

**Filling out forms A6.4-FORM-AC-015, 016
and 017 from the A6.4 SD tool:**

Presentation for Activity Participants

Introducing the SD tool



What it is

The Article 6.4 Sustainable Development tool (A6.4 SD tool), developed under Article 6.4 of the Paris Agreement, provides a **structured framework to ensure that mitigation activities uphold the “do no harm” principle, actively contribute to sustainable development, and align** with the Sustainable Development Goals (**SDGs**)



What it does

Designed to **assess and comply with environmental and social safeguards**, identify and assess potential positive and/or negative direct impacts on **sustainable development objectives and priorities** from host Parties, and SDGs, and ensure robust monitoring and reporting through **validation and verification by Designated Operational Entities (DOEs)**



How it's used

The **A6.4 SD tool** was adopted at the **14th Supervisory Body Meeting of the Paris Agreement Crediting Mechanism**, marking a major milestone on the road to high-integrity international carbon markets promoting sustainable development while at the same time keeping the do-no-harm principle

Structure of the A6.4 SD tool

The A6.4 SD tool uses three forms to be completed by the activity participants (AP):



A6.4-FORM-AC-015: Environmental and Social Standards Risk Assessment Form



A6.4-FORM-AC-016: Environmental and Social Management Plan Form



A6.4-FORM-AC-017: Sustainable Development Impact Assessment Form



Purpose

Provides a **structured, step-by-step framework** for assessing and managing the sustainable development (SD) aspects of Article 6.4 activities

Structure of the A6.4 SD tool



Risk Assessment: Form 15

Identify, evaluate, and categorise **environmental and social risks**.
Apply the “**do no harm**” principle to ensure safeguards are met.



Management Planning: Form 16

Develop an **Environmental & Social Management Plan (ESMP)**.
Outline mitigation actions, responsibilities, and monitoring procedures.



SD Impact Assessment: Form 17

Define and monitor **SDG-aligned indicators**. Track and report
measurable positive contributions and outcomes.

Stakeholder Consultation:

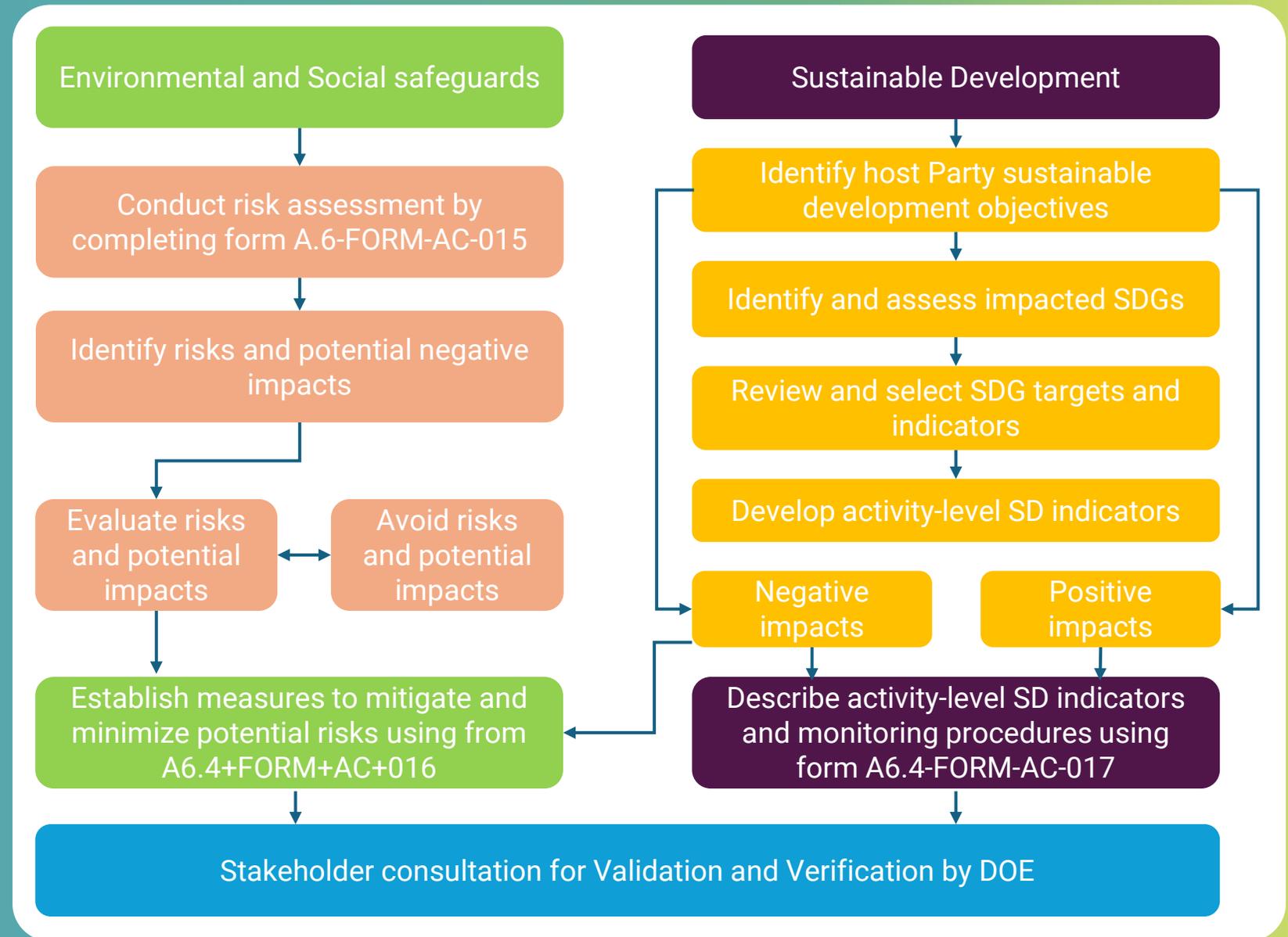
Consultation & Feedback:

Stakeholders engage through local and global consultations to ensure transparency before registration.

Continuous Engagement:

Ongoing dialogue and public access to project updates via the UNFCCC website.

Workflow for the use of the A6.4 SD tool



Purpose of This Presentation

What this presentation is for

- To guide **activity participants** in completing the A6.4 Sustainable Development Tool forms

To help you:

- Identify and manage environmental and social risks
- Demonstrate “do no harm”
- Show how your activity contributes to sustainable development (SD)

Forms covered



A6.4-FORM-AC-015 – Risk Assessment



A6.4-FORM-AC-016 – Management Plan



A6.4-FORM-AC-017 – Sustainable Development Impact Assessment

When To Use These Forms

An Activity participant must complete all three forms if:

- The AP is proposing a new Article 6.4 activity, or
- The AP is transitioning a CDM activity to the Article 6.4 mechanism

Timing

- Forms are completed **before registration**
- They are updated following:
 - Local stakeholder consultation
 - Global stakeholder consultation
- Monitoring continues **throughout the crediting period**

How the Three Forms Fit Together



Identify risks → FORM-AC-015



Manage risks → FORM-AC-016



Assess SD impacts → FORM-AC-017

Key principle

- The forms are linked
- Information in one form must be consistent with the others

Real life examples

Along the text, you will find examples of how to fill in the Forms that conform the SD tool, based on a real life mitigation activity, a Bagasse to energy project with the following characteristics:

Activity:

- Article 6 activity aims at avoiding methane emissions from the depositing of bagasse on a landfill (a practice by the factory since 2004).
- **Current:** 6 MW cogeneration plant (70,000 tonnes bagasse used annually)
- **Expansion:** Scaling up to 40 MW; surplus power to grid

Potential Sustainable Development benefits:

- Displaces fossil grid electricity
- Prevents methane from bagasse disposal
- Creates jobs & skills transfer
- Promotes gender inclusivity in outgrower schemes



FORM-AC-015: A6.4 Environmental and Social Safeguards Risk Assessment Form

How the Three Forms Fit Together



Purpose

- To identify potential **negative environmental and social impacts**
- To assess whether your activity may cause harm



Outcome

- Determines whether you must complete FORM-AC-016

Link to form →



FORM-AC-015: How to Complete It (Step 1)

Step 1: Assess risks against 11 safeguard elements

You must assess your activity against:

- 3 environmental elements
- 8 social elements



For each element Answer the Element-Level Question (ELQ)

Select one response:



Yes



Potentially



No



Not applicable (NA)

FORM-AC-015: List of Safeguard Elements

Safeguard elements		
Environmental	Element 1	Energy
	Element 2	Air, land and water
	Element 3	Ecology and natural resources
Social	Element 4	Human rights
	Element 5	Labour
	Element 6	Health and safety
	Element 7	Gender equality
	Element 8	Land acquisition and involuntary resettlement
	Element 9	Indigenous Peoples
	Element 10	Corruption
	Element 11	Cultural heritage

FORM-AC-015: Understanding Your Answers

What different answers mean:



Yes

- A risk exists
- You must describe it
- You must mitigate and monitor it (FORM-AC-016 required)



Potentially

- A risk may arise in future
- You must justify why it is not currently an issue
- Monitoring may still be required



No

- No risk identified
- Provide a clear justification



NA

- The element is not relevant
- Explain why it does not apply

FORM-AC-015: Element Level Questions (ELQ)

Example ELQ for Element 2 on the bagasse to energy activity:

Element 2: Air, land and water

This element and its criteria are described in subsection 6.3.2 of Section 6: Environmental and Social Safeguards of the A6.4 SD Tool.

Table 2. Guiding questions for the risk assessment on air

E2.1 Air		Evaluation	Risk assessment
<p>E2.1: The A6.4 activity avoids releasing pollutants into the air, land, or water, including hazardous and/or non-hazardous pollutants in solid, liquid, or gaseous phases.</p>	<p>ELQ 2.1.a</p>	<p>Does the A6.4 activity involve a risk of releasing air pollutants due to routine and non-routine activities, with the potential for local and regional impacts?</p> <p> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Potentially <input type="checkbox"/> No <input type="checkbox"/> N/A </p>	<p><i>The activity has the potential to release air pollutants. Most emissions are likely to occur downstream, primarily through open-air burning of sugarcane plantations prior to harvesting—a practice tentatively carried out to deter snakes and reduce the bulkiness of the canes for easier processing. Additionally, the increase in bagasse production and storage at the landfill may alter or negatively affect air quality due to fermentation-related emissions. The project will therefore need to account for potential emissions arising from bagasse storage and handling at the landfill. Furthermore, the application of pesticides using mist sprayers poses a risk of air pollution through aerosolised pesticide particles, which can disperse beyond the targeted areas.</i></p>
		<p>If yes or potentially, please respond to guiding questions AGQ2.1.1-1 and AGQ2.1.1-2.</p>	

FORM-AC-015: Additional Guiding Questions



When do you answer them?

- If you select **Yes** or **Potentially**



What to include

- Nature and extent of the risk
- Applicable host country laws and regulations
- Relevant international standards
- How risks are avoided or reduced



Tip

- Compare conditions **with and without** the activity

FORM-AC-015: Additional Guiding Questions (AGQ)

Example of one AGQ for Element 2 (Air, land and water) on the bagasse to energy activity:

Additional guiding questions:				
<p>E2.1.1: The A6.4 activity is to avoid the release of pollutants into the air. When complete avoidance is not technically and financially feasible, activity participants of the A6.4 activity are to minimize and/or control the intensity and mass flow resulting from the A6.4 activity. This provision applies to releases of pollutants due to routine, non-routine, and accidental circumstances, with potential for local regional and transboundary impacts.</p>	<p>AGQ2.1.1-1</p>	<p>Would the A6.4 activity involve the release of air pollutants that cannot be minimized and/or controlled in terms of intensity and mass flow?</p>	<p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> Potentially</p> <p><input checked="" type="checkbox"/> No</p> <p><input type="checkbox"/> N/A</p>	<p><i>At the activity level, controlled combustion with emissions controls; minimal particulate matter is expected under both low-pressure and high-pressure boilers.</i></p>
	<p>AGQ2.1.1-2</p>	<p>Would the A6.4 activity involve the release of pollutants into the air under routine, non-routine, or accidental circumstances with the potential for local and regional impacts and transboundary impacts?</p>	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> Potentially</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> N/A</p>	<p><i>The issue of open-air burning of sugarcane plantations remains a significant concern, particularly given the project's proximity to a National Park and protected other areas [specify], both of which are ecologically sensitive areas. Emissions from open burning can contribute to localized air pollution, pose risks to biodiversity, and negatively affect the integrity of protected ecosystems. To be Confirmed (TBC): Further assessment and stakeholder consultations will be required to determine appropriate mitigation measures, taking into account the environmental sensitivity of the surrounding areas and the broader discussion outlined above.</i></p>

Example of outcomes from Form 15

The risk assessment identified both confirmed and potential risks across environmental and social dimensions:

Overview of the outcomes of the environmental and social safeguards elements risk assessment			
Environmental	Element 1	Energy	No
	Element 2	Air, land and water	Yes
	Element 3	Ecology and natural resources	Potentially
Social	Element 4	Human rights	Potentially
	Element 5	Labour	Potentially
	Element 6	Health and safety	Potentially
	Element 7	Gender equality	Potentially
	Element 8	Land acquisition and involuntary resettlement	Potentially
	Element 9	Indigenous People	Potentially
	Element 10	Corruption	Yes
	Element 11	Cultural heritage	No

Confirmed risks

- Air quality impacts (from open-air burning)
- Land and water contamination (linked to fertilizer and pesticide use).

Potential risks

- Ecological impacts (land-use change),
- Human rights (risk of political influence)
- Labour (casualisation), health and safety (poor working conditions)
- Gender equality (GBV risks)
- Land rights (untitled community land)
- Indigenous Peoples (loss of grazing land)

No risks identified

- Energy
- Cultural heritage
- Corrupton

FORM-AC-016: A6.4 Environmental and Social Management Plan Form

FORM-AC-016: A6.4 Environmental and Social Management Plan Form



You **must complete** FORM-AC-016 if:

- Any element in FORM-AC-015 is market **Yes** or **Potentially**



Purpose

- To explain **how you will manage identified risks**



What it contains

- Mitigation measures
- Monitoring arrangements
- Responsibilities and resources
- Activity-level environmental and social indicators

FORM-AC-016: Defining Mitigation Measures

For each identified risk, describe:

- Actions to **avoid** the risk

If avoidance is not possible:

- Actions to **minimise**
- Actions to **mitigate**

Be specific

- What will be done?
- Who is responsible?
- When will it happen?



FORM-AC-016: Environmental and Social Indicators

Indicators must:

- Show that harm is avoided
- Be measurable or clearly observable
- Apply throughout the crediting period



Examples

- Water consumption levels
- Accident reporting rates
- Compliance with labour standards

A6.4-FORM-AC-016: Environmental Management Plan

Example of measures and indicators for the bagasse to energy activity.



Air Quality & Pollution Control

- **Measures:** Green cane harvesting (no-burn), mulching, biochar, controlled combustion with emission controls
- **Indicators:** % sugarcane harvested without burning; adoption of no-burn practices; air quality monitoring records; particulate matter levels



Soil & Nutrient Management

- **Measures:** Minimal tillage, contour ploughing, mulching, precision fertilizer application, expert agronomist support
- **Indicators:** % land under conservation farming; % fields with nutrient management plans; reduction in fertilizer/herbicide per hectare; nutrient levels (N, P) in soil/water



Water Use & Quality

- **Measures:** Efficient irrigation (drip, pivot, closed-loop), align withdrawals with water user associations, buffer strips/wetlands, regular water monitoring
- **Indicators:** % annual reduction in water use; compliance with approved limits; BOD, COD, turbidity, nitrates; % farm roads with dust suppression



Biodiversity & Ecosystem Protection

- **Measures:** Retain/restore forest patches & ecological corridors, habitat restoration, biodiversity action plans, prevent alien species introduction
- **Indicators:** % forest patches/ecological corridors retained/restored; # of habitat restoration actions; compliance with biodiversity management plan; % wetland areas conserved

A6.4-FORM-AC-016: Example of Outcomes

Environment safeguards elements		Outcome of the risk assessment in A6.4-FORM-AC-	Identification of risk mitigation measures based on potential risk identified in A6.4-FORM-AC-015	List of relevant activity-level environmental and social indicator based on Risk Mitigation measures (Desired outcomes and actions to avoid, minimize and mitigate potential negative environmental and social impacts)	
Name of Element	Number of element level question (ELO)	Number of Additional Guiding Question (AGO)			
Element 2: Air , land and water	ELQ 2.1.a	AGQ2.1.1-1	No		
		AGQ2.1.1-2	Potential	Possible mitigation measure: Activity participants in the outgrower scheme may implement green cane harvesting by engaging relevant stakeholders to identify and adopt feasible alternatives to open burning, such as mulching, biochar production, or controlled rotation burning, in order to reduce air pollutants and protect surrounding ecosystems.	Examples of activity-level environmental indicators for minimizing air pollutants from open-air burning may include the quantity of sugarcane harvested without burning, percentage of outgrowers adopting no-burn practices, existence of a No-Burn Harvesting Plan, air quality monitoring records, and number of awareness sessions conducted. Controlled combustion with emissions controls; minimal particulate matter under low pressure boiler and high-pressure boiler
		AGO2.1.2	Potential	Possible mitigation measures include: participants in the outgrower scheme establishing a baseline and regular water and air quality monitoring to prevent contamination associated by the surrounding activities.	Examples of activity-level environmental indicators may include water quality parameters (BOD, COD, turbidity, heavy metals, nitrates, phosphates) measured at the beginning of the activity, then quarterly, and the percentage of farm roads treated with dust suppression measures.
Element 2: Air , land and water	ELQ 2.2.a	AGQ2.2.1-1			
		AGQ2.2.1-2	Yes	Possible mitigation measures: Activity participants in the outgrower scheme may establish buffer strips or constructed wetlands between fields and drainage lines, and adopt precision application methods for fertilizers and agrochemicals, in order to prevent nutrient leaching, protect water quality, and safeguard surrounding ecosystems.	Examples of activity-level environmental indicators may include the percentage reduction in fertilizer/herbicide application per hectare and the percentage of hectares under precision nutrient management.
		AGQ2.2.2	No		
		AGQ2.2.3	Yes	<i>Possible mitigation measures: Activity participants in the outgrower scheme may establish erosion-control structures, buffer zones, and runoff management measures prior to project commencement, including constructing vegetated filter strips to capture sediment, avoiding land preparation during peak rainfall seasons, and conducting regular surface water monitoring</i>	<i>Examples of activity-level environmental indicators may include the percentage of soil and water conservation measures (erosion-control structures, buffer zones, runoff channels) established and functional prior to land preparation, nutrient (N, P) levels in surface water samples, and the percentage reduction in sediment load entering water bodies. These indicators should be prescriptive during the design of the project eg. water</i>

FORM-AC-016: Monitoring Requirements

For **each indicator**, describe:

- Indicator description
- Data source and unit
- Monitoring method
- Monitoring frequency (at least annually)

Remember

- These indicators will be verified by a DOE



A6.4-FORM-AC-016: Monitoring of Indicators

Monitoring procedures for A6.4 Activity-level environmental and social indicator			
A6.4 activity information			
Title of A6.4 activity or Title of CDM project (transition to A6.4 activity):	Bagasse to energy mit-igation activity		
Title of A6.4 activity or Title of CDM project (transition to A6.4 activity):	(Provide A6.4 Activity number or CDM project number transition to A6.4 activity)		
A6.4 activity registration date dd/mm/yy:	(Provide registration date only if the activity is registered (dd/mm/yy))		
Crediting period: <input type="checkbox"/> Fixed <input type="checkbox"/> Renewable		Start date	End date
	1	dd.mm.yyyy	dd.mm.yyyy
	2	dd.mm.yyyy	dd.mm.yyyy
	3	dd.mm.yyyy	dd.mm.yyyy
Monitoring period period:		Start date	End date
	1	dd.mm.yyyy	dd.mm.yyyy
	2	dd.mm.yyyy	dd.mm.yyyy
	3	dd.mm.yyyy	dd.mm.yyyy

A6.4 Activity-level environmental and social indicator 1		
Monitoring indicator:		
Element	<i>Provide name of relevant "Element"</i>	
Criteria	<i>Provide relevant criteria number under "Element"</i>	
Description:		
Data Unit:		
Source of data:		
Monitoring/Measurement procedure:		
Monitoring frequency:		
Comments:		
Year	Baseline value	Activity value
1		
2		
3		
4		
5		

FORM-AC-017: A6.4 Sustainable Development Impact Assessment Form

FORM-AC-017: A6.4 Sustainable Development Impact Assessment Form

Purpose

To identify how the activity contributes to:

- Host Party's sustainable development priorities
- The UN Sustainable Development Goals (SDGs)

FORM-AC-017: Step 1 – Host Party Priorities

Identify

- National SD strategies
- SDG targets adopted by the host Party
- Other relevant development priorities



Record

- SDG-related priorities
- Non-SDG priorities (if any)

FORM-AC-017: Step 1 – Host Party Priorities

Example of host Party priorities for the bagasse to energy activity.

Step 1: Identify SD objectives and priorities of host Party

Host Party's SD objectives and priorities related to your A6.4 Activity

<p>1.1. Host party's SD objectives, priorities and strategies linked/related to SDG national targets and indicators related to the A6.4 activity. Activity participants are required to further elaborate any objectives and priorities in step 2.</p>	<p>Activity participants had interactions with the [relevant authority, e.g. Ministry of Environment], which provided guidance on how the Article 6 activity should document its contributions to the SDGs prioritised by the host country, beyond SDG 13, and considering the host country's strategies for achieving the SDGs (including SDG 5 – Gender Equality). This guidance is also provided in the [include relevant regulation e.g. Acts, Laws, or other regulations specific on climate change, carbon markets or sustainable development].</p>
<p>1.2. Host Party objectives, priorities and strategies not clearly responsive to any SDG related to the A6.4 activity. Activity participant are required to elaborate "Monitoring of the A6.4 activity-level SD indicators - no SDG related" in step 3 (if applicable).</p>	<p>Activity participants engaged with the [relevan authority e.g. Ministry of Environment], which guided that A6.4 activities must align with the host country's prioritised SDGs beyond SDG13, incl. SDG5, as per [include relevant regulation]. A6.4 enables the host country to reduce emissions beyond its -XX% NDC target through intl. cooperation, results-based co-funding, and private sector investment, generating SD co-benefits and transformational impact. At MADD phase, data will be refined (financial flows, additionality) and assessed against criteria for host country's approval and authorisation.</p>

Source:

(Provide source of information): Include relevant regulation e.g. Acts, Laws, or other regulations specific on climate change, carbon markets or sustainable development.

FORM-AC-017: Step 2 – Identify Impacted SDGs

Consider all 17 SDGs

- Identify which SDGs your activity:
- Positively impacts
- Negatively impacts

Justify exclusions

- Explain why an SDG is not affected

Impacts must be

- Direct
- Significant
- Recurring or lasting



FORM-AC-017: Step 2 – Identify Impacted SDGs

Examples of **positively impacted SDGs**
by the bagasse to energy activity.

SDG 1 – No Poverty: Improves livelihoods through sustainable income opportunities (through the outgrower scheme).

SDG 5 – Gender Equality: Ensures gender-responsive participation and benefits (empowering women in the outgrower scheme).

SDG 7 – Affordable and Clean Energy: Expands access to sustainable energy solutions (energy provision to the outgrower scheme and energy security)

SDG 8 – Decent Work and Economic Growth: Creates green jobs and strengthens local economies through the establishment of outgrower scheme.

SDG 9 – Industry, Innovation and Infrastructure: Promotes clean technologies and low-carbon infrastructure (bagasse thermal plant).

SDG 13 – Climate Action: Contributes to NDC targets and supports resilience-building (GHG mitigation from bagasse landfill).

FORM-AC-017: Step 2 – Identify Impacted SDGs

Sustainable Development Goal (SDG)	Does the A6.4 activity directly impact this SDG ?	Please provide justification for your answer provided in column F	Select SDG Target (if answer in column F is "yes")	Describe related Host Party SDG Target (if available)	Type of impact (Positive / Negative)	Select SDG indicator	Describe activity-level SD indicator linked to host party's SD objectives, priorities and strategies if the activity participants identify them in 1.1 of step 1.	Describe activity-level SD indicator
SDG_1_End_Poverty	Yes	XX Farmers and their families will have increased income generation from the out-grower scheme which will be introduced to grow more sugar for the Biomass plant and well as for sugar production. In addition, more income from the extra crops they will be able to grow outside the rainy season due the irrigation facility.	1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	The mitigation measure shall monitor its SD impacts. These include the economic impacts (such as the creation of jobs, poverty alleviation and enhancement of income and financial inclusion, especially among women), social impacts (such as improvements in gender equality, health and safety, access to education, cultural preservation, improved access to energy, social	Positive	1.1.1 Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)	Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure	Indicator measures the total number of farmers participating in the out-grower scheme, reflecting livelihood creation, income generation, and community participation in low-carbon development.
SDG_5_Gender_equality	Yes	Most of the folks involved in farming in rural areas are women and obtain low revenues from farming activities due to suppressed prices of the commodities they grow. Apart from being assured of a good price of sugar cane, the farmers will be able to grow other crops throughout the year	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	The mitigation measure shall monitor its SD impacts. These include the economic impacts (such as the creation of jobs, poverty alleviation and enhancement of income and financial inclusion, especially among women), social impacts (such as improvements in gender equality,	Positive	5.5.2 Proportion of women in managerial positions	(a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure	Indicator tracks the proportion of women participating in the scheme, highlighting gender inclusivity, empowerment, and equitable benefit-sharing from the activity.
SDG_7_Affordable_and_clean_energy	Yes	The RE technology will contribute to widening of the energy mix in the host country since it currently depends on XX% hydro which in recent years has been susceptible to low water levels due to climate change resulting in load shedding of up to 12 hrs per day.	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix	The mitigation measure shall monitor its SD impacts. These include the economic impacts (such as the creation of jobs, poverty alleviation and enhancement of income and financial inclusion, especially among women), social impacts (such as improvements in gender equality, health and safety, access to education, cultural preservation,	Positive	7.2.1 Renewable energy share in the total final energy consumption	Renewable energy share in the total final energy consumption	Indicator measures renewable electricity (MWh) supplied to the national grid from the baggase thermal power plant, demonstrating contribution to national energy security, displacement of fossil-fuel electricity, and alignment with SDG 7.
SDG_8_Decent_work_and_economic_growth	Yes	The project is expected to create work opportunities in skills for technicians and engineers in operations and maintenance of high-pressure boilers which are currently absent in the host country. During construction, engineers, technicians and general workers also be employed.	8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	The mitigation measure shall monitor its SD impacts. These include the economic impacts (such as the creation of jobs, poverty alleviation and enhancement of income and financial inclusion, especially among women), social impacts (such as improvements in gender equality, health and safety, access to education, cultural preservation,	Positive	8.2.1 Annual growth rate of real GDP per employed person	Annual growth rate of real GDP per employed per-son	Indicator reflects skilled and semi-skilled employment generated through construction, operation, and maintenance (O&M), enhancing local technical capacity and knowledge transfer.

FORM-AC-017: Step 3 – Define SD Indicators

For each impacted SDG

- Select relevant SDG targets
- Review global SDG indicators
- Define **activity-level SD indicators**



Indicators must

- Be directly influenced by the activity
- Be monitorable
- Not be one-off events

FORM-AC-017: Step 3 – Define SD Indicators

Examples of SDG related indicators for the the bagasse to energy activity

SDG 5 – Gender Equality

Indicator: Women in out-grower scheme

Unit: Number of women (annual)

Outcome: Equitable access & benefit-sharing

SDG 7 – Affordable & Clean Energy

Indicator: Renewable electricity to grid

Unit: MWh/year (metered)

Outcome: Fossil fuel displacement & clean energy share

A6.4 activity-level SD indicator 1 - SDG related	
Monitoring indicator:	Women participating in out-grower scheme/ the proportion of leadership position or land ownership of women
SDG	5 (Gender Equality)
SDG target:	5.a – Reforms to give women equal rights to economic resources
SDG indicator	5.a.1 – Women’s ownership/control over agricultural land and resources
Description:	Measures participation of women farmers, reflecting gender inclusivity and empowerment.
Data Unit:	Number of women
Source of data:	Project records, cooperative/association registers (disaggregated by sex)
Measurement procedure:	Count of women engaged in scheme annually
Monitoring frequency:	Annual
Comments:	Demonstrates equitable access and benefit-sharing under the A6.4 activity.

A6.4 activity-level SD indicator 3 - SDG related	
Monitoring indicator:	Number of farmers engaged in out-grower scheme
SDG	8 (Decent Work & Economic Growth)
SDG target:	8.5 – Achieve full and productive employment and decent work for all women and men
SDG indicator	8.5.2 – Unemployment rate, by sex, age and persons with disabilities
Description:	Tracks the number of persons gaining livelihoods through participation in sustainable out-grower schemes linked to the A6.4 activity.
Data Unit:	Number of persons
Source of data:	Project records, cooperative/association registers
Measurement procedure:	Count of registered farmers participating in scheme annually
Monitoring frequency:	Annual
Comments:	Reflects contribution to decent work, local employment, and rural development.

FORM-AC-017: Step 3 – Define SD Indicators

Examples of SDG related indicators for the the bagasse to energy activity

SDG 8 – Decent Work & Economic Growth

Indicator 1: Farmers in out-grower scheme (annual count)

Indicator 2: Skilled jobs in O&M (annual count)

Outcome: Rural livelihoods, employment & skills development

SDG 9 – Industry, Innovation & Infrastructure

Indicator: Efficiency gains of cogeneration vs. traditional tech

Unit: MWh/biomass input

Outcome: Innovation & resource efficiency

SDG 13 – Climate Action

Indicator: GHG emissions avoided

Unit: tCO₂e/year

Outcome: Core climate mitigation impact

A6.4 activity-level SD indicator 4 - SDG related	
Monitoring indicator:	Skilled employment in operations and maintenance
SDG	8 (Decent Work & Economic Growth)
SDG target:	8.2 – Achieve higher levels of economic productivity through diversification, technological uparadina and innovation
SDG indicator	8.2.1 – Annual growth rate of real GDP per employed person
Description:	Tracks number of engineers, technicians, and workers employed durina construction and O&M
Data Unit:	Number of persons
Source of data:	Contractor/Project records
Measurement procedure:	Count of employed staff verified annually
Monitoring frequency:	Annual
Comments:	Builds local technical capacity and promotes skills development.

FORM-AC-017: Step 3 – Define SD Indicators

Example of non-SDG related indicators for the the bagasse to energy activity

A6.4 activity-level SD indicator 2 - no SDG related	
Monitoring indicator:	Activity baselines in compliance with NDC target
Description:	The A6 activity employs a baseline, which is (a) below the transferring Party’s uNDC target and (b) clearly below business as usual (e.g., best available technology, ambitious benchmark approach, historical emissions adjusted downward). To assess the relationship with the unconditional NDC, the AP may use a linear interpolation from current emissions (i.e., at the time of the activity start) to the emissions at the end of the NDC period (e.g., 2030)
Data Unit:	tCO e/year
Source of data:	MADD
Measurement procedure:	Baseline-and-project scenario comparison using approved methodology
Monitoring frequency:	Annually
Comments:	Baseline based on i) projected below BAU, or ii) best available technology, or iii) performance penetration approach included in MADD; - Description on baseline alignment with uNDC target included in MADD.

FORM-AC-017: Monitoring SD Indicators

For each SD indicator, specify:

- Data source
- Measurement method
- Monitoring frequency (at least annually)

Important



- Negative SD impacts must be:
 - Already addressed in FORM-AC-015/016, or
 - Managed through new SD indicators

FORM-AC-017: Monitoring SD Indicators

Example of monitoring Indicator 1 above:

Monitoring of the A6.4 activity-level SD indicators - SDG related



The assessment reviewed the A6.4 activity-level SD indicators, which is both qualitative and quantitative, and shall be monitorable over the crediting period:

- GHG Emission Reductions
- Strong positive ✓
- +Estimated cumulative reduction in tCO₂e (2027–2035) from grid-connected electricity and avoided biomass decay.

A6.4 activity-level SD indicator 1 - SDG related		
Monitoring indicator:	Annual GHG emissions avoided	
SDG	13 (Climate Action)	
SDG target:	13.2 – Integrate climate change measures into policies and planning	
SDG indicator	13.2.2 – Total GHG emissions per year	
Description:	Quantifies avoided emissions due to renewable cogeneration and displacement of fossil-fuel-based electricity.	
Data Unit:	Metric tonnes of CO ₂ equivalent (tCO ₂ e)	
Source of data:	GHG monitoring reports, emission factor calculations, project documentation	
Measurement procedure:	Baseline vs. project scenario assessment using approved methodologies	
Monitoring frequency:	Annually	
Comments:	Core climate impact metric, even if not directly mapped to an SDG.	
Year	Baseline value (tCO ₂ /yr)	Activity value (tCO ₂ /yr)
1 (2027)	54,000	52,000
2	80,000	81,000
3	100,000	70,000
4	90,000	85,000
5	100,000	60,000

Information may come, for example, from the MADD

Stakeholder Consultation

Before registration



- Share all three completed forms with stakeholders
- Consider and address comments received



After registration



- Maintain a continuous engagement mechanism
- Record and respond to stakeholder inputs

Validation and Verification (what to expect)

Validation

- DOE checks:
- Completeness and accuracy of all forms
- Stakeholder consultation outcomes
- Whether the activity causes no harm and contributes to SD



Verification

- DOE confirms:
- Monitoring has been carried out as planned
- Indicators are measured and reported correctly

Key Takeaways for Activity Participants

- The three forms work as **one integrated tool**
- Be clear, consistent, and evidence-based
- Justify all answers
- Think long-term: monitoring continues throughout the crediting period
- Well-completed forms reduce delays during validation and verification

Thanks.

The Sustainable Development Initiative (SDI) for Article 6 aims at promoting strong provisions on sustainable development for the rulebook of Article 6 and its implementation. The initiative is a collaboration between the UNEP Copenhagen Climate Centre and the Wuppertal Institute, supported by Germany, Norway and Sweden (2023-2026). Views stated are those of the authors and do not represent any consensus among the Parties involved.

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