted in the unit of certification and work progressively to include the entire supply area to achieve 100%. The monitoring mechanism must include a feedback function to workers, giving them the opportunity to comment. <i>For further information, see Guidance.</i></p>
1.3 – Engagement Mechanisms are in place	1.3.1 - Grievance mechanism for communities are in place	Mill Agriculture	Yes	<p>To ensure that affected stakeholders have access to processes that address their grievances, the operator must have in place a mutually agreed on and documented grievance mechanism that meets the expectations laid out in the UN Guiding Principles for Business and Human Rights: Legitimate, Accessible, Predictable, Equitable, Transparent, Rights-compatible, a source of continuous learning and based on stakeholder engagement. In practice it meets the following:</p> <ul style="list-style-type: none"> <li>- It ensures anonymity of complainants where requested by complainants, protecting them from risk of reprisal or intimidation. It also safeguards against nondisclosure rules set by the company.</li> <li>- Procedures are in place to ensure that the system is effectively communicated to and understood by the affected parties, including by illiterate parties or workers whose native language is not the operation’s language.</li> <li>- The operators keep parties to a grievance informed of its progress, timeframe and outcomes.</li> <li>- The system allows for complainants to choose individuals or groups to support them and/or act as observers.</li> </ul> <p><i>For further information, see Guidance.</i></p> <p>Guidance: A grievance log is published annually, summarizing all complaints fielded by the operation (anonymizing complainants and defendants as appropriate), identifying strategies to expand access/buy-in to the complaint mechanism, and describing interventions planned to address potential root-causes of existing complaints in a systematic manner.</p>

*PRINCIPLE 2 - RESPECT LABOUR RIGHTS & OCCUPATIONAL SAFETY AND HEALTH STANDARDS*

CRITERION	INDICATOR	Scope	Standard	NOTES
2.1 To provide a safe and healthy working environment in workplace operations	2.1.1. Main health and safety risks are documented, assessed, communicated to workers, and mitigated	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b>  Applies to all workers on the premises of the mill and farms included in the unit of certification. Health &amp; Safety Assessments must adhere to relevant standards (legislation, policy, and best practice) with regards to ensuring that employment does not jeopardize the health or safety of employees. Health and safety risks will be assessed with regards to occupational risks (e.g. ergonomics, work-related injury and work-related accidents, fatigue), environmental risks (e.g. heat stress, altitude sickness) and pre-existing health risks (e.g. declining kidney function, HIV/AIDS seropositivity)  <i>For further information, see Guidance.</i></p> <p><b>Guidance:</b>  'Occupational screening will cover risks associated with job start-up (e.g. risks associated with inadequate acclimatization), job duration (e.g. fatigue, chemical exposure, ergonomics, injury risks to workers in transportation to/from job sites), and job insecurity (e.g. hiring for one task and being reassigned to others without proper screening, training or modified rest regimes). Environmental screening will cover all relevant climatic conditions affecting worker welfare including heat and humidity. Where laws and regulations are sufficiently protective, operators shall adhere to law and make available assessment and monitoring reports and relevant data (see, e.g. Brazil's PPRAs). Where regulations do not result in auditable environmental analyses, operators will conduct assessments in line with global best practice (See Guidance). In evaluating heat stress risk, operators must either employ NIOSH methodology for rest times associated with WBGT heat indices or adhere to the rest schedule provided in guidance. Medical screening, including pre-employment medical screening, will not be used to discriminate against and / or exclude individuals experiencing ill health from employment, but rather to assure that the individual meets the inherent requirements of the position, and identify chronic illnesses that threaten their long-term health status under the relevant working conditions. Workers with identified chronic illnesses will be counselled and referred for medical intervention; work-related illnesses and injuries will be detected and monitored, and hazard control measures will be updated and monitored</p>

				<p>for effectiveness. Worker health status should be preserved in order to allow them to remain economically active (provide for themselves and their families) to the extent possible and reassigned to alternative positions as needed.</p> <p>Where regulations do not result in detailed assessment reports, operators will assess occupational risks in line with the recommendations ILO Convention 184.</p>
2.1.2 Health and safety risks are managed through implemented and enforced plans	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. Occupational, environmental and medical risks identified during screening are managed in line with global best practice. For further information, see Guidance</p> <p><b>Guidance:</b> Transportation safety control strategies (safe vehicles, worker seating, and safe storage of farm equipment) should be conducting in alignment with ILO Safety and Health in Agriculture publication Section 15.3 (<a href="https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/normative_instrument/wcms_161135.pdf">https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/normative_instrument/wcms_161135.pdf</a>) In evaluating heat stress risk, operators must either adhere to the rest schedule provided in guidance (validated specifically for the sugarcane production context), employ NOISH methodology for rest times associated with WGBT and/or heat index, or comply with sufficiently prescriptive national legislation. Fatigue risks should be managed in recognition of the multifaceted health risks incumbent with fatigue (see: <a href="https://www.cdc.gov/niosh/topics/workschedules/2019abstracts/AgForestryFish2.html">https://www.cdc.gov/niosh/topics/workschedules/2019abstracts/AgForestryFish2.html</a>). Basic screens for fatigue risk are available (see: <a href="https://nasdonline.org/872/d000705/sleep-deprivation-causes-and-consequences.html">https://nasdonline.org/872/d000705/sleep-deprivation-causes-and-consequences.html</a>) Medical and occupational risks should be managed in alignment with ILO 184 <a href="https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C184">https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C184</a></p>	
2.1.3 Right to water and sanitation safeguards are	Mill Agriculture	100%	<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification.</p>	

	designed implemented and enforced			<p>The operator shall provide cool, safe drinking water to all workers, in close proximity to where they work. Recommended water consumption will depend on heat exposure and workloads.</p> <p>The operator shall provide access to water for sanitation hand washing, skin cooling as well as access to toilet facilities. Separate toilet facilities shall be provided to men and to female workers.</p> <p>For further information, see Guidance.</p> <p><b>GUIDANCE</b></p> <p>The operator shall provide cool (cooler than ambient air), safe drinking water to all workers in close proximity to their work stations. Water quality is tested and meets WHO standards. Recommended water consumption depends on heat exposure and workload. This can be supplemented with a sports drink electrolyte solution</p> <p>b. Sanitation in the worksite refers to access to water for hand washing and skin cooling, as well as access to toilet facilities.</p>
	2.1.4. Appropriate personal protective equipment supplied to and used by all workers free of charge	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b></p> <p>Applies to all workers on the premises of the mill and farms included in the unit of certification.</p> <p>Required, approved and adequate PPE shall be issued for free to the workers and be in good condition. The operator shall train workers in the use of PPE. The operator shall implement a system to monitor the effective use of PPE.</p> <p>For further information, see Guidance.</p> <p><b>GUIDANCE:</b></p> <p>PPE usage and training shall be identified In the risk assessment (Indicator 2.1.1)</p>
	2.1.5 Percentage of staff trained for health and safety at start and at least every year.	Mill Agriculture	90%	<p>Applies to all workers on the premises of the mill and farms included in the unit of certification.</p> <p>The operator shall ensure that all new employees receive basic instruction prior to formal training and update every year or as determined by the H&amp;S management plan.</p> <p>For further information, see Guidance.</p>

	2.1.6 Lost time accident frequency	Mill Agriculture	Mill <15; Agric <30 number per million hours worked	<p>Applies to all workers on the premises of the mill and farms included in the unit of certification.</p> <p>A lost time accident is defined as an unexpected and unplanned event which results in a personal injury which causes the worker to be unable to carry on with his/her normal duties on the next day or next shift. Where a fatal injury occurs, this to be noted separately.</p> <p>For further information, see Guidance.</p> <p><b>GUIDANCE:</b> Incidents, non-fatal and fatal occupational injuries should be registered and analysed to identify their root cause and implementation of corrective actions, documented minimum annually. Incidents will be reported in rates that differentiate job types and employee/contractor relationships with the operator</p>
	2.1.7 All workers have access to first aid and provision for emergency response	Mill Agriculture	100%	<p><b>CORE INDICATOR</b></p> <p>Applies to all workers on the premises of the mill and farms included in the unit of certification.</p> <p>First aid supplies are available and checked, and dedicated personnel is trained to use them. Emergency response prevents the escalation of injury or illness and there shall be provision for injured or ill persons to receive professional medical treatment.</p> <p><i>For further information, see Guidance.</i></p>
	2.1.8 Adequate accommodation is provided	Mill Agriculture	100%	<p><b>CORE INDICATOR</b></p> <p>Applies to all workers on the premises of the mill and farmers included in the unit of certification for whom housing is provided.</p> <p>Housing provided must meet local regulatory standards, or the requirements stated in the guidance, whichever is more stringent as well as , ILO R115 Workers' Housing Recommendation Standards &amp; ILO on housing workers in isolation (far from towns with no access to telephones), restricting movement, etc.</p> <p><i>For further information, see Guidance.</i></p> <p><b>GUIDANCE</b></p> <p>The housing provided by the mill must meet local regulatory standards. If no regulatory standards exist, the following conditions must be met.</p> <p>a) Absence of rats, mice, insects and vermin, or conditions that favour their populations that could cause disease or carry parasites that function as vectors of diseases;</p> <p>b) Dry floors;</p>

				<p>c) Protection against rain, wind or cold weather conditions;  d) No conditions posing imminent threats to the health or security of the occupants;  e) A register of workers and family members that live in management provided housing;  f) Separate beds;  g) Doors with locking mechanism;  h) Toilets at 1:15 people and wash facilities for 1:6 people (1 per family), with gender separated facilities.  i) Beds are not arranged in more than two levels;  j) Natural light during the daytime and artificial light for the night time;  k) Natural ventilation that ensures movement of air in all conditions of weather and climate;  l) Functional and effective fire wood smoke evacuation or ventilation mechanisms well maintained or repaired;  m) Non-leaking windows, doors and roofs;  n) At least one shower per 10 persons, separated by gender;  o) At least one large laundry sink for every 30 persons;  p) Installed and maintained fire extinguishing mechanisms;  q) Marked safety exits.</p>
2.2 To respect workers right to favourable working conditions	2.2.1 Minimum age of workers	Mill Agriculture	18 Years	<p><b>CORE INDICATOR</b>  Applies to all workers on the premises of the mill and farms included in the unit of certification.  Definition of child labour based on ILO Convention 138 and 182. For young workers above the legal minimum working age but below 18, and for legal apprenticeships, there should be restrictions on hours of work and overtime; working at dangerous heights; with dangerous machinery, equipment and tools; Transport of heavy loads; exposure to hazardous substances or processes; and difficult conditions such as night work at night are prohibited. Note that special conditions set by ILO Convention C138 might apply.  The operator shall implement a system to check worker's ages.  <i>For further information, see Guidance.</i></p> <p><b>GUIDANCE:</b>  No children can be working in the field.</p>
	2.2.2 Debt bondage, trafficking, and forced/compulso	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b>  Applies to all workers on the premises of the mill and farms included in the unit of certification.</p>

	ry labour are absent			<p>Forced or compulsory labour as defined per ILO Convention 29, ILO Convention 105 and updated ILO Protocol P029 (2014). Verification shall address all workers. <i>For further information, see Guidance.</i></p> <p><b>Guidance</b> The following are prohibited:</p> <ul style="list-style-type: none"> <li>• Recruitment fees paid by workers</li> <li>• Retention of workers' original identification papers</li> <li>• Wage deductions for protective gear, meals, beverages or other essential work-related items</li> <li>• Use of prison labour</li> <li>• Restrictions on workers leaving operation premises</li> <li>• Financial penalties or delayed wage payments to workers (including for non-completion of the season)</li> <li>• Contract substitution (changing/worsening of contract terms)</li> <li>• Involuntary overtime</li> <li>• Lack of freedom of workers to resign</li> <li>• Penalty for termination of employment</li> <li>• Withholding of wages</li> <li>• Debt bondage</li> </ul>
	2.2.3 Absence of discrimination	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. The operator shall have a publicly available, implemented and communicated non-discrimination and equal opportunity policy. Discrimination includes any distinction, exclusion or preference which has the effect of nullifying or impairing equality of opportunity or treatment as defined by ILO C111 and C190, affecting equal pay, equal training opportunities, equal allocation of job opportunities, or equal adequacy of facilities for religious, recreation or functional purposes. Discrimination can be based on race, colour, gender, age, language, religion, property/wealth, nationality, ethnic/social origin, caste, disability, pregnancy, indigeneity, union affiliation, political affiliation, marital/family status, personal relationships, health status or other non-valid reasons.</p>

				<p><i>For further information, see Guidance.</i></p> <p><b>GUIDANCE:</b> There is evidence of equal pay for the same work scope.</p>
2.2.4 Absence of abuse/ harassment	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. The operator shall have a publicly available, implemented and communicated policy to prevent sexual and all other forms of harassment and violence. The policy must ensure that no worker is subject to unacceptable behaviours and practices, or threats thereof, which results in physical, psychological, sexual or economic harm, and includes gender-based violence and harassment as defined by ILO C190 <i>For further information, see Guidance.</i></p> <p><b>Guidance</b> a. Workers and management are trained to recognize abuse, discrimination and harassment and to report cases without fear of reprisal b. The following are prohibited:</p> <ul style="list-style-type: none"> <li>• Violence, threats and intimidation</li> <li>• Restrictions on toilet breaks</li> <li>• Unwanted physical contact</li> </ul>	
2.2.5 Respect the right of all workers to form and join trade unions and/or to bargain collectively free from interference from the operator	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. The operator shall respect such rights and shall not interfere with workers' own efforts to set up representational mechanisms in accordance with the law. The operator shall also promote other mechanisms of social dialogue (e.g. mix committees and worker consultation practices) The operator must apply guarantees to unionized workers throughout the workforce, extending to non-unionized workers. <i>For further information, see Guidance.</i></p> <p><b>Guidance:</b></p>	

				The Unions and conveners of other forms of worker engagement must represent the expressed interest of workers, as validated through direct interviews with workers.
	2.2.6 Working hours lost as percentage of total hours worked	Mill	< 5 %	This represents working hours lost through absence also referred to as “no-show” as well as strikes, non-justified sickness etc. It does not include holiday, legal time off such as maternity leave, or training. For further information, see Guidance.
	2.2.7 Existence of a contract or equivalent document	Mill Agriculture	100 %	<b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. All workers to be provided with a contract or equivalent document (e.g. national working card), to be explained their rights and obligations. If not specified by the law the contract shall include at least the following elements: hours of work, overtime payment, notice, rest periods, holidays, wages, mode of payment, and if legal, any deductions that will be made. For further information, see Guidance.
2.3 To provide employees (including migrant, seasonal and other contract labour) with benefits and salary sufficient to achieve an adequate standard of living	2.3.1 Ratio of lowest entry level wage including benefits to minimum wage and benefits required by law	Mill Agriculture	≥1 \$/\$	<b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. Minimum wage as defined by legal requirement. In the absence of this, ILO C131 can serve as a basis for the definition. All benefits shall be paid and pay slips shall be provided. Payment of wage shall be in line with ILO 95 and 110 as detailed in the Guidance. If wages are negotiated voluntarily between employers and workers' organizations, those negotiated wage amount(s) apply to all workers covered under the negotiated agreement. For further information, see Guidance.  Guidance: Applicable labour laws, union and/or other collective agreements and documentation of pay and conditions are available to the workers in national languages and explained to them in a language they understand.

				Management-required training takes place during normal working hours and is fully compensated.
2.3.2 Minimum wage is guaranteed to piece rate paid workers	Mill Agriculture	≥1 \$/\$		<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. Minimum wage is paid to all workers, including those on piece rate/quotas, for whom the calculation is based on achievable quotas during regular work hours. If under these conditions, the piecework rate does not meet the minimum wage, then the wage level is upgraded to at least the minimum wage. No more than 30% of the required minimum wage is paid in-kind. Curtailed days (by management or due to workplace incidents/injuries) must be compensated as a full day. For further information, see Guidance.</p>
2.3.3 Maximum number of hours worked	Mill Agriculture	60 Hrs / week		<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and farms included in the unit of certification. The operator shall ensure that workers do not work more than 60 hours a week. If local legislation allows for more hours worked, there is a 2- year phase in for this indicator from initial certification. Each worker must have at least 1 day off every 7 days. <i>For further information, see Guidance.</i></p>
2.3.4 Overtime is paid at a premium rate or equally compensated	Mill Agriculture	>50%		<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and the farms included in the unit of certification. Overtime work (either defined internally if in line with national law or by national legislation) shall be voluntary. The total overtime hours shall not exceed the level set by national legislation. <i>For further information, see Guidance.</i></p> <p><b>Guidance</b> Include Overtime equivalents and fair rates and references regarding ILO Convention 1, ILO Convention 110, ILO C131 - Minimum Wage Fixing Convention, and ILO, Minimum Wage Policy Guide</p>
2.3.5 Movement to	Mill Ag	10%		Applies to all workers on the premises of the mill and the farms included in the unit of certification.

	close living wage gap			<p>The company shall identify the gap between the Living Wage and the salary of its employees and has an action plan to close the gap by 10% by every Bonsucro re-certification audit. Bonsucro will provide the applicable living wage benchmark data that will be used to assess the living wage gap. <i>For further information, see Guidance.</i></p> <p>Guidance Applies to all workers on the premises of the farms or mills included in the unit of certification. Decent/living wage as defined by the chosen benchmark methodology. Workers paid at piece-rate shall receive the required decent/living wage (according to standard output, a calculation for piece-rate workers based on achievable quotas during regular work hours). All benefits shall be paid. Pay slips and records shall be provided. Payment of wage shall be in line with ILO Convention No. 95 and 110. In absence of records, wages may be demonstrated through interview.</p>
2.4 Worker Grievances, Dialogue and Access to Remedy	2.4.1 - Grievance mechanism for workers are in place	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> Applies to all workers on the premises of the mill and the farms included in the unit of certification. To ensure that workers have access to processes that address their impacts, the operator must have in place a mutually agreed on and documented grievance mechanism that meets the expectations laid out in the UN Guiding Principles for Business and Human Rights: Legitimate, Accessible, Predictable, Equitable, Transparent, Rights-compatible, a source of continuous learning and based on stakeholder engagement. In practice it meets the following:</p> <ul style="list-style-type: none"> <li>• It ensures anonymity of complainants where requested by complainants, protecting them from risk of reprisal or intimidation. It also safeguards against nondisclosure rules set by the company.</li> <li>• Procedures are in place to ensure that the system is effectively communicated to and understood by the affected parties, including by illiterate parties or workers whose native language is not the operation's language.</li> <li>• The operators keep parties to a grievance informed of its progress, timeframe and outcomes.</li> <li>• The system allows for complainants to choose individuals or groups to support them and/or act as observers.</li> </ul>

				<p>The indicator shall cover the whole supply area, centralized at the operation without requiring separate grievance processes for individual farms (grievances against farms can be brought to the operator). <i>For further information, see Guidance.</i></p> <p><b>Guidance</b> A grievance log is published annually, summarizing all complaints fielded by the operation (anonymizing complainants and defendants as appropriate), identifying strategies to expand access/buy-in to the complaint mechanism, and describing interventions planned to address potential root-causes of existing complaints in a systematic manner</p>
	2.4.2 - Social dialog demonstrates collaborative approach for engaging with workers / improving working conditions	Mill Agriculture	Yes	<p>Applies to all workers on the premises of the mill and the farms included in the unit of certification. The operator shall conduct regular dialogues with direct and indirect workers to promote continuous improvement of working conditions and / or bargain collectively. <i>For further information, see Guidance.</i></p> <p><b>GUIDANCE</b> This shall be done by the creation, facilitation or improving formal and informal access to participation of workers and / or their representatives in H&amp;S committees, wages committees, grievance committees or other kinds of social dialogue spaces.</p>

### PRINCIPLE 3 - MANAGE INPUT, PRODUCTION AND PROCESSING EFFICIENCIES TO ENHANCE SUSTAINABILITY

CRITERION	INDICATOR	Scope	Standard	NOTES
3.1 To monitor production and process efficiency; to measure the impacts of production and processing so that improvements are made over time	3.1.1 Yield of production	Agriculture	Tc/ha Depending on climatic zone	To maximise yield taking into account the climatic conditions where cane is grown. Climatic zones are determined according to the GPS coordinates of the gathering mill. <i>For further information, see Guidance.</i>
	3.1.2 Theoretical recoverable sugar content of cane	Mill Agriculture	>10%	Based on the theoretical recovery normalised for juice purity and cane fibre content. <i>For further information, see Guidance.</i>
	3.1.3 Fermentable total sugars content of cane, expressed as invert (TSAI)	Mill Agriculture	>120Kg/t cane	Used if ethanol is produced, on its own or in conjunction with sugar production. Based on a 90.5 % utilisation of Total Sugars As Invert (TSAI). <i>For further information, see Guidance.</i>
	3.1.4 Efficiency of harvesting operations	Mill Agriculture	<16 for machine harvesting <24 manual green harvesting <48 burnt cane harvesting	This measures the average time from harvesting (or burning) the cane until it is crushed by the mill (also known as the kill to mill time). For burnt cane it is the time from when the field is burnt prior to harvest until the cane is crushed. <i>For further information, see Guidance.</i>  Guidance: The harvesting is calculated for all harvesting organised by the mill plus in the unit of certification.
	3.1.5 Mill overall time efficiency	Mill	>75 % Processing time as a percentage	Processing time as a percentage of total crushing time. Any stoppage, including maintenance activities or power supply failure must be counted with the exception of stops due to rainfall exclusively. <i>For further information, see Guidance.</i>

			of total crushing time	
	3.1.6 Factory Performance Index	Mill	>90%	Used if sugar and ethanol, only if produced from final molasses only and in the same mill. % of actual sugar recovery % theoretical recovery of sugar from cane. <i>For further information, see Guidance.</i>
	3.1.7 Industrial Efficiency	Mill	>75%	Used if ethanol only or sugar and ethanol is produced from anything other than final molasses are produced in the same mill. It is the ratio expressed as a % of the sum of TSAI equivalent products (sugar, ethanol, yeast, and molasses) to the TSAI of the cane. <i>For further information, see Guidance.</i>
3.2 To monitor global warming emissions with a view to minimising climate change impacts	3.2.1 Climate change adaptation and resilience plan	Mill Agriculture	Yes	The operator shall identify climate change impacts and evaluate where these will negatively affect operations, setting up actions to mitigate the effect of climate change and reduce GHG emissions over time. <i>For further information, see Guidance.</i>
	3.2.2 Net GHG emissions per tonne of cane	Agriculture	<40 Kg CO <sub>2</sub> eq/t cane	Estimates the emissions from agriculture activities. The result is also used in the calculation of the total emissions field-to-gate. <i>For further information, see Guidance.</i>
	3.2.3 Net GHG emissions per tonne of sugar	Mill Agriculture	Total <0.4 t CO <sub>2</sub> eq/t sugar	Only used if sugar is being produced. Field-to-gate emissions. Environmental Burden is t carbon dioxide equivalent. <i>For further information, see Guidance.</i>
	3.2.4 Net GHG emissions per MJ of ethanol	Mill Agriculture	Total <24 g CO <sub>2</sub> eq/MJ fuel	Used if ethanol is produced. Environmental Burden is g carbon dioxide equivalent. <i>For further information, see Guidance.</i>
	3.2.5 Total Net Primary Energy Usage per kg product	Mill	Total <3000 KJ/kg	Direct and indirect energy inputs. <i>For further information, see Guidance.</i>
	3.2.6 Energy used in cane transport per tonne cane transported	Mill	<50 MJ/t cane	Direct and indirect energy inputs. <i>For further information, see Guidance.</i>

	3.2.7 Primary energy use per tonne of sugarcane	Agriculture	<300 MJ/t cane	Direct and indirect energy inputs. <i>For further information, see Guidance.</i>
	3.2.8 Energy Return on Investment	Mill	<9 Energy Output / Energy input	Calculates the total energy needed to promote one MJ of energy, Applies only to ethanol production. <i>For further information, see Guidance.</i>

**PRINCIPLE 4 - ACTIVELY MANAGE BIODIVERSITY AND ECOSYSTEM SERVICES**

CRITERION	INDICATOR	Scope	Standard	NOTES
4.1 To protect and rehabilitate biodiversity and ecosystem services, and HCVs are being maintained and enhanced on and around farms	4.1.1 – Map biodiversity and ecosystem services on and around farm areas, and develop a Biodiversity Management Plan (BMP)	Agriculture	yes	<p><b>CORE INDICATOR</b></p> <p>The operator shall map the biodiversity resources and ecosystem services on and around planted areas which cane production rests upon and which it impacts. The mapping must cover the whole supply area, centralized at the operation under certification, without requiring separate mapping processes for individual farms. The BMP shall consider threats and impacts the cane production and the mill have on biodiversity and ecosystem services, identifying mitigation and restoration measures that must be taken. <i>For further information, see Guidance.</i></p> <p>Guidance:            Biodiversity: rare, threatened or endangered species, and habitats and habitat corridors; areas protected by legislation, patches of natural vegetation and natural ecosystems including woodlands, forests, wetlands and grasslands/rangelands.            Ecosystem services: riparian areas, natural wind screens, vegetative buffer zones, flood control, filtration areas.</p>
	4.1.2 Maintain and enhance biodiversity and ecosystem services and services on and around farm areas	Agriculture	yes	<p>The operator shall implement and maintain the Biodiversity Management Plan, to maintain and progressively enhance or restore biodiversity / ecosystem services  <i>For further information, see Guidance.</i></p> <p>Guidance:            Including but not limited to: limiting the use of agrochemicals, protecting critical ecosystems, ensuring habitat connectivity, restoration of aquatic ecosystems and riparian buffer zones, restoration of farmed areas of marginal productivity to natural ecosystems, incorporation of native trees as border plantings and barriers around housing and infrastructure, live fences, shade trees, and permanent agroforestry systems.</p>

	4.1.3 Percentage of areas of natural ecosystems defined internationally or nationally as legally protected converted to sugarcane on or after 1 January 2008	Agriculture	0%	<p><b>CORE INDICATOR</b> The operator shall conduct a historic land use change analysis of the unit of certification in order to determine if land converted to sugarcane on or after 1<sup>st</sup> January 2008 has damaged natural ecosystems defined internationally or nationally as legally protected.</p> <p>For further information, see Guidance.</p>
	4.1.4 – High Conservation Value areas are maintained and enhanced	Agriculture	100%	<p><b>CORE INDICATOR</b> For areas currently cultivated, the operator must conduct the “Bonsucro HCV risk assessment” and develop and implement the relevant resulting HCV mitigation measures and management plans. This shall cover the whole supply area, centralized at the operation under certification without requiring separate mapping processes for individual farms. <i>For further information, see Guidance.</i></p>
	4.1.5 – Across the whole supply area future expansion is conducted in non-HCV areas	Mill Agriculture	Yes	<p><b>CORE INDICATOR</b> No expansion into natural ecosystems or on areas defined as HCVs. For greenfield expansion or new sugarcane projects the operator must conduct the “Bonsucro HCV Risk Assessment for expansion” for the planned areas and implement the HCV Risk Assessment procedures. This shall cover the whole supply area, centralized at the operation under certification without requiring separate mapping processes for individual farms. <i>For further information, see Guidance.</i></p>
	4.1.6 Percentage of greenfield expansion or new sugarcane project covered by ESIA	Mill Agriculture	100%	<p><b>CORE INDICATOR</b> Applicable to major changes to the operation or field expansions (&gt;5% of total supply area or 1000 ha, whichever is smaller) or establishment of new sugar operations - changes shall be covered by ESIA. For further information, see Guidance.</p> <p><b>Guidance:</b> An ESIA process shall start prior to the formulation phase of a project, focus on significant issues and identify stakeholders to involve them, consider impacts on individuals with special consideration for vulnerable ones, and provide information on possible alternative or appropriate mitigation measures.</p>

				Decisions shall be based on meaningful engagement with affected stakeholders (as defined by OECD), monitored and evaluated. The operator shall involve independent third party experts. A retrospective ESIA has to be carried out to expansions projects that happened within 12 months prior to initial certification.
4.2 Soil Management Plan in place to avoid erosion and maintain and improve soil health	4.2.1 - Mapping of soils and/or soil management units of the farm	Agriculture	Yes	<p><b>CORE INDICATOR</b></p> <p>The operator must develop a Soil Management Plan (SMP) to ensure the prevention of soil degradation and erosion on the farm. This will be done by the operator mapping field boundaries and their soil type or soil management unit. Retention of crop residues and minimum tillage should be encouraged.</p> <p><i>For more information see guidance</i></p> <p><b>Guidance:</b> The SMP should highlight:</p> <ul style="list-style-type: none"> <li>• Soil types and management units defined.</li> <li>• Identification of soil constraints and crop limiting conditions such as potential rooting depth (or whether compaction problems exist), sodic and saline areas requiring amelioration, soil stone content and soil parent material.</li> <li>• Topography including the maximum slope upon which it is safe to grow sugarcane</li> </ul>
	4.2.2 - Health of the soil improved and maintained	Agriculture	80% of fields	<p>The Soil Management Plan must set objectives that include but not limited to:</p> <ul style="list-style-type: none"> <li>• Ensuring continuous ground cover (either by tops and leaves after harvest, cover crops, green manures, etc),</li> <li>• Adopting practices that minimize top soil disturbance (minimum tillage, controlled traffic, etc) and maximising the potential of cane to act as a carbon sink, and</li> <li>• Ensuring permanent cover of non-growing/tilled areas (verges, waterways, contour banks, etc.) with properly designed contours and waterways.</li> <li>• Identification and remediation of unfavourable soil and crop growth limiting conditions.</li> </ul> <p><i>For more information, see guidance</i></p> <p><b>Guidance:</b> Soil Management Plan shall accurately reflects all fields, taking into account parameters such as soil uniformity and farm size</p>

	4.2.3 – Health of the soil as determined by labile carbon, pH, acidity and salt load to be measured and recorded	Agriculture	Yes for each	<p>Based on the Soil Management Plan, the operator shall measure the levels of:</p> <ul style="list-style-type: none"> <li>• labile carbon and report the labile carbon measured per soil type, time of year and management practice.</li> <li>• pH, acidity and/or salinity/sodicity status must be measured per field.</li> </ul> <p><i>For more information, see guidance</i></p>
	4.2.4 Practices minimise and control erosion and degradation of soils	Agriculture	80% of fields	<p>To ensure that there is no erosion or degradation taking place in sugarcane fields, the Soil Management Plan should consider and implement, where relevant, but not limited to:</p> <ul style="list-style-type: none"> <li>• Compliance with relevant regulations aimed at limiting soil erosion</li> <li>• Guidance on contour planting</li> <li>• Use of terraces or strip planting</li> <li>• Use of minimum or conservation tillage</li> <li>• Use of mulch/trash</li> <li>• Use of cover crops or green manures</li> <li>• Application and retention of organic matter</li> <li>• Use of windbreaks</li> <li>• Use of buffer strips (to reduce water flow)</li> <li>• Installation of drainage and waterflow control measures to avoid water-logging</li> <li>• Avoiding the use of machinery on wet soil</li> <li>• Use of machinery with extended reach or low-pressure tyres</li> <li>• Limits on machine weight</li> <li>• Use of permanent vehicle routes (controlled traffic)</li> <li>• Irrigation water analysis to assess potential salt loading that may lead to salinity and sodicity</li> </ul> <p>Ensure proper irrigation scheduling and monitoring and remediation of excess salt loads due to irrigation.</p> <p>Corrective action should be taken wherever soils have been damaged by erosion, compaction or loss of organic matter.</p> <p><i>For more information, see guidance</i></p>
	4.2.5 - Burning of sugarcane tops and leaves	Agriculture	0 ha	<p>No burning of mulch after harvest except where this would be required for field cultivation for replanting. If sugarcane is burnt prior to harvest, it shall be done so only with cold-burning. Tops must be retained and evenly scattered.</p> <p><i>For further information, see Guidance.</i></p>

	after harvest is prevented			
	4.2.6 - Ratio of fertiliser N P K applied to fertilizer N P K recommended by soil or leaf analysis	Agriculture	<1.05 for each nutrient Ratio applied to recommended	<p><b>CORE INDICATOR</b> Fertiliser applied according to soil or leaf analysis (N P K content). The operator should have a sampling plan which is based on the Soil Management Plan that accurately reflects all fields, taking into account parameters such as soil uniformity and farm size. Soil testing should determine the levels of:</p> <ul style="list-style-type: none"> <li>• Macro nutrients (Nitrogen, Phosphorus and Potassium)</li> <li>• Organic carbon content</li> <li>• Soil pH and acidity</li> <li>• Texture (proportions of sand, silt, clay)</li> </ul> <p>Fertiliser recommendation shall be made according to local industry recognised best practices, and to include the application of chemical and organic fertilizer. <i>For further information, see Guidance.</i></p> <p>Guidance: Any soil sampling should be done prior to the growth season, with samples being taken in a representative way to ensure analysis accurately reflects conditions. Selected soil tests should be carried out at least every five years in the same fields to evaluate any potential long-term impact on soil fertility from sugar production. The same sampling methodology/protocol must be followed from one sampling event to the next. The operator should ensure crop nutrient requirements are used to develop crop nutrition programme for local conditions to achieve optimal production yield and quality. The amount of Nitrogen, Potassium and Phosphorus applied through fertilisers within a season should be determined by actual and target crop nutrient supply, taking into account all sources of nutrients already available to the crop. This should include:</p> <ul style="list-style-type: none"> <li>▪ Nutrients inherent in the soil</li> <li>▪ Nutrients derived from previous fertiliser applications (including manure)</li> <li>▪ Nutrients derived from harvest residues</li> <li>▪ Nutrients provided by other crops, such as legumes, green manures and cover crops, mill mud and mill ash</li> </ul> <p>Fertiliser shall be of an appropriate type applied at the correct rate, time and placement for optimal crop use.</p>

	4.2.7 - Percentage fields with samples showing analyses within acceptable limits for acidity or corrected	Agriculture	> 80%	<p>To ensure the maintenance of an optimum soil pH. Sampling to be carried out at least once per crop cycle, ideally at replanting. Although the acceptable pH (CaCl<sub>2</sub>) range is between 5.0 and 8.0, soils with pH not at optimum levels shall be corrected based on soil analyses to determine soil acidity and the amount of liming material required for amelioration using industry best practices. Records must be maintained.</p> <p>There is no need to retest the soil after corrections are applied where these are based on the initial soil sampling and recommendations are applied. Retesting should be done at least every 5 years. <i>For further information, see Guidance</i></p>
4.3 - Water Stewardship Plan in place	4.3.1 – Mapping of water resources and catchment areas and setting objectives for water stewardship	Mill Agriculture	100%	<p><b>CORE INDICATOR</b></p> <p>The operator shall develop a Water Stewardship Plan (WSP) with achievable actions, agreed responsibilities, timeframes and allocated resources. The WSP should reflect continuous improvement and organisational learning principles. As a minimum, it will include the following:</p> <ul style="list-style-type: none"> <li>• map all water resources (including catchment areas) and define their level of availability (water stress)</li> <li>• Map other users of water utilising mapped catchment areas (depending on level of complexity, this can be aggregated by user category such as local authorities supplying water, other crops, mining, etc )</li> <li>• Map local water initiatives and list organisations involved in water management</li> </ul> <p>Shall cover the whole supply area, centralized at the operation under certification without requiring separate mapping processes for individual farms. <i>For more information, see guidance</i></p>
	4.3.2 Mapping of land/water titles & claims is conducted	Mill Agriculture	Yes	<p>The operator shall demonstrate statutory and customary land and water rights wherever applicable. The operator shall also map the documents needed to demonstrate statutory and customary land and water rights in the supply area outside the unit of certification. The operator must have a system in place to track supplier compliance with the stated documents and encourage compliance. The operator shall conduct a physical mapping of claims on land &amp; water and articulate how claims are to be handled in line with processes laid out in the Guidance. Claim mapping shall cover the whole supply area of the certified entity. When land rights have been relinquished to the benefit of the operator, the operator shall demonstrate the decision was taken by Free Prior Informed Consent and negotiated. <i>For further information, see Guidance.</i></p> <p>Guidance: Legal ownership shall be the official title in the country or equivalent (e.g. notary, government agency or other). Rights to water refer to the right to extract &amp; use water, including cap</p>

				on quantity extracted. Customary rights can be evidenced in other forms by a local statutory or customary body. Guidance for customary rights is provided in ILO Conventions 169 and 117.
	4.3.3 – Engaging in collaborative action to promote sustainable water use	Mill Agriculture	Yes	When water resources are stressed, the operator shall document its engagement in collaborative and collective action to promote sustainable water use and participation with other water users, government and civil society in catchment or aquifer water planning and management including in how to allocate water equitably and without conflict <i>For further information, see Guidance.</i>
	4.3.4 Net water consumed per unit mass of product	Mill	<20 for sugar only or <30 for ethanol  Kg of water/kg of mass product	Water consumed at mill = water used less water returned to the environment. If effluents are exported by the mill to the fields for irrigation, the mill shall account for it as water returned to the environment. <i>For further information, see Guidance.</i>
	4.3.5 – Irrigation Water Productivity -	Agriculture	$\geq 66 + 0.05 \times \text{Rainfall}$ (kg/ha)/m m	To ensure irrigated water is used efficiently. Relies on a direct measure of all waters applied to the fields (including extracted waters, recycled waters, diluted vinasse, and diluted effluents) and rainfall. <i>For further information, see Guidance.</i>  Guidance: An equation that could be used in a calculator: $WP = 66 + 0.05 \times \text{Rain}$ Rainfall is expressed in mm
	4.3.6 - Dissolved oxygen in effluent point	Mill	$\geq 2.5$ PPM Or 1 Kg COD / T product or	Dissolved oxygen is an indicator of the quantity of oxygen available in the receiving stream to support life. Sampling should be carried at the discharging point. <i>For further information, see Guidance.</i>

			0.25 kg/T BOD	
4.4 - Agro-ecological Pest, Disease and Weed Management Plans in place	4.4.1 – Identification and monitoring of current, historical and potential pests and diseases	Agriculture	80% of area	<p><b>CORE INDICATOR</b></p> <p>The operator shall identify current, historical and potential pests, including weeds affecting the fields, defining for each the threshold for when control of pests becomes necessary. This shall be carried out through field monitoring.</p> <p>The operator shall conduct field monitoring of plant health, pests and beneficial organisms. The plan shall cover the whole supply area, centralized at the operation under certification without requiring separate identification processes for individual farms.</p> <p>For further information, see Guidance.</p> <p>Guidance: This should particularly target new plantations, new sugarcane areas to prevent any population outbreaks, or disease spreading. Information centralized at the operation under certification without requiring separate identification processes for individual farms.</p>
	4.4.2 - Agro-ecological pest and disease management practices implemented	Agriculture	80% of area	<p>The operator shall develop an Agro-ecological Pest and Disease Management Plan (AP&amp;DM) and implement good agro-ecological pest practices to prevent the build-up of harmful pest populations and minimize economic loss. These include, but not limited to:</p> <ul style="list-style-type: none"> <li>• Use more resistant varieties of sugarcane and clean seedcane as planting source</li> <li>• Implementing Biological control wherever is possible</li> <li>• Promoting conservation biocontrol to preserve natural enemies</li> <li>• Encourage the use of cover crops or trash blanketing</li> <li>• Encourage the presence of natural vegetation around sugarcane fields particularly flowers attracting natural enemies of pests</li> </ul> <p>For further information, see Guidance.</p>
	4.4.3 - Integrated Weed Management plan	Agriculture	80% of area covered by	<p>The operator shall develop an Integrated Weed Management Plan (IWMP) that defines the threshold for when chemical control of weeds becomes necessary, and considers the following, but not limited to:</p> <ul style="list-style-type: none"> <li>• the use of chemicals (especially those with broad-spectrum activity) should be seen as a last resort</li> <li>• practicing field hygiene by preventing the spread of mature seed or runners</li> </ul>

				<ul style="list-style-type: none"> <li>• adoption of field practices that minimise risk of waterlogging and reduced soil aeration (e.g. controlled traffic, organic matter inclusion, proper drainage), as anoxic soil conditions lead to reduced microbial degradation of some herbicides and increased residual activity .</li> <li>• green manure following</li> <li>• certain tillage operations e.g. disking to be incorporated if they can be a valuable component of IWM.</li> </ul> <p><i>For further information, see Guidance.</i></p>
4.4.4 - Agro-chemicals applied per hectare per year	Agriculture	<5 kg active ingredient / ha/year	<p><b>CORE INDICATOR</b> To minimise air, soil and water contamination, particularly off-site impacts.. Quantities of active ingredients of agro-chemicals (including pesticides, herbicides, insecticides, fungicides, nematicides, ripeners) applied. Also note the requirement to use only products registered for use and at registered rates. Use in accordance with label directions.</p> <p><i>For further information, see Guidance.</i></p>	
4.4.5 - Banned agro-chemicals applied per hectare per year	Agriculture	0 kg active ingredient /ha/y	<p><b>CORE INDICATOR</b> Quantities of active ingredients of agro-chemicals included in: .</p> <ol style="list-style-type: none"> <li>Pesticide formulations that meet the criteria of classes Ia (extremely hazardous) or Ib (highly hazardous) of the WHO Recommended Classification of Pesticides by Hazard;</li> <li>Pesticide active ingredients and their formulations that meet the criteria of carcinogenicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS);</li> <li>Pesticide active ingredients and their formulations that meet the criteria of mutagenicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals (GHS);</li> <li>Pesticide active ingredients and their formulations that meet the criteria of reproductive toxicity Categories 1A and 1B of the Globally Harmonized System on Classification and Labelling of Chemicals;</li> <li>Pesticide active ingredients listed by the Stockholm Convention in its Annexes A and B, and those meeting all the criteria in paragraph 1 of Annex D of the Convention;</li> <li>Pesticide active ingredients and formulations listed by the Rotterdam Convention in its Annex III;</li> <li>Pesticides listed under the Montreal Protocol;</li> </ol> <p><i>For further information, see Guidance.</i></p>	

				<p><i>Guidance:</i> In cases where there are no non-banned alternatives legally registered for use, research should be conducted and documented to determine this, taking into consideration alternative chemical or non-chemical controls can be used. If this research confirms that no non banned chemical or non-chemical alternatives are available, the use of a banned agrochemical is tolerated. In these cases risk management plans must be updated to control the risks arising from applying a potentially dangerous chemical, as well as a plan to phase out or eliminate the use of banned agrochemicals.</p>
4.5 - To ensure hazardous chemicals and materials do not negatively impact biodiversity and ecosystem services	4.5.1 - Management of storage and handling facilities for farm chemicals, fuel, lubricants, hazardous materials to prevent pollution	Mill Agriculture	<u>100%</u>	<p><b>CORE INDICATOR</b> Agrochemical and other chemical are safely stored, access is restricted to the sole users, storage area is ventilated and allows for spillage management (such as a retention pond, etc) The operator must ensure that Agrochemicals and Fertilisers are stored securely on its supplying farms and in a manner that prevents unauthorised access and protects the environment in the event of spillage. <i>For further information, see Guidance.</i></p>

## PRINCIPLE 5 - CONTINUOUSLY IMPROVE OTHER KEY AREAS OF THE BUSINESS

CRITERION	INDICATOR	Scope	Standard	NOTES
5.1 To promote economic and social sustainability	5.1.1 Research and extension plan in place	Mill Agriculture	Yes	The operator must have in place a research plan that covers innovation & research, continuous improvement and biosecurity. <i>For further information, see Guidance.</i>  Guidance: Innovation should be centralized and coordinated, encompassing business continuity plans and response protocols for emergencies (including health emergencies, environmental disasters, and others)
	5.1.2 Value added per tonne cane	Mill Agriculture	Mill >14; \$/t cane Agric >10 \$/t cane	Value added by the operation is the value of sales less the price of goods, raw materials (including energy) and services purchased. <i>For further information, see Guidance.</i>
	5.1.3 Environmental and social impact Management Plans updated biannually	Mill Agriculture	Yes	Environmental and social Management Plans updated every two years, clearly documenting how previously identified risks are managed. <i>For further information, see Guidance.</i>
	5.1.4 Findings of business context analysis continuously addressed in a time-bound manner	Mill Agriculture	90%	Internal and external audit processes demonstrate that systems improvements are ongoing; Stakeholder, worker & client grievance logs demonstrate ongoing management of relationships with workers, communities and clients; Environmental, social, quality and productivity monitoring data demonstrate continuous improvement. <i>For further information, see Guidance.</i>
5.2 To reduce emissions and effluents. To promote recycling of waste streams where practical	5.2.1 Ambient air quality aligns with WHO guidance	Mill	40 µg/m <sup>3</sup> PM <sub>10</sub> 40 µg/m <sup>3</sup> NO <sub>x</sub> 20 µg/m <sup>3</sup> SO <sub>x</sub>	These values are for ambient air (not stacks emissions) as a 24hr mean for PM and SO <sub>2</sub> , and as an annual mean for NO <sub>2</sub> <i>For further information, see Guidance.</i>
	5.2.2 Non-production waste plan for safely recycled or disposal	Mill Agriculture	Yes	The operator shall have a plan and implement recycling / re-using / safe & responsible disposal or storage (if other options are not available) programme for all of the following categories: fibre, metal, plastic, oil and lubricants, batteries and chemical products, rubber, wood, hazardous waste, glass and electronics. <i>For further information, see Guidance.</i>

5.3 To train employees and other workers in all areas of their work and develop their general skills	5.3.1 Time spent by workers in vocational training sessions	Mill Agriculture	16 hours per year	Operators shall provide all workers with 16 hours of training for vocational and/or occupational skills training. Training days shall be split between basic workers, intermediate management and upper management. <i>For further information, see Guidance.</i>
	5.3.2 - Vocational training for all workers displaced by mechanisation.	Mill Agriculture	16 hours per year	When mechanisation plans displace permanent and seasonal workers, vocational training is provided to certify labourers in new fields of work. Certifications of training can be developed in collaboration with educational institutions, government agencies, INGOS, development banks and other partners to provide legitimate certification of skills acquisition. <i>For further information, see Guidance.</i>
5.4 Continuous improvement of worker welfare	5.4.1 - Occupational health and safety is promoted in the whole cane supply area.	Whole supply area	Yes	The operator shall promote a safe working environment at its sugar cane supply base. <i>For further information, see Guidance.</i>  Guidance: This will be done through identifying gaps, raising producer awareness and tracking improvements.
	5.4.2. Safe worker accommodation in cane supplier area	Whole supply area	Yes	The certified company must promote minimum legal standards accommodation on its sugar cane supply base. <i>For further information, see Guidance.</i>  Guidance: This is done through identifying gaps, raising producer awareness and tracking improvements.
	5.4.3. Gender inclusion in management and technical positions	Mill Agriculture	15%	Applies to all workers on the premises of the mill and farms included in the unit of certification. The operator shall conduct community based women's empowerment training. Recruitment operations increases women's presence in the workforce to meet operation established targets not less than 15% of total workforce. <i>For further information, see Guidance.</i>