Gold Standard for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v.1.5**

RELATED SUPPORT

- TEMPLATE GUIDE Key Project Information & Project Design Document

This document contains the following Sections

KEY PROJECT INFORMATION

GS ID of Project	GS 11201
Title of Project	Waste composting project in Madagascar
Time of First Submission Date	01/10/2021
Date of Design Certification	17/01/2024
Version number of the PDD	5
Completion date of version	30/01/2024
Project Developer	GoodPlanet foundation
Project Representative	GoodPlanet foundation
Project Participants and any communities involved	NA
Host Country (ies)	Madagascar
Activity Requirements applied	☒ Community Service Activity ☐ Renewable Energy ☐ Land-Use and Forests Activity Requirements/Risks & Capacities ☐ N/A
Scale of the project activity	☒ Micro scale ☐ Small Scale ☐ Large Scale
Other Requirements applied	Micro scale and community Service Activity
Methodology (ies) applied and version number	CDM small scale methodology AMS.III-F:" Avoidance of methane emissions through composting", version 12.0[1] Tools referenced in this methodology: • Emissions from solid waste disposal sites, version 08.1[2]

[1] https://cdm.unfccc.int/UserManagement/FileStorage/V5BK1NFHM6ORYGI324CD78L0ZA9UJQ
[2] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

	• Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0[3] • Project and leakage emissions from composting, version 02.0[4]
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	☒ Regular ☐ Retroactive

Table 1 – Estimated Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG IMPACT (DEFINED IN B.6)	ESTIMATED ANNUAL AVERAGE	UNITS OR PRODUCTS
13 Climate Action (mandatory)	Emissions Reductions	1,197	tCO_2/year
8 Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all	Creation of jobs	100	Number of people employed
5 Achieve gender equality and empower all women and girls.	Number of women working in the project activity	10	Number

[3] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v3.0.pdf
[4] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

The objective of the proposed project is the implementation of composting units in three municipalities in Madagascar (Belobaka, Ampitatafika and Andralanitra).

Proposed technology:
The proposed project technology corresponds to a Biological Mechanical Treatment (BMT) of the collected wastes. A BMT system is a form of waste processing facility that combines a biological treatment with a processing facility.

1. The biological treatment (composting) takes place mainly during the fermentation of the wastes in piles or windrows. The biological mechanical treatment consists of biodegradation of the organic matter in aerobic conditions, and during which the composting parameters like temperature and aeration are continuously controlled by the site team.

2. The processing facility consists of –
    a. *a manual sorting of the collected waste, removing the coarse particles and the special elements,*
    b. *a mechanical trommel screening (removing the fraction coarser than 15 mm and,*
    c. *a ballistic separator to remove high density inert material (like glass, stones, shells, batteries, metallic pieces, etc.)*

Baseline scenario:
Like other low-income cities of developing countries, the waste generated in Mahajanga and Antananarivo, is collected by the local municipal authorities and dumped to the landfill sites. All landfill sites in Madagascar are poorly controlled sites and no coverage or landfill gas extraction exists. Hence the baseline, corresponds to the "business as usual" scenario i.e. dumping at the waste disposal sites in a controlled landfill site without any precaution or initiatives to avoid methane emissions due to the anaerobic decomposition of the dumped wastes. The solid waste consists of organic substances, which have a very high potential for bio-fertiliser (compost) production. The waste has high moisture content and is suitable for aerobic composting.

Project scenario:
Composting of the organic waste is an attractive option for resource recovery and environmental improvement. Uncontrolled dumping is prevented and highly demanded compost is generated. This compost combats soil degradation which is severe in Madagascar (loss of organic and nutritious content in the soil, erosion of soil, etc.) and helps to keep soils humidity.
Based on initial estimations the project aims to reduce 1,197 tCO2eq per year over the proposed crediting period. In addition, the project will not only offer an alternative to chemical fertilisers by providing composts to local farmers, but will also create jobs, mainly for less educated and marginalized people (an important part being women).

A.1.1. Eligibility of the project under Gold Standard

As per the GS Principles & Requirements version 1.2[5], paragraph 3.1.1, the project activity meets the following criteria:

GS eligibility	Justification
(a) Types of Project: A Project type is automatically eligible for Gold Standard Certification if there are Gold Standard published Activity Requirements and/or Gold Standard Approved Methodologies associated with it or as referenced in Gold Standard Product Requirements. These are published to the Gold Standard website and shall be followed where provided for a given Project type	The project activity falls under the project type category: "Waste management and disposal". The project is identified as eligible for Gold Standard Certification according to the GS approved methodologies: "427_V2.3_List-of-eligible-CDM-GS-methodologies[6]" it matches with line 89 of the excel sheet[7] "CDM meths small-scale (AMS)".
(b) Location of project Projects may be located in any part of the world.	The project is based in three cities in Madagascar, one site in Mahajanga and two sites in Antananarivo (Ampitatafika and Andralanitra).
(c) Project Area, Project Boundary and Scale: The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may	The project boundaries are the proposed three composting sites in Madagascar (Mahajanga, Ampitatafika and Andralanitra). The project is eligible under the microscale scheme because the annual

[5] https://globalgoals.goldstandard.org/standards/101_V1.2_PAR_Principles-Requirements.pdf

[6] https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=0CDgQw7AJahcKEwjw0qyrw4GBAxUAAAAAHQAAAAQBQ&url=https%3A%2F%2Fglobalgoals.goldstandard.org%2Fstandards%2F427_V2.3_List-of-eligible-CDM-GS-methodologies.xlsx&psig=AOvVaw3oX0iw6d70bVEnP_7sgxCn&ust=1693386741638422&opi=89978449

[7] Gold Standard Approved Methodologies: https://www.goldstandard.org/project-developers/standard-documents

apply under specific Activity Requirements, Impact Quantification Methodologies and Products Requirements.	emission reductions are estimated to be lower than 10 000 tCO2eq/year. The proposed project is not registered with any other voluntary or compliance schemes and therefore, there is no potential for double counting of SDG impacts with that of another Gold Standard or other voluntary or compliance standard programme The project activity will be implemented in Madagascar and as per the available information, the host country does NOT have an emission reduction cap enforced OR has the possibility to trade emissions that include the scope of the proposed project
(d) Host Country Requirements: Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.	The project is following applicable Host Country's legal, environmental, ecological, and social regulations: ○ The Law N° 98 - 029 [8]relating to the "Water Code" : Article 15, Article 16 (Chapter I, Section II, Sub-section II) Article 21, Article 22 (Chapter I, Section II, sub-sesction III) ○ The Decree n° 63-192 of March 27[9], 1963 fixing the urbanism code planning and the habitat modified by the decree n° 69-335 in 1969 : Article 37, Article 67

[8] http://www.droit-afrique.com/upload/doc/madagascar/Madagascar-Code-1999-Eau.pdf
[9] http://www.droit-afrique.com/upload/doc/madagascar/Madagascar-Code-1963-urbanisme.pdf

	○ The framework law n°99.021 [10]of 19.08.99 bearing Policy of management of the pollutions of industrial origin: Article 9, Article 11 and 12, Article 18, Article 19, Article 23, Article 30, Article 37, 38 and 39, Article 41, 42, and 43 ○ The Law n°95 035 [11]of October 3, 1995 fixing the fees for urban sanitation, modified by the Law N° 2013-002 of August 2, 2013 : Article 2, Article 3, Article 13, Article 17 ○ Organic Law N° 2014 – 018 [12]of 14 August 2014 regulating the competencies, organization and operation of decentralized territorial communities, as well as the management of their own affairs.
(e) Contact Details	The partners of the project are: • GoodPlanet Foundation (+33 1 48 42 01 01) • Madacompost (+261 33 37 336 40) • GRET (+33 1 70 91 92 00)
(f) Legal Ownership: Full and uncontested legal ownership of any	The VER's generated by the proposed project activity will be owned by the project proponent i.e. GoodPlanet

[10] https://www.dcn-pac.mg/uploads/loi/20c332231109d02c8b7529b18b1f65e5.pdf
[11] http://i-tantsoroka.mg/dossier/loi/LOI_95-_035_Assainissement_urbain.pdf
[12] https://library.fes.de/pdf-files/bueros/madagaskar/15144.pdf

Products that are generated under Gold Standard Certification, (for example carbon credits) shall be demonstrated.	foundation and, this was also discussed during the local stakeholder consultation
(g) Other rights	The project has not led to the uncontestation of legal rights and/or permissions concerning changes in use of other resources required to service the project. All three sites have complaint registers where problems caused by the project can be recorded.
(h) Official Development Assistance (ODA) Declaration:	An Official Development Assistance Declaration signed by the GoodPlanet Foundation has been submitted to Gold Standard on 07/02/2022.

As per GS community services activity requirements version 1.2[13], paragraph 3.1.1, the project activity meets the following criteria:

GS eligibility	Justification
Types of project The project is eligible if it concerns the following topics: **a) Renewable energy:** Renewable energy types such as solar (photovoltaic and solar thermal electricity generation), tidal/wave, wind, hydropower, geothermal, waste to energy and renewable biomass that are connected to mini grid3 or off grid solutions for targeted users	Our project is eligible because it falls under to the topic **c) waste management and handing** The project aims to establish a household waste composting activity which reduces methane emission in landfill.

[13] https://globalgoals.goldstandard.org/standards/201_V1.2_AR_Community-Services-Activity-Requirements.pdf

and/or applications. **b) End-use energy efficiency**: roject activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end-user of the products and services are clearly identified and when the physical intervention is required at the user end. For example, efficient cooking, heating, lighting, etc **c) Waste management and handling**: All waste management activities that deliver energy or a usable product with sustainable development benefits such as composting, biogas **d) Water, sanitation and hygiene (WASH):** WASH activities contributing to climate change mitigation and/or adaptation benefits	
Project area, boundary and scale Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements. The definition of scale is the same for all Projects, except Microscale which is defined as:	The project area and boundary is limited by the three composting sites of Andralanitra, Ampitatafika and Mahajanga whose the georgrahical coordinates are described in the A.2 section. The project falls under the point (a). The PD aims to obtain only emission

(a) CSA Project issuing emission reductions less than or equal to 10,000 tCO2eq per annum (b) CSA Project seeking any Gold Standard Certified Impact or Product other than emission reductions and meeting one of the following criteria: Installed capacity less than equal to 2 MWel /6 MW th that employs renewable energy as the primary technology • Energy savings at a scale of no more than 20 GWh per year where energy efficiency is the primary activity • Achieve GHG emissions reductions at a scale of no more than 20,000 tCO 2eq per annum where project activity type is not included in the above two criteria. © For the purpose of applying UNFCCC methodologies for quantification of GHG reductions, 'small scale' is defined as in CDM Modalities and Procedures for three projects types; Renewable Energy, Energy Efficiency and Others. Please refer to the GHG Emission Reductions and Sequestration Product Requirements for more information on the definition of 'small scale'.	reductions certified by GS. The scale of the project is microscale with an estimated annual emissions reduction of less than 10,000 tCO_2.

Legal ownership (a) Projects involving the distribution of a large number of devices for services such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter, etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along theinvestment chain. In line with the FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided. (b) The transfer of Product ownership shall be discussed during local stakeholder consultations for projects.	The VER's generated by the proposed project activity will be owned by the project proponent i.e. GoodPlanet foundation and, this was written in the project contract and discussed during the local stakeholder consultation

As per GS Microscale Project Requirements version 1.2[14], paragraph 2.1.1, the project activity meets the following criteria:

GS eligibility	Justification
Type of Project Eligible project types are as defined by the Gold Standard for the Global Goals Principles & Requirements and in	Our project is eligible because it is defined by GS Principles & Requirements as explain in the first table in the section A.1.1.

[14] https://globalgoals.goldstandard.org/standards/108_V1.2_PAR_Microscale-Project-Requirements.pdf

the relevant Activity Requirements.	The project is identified as eligible for Gold Standard Certification according to the GS approved methodologies: "427_V2.3_List-of-eligible-CDM-GS-methodologies[15]" it matches with line 89 of the excel sheet[16] "CDM meths small-scale (AMS)".
Location of Project Projects may be located in any part of the world	The project is located in Madagascar which a country on the African continent.
Project Scale Projects are eligible under the microscale scheme: a) If the annual emission reductions achieved are limited to a maximum of 10,000 tonnes of CO2eq in each and every year of the crediting period. Whenever actual emission reductions, as per the verification report, exceed the upper threshold, the project can still request for issuance, but the claimable emission reductions are capped at 10,000 tonnes of CO2eq per year. OR	The estimated annual emission reduction of the project is less 10,000 tCO_2. The scale of the is project is therefore microscale.

[15] https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=0CDgQw7AJahcKEwjw0qyrw4GBAxUAAAAAHQAAAAQBQ&url=https%3A%2F%2Fglobalgoals.goldstandard.org%2Fstandards%2F427_V2.3_List-of-eligible-CDM-GS-methodologies.xlsx&psig=AOvVaw3oX0iw6d70bVEnP_7sgxCn&ust=1693386741638422&opi=89978449

[16] Gold Standard Approved Methodologies: https://www.goldstandard.org/project-developers/standard-documents

b) project seeking Certified Impact other than emission reductions meets the criteria defined within respective Activity Requirements for the project scale	
Project cycle Both regular and retroactive projects are eligible to apply under this scheme	The project is considered as retroactive as mentioned in the table Key Project Information

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project

The proposed project activity is developed in partnership with GoodPlanet Foundation (French NGO), GRET (French NGO) and Madacompost (Madagascar social enterprise). An agreement has been signed between the three partners, in which,

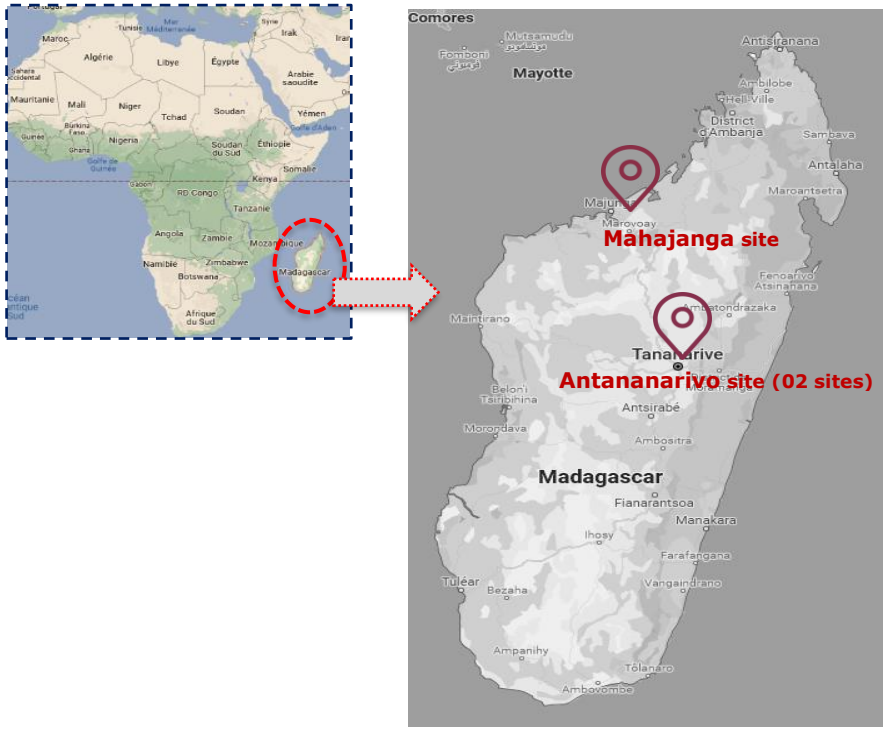
- Madacompost will manage the three composting sites of Mahajanga city and Antananarivo city in Madagascar,
- GRET will accompany Madacompost team in project and budget management skills, and
- the GoodPlanet Foundation will finance the project through the carbon revenues.

The VER's generated by the project activity will be owned by GoodPlanet Foundation.

A.2 Location of project

The host country of the project is Madagascar. It has three composting sites: one located in Mahajanga province, the second in Antananarivo province. The composting unit locations are:

	Mahajanga	**Antananarivo**	
Site name	Amboanio Mahajanga II	Andralanitra Tana	Ampitatafika
Region	Boeny	Analamanga	Analamanga
Province	Mahajanga	Antananarivo	Antananarivo
Community	Belobaka	Ambomangakely	Antanifotsy
Fokontany	Amparemahitsy	Ikianja	Ampitatafika
Latitude	15°45'0.48"S	18°54'35.39"S	18°57'30.95"S
Longitude	46°26'17.25"E	47°34'36.68"E	47°27'20.54"E



A.3 Technologies and/or measures

The technology proposed for the composting plants can be regarded as proven technology. For three the composting sites (Mahajanga and Antananarivo (Ampitatafika and Andralanitra)), the composting process for the collected waste will be the same. The proposed project technology consists in a Biological Mechanical Treatment (BMT). A BMT system is a form of waste processing operation that combines a physical treatment (both manual and mechanical) and a biological treatment. In developed countries, BMT are increasingly used, due to regulations controlling the amount of organic matter allowed in landfills.
In the proposed project, the biological treatment (composting) takes place during the fermentation in piles or windrows. Composting consists in biodegradation of organic matter in aerobic conditions; the composting parameters like temperature and aeration are continuously controlled by the production team. The physical part of the process is largely carried out manually to save both on energy and investment costs and to provide regular jobs to informal workers on the dumpsite.

The waste treatment capacity for composting sites is:

- 2,000 tonnes of waste per year for Mahajanga
- 1,000 tonnes of wastes per year for Andralanitra
- 1,000 tonnes pf wastes per year for Ampitatafika

The equipment used during the composting process are summarized in following table:

Description of equipment	Illustration photo

Shovel and fork: locally manufactured for an average lifespan of 2 years. Using and handling waste and compost	
Trolley: locally manufactured for an average lifespan of 5 years. Use and movement of waste and products on site.	
Sieves: made on site with several meshes (2,3,6,810,12cm) for an average lifespan of 2 years. Use: compost screening and waste characterisation	
Probe thermometer: purchased on import for an average life of 2 years. Use; windrow temperature measurement	 

Weigting scale capacity 100kgs, average life of 5 years with annual verification with local metrology Use: Weighing of materials and products	 
Moisture meter Average life: 2 years, European trademark, Use: Swath moisture measurement	
Local machete Average life: 2 years: cut and reduce the size of large pieces of waste	

Staff equipment kit Safety footwear or work boots, gloves, mouthwash or mask, vest, hat or hard hat: Worn by on-site personnel.	
Motorcycle pump petrol engine, model WP20, Chinese brand. average service life 2 years Use: Water supply for windrow watering This equipment is only available at the Mahajanga site.	
Tiller with trailer: 18CV single-cylinder diesel engine, Chinese make Service life 5 years Use: on-site transport of water and other materials This equipment is only available at the Mahajanga site.	

The stages of composting are as follows:

- **<u>Sorting</u>:**

There are two types of sorting:

- **Negative sorting:** consists to remove coarse and hazardous dangerous elements. These elements can be
- **Positive sorting:** consists to identify compostable items

❖ **Windrows**

After the sorting, compostable wastes are formed into an adain which can be 1 to 2 m long. During this stage co-products (as tabacco, rumen…) are added. The adains are watered to allow the wastes to decompose and produce quality compost.

Figure 1: Windrows

❖ **Fermentation**

During the fermentation process, the windrows are turned over six times and unwanted elements are removed. This allows the windrows to be aerated. Humidity is controlled during this phase. Humidity is monitored every 2-3 days for the first three weeks of the composting process, and every week thereafter. Temperature is also monitored during the fermentation phase. Temperature control is carried out every 2 or 3 days for the first three weeks and every week thereafter.

Figure 2: Adain turnaround and elimination unwanted items

❖ **Maturation and screening**

Before ripening, the compost is screened with a coarser mesh (20 to 30 mm). The screened compost is moved to the ripening zone. Temperature and humidity are controlled during this ripening phase. The compost is always turned to ensure aeration.

Figure 3: Screening

The combination of the below will warranty the absence of dangerous impurities in the final product:

- sorting process of entering waste: waste suspected to contain heavy metals or persistent organic pollutants such as industrial waste or medical/hospital waste is diverted from composting,
- Elimination of pollution sources during the process (as batteries, glass fragments, electronic devices or plastics),
- Strict control of oxidation and temperature sanitizing the compost,

The proposed technology is simple and safe, easily manageable by local workers. Taking into consideration the local conditions (high rate of unemployment, low cost of manpower, relatively high cost of energy), preference will be given to the creation of jobs. The compost, thanks to its own characteristics (good water retention capacity), will contribute to the development of local agriculture.

The proposed project activity also addresses the following sustainable parameters as mentioned in the UN Sustainable Development Goals (SDG). The details on these SDG's are further elaborated in the section B.6 of the PDD.

- SDG 13 – The proposed project activity aims to reduce the GHG's emissions by collecting the solid organic wastes and processing it into compost instead of being dumped into the landfill site, thus reducing methane emissions. The project activity aims to reduce 1,197 tCO_{2eq} per year during the total crediting period.

- SDG 5 – The project activity will ensure the women's full and effective participation in the project activity and estimates around more than 10 women employed in the project activity.

- SDG 8 – The project activity will create employment (part-time and permanent) for local population. The projects aim to employ around 100 local staff, including both women and men.

A.4 Scale of the project

The estimated annual emission reductions of the project are lower than 10 000 tCO_{2eq}/year. Therefore, the project is a micro-scale project.

A.5 Funding sources of project

The project activity has not received any public funding or the official development assistance (ODA)[17]. The proposed project activity will be partly financed with the carbon revenues.

[17] Please refer to the document : GS 11201_ODA-Declaration_signed

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

The project uses the following CDM small scale methodology and guidelines[18]:

- AMS.III-F:"Avoidance of methane emissions through composting", version 12.0[19]
- CDM methodological tool 04 - Emissions from solid waste disposal sites, version 08.1[20]
- CDM methodological tool 05 - Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0[21]
- CDM methodological tool 13 - Project and leakage emissions from composting, version 02.0[22]

B.2. Applicability of methodology (ies)

The proposed project activity comprises avoiding the emissions of methane from organic wastes that would have been left to decay anaerobically in a solid waste disposal site. The project activity does not recover or combust landfill gas from the disposal sites and does not undertake controlled combustion of the waste that is not treated biologically. The project activity does not involve co-digestion of organic matters. The emission reductions are estimated to be less than 10,000 tCO_{2eq}/year.

The criteria for each methodological tool used in project are described below:

- **AMS.III-F "Avoidance of methane emissions through composting" version 12.0[23]**

Conditions of applicability of the methodology	Justification	Evidence
This methodology is applicable to the composting of the organic fraction of	In the proposed project sites, both the municipal and agro-industrial wastes, is collected by the	As proof, please refer to the project contract for a description of the project,

[18] https://cdm.unfccc.int/methodologies/DB/NZ83KB7YHBIA7HL2U1PCNAOCHPUQYX
[19] https://cdm.unfccc.int/UserManagement/FileStorage/V5BK1NFHM6ORYGI324CD78L0ZA9UJQ
[20] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf
[21] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v3.0.pdf
[22] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf
[23] ttps://cdm.unfccc.int/UserManagement/FileStorage/V5BK1NFHM6ORYGI324CD78L0ZA9UJQ

municipal solid waste and biomass waste from agricultural or agro-industrial activities including manure.	local partner and brought to the respective composting sites in Mahajanga and Antananarivo cities. The collected waste is sorted out to separate the organic and non-organic residuals. The organic fraction of the waste is treated to produce the compost.	including the composting sites involved.
This methodology includes construction and expansion of treatment facilities as well as activities that increase capacity utilization at an existing facility. For project activities that increase capacity utilization at existing facilities, project participant(s) shall demonstrate that special efforts are made to increase the capacity utilization, that the existing facility meets all applicable laws and regulations and that the existing facility is not included in a separate CDM project activity. The special efforts should be identified and described.	The proposed project activity aims to build new composting units. In Mahajanga, the composting site is implanted on private land, and in Antananarivo, the two sites are managed in collaboration with the local municipality. Also, the proposed project does not include in any other CDM or voluntary carbon activities.	As the evidence: • At Mahajanga site, the land contract[24] has been signed in 2021 marking the start of operations in 2021. • At Ampitatafika site, the contract with the municipality[25](article 2) was signed in 2022, the site was developed after the signature of the contract. • At Andralanitra site, the contract with the municipality[26] was signed in 2021, the site equipment have been installed after the contract was signed.
This methodology is also applicable for co-composting wastewater and solid biomass waste, where wastewater would otherwise have been treated in an anaerobic	Not applicable The project activity does not involve co-composting wastewater.	The project contract[27] [28] does not include wastewater co-composting. Similarly, the wastewater is not covered by the Madacompost's Standard

[24] Land contract Majunga EN
[25] Agreement between Ampitatafika municipality and Madacompost ENG
[26] Agreement between Ampitatafika municipality and Madacompost ENG
[27] Project_Agreement_Madagascar en
[28] 2023.09-Amendment-MC-GRET-GoodPanet-ENG

wastewater treatment system without biogas recovery. The wastewater in the project scenario is used as a source of moisture and/or nutrients to the biological treatment process e.g. composting of empty fruit bunches (EFB), a residue from palm oil production, with the addition of palm oil mill effluent (POME) which is the wastewater co-produced from palm oil production.		Operating Procedure of Compost[29]_
In case of co-composting, if it cannot be demonstrated that the organic matter would otherwise been left to decay anaerobically, baseline emissions related to such organic matter shall be accounted for as zero, whereas project emissions shall be calculated according to the procedures presented in this methodology for all co-composted substrates.	Not applicable The project activity does not involve co-composting.	Refer to the evidence above
The location and characteristics of the disposal site of the biomass, animal manure and co-composting wastewater in the baseline condition shall be known, in such a way as to allow the estimation of its methane emissions, using the provisions of AMS-III.G, AMS-III.E	The composting site location are provided in the section A.2.	The location of the composting site is described in the project contract

[29] Standard Operating Procedure of Compost_english version

(concerning stockpile), AMS-III.D "Methane recovery in animal manure management systems" or AMS-III.H respectively.		
Blending materials may be added in the project scenario to increase the efficiency of the composting process (e.g. to achieve a desirable C/N ratio or free air space value), however, only monitored quantity of solid waste or manure or wastewater diverted from the baseline treatment system is used for emission reduction calculation. Project activities for composting of animal manure shall also meet the requirements under paragraphs 3 and 4(c) of the latest version of AMS-III.D.	Not applicable Only solid waste and manure are used in the composting process. There is no addition of other materials that are taken into account in the ER calculation	Please refer to the Madacompost's Standard Operating Procedure of Compost
For solid wastes diverted from a solid waste disposal site, the following requirement shall be checked ex ante at the beginning of each crediting period: ***(a)*** *Establish that identified landfill(s)/stockpile(s) can be expected to accommodate the waste to be used for the project activity for the duration of the crediting period; or*	Waste management is a major challenge in Madagascar, and it's almost impossible that there wouldn't be waste to treat. All the waste from the city or local agro-industries wastes are collected and dumped into the solid waste landfill sites.	Please refer to the article by Yamada, F. (2020)[30]"which sets out the context and issues of wastes in Madagascar

[30] https://scholar.google.com/scholar?hl=fr&as_sdt=0%2C5&q=La+gestion+des+d%C3%A9chets+m%C3%A9nagers+d%27Antananarivo%3A+La+dichotomie+entre+la+haute+ville+et+les+bas+quartiers&btnG=

(b) *Establish that it is common practice in the region to dispose of the waste in solid waste disposal site (landfill)/stockpile(s).*		
The project participants shall clearly define the geographical boundary of the region referred in paragraph 11(b), and document it in the CDM-PDD. In defining the geographical boundary of the region, project participants should take into account the source of the waste i.e. if waste is transported up to 50 km, the region may cover a radius of 50 km around the project activity. In addition, it should also consider the distance to which the final product after composting will be transported. In either case, the region should cover a reasonable radius around the project activity that can be justified with reference to the project circumstances but in no case it shall be more than 200 km. Once defined, the region should not be changed during the crediting period(s).	The collection and transportation of the waste does not go beyond the 200 km limit. Therefore, the project geographical boundary is in required limit. The final product (i.e. the compost) is not transported more than 200 km away from the composting site.	• The geographical coordinates of composting sites • The geographical coordinates of waste collection points • Sales invoices showing buyer information
In case produced compost is handled aerobically and submitted to soil application, the proper conditions and procedures (not resulting in methane emissions) must be ensured.	The produced compost will be handled aerobically and dried before selling it to the local farmers.	Compost user follow up file
In case produced compost is treated thermally/mechanically, the provisions in AMS-	In the proposed project activity, the compost is not treated *thermally/mechanically.*	Madacompost's Standard Operating Procedure of Compost

III.E related to thermal/mechanical treatment shall be applied.	The compost produced will be directly used for agricultural lands.	
In case produced compost is stored under anaerobic conditions and/or delivered to a landfill, emissions from the residual organic content shall to be taken into account and calculated as per the latest version of the methodological tool "Emissions from solid waste disposal sites".	Not applicable The compost produced is not stored under anaerobic conditions or delivered to a landfill.	Photos of compost Storage area

- **CDM methodological tool 04, Emissions from solid waste disposal sites, version 03.0[31]**

Conditions of applicability of the methodology	Justification	Evidence
Application A: The CDM project activity mitigates methane emissions from a specific existing SWDS. Methane emissions are	The project avoids methane emission into atmosphere by the composting. Without the project, these wastes would have been disposed of in	Project contract and Madacompost's Standard Operating Procedure of Compost

[31] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

mitigated by capturing and flaring or combusting the methane (e.g., "ACM0001: Flaring or use of landfill gas"). The methane is generated from waste disposed in the past, including prior to the start of the CDM project activity. In these cases, the tool is only applied for an ex-ante estimation of emissions in the project design document (CDM-PDD). The emissions will then be monitored during the crediting period using the applicable approaches in the relevant methodologies (e.g., measuring the amount of methane captured from the SWDS) **Application B:** The CDM project activity avoids or involves the disposal of waste at a SWDS. An example of this application of the tool is ACM0022, in which municipal solid waste (MSW) is treated with an alternative option, such as composting or anaerobic digestion, and is	landfill sites. Only emissions reduction during crediting period validated in PDD will be considered.	

then prevented from being disposed of in a SWDS. The methane is generated from waste disposed or avoided from disposal during the crediting period. In these cases, the tool can be applied for both ex ante and ex post estimation of emissions. These project activities may apply the simplified approach detailed in 0 when calculating baseline emissions.		
In the case that: (a) different types of residual waste are disposed or prevented from disposal: or that (b) both MSW and residual waste(s) are prevented from disposal, then the tool should be applied separately to each residual waste and to the MSW	Not applicable In this project, the residual waste is not disposed or prevented from disposal	Madacompost's Standard Operating Procedure of Compost

- **CDM methodological tool 05 - Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation, version 03.0[32]**

[32] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v3.0.pdf

Conditions of applicability of the methodology	Justification	Evidences
If emissions are calculated for electricity consumption, the tool is only applicable if one out of the following three scenarios applies to the sources of electricity consumption: **Scenario A**: Electricity consumption from the grid. The electricity is purchased from the grid only, and either no captive power plant(s) is/are installed at the site of electricity consumption or, if any captive power plant exists on site, it is either not operating or it is not physically able to provide electricity to the electricity consumer; **Scenario B**: Electricity consumption from (an) off-grid fossil fuel fired captive power plant(s). One or more fossil fuel fired captive power plants are installed at the site of the electricity consumer and supply the consumer with electricity. The	The electricity consumed by the project will be provided by Madagascar's water and electricity production and distribution company[33], that falls under scenario A. So, emissions from electricity consumption can be calculated based on this methodology.	Electricity bills

[33] https://www.jirama.mg/

captive power plant(s) is/are not connected to the electricity grid; **Scenario C**: Electricity consumption from the grid and (a) fossil fuel fired captive power plant(s). One or more fossil fuel fired captive power plants operate at the site of the electricity consumer. The captive power plant(s) can provide electricity to the electricity consumer. The captive power plant(s) is/are also connected to the electricity grid. Hence, the electricity consumer can be provided with electricity from the captive power plant(s) and the grid		
This tool can be referred to in methodologies to provide procedures to monitor amount of electricity generated in the project scenario, only if one out of the following three project scenarios applies to the recipient of the electricity generated: (a) Scenario I: Electricity is supplied to the grid;	Not applicable for the project	

(b) Scenario II: Electricity is supplied to consumers/electricity consuming facilities; or (c) Scenario III: Electricity is supplied to the grid and consumers/electricity consuming facilities.		
This tool is not applicable in cases where captive renewable power generation technologies are installed to provide electricity in the project activity, in the baseline scenario or to sources of leakage. The tool only accounts for CO2 emissions.	This tool is only used to calculate project emissions for the sites which use the electricity consumption provided by Madagascar's water and electricity production and distribution company. At Mahajanga site, solar panels are used to generate electricity, so this tool is not used for the calculation of project emissions from electricity consumption at this site.	ER sheet

- **CDM methodological tool 13 - Project and leakage emissions from composting, version 02.0[34]**

[34] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf

Conditions of applicability of the methodology	Justification	Evidences
The following sources of project emissions are accounted for in this tool: (a) CH4 and N2O emission from composting. (b) CO2 emissions from consumption of fossil fuels and electricity associated with composting; and (c) CH4 emissions from run-off wastewater associated with co-composting	(a) and (b): CH4 and N2O emission from composting process and CO2 emissions from consumption of fossil fuels and electricity associated with composting are included in the project emission. (c): Not applicable As the project does not practice co-composting	ER sheet
The following source of leakage emissions is accounted for in this tool: (a) CH4 emissions from the anaerobic decay of the residual organic content of compost disposed of in a landfill or subjected to anaerobic storage.	Not applicable Residual waste is not disposed under anaerobic condition	Compost users follow up file Photos of compost storage area

B.3. Project boundary

As per AMS-III.F Small-scale methodology: Avoidance of methane emissions through composting, Version 12.0[35], paragraph 21, the project boundary is the physical, geographical site:

(a) Where the solid waste would have been disposed and the methane emission occurs in absence of the proposed project activity. For this project, it concerns the landfills in the communes of Amplitatafika, Andralanitra and Mahajanga.

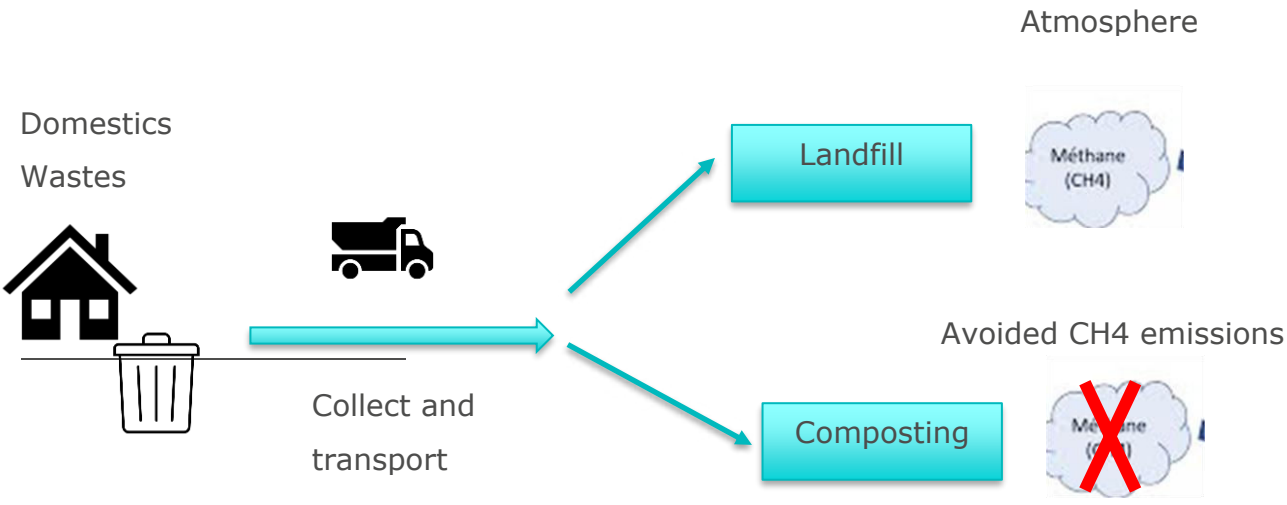
(b) In the case of projects co-composting wastewater, where the co-composting wastewater would have been treated anaerobically in the absence of the project activity. For this project, there is no co-composting wastewater.

(c) Where the treatment of biomass through composting takes place. There is no treatment of biomass through composting.

(d) Where the products from composting (compost) is handled, disposed, submitted to soil application, or treated thermally/mechanically. The compost is used in agricultural as fertilizer. Its application in crops by farmer near the composting site is monitored.

(e) And the itineraries between them (a, b, c and d) where the transportation of waste, wastewater, where applicable manure, product of treatment (compost) occurs. For this project, waste is collected from the landfill and transported to the composting site.

The project boundary considers the methane emissions from waste disposed in landfill without the project. The flow of the project boundary is provided below :



[35] https://cdm.unfccc.int/UserManagement/FileStorage/V5BK1NFHM6ORYGI324CD78L0ZA9UJQ

	Source	GHGs	Included?	Justification/Explanation
Baseline scenario	Emission from disposal solid waste (municipal and Agro-industries wastes)	CO_2	No	Emissions from solid waste disposal sites
		CH_4	Yes	Emissions from solid waste disposal sites
		N_2O	No	Emissions from solid waste disposal sites
Project scenario	Composting process	CO_2	Yes	Emissions from electricity and fuel consumption during the composting process
		CH_4	Yes	CH4 emissions from composting process Project and leakage emissions from composting
		N_2O	Yes	N2O emissions from composting process Project and leakage emissions from composting

B.4. Establishment and description of baseline scenario

In Madagascar, there is no legislation on composting plant establishment but the legislations on wastes are:

- Law N° 98 - 029 [36]relating to the Water Code

[36] www.droit-afrique.com/upload/doc/madagascar/Madagascar-Code-1999-Eau.pdf

- Decree no. 63-192 of March 27[37], 1963 establishing the town planning and housing code modified by decree n° 69-335 in 1969.
- Framework law n°99.021 of 19.08.99 [38]on the management of industrial pollution origin.
- Law n°95 035 of October 3, 1995 setting urban sanitation charges, amended by Law N° 2013-002 of August 02, 2013
- Law 94 007 of March 21, 1994 [39]relating to the powers, competencies and resources of Decentralized Territorial Authorities
- The waste management is the responsibility of:Ministry of water, Ministry of health, Ministry of environment and Ministry of Decentralization and regional development at national level
- Regions and districts at region level
- Municipality at local level

The population is the primary actor in solid waste management. It is both the source of a significant portion of the waste, the beneficiary of the services, and also the contributor to the financing of operations through the payment of specific fees, such as the Household Waste Collection Fee.

Despite these laws and organizations, waste management is still a challenge in Madagascar, and local authorities lack the resources to carry it out properly. This why some organizations (NGOs, companies) support the municipality in waste management.
Commercial scale domestic waste composting projects are not yet well developed to date, taking into consideration the initial barriers (investment, compost market development, operating cost, know how) and they are not enough incentives to justify the risk involved in building domestic waste composting plants in Madagascar.
In the absence of the project, the wastes would have collected the waste, stored it, mechanically compacted it and/or levelled it to increase the landfill capacity. In these anaerobic conditions there is emission of methane into the atmosphere.

[37] www.droit-afrique.com/upload/doc/madagascar/Madagascar-Code-1963-urbanisme.pdf
[38] http://i-tantsoroka.mg/dossier/loi/LOI_95-_035_Assainissement_urbain.pdf
[39] https://www.assemblee-nationale.mg/wp-content/uploads/2020/11/Loi-n%C2%B0-94-007-Relative-aux-pouvoirs-comp%C3%A9tences-et-ressources.pdf

The CDM Methodological Tool 04 Emissions from solid waste disposal sites Version 08.1[40] has been used to estimate baseline emissions. In this project, there are no methane emissions that need to be captured, utilized, or flared in order to meet national or local safety requirements and legal regulations.

B.5. Demonstration of additionality

Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).	As per GS4GG Community services activity requirements, Version 1.2[41], Paragraph 4.1.9, Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of design certification: (a) Positive list (Annex B of the document) (b) Projects located in LDC, SIDS, LLDC (c) Microscale projects
Describe how the proposed project meets the criteria for deemed additionality.	The proposed activity meets the (b) & (c) criteria and therefore deemed additional.

B.5.1 Prior Consideration

In terms of paragraph 4.1.49 (b) of the GS4GG Principles and Requirement, version 1.2[42], retroactive shall submit the required documents for preliminary review within one year of the project start date. The project start date is identified in section C.1.1 below and the documents were submitted for preliminary within a one-year period.

B.5.2 Ongoing Financial Need

[40] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf
[41] https://globalgoals.goldstandard.org/standards/201_V1.2_AR_Community-Services-Activity-Requirements.pdf
[42] https://globalgoals.goldstandard.org/standards/101_V1.2_PAR_Principles-Requirements.pdf

As per GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS, version 2.2[43], paragraph 7.1.3, If the stakeholder consultation for the Project was conducted after the start date of the Project, the Project Developer shall demonstrate that the revenues from carbon credits were seriously considered in the decision to implement the Project. Evidence to support carbon revenue consideration and continuous actions may include contracts, draft versions of Project information, correspondence with financial institutions or other stakeholders, minutes and notes of Board/Management meetings, agreements or negotiations with auditors, publications in newspapers.

The stakeholder consultation has been conducted on 30/04/2021[44]. The start date of the project is 22/09/2021. Thus, the stakeholder consultation was conducted before the start date of the Project. This requirement is not applicable for this project.

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	SDG IMPACT **INDICATOR (PROPOSED OR SDG INDICATOR)**
13 Climate Action (mandatory)	13.2 Integrate climate change measures into national policies, strategies, and planning	Reduction in GHGs emissions
5 Gender equality	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	Women empowerment and gender equality

[43] https://www.goldstandard.org/project-developers/standard-documents
[44] Please refer to the document « GS11201_LSC_Report_Waste composting project in Madagascar.pdf »

8 Decent work and economic growth	8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	x

B.6.1 Explanation of methodological choices/approaches for estimating the SDG Impact

SDG 5: Gender equality
Without the composting project, there would have been no opportunities for the local women to get job opportunities in a waste management project. Therefore, the baseline value for this indicator is "zero" number of women employed.

SDG 8: Decent Work and Economic Growth
Without the composting project, there would have been no creation of employment for the local communities. Therefore, the baseline value for this indicator is zero employment at the composting site.

SDG 13: Calculation of Baseline GHG emissions
The GHG sources, sinks and reservoirs for the baseline are the methane emissions avoided from preventing waste disposal at the solid waste disposal site. These emissions are calculated using the "Tool04" of the AMS-III-F methodology "Emissions from solid waste disposal sites", version 08.1[45] :

$$\begin{cases} BE_{CH_4,SWDS,y} \\ PE_{CH_4,SWDS,y} \\ LE_{CH_4,SWDS,y} \end{cases} = \varphi.(1-f).GWP_{CH_4}.(1-OX).\frac{16}{12}.F.DOC_f.MCF.\sum_{x}^{Z}\sum_{j} W_{j,y}.DOC_j.e^{-k_j.(Z-x)}.(1-e^{-k_j})$$

Where:

$\begin{cases} BE_{CH_4,SWDS,y} \\ PE_{CH_4,SWDS,y} \\ LE_{CH_4,SWDS,y} \end{cases}$	Baseline, project or leakage methane emissions occurring in year y generated from waste disposal at a SWDS during a time period ending in year y (t CO2e/yr)	Calculated	-

[45] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

ϕ	Model correction factor to account for model uncertainties	ϕ = 0.85	Default value
F	Fraction of methane captured at the SWDS and flared, combusted or used in another manner	f = 0	-
GWP_{CH4}	Global warming potential (GWP) of methane, valid for the relevant commitment period	GWP_{CH4} = 28	Default value - IPCC AR5
F	Fraction of methane in the SWDS gas (volume fraction)	F = 0.5	Default value
DOC_f	Fraction of degradable organic carbon (DOC) that can decompose	DOC_f = 0.5	Default value
MCF	Methane correction factor	MCF = 1	Default value
$W_{j,k}$	Amount of organic waste type j prevented from disposal in the SWDS in the year x (tons).	Calculated from two Monitored parameters: - Total amount of organic waste prevented from disposal and - Weight fraction of the waste type j	-
DOC_j	Fraction of degradable organic carbon (by weight) in the waste type j	Wood 43 Pulp, paper 40 Textile 24 Food waste 15 Garden waste 20 Inert waste 0	Default value
K_j	Decay rate for the waste type j	Wood - 0.035 Pulp, paper - 0.07 Textile - 0.07 Food waste - 0.40 Garden waste- 0.17 Inert waste - 0	Default value
j	Waste type category	Household waste	
X	Year for which methane emissions are calculated	x runs from the first year of the crediting period (x=1) to year z, with z=10	-
Z	Final year considered for methane emissions calculation.	Z =10 is used.	-

The factor "$\phi*(1-f)*GWP_{CH4}*16/12*F*DOC_f$ *MCF", which could be considered as a constant K, independent from the year and from the waste type is equal to:

K = 0.85*8*(1-0) * 16/12 * 0.5 *0.5 *1= 7.14

The formula becomes then: $\mathbf{BE_{CH4,SWDS,y}} = 7.14 * \sum_{x}^{z}\sum_{j} W_{j,y}.DOC_j.e^{-k_j(z-x)}.(1-e^{-k_j})$

The baseline emissions are estimated be $BE_{CH4,SWDS}$ = 1,678 tCO2eq / year

SDG 13: Calculation of Project GHG emissions

The GHG emissions linked to the project activity and leakage can be calculated using the method described in the document "Project and leakage emissions from composting", version 02.0[46](AMS-III-F, Tool13).

Where:

$$PE_{COMP,y} = PE_{EC,y} + PE_{FC,y} + PE_{CH4,y} + PE_{N2O,y} + PE_{RO,y}$$

$PE_{COMP,y}$	Project emissions associated with composting in year y (t CO2e/yr)		
$PE_{EC,y}$	Project emissions from electricity consumption associated with composting in year y (t CO2/yr)	$Q_y \times SEC_{comp,default}$	Q_y= Quantity of waste composted in year y (t/yr) $SEC_{comp,default}$= Default value for the specific quantity of electricity consumed per tonne of waste composted (MWh/t)
$PE_{FC,y}$	Project emissions from fossil fuel consumption associated with composting in year y (t CO2/yr)	$Q_y \times EF_{FC,default}$	$EF_{FC,default}$ = Default emission factor for fossil fuels consumed by the composting activity per tonne of waste (t CO2/t)
$PE_{CH4,y}$	Project emissions of methane from the composting process in year y (t CO2e/yr)	$Q_y \times EF_{CH4,y} \times GWP_{CH4}$	$EF_{CH4,y}$ = Emission factor of methane per tonne of waste composted valid for year y (t CH4 / t) GWP_{CH4} = Global Warming Potential of CH4 (tCO2e / tCH4)
$PE_{N2O,y}$	Project emissions of nitrous oxide from the	$Q_y \times EF_{N2O,y} \times GWP_{N2O}$	$EF_{N2O,y}$ = Emission factor of nitrous oxide per tonne of

[46] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf

	composting process in year y (t CO2e/yr)		waste composted valid for year y(t N2O/t) GWP_{N2O} = Global Warming Potential of N2O (t CO2e/t N2O)
$PE_{RO,y}$	Project emissions of methane from run-off wastewater associated with co-composting in year y (t CO2e/yr)	$Q_{COD,y} \times B_{0,ww} \times MCF_{ww,treatment} \times \varphi \times GWP_{CH4}$	$Q_{COD,y}$ = Quantity of COD of the run-off wastewater from the co-composting installation in year y (t COD / yr) $B_{0,ww}$ = Default methane producing capacity of the run-off wastewater (t CH4 / t COD) $MCF_{ww,treatment}$ = Default methane correction factor for the wastewater treatment system where the run-off wastewater is treated φ = Default model correction factor to account for model uncertainties of methane emissions from run-off wastewater

Leakage emissions ($LE_{CH4,SWDS,y}$) are considered insignificant in the project as the compost produced is stored in an environment that does not allow fermentation. Moreover, the compost is usually not stored but directly applied to agricultural fields. The leakage emissions are estimated at "zero"

B.6.2 Data and parameters fixed ex ante

SDG13

Data/parameter	$BECH4,SWDS,y/\ PECH4,SWDS,y/\ LECH4,SWDS,y$
Unit	
Description	Parameters related to methane emissions from anaerobic disposal in a solid waste disposal site of the solid waste (excluding manure)/compost:
Source of data	Methodological Tool "Emissions from solid waste disposal sites" (Version 08.1)[47]
Value(s) applied	
Choice of data or Measurement methods and procedures	These parameters relate to the baseline, project or leakage methane emissions occurring in year y generated from waste disposal at a SWDS during a time period ending in year y (where y is a period of 12 consecutive months) The amount of methane generated from disposal of waste at the SWDS is calculated for year y using the equation below: $\begin{cases} BE_{CH_4,SWDS,y} \\ PE_{CH_4,SWDS,y} \\ LE_{CH_4,SWDS,y} \end{cases} = \varphi.(1-f).GWP_{CH_4}.(1-OX).\frac{16}{12}.F.DOC_f.MCF.\sum_{x}^{z}\sum_{j} W_{j,y}.DOC_j.e^{-k_j.(z-x)}.(1-e^{-k_j})$ The parameters in this equation are described in the other tables in section B.6.2
Purpose of data	Emission reduction calculations
Additional comment	

[47] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

SDG13

Data/parameter	ϕ
Unit	-
Description	Default value for the model correction factor to account for model uncertainties
Source of data	CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1[48], table 1, page 13
Value(s) applied	0.85
Choice of data or Measurement methods and procedures	According to CDM tool used, as not enough data is available to calculate ϕ, the default value was chosen. The default value of 0.85 corresponds to current project conditions: application B
Purpose of data	Emission reduction calculations
Additional comment	None

SDG13

Data/parameter	OX
Unit	-
Description	Oxidation factor (reflecting the amount of methane from SWDS that is oxidized in the soil or other material covering the waste)
Source of data	Based on an extensive review of published literature on this subject, including the IPCC 2006[49] Guidelines for National Greenhouse Gas Inventories, page 3.15
Value(s) applied	0.1
Choice of data or Measurement methods and procedures	Default value (CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1)[50], table 2, page 14
Purpose of data	Emission reduction calculations
Additional comment	-

[48] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf
[49] https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_3_Ch3_SWDS.pdf
[50] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

SDG13

Data/parameter	F
Unit	-
Description	Fraction of methane in the SWDS gas (volume fraction)
Source of data	IPCC 2006[51] Guidelines for National Greenhouse Gas Inventories, page 3.15
Value(s) applied	0.5
Choice of data or Measurement methods and procedures	Default value from (CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1)[52], table 3, page 14
Purpose of data	Emission reduction calculations
Additional comment	-

SDG13

Data/parameter	$DOC_{f,default}$
Unit	Weight fraction
Description	Default value for the fraction of degradable organic carbon (DOC) in MSW that decomposes in the SWDS
Source of data	IPCC 2006[53] Guidelines for National Greenhouse Gas Inventories, paragraph 2.3.2, page 2.15
Value(s) applied	0.5
Choice of data or Measurement methods and procedures	Default value from CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1[54], table 4, page 14
Purpose of data	Emission reduction calculations
Additional comment	-

[51] https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_3_Ch3_SWDS.pdf
[52] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf
[53] https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_2_Ch2_Waste_Data.pdf
[54] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

SDG13

Data/parameter	$MCF_{default}$
Unit	-
Description	Methane correction factor
Source of data	Default value from 2019[55] Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, table 3.1, page 3.13
Value(s) applied	In case that the SWDS does not have a water table above the bottom of the SWDS and in case of application A, then select the applicable value from the following: (a) 1.0 for anaerobic managed solid waste disposal sites. These must have controlled placement of waste (i.e.waste directed to specific deposition areas, a degree of control of scavenging and a degree of control of fires) and will include at least one of the following: (i) cover material; (ii) mechanical compacting; or (iii) levelling of the waste; (b) 0.5 for semi-aerobic managed solid waste disposal sites. These must have controlled placement of waste and will include all of the following structures for introducing air to the waste layers: (i) permeable cover material; (ii) leachate drainage system; (iii) regulating pondage; and (iv) gas ventilation system; (c) 0.8 for unmanaged solid waste disposal sites – deep. This comprises all SWDS not meeting the criteria of managed SWDS and which have depths of greater than or equal to 5 meters; (d) 0.4 for unmanaged-shallow solid waste disposal sites or stockpiles that are considered SWDS. This comprises all SWDS not meeting the criteria of managed SWDS and which have depths of less than five meters. This includes stockpiles of solid waste that are considered SWDS (according to the definition given for a SWDS)
Choice of data or Measurement methods and procedures	Default value (CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1)[56], table 5, page 15
Purpose of data	Emission reduction calculations
Additional comment	-

[55] https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/5_Volume5/19R_V5_3_Ch03_SWDS.pdf
[56] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

SDG13

Data/parameter	DOC_j
Unit	-
Description	Fraction of degradable organic carbon in the waste type j (weight fraction)
Source of data	IPCC 2006[57] Guidelines for National Greenhouse Gas Inventories (adapted from Volume 5, Tables 2.4 and 2.5, page 2.16)
Value(s) applied	For MSW, the following values for the different waste types j should be applied:

Default values for DOC_j

Waste type *j*	DOC_j (% wet waste)
Wood and wood products	43
Pulp, paper and cardboard (other than sludge)	40
Food, food waste, beverages and tobacco (other than sludge)	15
Textiles	24
Garden, yard and park waste	20
Glass, plastic, metal, other inert waste	0

For the following residual waste types, project participants may use or derive default values, as follows:

(a) For empty fruit brunches (EFB), as their characteristics are similar to garden waste, the value for garden, yard and park waste in the table above may be used as a default

(b) For industrial sludge, either a value of 9 per cent (% wet sludge) may be used as a default, assuming an organic dry matter content of 35 percent, or alternatively, if the percentage of organic dry matter content is known, then the DOC value may be calculated as follows: DOCj (% wet sludge) = 9 * (% organic dry matter content/35);

(c) For domestic sludge, either a value of 5 per cent (% wet sludge) may be used as a default,

[57] https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/5_Volume5/V5_2_Ch2_Waste_Data.pdf

	assuming an organic dry matter content of 10 per cent, or alternatively, if the percentage of organic dry matter content is known, then the DOC value may be calculated as follows: DOCj (% wet sludge) = 5 * (% organic dry matter content/10). If a waste type is not comparable to MSW and cannot clearly be described as a combination of waste types in the table above or if a default value is not available or if the project participants wish to measure DOCj, then project participants should measure DOCj in an ignition loss test according to the procedure in EN 15169 or similar national or international standards. This measurement is only required once for each waste type j and the value determined for DOCj remains valid during the crediting period
Choice of data or Measurement methods and procedures	Default value (CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1)[58], table 6, page 15-16
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	k_j
Unit	1/yr
Description	Decay rate for the waste type j
Source of data	IPCC 2006 Guidelines for National Greenhouse Gas Inventories (adapted from Volume 5, Table 3.3, page 3.17)
Value(s) applied	Apply the following default values for the different waste types *j:*

[58] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

Default values for the decay rate (k_j)

Waste type *j*		Boreal and Temperate (MAT≤20°C)		Tropical (MAT>20°C)	
		Dry (MAP/PET <1)	Wet (MAP/PET >1)	Dry (MAP< 1000mm)	Wet (MAP > 1000 mm)
Slowly degrading	Pulp, paper, cardboard (other than sludge), textiles	0.04	0.06	0.045	0.07
Slowly degrading	Wood, wood products and straw	0.02	0.03	0.025	0.035
Moderately degrading	Other (non-food) organic putrescible garden and park waste	0.05	0.10	0.065	0.17
Rapidly degrading	Food, food waste, sewage sludge, beverages and tobacco	0.06	0.185	0.085	0.40

Note: MAT – mean annual temperature, MAP – Mean annual precipitation, PET – potential evapotranspiration. MAP/PET is the ratio between the mean annual precipitation and the potential evapotranspiration.
If a waste type disposed in a SWDS cannot clearly be attributed to one of the waste types in the table above, project participants should choose, among the waste types that have similar characteristics, the waste type where the values of DOCj and kj result in a conservative estimate (lowest emissions), or request a revision of/deviation from this methodology.
In the case of EFB, as their characteristics are similar to garden waste, the parameter values correspondent of garden waste shall be used. In case of sludge from pulp and paper industry, a conservative value of 0.03 shall be used for all precipitation and temperature combinations

Choice of data or Measurement methods and procedures	Default value (CDM "Methodological tool: Emissions from solid waste disposal sites" Version 08.1)[59], table 7, page 17
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	T°
Unit	°C
Description	Temperature of compost
Source of data	Mesured by thermometer by site staff
Value(s) applied	Fermentation stage • Superior 60°C between 1st to 3thweek • 45° to 60°C between 4th to 5th week • 30° to 45°C between 6th to 8th week Maturation stage • 25° to 30°C
Choice of data or Measurement methods and procedures	The site staff take the temperature using the thermometer: • 2 to 3 times during the 1st , 2nd and 3th week • Every week from 4th week The date are recorded in Madacompost data
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	H°
Unit	%
Description	Humidity of compost
Source of data	Measured by humidity metter by site staff

[59] [59] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

Value(s) applied	Fermentation stage • 70% to 45% between 1st to 3thweek • 45% to 20% between 4th to 5th week • 20° to 10°C between 6th to 8th week Maturation stage • Inferior 10%
Choice of data or Measurement methods and procedures	The site staff take the humidity using the humidity meter: • 2 to 3 times during the 1st , 2nd and 3th week • Every week from 4th week
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	GWP_{CH4}
Unit	t CO2e/t CH4
Description	Global Warming Potential of methane
Source of data	IPCC AR5[60]
Value(s) applied	28
Choice of data or Measurement methods and procedures	Default value (IPCC AR5[61] report, table 1,page 2)
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	GWP_{N2O}
Unit	t CO2e/t N2O
Description	Global Warming Potential of N2O
Source of data	IPCC AR5[62]

[60] https://globalgoals.goldstandard.org/standards/RU-2020-PR-V1.2-GWP-values.pdf
[61] https://globalgoals.goldstandard.org/standards/RU-2020-PR-V1.2-GWP-values.pdf
[62] https://globalgoals.goldstandard.org/standards/RU-2020-PR-V1.2-GWP-values.pdf

Value(s) applied	265
Choice of data or Measurement methods and procedures	Default value (IPCC AR5[63] report, table 1,page 2)
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	EFpower
Unit	Kg CO2e/kWh
Description	CO2 emission factor from electricity produced from fossil fuel
Source of data	IPCC default values at the upper or lower limit – whatever is more conservative5 – of the uncertainty at a 95% confidence interval as provided in table 1.4 page 1.23 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC[64] Guidelines on National GHG Inventories
Value(s) applied	1.3
Choice of data or Measurement methods and procedures	Default value (CDM "Methodological tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation Version 03.0, paragraph 6.2.1.1.1, point 20)[65]
Purpose of data	Emission reduction calculations
Additional comment	

[63] https://globalgoals.goldstandard.org/standards/RU-2020-PR-V1.2-GWP-values.pdf
[64] https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf
[65] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v3.0.pdf

SDG13

Data/parameter	$EF_{FC,default}$
Unit	tCO2e/t
Description	Default emission factor for fossil fuel consumed by the composting activity per tonne of waste composted (wet basis)
Source of data	Tool 13 " Project and leakage emissions from Composting[66]" Version 02.0, page 12
Value(s) applied	0.0207
Choice of data or Measurement methods and procedures	Based on a review of fossil fuel consumption per tonne of waste composed in relevant validation reports of CDM projects and using a conservative default emission factor for diesel (from the 2006 IPCC[67] Guidelines)
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	EFCH4
Unit	tCH4/t
Description	Default emission factor of methane per ton of waste composted
Source of data	Tool 13 "Project and leakage emissions from composting[68]", Version 02.0, page 11
Value(s) applied	0.002

[66] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf
[67] https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_2_Ch2_Stationary_Combustion.pdf
[68] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf

Choice of data or Measurement methods and procedures	Default emission factor
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	EFN2O
Unit	tN2O/t
Description	Default emission factor of nitrous oxide per ton of waste composted
Source of data	Tool 13 "Project and leakage emissions from composting"[69], Version 02.0 page 12
Value(s) applied	0.0002
Choice of data or Measurement methods and procedures	Default emission factor
Purpose of data	Emission reduction calculations
Additional comment	

SDG13

Data/parameter	TDL
Unit	%
Description	Average technical transmission and distribution losses for providing electricity to source j in year y
Source of data	Use as default values of 20% for: (a) project or leakage electricity consumption sources;

[69] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-13-v2.pdf

	(b) baseline electricity consumption sources if the electricity consumption by all project and leakage electricity consumption sources to which scenario A or scenario C (cases C.I or C.III) applies is larger than the electricity consumption of all baseline electricity consumption sources to which scenario A or scenario C (cases C.I or C.III) applies;
Value(s) applied	20%
Choice of data or Measurement methods and procedures	Default value (CDM "Methodological tool: Baseline, project and/or leakage emissions from electricity consumption and monitoring of electricity generation Version 03.0)[70], page 14
Purpose of data	Emission reduction calculations
Additional comment	

B.6.3 Ex ante estimation of SDG Impact

SDG 5: Gender equality

Without the composting project, there would have been no opportunities for the local women to get a job opportunity in a waste management project.
The project activity aims to employ on an average 10 women on a part-time & permanent basis.

SDG 8: Decent Work and Economic Growth
Without the composting project, there would have been no creation of employment for the local communities.
The project activity will create employment (part-time and permanent) for local population. The project aims to employ around 100 local staff, including both women and men.

SDG 13: Calculation of GHG emissions for baseline

The CDM Methodological tool TOOL04: Emissions from solid waste disposal sites Version 08.1[71], paragraph 6has been used to estimate baseline emissions.

[70] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-05-v3.0.pdf
[71] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

The baseline calculation uses the equation below:

$$\begin{cases} BE_{CH_4,SWDS,y} \\ PE_{CH_4,SWDS,y} \\ LE_{CH_4,SWDS,y} \end{cases} = \varphi.(1-f).GWP_{CH_4}.(1-OX).\frac{16}{12}.F.DOC_f.MCF.\sum_{x}^{Z}\sum_{j}W_{j,y}.DOC_j.e^{-k_j.(Z-x)}.(1-e^{-k_j})$$

Where

$\begin{cases} BE_{CH_4,SWDS,y} \\ PE_{CH_4,SWDS,y} \\ LE_{CH_4,SWDS,y} \end{cases}$	Baseline, project or leakage methane emissions occurring in year y generated from waste disposal at a SWDS during a time period ending in year y (t CO2e/yr)	Calculated	-
ϕ	Model correction factor to account for model uncertainties	ϕ = 0.85	Default value
F	Fraction of methane captured at the SWDS and flared, combusted or used in another manner	f = 0	-
GWP_{CH4}	Global warming potential (GWP) of methane, valid for the relevant commitment period	GWP_{CH4} = 28	Default value - IPCC AR5
F	Fraction of methane in the SWDS gas (volume fraction)	F = 0.5	Default value
DOC_f	Fraction of degradable organic carbon (DOC) that can decompose	DOC_f = 0.5	Default value
MCF	Methane correction factor	MCF = 1	Default value
$W_{j,k}$	Amount of organic waste type j prevented from disposal in the SWDS in the year x (tons).	Calculated from two Monitored parameters: - Total amount of organic waste prevented from disposal and - Weight fraction of the waste type j	-
DOC_j	Fraction of degradable organic carbon (by weight) in the waste type j	Wood 43 Pulp, paper 40 Textile 24 Food waste 15 Garden waste 20 Inert waste 0	Default value
K_j	Decay rate for the waste type j	Wood - 0.035 Pulp, paper - 0.07 Textile - 0.07 Food waste - 0.40 Garden waste- 0.17 Inert waste - 0	Default value
j	Waste type category	Household waste	

X	Year for which methane emissions are calculated	x runs from the first year of the crediting period (x=1) to year z, with z=10	-
Z	Final year considered for methane emissions calculation.	Z =10 is used.	-

SDG 13: Calculation of GHG emissions and/or removals for the project
The project GHG emissions will be calculated as follows:

i) CO2 emissions on account of electricity and fuel used in the project's composting process.
ii) Methane emissions during composting process
iii) Nitrous oxide emissions during composting process

These emissions are calculated as follow:

$$PE_{comp,y} = PE_{EC,y} + PEFC,y + PE_{CH4,y} + PE_{N2O,y}$$

Where:
$PE_{comp,y}$= Project activity emissions in the year "y" (tonnes of CO2 equivalent)
$PE_{EC,y}$ = Emissions from electricity consumption in the year "y",
$PEFC,y$ = Emission from fossil fuel consumption in the year "y"
$PE_{CH4,y}$ = Methane emissions during composting process during year "y"
$PE_{N2O,y}$ = Nitrous oxide emissions during composting process during year "y

Emissions from electricity consumption

$$PE_{y,power} = EEy * EF_{CO2} * (1+ TDL)$$

Where

EEy	Electrical energy consumption in the year y (kWh)	Monitored	
EF_{CO2}	CO2 emission factor from electricity produced from fossil fuel	EF CO2 = 1.3 kg CO2e/kWh	IPCC default value at a 95 per cent confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories.
TDL	Average technical transmission and distribution losses for providing electricity to source j in year y	0.2	

Emissions from fossil fuel consumption $PEFC,y = Qy * EF_{FC,default}$

Where

Qy	Quantity of waste composted in year y (t/yr)	Monitored
$EF_{FC,default}$	Default emission factor for fossil fuels consumed by the composting activity per tonne of waste (t CO2/t)	$EF_{FC,default}$= 0.0207

Methane emissions during composting process

$$PE_{y,comp} = Qy * EF_{composting} * GWP_{CH4}$$

Where

Qy	Quantity of raw waste treated in the year y (tonnes)	Monitored
$EF_{composting}$	Emission factor for composting of organic waste (t CH4/ton waste treated).	$EF_{composting}$= 0.002t CH4/t waste treated on a wet basis.
GWP_{CH4}	Global warming potential (GWP) of methane, valid for the relevant commitment period	GWP_{CH4} = 27.2

Nitrous oxide emissions during composting process

Nitrous Oxide emissions are calculated following the default values of the tool to determine "project and leakage emission from composting" versions 01.0.0, as the monitoring method is too expensive for a project this size.

$$PE_{N2O,y} = Qy * EF_{N2O,y} * GWP_{N2O}$$

Where

Qy	Quantity of waste composted in year y (t/yr)	Monitored data
$EF_{N2O,y}$	Emission factor of methane per tonne of waste composted valid for year y (t N2O / t)	EFN2O,y= 0.0002 t N2O /t
GWP_{N2O}	Global warming potential of N2O (TCO2e/t N2O)	GWPN2O= 273

B.6.4 Summary of ex ante estimates of each SDG Impact

SDG 5:

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	10	10
Year 2	0	10	10
Year 2	0	10	10
Year 4	0	10	10
Year 5	0	10	10
Total	0	50	50
Total number of crediting years		5	
Annual average over the crediting period	0	10	10

SDG 8

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	100	100
Year 2	0	100	100
Year 2	0	100	100
Year 4	0	100	100
Year 5	0	100	100
Total	0	500	500
Total number of crediting years		5	
Annual average over the crediting period	0	100	100

SDG 13

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	3,090	481	2,609
Year 2	1,980	481	1,500
Year 2	1,582	481	1,102
Year 4	1,129	481	648
Year 5	607	481	127
Total	8,388	2,405	5,986
Total number of crediting years		5	
Annual average over the crediting period	1,678	481	1,197

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 5

Data / Parameter	Number of full-time/part-time jobs
Unit	Number
Description	Refers to number of female employees (full – time & part-time) in the project activity at the end of each crediting period.
Source of data	Employment contracts
Value(s) applied	10
Measurement methods and procedures	Records and work contracts are maintained regarding the total number of women employees working at the composting site.
Monitoring frequency	Every year
QA/QC procedures	Each worker at the composting site signs a work contract and a copy of the contracts are stored at the site. The project manager keeps a track of all the work contracts.
Purpose of data	Estimating the net benefits for the SDG 5.
Additional comment	

SDG 8

Data / Parameter	Number of workers
Unit	number
Description	Total number of workers employed due at the composting site of the project activity
Source of data	Employment contracts
Value(s) applied	100
Measurement methods and procedures	Records and work contracts are maintained regarding the total number of employees working at the composting site.
Monitoring frequency	Every year

QA/QC procedures	Each worker at the composting site sign a work contract and a copy of the contracts are stored at the site. The project manager keeps a track of all the work contracts.
Purpose of data	Estimating the net benefits for the SDG 8.
Additional comment	-

SDG 3

Data / Parameter	Number of accidents at work
Unit	number
Description	Total number of workers involved in accident on the composting site
Source of data	Madacompost recording data
Value(s) applied	
Measurement methods and procedures	The "Parameters to be followed up for Safeguarding Principles " register will be placed at each site and completed after each accident.
Monitoring frequency	Daily
QA/QC procedures	All accidents at work should be declared to team leader who enters them in the register.
Purpose of data	Parameter for monitoring the principle 3.1 " The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 3

Data / Parameter	Number of staff taken care after work accident
Unit	number
Description	Total number of workers involved in accidents on the composting site whose medical treatment was paid for by Madacompost

Source of data	Madacompost recording data Employee medical records
Value(s) applied	
Measurement methods and procedures	The "Parameters to be followed up for Safeguarding Principles " register will be placed at each site and completed after each accident medical treatment.
Monitoring frequency	Daily
QA/QC procedures	Medical treatment after an accident at work will be recorded in the Madacompost register.
Purpose of data	Parameter for monitoring the principle 3.1 " The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 3

Data / Parameter	Percentage of staff wearing protective equipment at the site
Unit	%
Description	% of workers wearing protective equipment (boots, hats, gloves, blouses, masks) during site activities
Source of data	
Value(s) applied	
Measurement methods and procedures	The "Parameters to be followed up for Safeguarding Principles "register will be placed at each site and completed at the end of the day.
Monitoring frequency	Daily
QA/QC procedures	The team leader at each site records the % of workers wearing the protective equipment in Madacompost register

Purpose of data	Parameter for monitoring the principle 3.1 "The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 3

Data / Parameter	Percentage of staff vaccinated against tetanus
Unit	%
Description	% of workers vaccinated against tetanus
Source of data	Vaccination card/ vaccination booklet
Value(s) applied	
Measurement methods and procedures	The "Parameters to be followed up for Safeguarding Principles "register will be placed at each site and completed per year or
Monitoring frequency	Yearly
QA/QC procedures	The team leader at each site checks the employees' vaccination card and records the % of workers vaccinated against tetanus in Madacompost register each year
Purpose of data	Parameter for monitoring the principle 3.1 "The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 8

Data / Parameter	Percentage of staff with an employment contract
Unit	%

Description	% of workers who have signed an employment contract with Madacompost
Source of data	Employment contract
Value(s) applied	
Measurement methods and procedures	Records and work contracts are maintained regarding the total number of employees working at the composting site
Monitoring frequency	Yearly
QA/QC procedures	Each worker at the composting site signs a work contract and a copy of the contracts are stored at the site. The project manager keeps a track of all the work contracts.
Purpose of data	Parameter for monitoring the principle 6.1 "The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 8

Data / Parameter	Percentage of staff affiliated to the medical system covered by Madacompost
Unit	%
Description	% of staff registered on the medical system for workers paid by Madacompost
Source of data	Madacompost contract with medical system for workers
Value(s) applied	
Measurement methods and procedures	Madacompost concludes a contract with a medical system for workers. This contract may last one year or more. This contract is maintained at the site

Monitoring frequency	Yearly
QA/QC procedures	
Purpose of data	Parameter for monitoring the principle 6.1 "The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 13

Data / Parameter	Emission reduction of the project
Unit	tCO_2
Description	Reduction in the project greenhouse gas emissions per year
Source of data	Monitoring report
Value(s) applied	
Measurement methods and procedures	During the crediting period, a monitoring on emission reduction is carried out yearly. The reduction emission of the project is described in the monitoring report sent to Gold Standard
Monitoring frequency	Yearly
QA/QC procedures	
Purpose of data	Parameter for monitoring the principle 7.1 "Will the Project increase greenhouse gas emissions over the Baseline Scenario?" which the project must guarantee as described under D.1 section
Additional comment	-

SDG 13

Data / Parameter	f_y

Unit	-
Description	Fraction of methane captured at the SWDS and flared, combusted or used in another manner that prevents the emissions of methane to the atmosphere in year y
Source of data	Select the maximum value from the following: (a) contract or regulation requirements specifying the amount of methane that must be destroyed/used (if available) and (b) historic data on the amount captured
Value(s) applied	-
Measurement methods and procedures	-
Monitoring frequency	Annually
QA/QC procedures	-
Purpose of data	Emission reduction calculations
Additional comment	-

SDG 13

Data / Parameter	W_x
Unit	tons
Description	Total amount of waste disposed in a SWDS in year x
Source of data	Measurements by project participants
Value(s) applied	-
Measurement methods and procedures	Measure on wet basis
Monitoring frequency	Continuously, aggregated at least annually for year x
QA/QC procedures	-
Purpose of data	Emission reduction calculations
Additional comment	-

SDG 13

Data / Parameter	$\mathbf{p}_{n,j,x}$
Unit	-
Description	Weight fraction of the waste type j in the sample n collected during the year x
Source of data	Sample measurements by project participants
Value(s) applied	-
Measurement methods and procedures	Sample the waste composition, using the waste types j, as provided in the table for DOCj and kj, and weigh each waste fraction (measure on wet basis)
Monitoring frequency	Minimum of three samples every three months or as required to reach achieve 90/10 confidence/precision
QA/QC procedures	-
Purpose of data	Emission reduction calculations
Additional comment	-

SDG 13

Data / Parameter	EE_y
Unit	Kwh
Description	Electrical energy consumption for compost production in year y.
Source of data	Electricity meter.
Value(s) applied	
Measurement methods and procedures	The definition of data is based on the electric meters in the plant.
Monitoring frequency	Electricity meter checked once a year.
QA/QC procedures	None
Purpose of data	Emission reduction calculations

Additional comment	-

SDG 13

Data / Parameter	EE_y
Unit	Kwh
Description	Electrical energy consumption for compost production in year y.
Source of data	Electricity meter.
Value(s) applied	
Measurement methods and procedures	The definition of data is based on the electric meters in the plant.
Monitoring frequency	Electricity meter checked once a year.
QA/QC procedures	None
Purpose of data	Emission reduction calculations
Additional comment	-

SDG 13

Data / Parameter	$TWCOM_y$
Unit	Tons
Description	Total quantity of waste composted in year y at the facility
Source of data	Project records
Value(s) applied	-
Measurement methods and procedures	Use a weighbridge or any other applicable and calibrated weighing device.
Monitoring frequency	Monthly

QA/QC procedures	Weighbridge or any other applicable weighing device is subject to periodic calibration (in accordance with stipulation of the weighing device supplier)
Purpose of data	Emission reduction calculations
Additional comment	-

B.7.2 Sampling plan

As described in Tool 04 "Emissions from solid waste disposal sites", version 08.1[72] in paragraph 7.2, the parameter Weight fraction of the waste type j (**p**n,j,x) should be determined by sample measurements. The waste types to be identified are:

- Wood and wood products
- Pulp, paper and cardboard
- Food, food waste, beverages and tobacco
- Textiles
- Garden, yard and park waste

The protocol used for characterization is as follows:
The aim of this sampling is to get a good representation of the incoming waste on the composting platform. The sampling frequency for waste characterization is three times every three months as defined in Tool 04 "Emissions from solid waste disposal sites", version 08.1. To ensure a representative sampling, waste is gathered from different trucks in order to represent at best incoming waste.
500 kg of waste are sampled from different trucks on different days if not enough deliveries occur on the same day. The samples are collected in different spot of the truck for representativeness. The whole sample is then divided in 4 parts, manually homogenized, and put back together.
A Fourth of this sample is then selected by slicing the waste pile in four. This part is the one, which is characterized. The pile of waste is screen to separate waste bigger than

[72] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-04-v8.1.pdf

100mm and smaller than 100 mm. Then the same operation is done to separate waste bigger than 20 mm and smaller than 20mm. Each pile is then sorted into each category of waste type.

Determination of compost quality
To ensure the quality of compost, an analysis of the compost is realized twice per year (rainy season and dry season) at a certified laboratory in Madagascar.

Soil application of compostThe proper use and aerobic conditions in soil application are verified during the field visits by Madacompost's team. This field visit is carried out monthly.

B.7.3 Other elements of monitoring plan
Madacompost will be responsible for collecting, recording, reporting and archiving data at the sites. Data is collected and recorded by site team (workers) in a paper register every day. The site manager records and compiles them in digital form on a weekly basis. The site manager reports the data to his superior every two weeks or monthly. The data is archived during the period crediting. Madacompost sends the data to GoodPlanet for the carbon monitoring every six months.

The moisture and temperature are monitored every two or three days during the first three weeks of composting, then every week thereafter. The temperature is recorded on temperature monitoring sheet with the operation date. The moisture is also recorded on monitoring sheet with the date of realization.
A data sheet is kept for each windrow containing the following information:

- The date of the windrow was formed
- Swath dimensions
- Number of turns and date

The amount of waste composted daily is recorded on a paper register and entered in a digital form.
The compost sale data are saved. Compost use visits are recorded with information on the date of the visit, the village, the farmer visited, the plantation and the level of satisfaction with compost use.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

>>22/09/2021. The project contract between Goodplanet foundation and MADACOMPOST has been signed on 22/09/2021. This date is therefore considered to be the start date of project.

C.1.2 Expected operational lifetime of project

>>The expected operational lifetime of project is 10 years.

C.2. Crediting period of project

C.2.1 Start date of crediting period

>>01/01/2023

C.2.2 Total length of crediting period

>> 5 years (it can be renewed twice)

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in Appendix 1, ongoing monitoring is summarised below.

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
Principle 3.1 The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	The project will avoid community exposure by collecting waste and treating it, it will improve sanitation conditions in the cities. The use of compost will avoid the use of chemicals in agriculture. Thus, it will reduce health risks linked to chemicals. Workers will be given protections (safety gloves, personal protection equipment, a roof to be sheltered from the rain, etc.) to work in decent conditions.

Principle 6.1 The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions	Ensure all individuals employed directly by the project activity have legal labour contracts.
Principle 7.1 Will the Project increase greenhouse gas emissions over the Baseline Scenario?	The treatment of the collected organic waste and converting it into a compost, will avoid methane emissions, which would have occurred without the project.

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	The proposed project involves hiring women as part of the waste composting team. Hence, it will contribute to gender equality by ensuring decent work and decent pay to women. The project does not involve hiring the workforce based on a gender discrimination. The project has led to job creations and will provide equal opportunity to both men and women.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The project aligns with the existing country policies on waste management. And moreover, it aligns with its future strategy to reduce waste on landfill sites.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	No, the project will be ensuring an equal opportunity to both the genders.

Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No, the stakeholder consultation was held considering the participation of both the gender representation.

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

The below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

The physical meeting has been conducted on 30/04/2021. An invitation for the feedback round was sent to all stakeholders invited to the physical meeting in May 2021. The invitation was hand-delivered to all stakeholders informing them that they could send their comments or questions or clarification on the project to Madacompost. The invitation was also posted in the municipality's offices. The updated project documentation was shared to all stakeholders via website: www.goodplanet.org/fr/projet/valorisation-ordures-menageres/compostage-des-dechets-a-madagascar-2021-2026/ , which is still accessible to date.

The stakeholder feedback round lasted until 31/12/2021 and no comments were received during this period.

E.1 Summary of stakeholder mitigation measures

During the stakeholder consultation, Madacompost distributed the stakeholder feedback questionnaires among participants present at the meetings. The feedback documents were collected during the meetings and any clarifications raised in the feedback form were discussed and clarified for the participants. The feedbacks during the meeting were received in the local languages (French and Malagasy)

The explanations and the mitigation measure of each comment are described in Stakeholder Consultation Report "2024_01_30_LSC_Report_GS11201, page 16 to 19"

E.2 Final continuous input / grievance mechanism

METHOD	INCLUDE ALL DETAILS OF CHOSEN METHOD (S) SO THAT THEY MAY BE UNDERSTOOD AND, WHERE RELEVANT, USED BY READERS.

Continuous Input / Grievance Expression Process Book (mandatory)	A continuous input/grievance book will be maintained the project composting sites
GS Contact (mandatory)	help@goldstandard.org
Other	The stakeholders can also directly contact the project team at the following address: MadaCompost : Lot 0108U0026 Secteur V Manjarisoa - Mahajanga 401, Tél : + 261 (20) 62 248 11

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into SECTION D above. Please refer to the instructions in the Guide to Completing this Form.

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response
P.1 |HUMAN RIGHTS		
P.1.1.1 |	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
P.1.1.1 |	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
P.1.1.2 |	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
P.1.1.3 |	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
P.1.1.3 |	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
Please add text here…		
Would the project potentially involve or lead to:		
P.1.1.1 |	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.2 |	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 |	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 |	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES ☐ POTENTIALLY

		☒ NO

Briefly describe below how the project incorporates a human rights-based approach.
For example, by describing how the project design:

- is informed by human rights analysis, including from UN human rights mechanisms (human rights treaty bodies, universal periodic review, special procedures)
- includes measures to assist the government to realise (respect, protect and fulfil) human rights under international law and to implement human rights-related standards in national law (whichever is higher)
- enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)
- provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities.

The Project will respect the Universal Declaration of Human Rights. Every stakeholder to the project will be consulted, his opinion and comments taken into consideration and anyone who would want to participate will be welcomed. No violence of any kind will occur during the project, the workers will work in decent conditions in agreement with the labour Code of Madagascar. The three sites have been put under Madacompost responsibility through a legal procedure.
No discrimination will be made during the project. Jobs will be created during the project, marginalized people and people living in precarious conditions (single mothers for instance) will be able to work in decent conditions with a regular salary. The project includes both men and women as part of beneficiaries of the composting unit by providing employment opportunities at the composting site. The project does not exclude any minority groups or landless people. Low skills jobs are expected to attract less educated and marginalized people. During the invitations for the local stakeholder consultation, a specific attention has been paid to invite as much women as possible.

P.2 |GENDER EQUALITY AND WOMEN'S EMPOWERMENT

P.2.1.1 |	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
P.2.1.2 |	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
P.2.1.2 |	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES ☒ NO
P.2.1.2 |	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO

P.2.1.2 |	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES ☒ NO
P.2.1.3|	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
P.2.1.4 |	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project potentially involve or lead to:		
P.2.1.1 |	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.1 |	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 |	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 |	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.

Please add text here….

The proposed project involves hiring women as part of the waste composting team. Hence, it will contribute to gender equality by ensuring decent work and decent pay to women. The project does not involve discrimination based on gender since workers are hired with no consideration over the gender. The project has led to job creations and women also take part in composting process. This project contributes to empower women. The compost will be accessible for everyone, without any restriction based on gender.

The project won't expose women and girls to further risks or hazards. The women employees working at the composting site will be provided with personal protection equipments (gloves, safety gloves etc) to avoid any work related accidents.

P.3 |COMMUNITY HEALTH AND SAFETY

P.3.1.1 |	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
P.3.1.2 |	Does the project involve any potential risks to the workers' safety and health?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project potentially involve or lead to:

P.3.1.1 |	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
P.3.1.2 |	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk related to community health and safety.

Please add text here….

Community and workers conditions will not be put at risk by the project. The project will avoid community exposure by collecting waste and treating it, it will improve sanitation conditions in the cities. Workers at the composting sites will be given protections (safety gloves, personal protection equipment, a roof to be sheltered from the rain, etc.) to work in decent conditions.

P.4 |CULTURAL HERITAGE, INDIGENOUS PEOPLE, DISPLACEMENT AND RESETTLEMENT

P.4.1 |SITES OF CULTURAL AND HISTORICAL HERITAGE

P.4.1.1 |	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES ☒ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project potentially involve or lead to:

P.4.1.1 |	activities adjacent to or within a cultural heritage site?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 |	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 |	If answer to question above is "YES" or "POTENTIALLY" - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES ☐ NO ☐ NA
P.4.1.3 |	If answer to question above is "YES" - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES ☐ NO ☐ NA
P.4.1.4 |	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☐ NA
P.4.1.4 |	If answer to question above is "YES", has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☐ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.4.2 |FORCED EVICTION AND DISPLACEMENT

P.4.2.1 |	Does the project involve any risks related to involuntary relocation of people?	☐ YES ☒ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.
Please add text here….

Would the project potentially involve or lead to:

P.4.2.1 |	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	If answer to question above is "YES" or "POTENTIALLY", - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
P.4.2.3 |	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.2.3 |	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.4.3 |LAND TENURE AND OTHER RIGHTS

P.4.3.1 |	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project potentially involve or lead to:

P.4.3.1 |	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.3.1 |	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
P.4.3.2 |	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☒ NO ☐ NA
P.4.3.2 |	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☒ NO ☐ NA
P.4.3.2 |	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☒ NO ☒ NA
P.4.3.4 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.3.4 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☐ NA
P.4.3.5 |	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.4.4 |INDIGENOUS PEOPLES

P.4.4.1 |	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here….		
Would the project potentially involve or lead to:		
P.4.4.1 |	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 |	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 |	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.7 |	If answer to above questions is ''YES'' or "POTENTIALLY", - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES ☐ NO ☒ NA
P.4.4.3 |	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.4 |	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.5 | P.4.4.6 |	If answer to question above is "YES" or "POTENTIALLY" - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices? ?	☐ YES ☐ NO ☒ NA

	- Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?	
P.4.4.8 |	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA
P.4.4.8 |	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA
P.4.4.9 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.4.9 |	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☐ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.5 |CORRUPTION

P.5.1.1 |	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
P.5.1.1 |	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

ECONOMIC SAFEGUARDING PRINCIPLES

P.6 |ECONOMIC IMPACTS

P.6.1 |LABOUR RIGHTS AND WORKING CONDITIONS		
P.6.1.1 |	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
P.6.1.1 |	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
P.6.1.2 |	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO
P.6.1.3 |	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☒ NO
P.6.1.4 | P.6.1.5 |	Does the project allow child labor?	☐ YES ☒ NO
P.6.1.6 | P.6.1.7 |	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO
P.6.1.9 |	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES ☒ NO
P.6.1.10 |	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project potentially involve or lead to:
(NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)

P.6.1.1 |	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	absence of documented working agreements with all individual workers *if such agreements do not exist, or do not address working conditions and terms of employment, the project developer*	☐ YES ☐ POTENTIALLY ☒ NO

	shall provide reasonable working conditions and terms of employment.	
P.6.1.1 |	use of migrant workers? *if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.*	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	having no arrangements for basic services[73] for workers? *the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association*	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.3 |	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 |	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 |	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
P.6.1.7 |	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO
P.6.1.7 |	No provision of safety and health training provisions, including on the proper use and maintenance of personal	☐ YES

[73] Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

	protective equipment conducted by competent persons and the maintenance of training records?	☒ NO
P.6.1.7 |	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO
P.6.1.8 |	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES ☒ NO
P.6.1.9 |	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES ☒ NO
P.6.1.10 |	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
P.6.1.11 |	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.6.2 |NEGATIVE ECONOMIC CONSEQUENCES

P.6.2.1 |	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
P.6.2.2|	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
P.6.2.2|	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here…

Would the project involve or lead to:

P.6.2.2|	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.2.2|	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.7 |CLIMATE AND ENERGY

P.7.1 |GHG EMISSIONS

P.7.1.1 |	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
Please add text here….

Would the project involve or lead to:		
P.7.1.1 |	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.7.2 |ENERGY SUPPLY

P.7.2.1 |	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
Please add text here….

Would the project involve or lead to:		
P.7.2.1 |	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.8 |WATER

P.8.1 |IMPACT ON NATURAL WATER PATTERNS/FLOWS

P.8.1.1 |	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO
P.8.1.1 |	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
P.8.1.1 |	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
P.8.1.1 |	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.8.1.1 |	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 |	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 |	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.8.2 |EROSION AND/OR WATER BODY INSTABILITY

P.8.1.2 |	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES

		☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.8.2.2 | P.8.2.5 |	negatively impact on the catchment area? *If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.*	☐ YES ☐ POTENTIALLY ☒ NO
P.8.2.6 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9 |ENVIRONMENT, ECOLOGY AND LAND USE

P.9.1 |LANDSCAPE MODIFICATION AND SOIL

P.9.1.1 | P.9.1.3 |	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project? *If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.*	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.1.4 |	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.1.4 |	if answer to above question "yes" or "potentially", does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.2 |VULNERABILITY TO NATURAL DISASTER

P.9.2.1 |	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.2.2 |	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.2.2 |	if answer to above question "yes" or "potentially", did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.3 |BIOSAFETY AND GENETIC RESOURCES

P.9.3.1 |	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.3.1 |	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY ☒ NO
P.9.3.1 |	If answer to above question is "yes" has a risk assessment by a competent Expert stakeholder been carried out in accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☐ YES ☐ NO ☒ NA
P.9.3.2 |	If answer to above question is "yes" has any risks identified in the risk assessment?	☐ YES ☐ NO ☒ NA
P.9.3.3 |	Forestry (for example Afforestation/Reforestation) involving GMO planting? *Note - Forestry projects (for example Afforestation/ Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.*	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.4 |RELEASE OF POLLUTANTS

P.9.4.1 |	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.4.1 |	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.4.3 |	If answer to above question is "Yes" or "potentially", has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES ☐ NO ☒ NA
P.9.4.2 |	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES ☐ NO ☒ NA
P.9.4.3 |	If answer to above question is "Yes", is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES ☐ NO

		☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.5 |HAZARDOUS AND NON-HAZARDOUS WASTE

P.9.5.1 |	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☐ YES ☒ NO
P.9.5.3 |	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO
P.9.5.5 |	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.5.1 |	the generation and management of waste materials?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.5.1 |	treatment, destruction, or disposal of waste material?	☐ YES ☒ NO ☐ NA
P.9.5.1 |	If answer to above question is “Yes”, does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES ☐ NO ☒ NA
P.9.5.3 |	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO ☐ NA
P.9.5.3 |	If answer to above question is "yes”, does project has measures in place to address health risks?	☐ YES ☐ NO ☒ NA
P.9.5.4 |	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.9.6 |PESTICIDES & FERTILISERS

P.9.6.1 |	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
P.9.6.5 |	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO
P.9.6.6 |	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
Please add text here….

Would the project involve or lead to:

P.9.6.1 |	chemical pesticides use for pest management?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.4 |	If answer to question above is "yes" or "potentially", does project has documented Chemical Pesticides Policy in place?	☐ YES ☐ NO ☒ NA
P.9.6.5 |	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.5 |	If answer to question above is "yes" or "potentially", does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.9.7 |HARVESTING OF FORESTS

P.9.7.1 |	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO

P.9.7.1 |	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO
P.9.7.1 |	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

P.9.8 |FOOD SECURITY

P.9.8.1 |	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES ☒ NO

If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.8.1 |	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.9 | ANIMAL WELFARE

P.9.9.1 |	Does the project involve any risks to animal welfare? Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☐ YES ☒ NO
P.9.9.2 |	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES ☒ NO
P.9.9.4 |	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Please add text here….

Would the project involve or lead to:

P.9.9.1 |	animal husbandry or harvesting of fish populations or other aquatic species?[74]	☐ YES ☒ NO ☐ NA
P.9.9.1 |	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.9.3 |	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☒ NO ☐ NA
P.9.9.5 |	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☒ NO ☐ NA
P.9.9.6 |	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☒ NO ☐ NA
P.9.9.7 |	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☒ NO ☐ NA
P.9.9.8 |	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☒ NO ☐ NA
P.9.9.9| P.9.9.10 |	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES ☒ NO ☐ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.10 |HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS

P.9.10.1 |	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES ☒ NO

[74] 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

P.9.10.2 |	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
Please add text here….		
Would the project involve or lead to:		
P.9.10.1 |	identified habitats as HCV areas and or Critical habitats?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.10.1 |	If answer to above question is "yes", does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ YES ☐ NO ☒ NA
P.9.10.1 |	If answer to above question is "yes", is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to achieve net gains of those biodiversity values for which the critical habitat was designated?	☐ YES ☐ NO ☒ N/A
P.9.10.2 |	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.10.2 |	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	☐ YES ☐ No ☒ NA
P.9.10.3 |	If the answer to above question is "yes", does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES ☐ No ☒ NA
P.9.10.4 |	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES ☐ No ☒ NA
P.9.10.5 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.9.11 |ENDANGERED SPECIES

P.9.11.1 |	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
Please add text here….
Would the project involve or lead to:

P.9.11.2 |	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
P.9.11.2 |	If answer to the above question is “yes”, does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY ☐ NO ☒ N/A
P.9.11.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.
Please add text here….

P.9.12 |INVASIVE ALIEN SPECIES

P.9.12.1 |	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.
Please add text here….
Would the project involve or lead to:

P.9.12.1 |	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.12.1 |	risk of potential accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☐ YES ☐ POTENTIALLY ☒ NO
P.9.12.2 |	risk of spreading alien species into areas in which they have not already been established?	☐ YES ☐ POTENTIALLY ☒ NO
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here….		

APPENDIX 2 - CONTACT INFORMATION OF PROJECT DEVELOPER(S)

Organization name	GoodPlanet Foundation
Registration number with relevant authority	
Street/P.O. Box	1 Carrefour de Longchamp
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APPENDIX 4 - DESIGN CHANGES

Not applicable

Revision History

Version	Date	Remarks
1.5	29 June 2023	Editorial changes to match V2.1 of the Safeguarding Principles Requirements
1.4	21 June 2023	Editorial changes to match V2.0 of the Safeguarding Principles Requirements
1.3	14 April 2023	Integrated the design change memo as annex of the document. Editorial changes
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on 'gender sensitive' requirements
1.0	10 July 2017	Initial adoption