

Theme	Sub-theme	SUGAR indicators	Fairtrade SPO requirement
The indicators in this section are directly linked to requirements of the Fairtrade Standard for Small Producer Organizations			
IMPROVED FARMING PERFORMANCE			
Optimal use of inputs	Irrigation / water	<p>Increased sucrose produced per 100mm of irrigation</p> <p>Rounds of irrigation how much irrigation was applied in mm plus the area irrigated</p> <p>*not applicable for countries with rain fed sugar cane production</p>	<p>3.2.26 You must provide training to the members of your organization on measures to use water efficiently. This training must include:</p> <ul style="list-style-type: none"> · estimating how much water is needed to irrigate and/or process Fairtrade crops · measuring (or estimating) how much water is extracted from the source · measuring how much water is used for irrigation and/or processing · providing maintenance to the water distribution system · adopting as applicable, methods to recirculate, reuse and/or recycle water.
	Fertiliser	<p>Amount /ha for all fertilisers</p> <p>Fertilisers applied according to soil analysis and crop nutrition plan</p> <p>Regular soil testing</p> <p>Follow guidelines on fertilizer inputs</p>	<p>3.2.22 You must provide training to the members of your organization on the appropriate use of fertilizers. This training must include:</p> <ul style="list-style-type: none"> · measures to ensure that fertilizers (organic and inorganic) are applied in amounts that respond to the nutrient need of the crop.
	Pesticides	<p>Amount /ha for all pesticides</p> <p>Personal protective equipment available for the use of pesticides</p> <p>Use of resistant sugarcane varieties</p>	<p>3.2.2 You must provide training to your members on the subject of integrated pest management. Training must include:</p> <ul style="list-style-type: none"> • the monitoring of pests and diseases • alternative ways to control pests and diseases • preventive measures against pests and diseases • measures to avoid that pests and diseases build up resistance to pesticides <p>3.2.5 You must implement measures to ensure that all people, including members and workers, wear appropriate personal protective equipment (PPE) when handling pesticides or hazardous chemicals.</p>

	Herbicides	<p>Reduced infestation of plantations</p> <p>Amount of various herbicides used per ha</p> <p>Controlled herbicide use based on soil texture, sugar cane variety</p> <p>No weeds in plantations (optimum application of herbicide)</p> <p>Use of herbicide e.g. Paraquat abandoned by a majority of suppliers / whole industry or by complete supply and industry within one country or a specific trade chain</p>	<p>3.2.19 You must work toward all members who use herbicides minimizing the amount they use by implementing other weed prevention and control strategies.</p>
Labour conditions	Occupational Health and Safety	<p>Health and safety equipment provided</p> <p>Access to clean drinking water in the field</p> <p>Access to toilets</p>	<p>3.3.31 You and the members of your organization must provide clean drinking water and clean toilets with hand washing facilities close by for workers, and clean showers for workers who handle pesticides. These facilities must be separate for women and men and the number of facilities must be in proportion to the number of workers.</p>
Optimal management of outputs	Waste	<p>Farm is free from hazardous waste</p> <p>Storage available for hazardous waste</p>	<p>3.2.29 You must ensure that your members keep their farms free of hazardous waste.</p> <p>3.2.30 You and the members of your organization must have designated areas for the storage and disposal of hazardous waste. In the absence of appropriate disposal facilities, small amounts of hazardous farm waste can be burned in a well-ventilated area away from people, animals or crops. You and the members of your organization may only burn hazardous waste if it is allowed by local regulation and all safety recommendations are followed.</p>
PROTECTION OF ENVIRONMENT & ADAPTATION TO CLIMATE CHANGE		<p>Green cane harvest, effluent run-off management, cane trash management, no use of banned chemicals, environmentally friendly bio-treatment, in place of insecticides</p>	

Elimination of harmful production practices	Soil erosion & pollution	Improved measures against soil erosion and pollution in place	<p>3.2.20 You must identify land at risk of soil erosion and land that is already eroded in fields where your members plant Fairtrade crops.</p> <p>3.2.21 You must provide training on practices that reduce and/or prevent soil erosion to those members of your organization where risk of soil erosion or already eroded land has been identified.</p>
		<p>Quantities of synthetic fertilizer applied versus organic fertilizer</p> <p>Herbicides and pesticides applied per hectare / year</p> <p>Fertilizer applied according to soil testing</p>	<p>3.2.2 You must provide training to your members on the subject of integrated pest management. Training must include:</p> <ul style="list-style-type: none"> • the monitoring of pests and diseases • alternative ways to control pests and diseases • preventive measures against pests and diseases • measures to avoid that pests and diseases build up resistance to pesticides <p>3.2.22 You must provide training to the members of your organization on the appropriate use of fertilizers. This training must include:</p> <ul style="list-style-type: none"> · measures to ensure that fertilizers (organic and inorganic) are applied in amounts that respond to the nutrient need of the crop.
		Soil testing	<p>3.2.27 You must handle waste water from central processing facilities in a manner that does not have a negative impact on water quality, soil fertility or food safety.</p> <p>3.2.12 Your members must have equipment to handle accidents and spills in the areas where they prepare or mix pesticides and other hazardous chemicals, so these do not seep into soil or water. Members must plan spraying in such a way as to have no or very little spray solution left.</p>
			<p>4.1.9 You must have an activity in your Fairtrade Development Plan to maintain or improve sustainable production practises within your eco-system.</p>

	Water pollution		<p>3.2.27 You must handle waste water from central processing facilities in a manner that does not have a negative impact on water quality, soil fertility or food safety.</p> <p>3.2.12 Your members must have equipment to handle accidents and spills in the areas where they prepare or mix pesticides and other hazardous chemicals, so these do not seep into soil or water. Members must plan spraying in such a way as to have no or very little spray solution left.</p> <p>3.2.35 You and the members of your organization must maintain buffer zones around bodies of water and watershed recharge areas and between production areas and areas of high conservation value, either protected or not. Pesticides, other hazardous chemicals and fertilizers must not be applied in buffer zones.</p> <p>4.1.9 You must have an activity in your Fairtrade Development Plan to maintain or improve sustainable production practises within your eco-system.</p>
	Air pollution		<p>4.1.9 You must have an activity in your Fairtrade Development Plan to maintain or improve sustainable production practises within your eco-system.</p>
Sustainable management of natural resources	Soil		<p>3.2.23 You must report on measures that you as an organization and your members have implemented to improve soil fertility.</p>
	Water	<p>Improved drainage and improved access to fields GAP replaces irrigation</p>	<p>3.2.24 You must list sources of water used for irrigating and processing Fairtrade crops.</p> <p>3.2.25 You must keep informed about the situation of the water sources in your area. In case local environmental authorities or other entities consider that your water sources are being depleted, or are in a critical situation, or under excessive pressure, you must engage in a dialogue with the authorities or local existing initiatives in order to identify possible ways to be involved in research or solution finding.</p>

	Biodiversity	Declared protected areas No of dialogues with regional / local organizations	3.2.34 You must report on activities that you or your members carry out to protect and enhance biodiversity.
Development of environmental services			
	Biodiversity corridors and refuges	Buffer zones	3.2.35 You and the members of your organization must maintain buffer zones around bodies of water and watershed recharge areas and between production areas and areas of high conservation value, either protected or not. Pesticides, other hazardous chemicals and fertilizers must not be applied in buffer zones.
Energy and GHG emissions	Mitigation practices	Practices to reduce GHG emissions and increase carbon sequestration	3.2.40 You must report on practices that you or the members of your organization carry out to reduce GHG emissions and increase carbon sequestration.
The indicators in the following section are not directly linked to SPO requirements			
Theme	Sub-theme	SUGAR indicators	
Productivity		Field yield: total volume of cane produced by members / the total number of hectares planted with cane by members Monitor tonnes cane/tonnes sugar (tc/ts) Sugar yield: the tons of sucrose obtained from the cane of all members	
Quality		Maturity samples Kill/Mill Intervals (hrs) Extraneous matter content	
Crop maintenance and expansion		New hectares planted in sugarcane per year Abandoned hectares replanted or reconditioned some fields are abandoned and grow wild as the income isn't enough to maintain it, higher income and joint work planning allows to reclaim abandoned fields clearing vegetation and replanting cane Hectares of cane field "resupplied" where cane has died the field is replenished with new planting stock Production of seed cane (or financial access to seed cane)	
Implementation of adaptation strategies	Floods	Dams / drainage in place Income allows proper and constant improvement of dams, canals and drainage systems Cane fields are approachable	

		*for countries with heavy rainfall
	Droughts Temperature extremes	Use of resistant seedlings