

CVF V20 CLIMATE VULNERABLE FORUM VULNERABLE TWENTY GROUP

FIRST VERSION

CARBON MARKETS INVESTMENT BOOK

Carbon credit pathways for climate investment projects in Bhutan, The Gambia, Madagascar, Pakistan and Sri Lanka

Climate Vulnerable Forum & V20 Group of Finance Ministers

November 2026

DISCLAIMER

Important notice

This publication (the "Book") has been prepared by the CVF-V20 Secretariat to support dialogue between host governments, project proponents, investors, buyers and technical partners on carbon market opportunities in climate vulnerable countries.

Sources

The Book draws on publicly available information, official government documents, Climate Prosperity Plans, nationally determined contributions, institutional publications, project documentation supplied by proponents, research materials and other third-party sources considered relevant at the time of preparation. Emission reduction and removal figures, financial indicators and other project data are, unless otherwise stated, estimates provided by project proponents or drawn from national plans. They have not been validated or verified by a designated operational entity, validation and verification body or crediting programme.

Due diligence

Readers and prospective investors should carry out their own independent due diligence, including on additionality, baselines, permanence, safeguards, legal title, authorisation status and counterparty risk. They should seek appropriate professional analysis before making any investment, financial or commercial decision.

Third-party names and materials

Names of governments, agencies, companies and programmes are used for identification only. Views expressed in the Book do not necessarily reflect those of the host governments or institutions named.

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FOREWORD

Climate vulnerable economies hold some of the world's most valuable opportunities to reduce and remove carbon emissions. Carbon markets give these countries a practical way to turn these opportunities into investment, on terms that reward climate action as these mitigation activities (hereinafter referred to as “projects”) deliver real mitigation outcomes.

The 77 member countries of the Climate Vulnerable Forum and the V20 Group of Finance Ministers (CVF-V20) have long made the case that the barrier to climate investment is not a shortage of sound projects but the price of capital. When the value of a project's climate results is recognised and paid for, that price can come down.

Carbon revenue built into a project's financing from the concept stage can strengthen returns, support debt service and pay for the monitoring that gives investors confidence. It works best alongside sound tariffs, public budgets and concessional finance.

This book brings together 46 projects from Bhutan, The Gambia, Madagascar, Pakistan and Sri Lanka that can generate carbon finance and revenue. For each project, it sets out what the project does, how much it can reduce or remove emissions, which crediting route and methodology fit it, and the decision that will move it forward. Each profile reflects the project's current stage of preparation, so that partners can see where their support will make the greatest difference.

The projects are led by both governments and the private sector. However, decisions on authorisation, corresponding adjustments and the transfer of mitigation outcomes rest with national authorities. The CVF-V20 Secretariat stands ready to connect these projects with the buyers, investors and technical partners who can take them to transaction.

We invite those partners to read the pages that follow and to work with member governments on the next steps.



EXECUTIVE SUMMARY

This book presents 46 projects from five CVF-V20 member countries that can be developed through the carbon market project cycle to secure carbon finance. The 25 quantified projects report about 6.7 million tonnes of carbon dioxide equivalent ($MtCO_2e$) a year in gross proponent estimates, before overlaps are resolved and before crediting deductions. Almost half comes from one cookstove programme that is being re-quantified under updated methodologies. The portfolio will grow further as the remaining projects are quantified.

The book supports the agenda set by CVF leaders in the CVF Leaders' Declaration (New York, 23 September 2026) and by V20 Finance Ministers in the Communiqué of the 17th V20 Ministerial Dialogue (Bangkok, 12 October 2026). It complements the Article 6 Senior Officials' Handbook, launched by the CVF-V20 with the Voluntary Carbon Markets Integrity Initiative (VCMI) in Bangkok in October 2026, which guides senior officials through eight modules on accessing carbon finance under Article 6 of the Paris Agreement.

46
projects in Bhutan, The Gambia, Madagascar, Pakistan and Sri Lanka

6.72
$MtCO_2e$ a year in gross reported estimates from 25 quantified projects

11
projects at feasibility stage

4
sectors: energy, waste, AFOLU and industry

KEY MESSAGES

01 **A broad pipeline across five countries.** The projects range from national clean cooking programmes and solar mini-grids to landfill gas, mangrove restoration, biochar and offshore wind.

02 **Pakistan leads on volume and readiness.** Pakistan's 14 projects report 5.83 $MtCO_2e$ a year, and nine have reached feasibility stage. The Revive improved cookstove programme alone accounts for 3.19 $MtCO_2e$ a year.

03 **Waste offers an early route to market.** Four landfill gas projects (1.16 $MtCO_2e$ a year) can use the first methodology of the Paris Agreement Crediting Mechanism (PACM), adopted in October 2025. Other waste volumes are indicative and include overlaps still to be resolved.

04 **Energy is the largest group.** Twenty projects cover solar, wind, mini-grids, biomass power and clean cooking. Grid-connected renewable electricity can use the PACM methodology adopted at the 22nd meeting of the Article 6.4 Supervisory Body in July 2026, opening a clear route to carbon finance for the solar and wind projects presented in this book, subject to demonstrating additionality.

05 **Projects can use the full range of carbon markets.** Twenty-four projects could be developed under independent crediting mechanisms, 14 under PACM and 6 keep both options open, while the route for 2 is still to be decided, giving buyers a choice of units.

06 **Host government decisions will set the pace.** Twenty projects are identified as candidates for authorisation with a corresponding adjustment. None has yet received a Letter of Authorisation, and decisions rest with each host country. Early decisions on authorisation will let these projects mobilise carbon finance.

07 **More volume is coming.** As projects in The Gambia, Madagascar and Sri Lanka are quantified, they will add blue carbon, clean cooking, mini-grid, wind and solar credits to the pipeline.

THE PORTFOLIO BY COUNTRY

Country	Projects	Quantified	Gross reported reductions (tCO_2e a year)	At feasibility stage
Bhutan	8	8	851,079	0
The Gambia	10	3	40,000	2
Madagascar	8	0	To be quantified	0
Pakistan	14	14	5,825,263	9
Sri Lanka	6	0	To be quantified	0
Total	**46**	**25**	**6,716,342**	**11**

WHAT THIS BOOK ASKS OF PARTNERS

HOST GOVERNMENTS

- Confirm lead agencies and project boundaries where these remain open.
- Take early decisions on authorisation and corresponding adjustments.
- Publish clear rules on fees, shares of proceeds and benefit sharing.

INVESTORS AND BUYERS

Engage early on offtake and pre-finance with projects at feasibility stage.

Support programmatic structures for distributed activities such as cookstoves, rooftop solar and solar pumping.

Recognise quality: promote high-integrity credits issued under PACM or carrying the CCP label and, where buyers need them, units authorised under Article 6, to enhance credit quality, credibility and market value.

TECHNICAL PARTNERS

- **PROJECT LEVEL:**

  support baselines and volume estimates for projects at concept stage, and help confirm methodologies for off-grid and isolated systems.

- **SECTORAL LEVEL:**

  strengthen monitoring, reporting and verification (MRV) and national registries.

Inclusion of a project in this book does not imply host country authorisation under Article 6, endorsement by any government, or an offer of credits for sale. Figures are proponent or plan estimates, have not been validated, and will be refined as projects advance.



I.

WHY CARBON MARKETS MATTER FOR CLIMATE VULNERABLE ECONOMIES

Climate vulnerable economies hold significant potential to reduce and remove emissions. Carbon revenue offers an additional source of external finance that complements national budgets by rewarding projects directly for their climate action. This makes carbon finance a valuable way to mobilise additional resources, support climate action and strengthen the financial capacity of these economies.

THE PRICE OF CAPITAL

The CVF-V20 has long argued that the barrier facing its members is the price of capital rather than a shortage of opportunity. Members are forced to borrow and insure on worse terms, and sound investments are often priced as if their risks were higher than they are. The Climate Prosperity Plans were developed to change this by turning national priorities into costed, government-backed pipelines.

The projects in this book rely on proven technologies, address essential public and community needs such as waste management, clean cooking and reliable power, and deliver measurable climate outcomes. Carbon revenue strengthens their financial viability by turning these climate benefits into a more compelling investment case.

CARBON REVENUE IN THE PROJECT FINANCIAL MODEL

Carbon revenue works best when it is planned into the financial structure from project conception. One example from each country shows how:

- **Bhutan: building the revenue case for waste management.** Landfill gas capture at the Paro solid waste site is positioned for Article 6.4 crediting, with energy recovery adding a second revenue stream.
- **The Gambia: making clean cooking affordable.** The national carbon finance strategy proposes using carbon revenue to subsidise uptake under the programme to reach 100% clean cooking by 2030.
- **Madagascar: paying for results.** The 100 solar mini-grids of Flagship Project 3 plan to use smart-meter data for results-based and carbon finance.
- **Pakistan: strengthening project returns.** The 60 MW floating solar plant in Lahore has a thin margin over its cost of capital (IRR 14.72% against WACC 13.84%). Carbon revenue could improve its resilience to tariff and cost risk, but additionality will need to be demonstrated.
- **Sri Lanka: supporting large-scale renewable energy.** For the long-term offshore wind programme of up to 5 GW, Article 6.2 cooperation is the main carbon market opportunity, including, in the longer term, on power that may be exported once interconnection is in place.



WHY NOW

The international rules, modalities and procedures are now in place, and they are being used.

01 **The Article 6 rulebook is operational.** At CMA.6 in Baku (November 2024), Parties completed the core guidance for cooperative approaches under Article 6.2 and the mechanism under Article 6.4; implementation details continue to be refined.

02 **The UN-supervised mechanism (PACM) is issuing credits.** The Article 6.4 Supervisory Body adopted its first methodology, for landfill gas, in October 2025. The first Article 6.4 emission reductions were approved for issuance in February 2026, and by 6 September 2026, 35 activities had been registered: 20 projects and 15 programmes of activities. In October 2026 the Supervisory Body adopted two cookstove methodologies, bringing the total to five.

03 **Countries are building the institutions.** As at 1 September 2026, 130 Parties had designated a national authority for PACM, and 69 had communicated their host participation requirements by July 2026. All five countries in this book are engaged with the mechanism.

04 **Buyer countries are signing agreements.** Singapore's Implementation Agreement with Bhutan, signed in February 2025, lets companies use correspondingly adjusted credits from Bhutan to offset up to 5% of their taxable emissions under Singapore's carbon tax. The two countries opened a call for project applications in November 2025, with a list of eligible crediting programmes and methodologies.

85 of 96

Parties include information on Article 6 in their NDC 3.0 submitted by November 2025 (Wuppertal Institute, Carbon Mechanisms Fact Sheet, January 2026)

130

Parties with a designated national authority for the Paris Agreement Crediting Mechanism, 1 September 2026 (UNFCCC)

35

activities registered under the Paris Agreement Crediting Mechanism, 6 September 2026 (UNFCCC)

MAKING CARBON REVENUE WORK

Carbon revenue is an increasingly important source of climate finance. Prices vary by project type, applicable standard and credit vintage, and buyers are increasingly willing to pay a premium for high-quality credits. Credits carrying Article 6 authorisation, as well as those issued under PACM or bearing the CCP label, may command differentiated market values. Projects that build monitoring, reporting and verification (MRV) arrangements in from the outset are best placed to access these premium markets and maximise carbon revenue.

Carbon markets also give host countries choices. Each authorised transfer counts toward the buyer's target rather than the host's, so governments decide which activities to authorise based on their own national priorities and terms. Host countries can authorise mitigation outcomes for use toward another country's NDC or for other international mitigation purposes, such as the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and voluntary corporate claims. Units issued under PACM without authorisation, known as mitigation contribution units, can still be issued and used for results-based climate finance and domestic purposes. The projects in this book are presented on that basis, as strong candidates for carbon finance whose authorisation remains a national decision.

Quality builds value. International benchmarks such as the baseline and additionality rules of the Paris Agreement Crediting Mechanism and the Core Carbon Principles of the Integrity Council for the Voluntary Carbon Market (ICVCM) give buyers confidence in what they purchase. Projects that meet these criteria are well placed to attract buyers.

II.

CARBON MARKETS IN THE CLIMATE PROSPERITY PLANS

A Climate Prosperity Plan (CPP) is a multi-phase national strategy for investment and technology access that turns climate risk into bankable investment. On average, every US$1 invested along a CPP pathway is expected to generate US$3.78 in avoided costs and wider economic benefits by 2050 (CVF-V20 Investment Compendium, 2026).

Each CPP rests on five foundations:

- a green economy macroeconomic model that compares action and inaction to 2050;
- a plan for electrotech, green industrialisation and resilience;
- a financing strategy that sets the mix of public, private, concessional and commercial capital;
- a bankable pipeline of projects; and
- a local delivery ecosystem of government, investors, financial institutions and intermediaries.

As of September 2026, nine Climate Prosperity Plans are complete and 16 more are under way. Carbon markets sit within the financing strategy as a form of results-based finance: buyers pay for verified results, and member countries can use the revenue to reduce the risk of further investment.

HOW THE FIVE COUNTRIES USE CARBON FINANCE

BHUTAN

Bhutan's projects cover solar power, waste, cement, biogas and electric cooking. Its NDC states that the Bhutan Climate Fund will aggregate and monetise mitigation outcomes from renewable projects.

THE GAMBIA

The Gambia's Climate Prosperity Investment and Financing Strategy sets out a phased investment strategy of US$7.3 billion to 2050, starting with US$2.3 billion in 2025 to 2030. Its national carbon finance strategy proposes carbon revenue to support the uptake of clean cooking.

MADAGASCAR

Madagascar's projects are drawn from its national flagship projects, covering energy access, clean cooking, climate-smart agriculture, mangroves and forest corridors.

PAKISTAN

The Pakistan CPP sets the goal of becoming a net exporter of high-integrity carbon credits through Articles 6.2 and 6.4. The CPP sets an aspirational goal of large-scale credit generation by 2030; the volumes in this book (5.8 $MtCO_2e$ a year) are the quantified pipeline. Its modelling projects the value of carbon credits at US$6 billion by 2050 in the CPP scenario, against US$3.85 billion and US$3.4 billion in the conditional and unconditional NDC scenarios, driven mainly by reforestation.

SRI LANKA

Sri Lanka's CPP mobilises blended finance, carbon markets and debt-for-climate swaps. Its renewable energy projects look to PACM and to Article 6.2 cooperation.

III.

ABOUT THIS BOOK

The book covers 46 projects in five countries and four sectors: energy; waste; agriculture, forestry and other land use (AFOLU); and industrial processes and product use (IPPU). Projects are grouped by country in alphabetical order: Bhutan, The Gambia, Madagascar, Pakistan and Sri Lanka. Every profile reports the same twelve indicators.

THE TWELVE INDICATORS

01 Country

02 Project name

03 Sub-sector

04 Sector

05 Estimated annual reductions or removals (tCO_2e a year)

06 Eligible carbon credit mechanism or standard

07 Applicable methodology

08 Authorisation sought (with corresponding adjustment)

09 Integrity aspect

10 Project readiness

11 Lead implementing agency

12 Key remarks and decision required

HOW TO READ A PROJECT PROFILE

1 HEADER
project number, country, sector, project name and sub-sector

2 CARBON IMPACT AND OVERVIEW
estimated annual reductions or removals and a short description of the project

3 CARBON MARKET PATHWAY
mechanism or standard, methodology, authorisation sought and integrity aspect

4 KEY POINTS AND DECISION
the main features of the project and the decision that will move it forward

5 PROJECT SHEET
country, sector, readiness and lead implementing agency

6 DATA STATUS
which of the twelve indicators are reported, under review or to follow

Definitions of the indicators and of the carbon market terms used in the book are given in Annex A; abbreviations are listed in Annex B.

Disclaimer. Inclusion of a project in this book does not imply host country authorisation under Article 6, endorsement by any government, or an offer of credits for sale. Decisions on authorisation, corresponding adjustments and transfers rest solely with national authorities.



IV.

THE PORTFOLIO AT A GLANCE

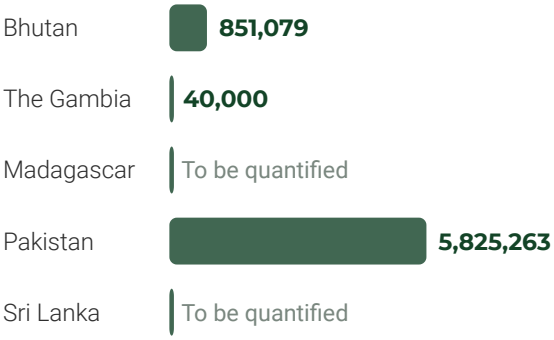
The 46 projects span five countries and four sectors. Energy is the largest group by number, with 20 projects, and also by reported volume (3.38 $MtCO_2e$ a year, mostly from the Revive cookstove programme), followed by waste (2.69 $MtCO_2e$ a year). By country, Pakistan accounts for 87% of the reported volume.

PROJECTS BY COUNTRY AND SECTOR

Country	Energy	Waste	AFOLU	IPPU	Total
Bhutan	3	2	2	1	8
The Gambia	4	2	4	–	10
Madagascar	3	–	4	1	8
Pakistan	4	8	1	1	14
Sri Lanka	6	–	–	–	6
Total	**20**	**12**	**11**	**3**	**46**

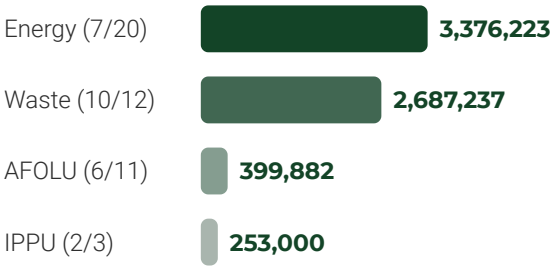
Number of projects. AFOLU: agriculture, forestry and other land use. IPPU: industrial processes and product use.

REPORTED EMISSION REDUCTIONS AND REMOVALS BY COUNTRY



Gross reported estimates in tCO_2e a year from quantified projects, before overlaps and deductions. Volumes for Madagascar and Sri Lanka will be added in the web version of the book as the projects are quantified.

REPORTED REDUCTIONS BY SECTOR



Gross reported estimates in tCO_2e a year from quantified projects; the figures in brackets show quantified projects out of the total in each sector.



CREDITING ROUTE



Independent crediting mechanisms 24 PACM 14

Both open 6 To be decided 2

Grid-connected solar and wind and landfill gas mostly point to PACM, where methodologies are in place. Nature-based projects, biogas, waste treatment and biochar point to independent crediting mechanisms.

AUTHORISATION SOUGHT (WITH CA)



Intended 20 To be determined 23 Not intended 3

Projects for which authorisation with a corresponding adjustment is intended can move to contract once the host country authorises their mitigation outcomes. Bhutan has positioned seven of its eight projects for authorisation.

INTEGRITY ASPECT

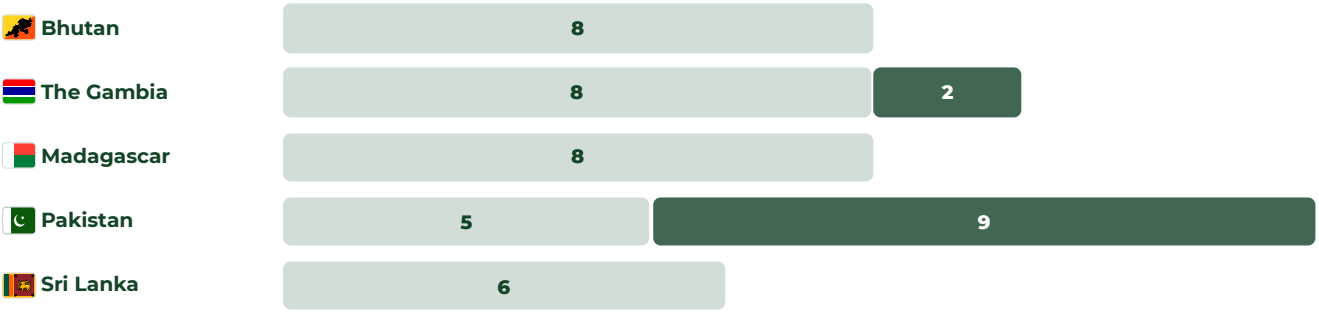


PACM route 16 CCP-approved methodology (label subject to conditions) 7 Not assessed or not listed 12

Not CCP-approved 3 To be determined or verified 8

Projects seeking to generate credits under PACM must follow the methodologies approved under the mechanism. For projects generating credits under independent crediting mechanisms, the ICVCM's Core Carbon Principles (CCP) label is applied by the crediting programme to issued credits from a CCP-approved methodology that meet the label conditions. A project at concept stage can therefore use a CCP-approved methodology, but its credits are labelled only on issuance.

READINESS BY COUNTRY



Concept Feasibility

Number of projects at concept and feasibility stage.



PROJECTS AT FEASIBILITY STAGE

Eleven projects have reached feasibility stage, the most advanced in the portfolio: two in The Gambia and nine in Pakistan. They are the strongest candidates for early engagement on authorisation, offtake and pre-finance, and they carry a green feasibility stage tag on their project pages.

Sr.	Project	Sector	Country	Status	Page
1	**National Renewable Energy and Storage Programme (383 MW solar + 272 MWh BESS)** A national programme of 383 MW of utility-scale solar PV with 272 MWh of battery storage, displacing heavy fuel oil generation on the grid.	Energy	The Gambia	Feasibility	28
2	**Mini-Grid Expansion and Grid Integration Programme** Expansion of renewable energy mini-grids to communities without electricity, with phased integration into the national grid.	Energy	The Gambia	Feasibility	29
3	**Wastewater Treatment Plant (WWTP) at Mehmood Booti/Shadbagh** A new wastewater treatment plant for Lahore at Mehmood Booti and Shadbagh that recovers the methane produced during treatment.	Waste	Pakistan	Feasibility	50
4	**Rehabilitation of Mehmood Booti Dumpsite into Urban Forest and Solar Park** Rehabilitation of the Mehmood Booti dumpsite in Lahore, combining landfill gas capture with an urban forest and a 5 MW solar park.	Waste	Pakistan	Feasibility	51
5	**500 TPD City Composting Facility** A city composting facility that turns 500 tonnes of municipal organic waste a day into compost and avoids landfill methane.	Waste	Pakistan	Feasibility	52
6	**Lakhodair Landfill Gas Collection and Utilization System (LFGCUS): Valorization Project** Collection of landfill gas at Lahore's Lakhodair site and its upgrading to bio-CNG, also known as renewable natural gas.	Waste	Pakistan	Feasibility	53
7	**Mehmood Booti Methane Capture Project** Extraction of landfill gas at the Mehmood Booti dumpsite in Lahore for power generation, alongside the rehabilitation of the site.	Waste	Pakistan	Feasibility	55
8	**Landfill Gas-to-Energy Project, Faisalabad** Capture of landfill gas at the Faisalabad site and its upgrading to bio-CNG, the largest landfill gas volume in the portfolio.	Waste	Pakistan	Feasibility	56
9	**Harbanspura Integrated Biogas and Biofertilizer Plant** An integrated plant in Harbanspura, Lahore, that digests 160 tonnes of cattle dung a day into biomethane and organic fertiliser.	Waste	Pakistan	Feasibility	57
10	**Revive Environment Improved Cookstoves Project in Pakistan** Large-scale distribution of improved biomass cookstoves to households across Pakistan, already registered under the Verified Carbon Standard.	Energy	Pakistan	Feasibility	58
11	**Project Balochistan Blue Carbon I: Mangrove ARR Project** Mangrove afforestation, reforestation and revegetation along the coast of Balochistan, generating blue carbon removals.	AFOLU	Pakistan	Feasibility	59



BHUTAN

8	4	851,079	3
projects	sectors	tCO_2e a year reported	projects with a PACM route



Energy 3 Waste 2 AFOLU 2 IPPU 1

CARBON MARKET SETUP

- Bhutan's third NDC (November 2025) commits the country to remain carbon neutral, with total greenhouse gas emissions not exceeding removals by sinks, including forests.
- The national authority for PACM is the Department of Environment and Climate Change, Ministry of Energy and Natural Resources. Bhutan submitted its host participation requirements on 22 September 2024. Three CDM projects had been approved by Bhutan for transition to PACM, and two had been registered by October 2026.
- Singapore and Bhutan signed an Implementation Agreement on carbon credits on 28 February 2025. Five per cent of proceeds from authorised credits will go to climate adaptation in Bhutan, and 2% of correspondingly adjusted credits will be cancelled at first issuance.
- The NDC states that the Bhutan Climate Fund will aggregate and monetise mitigation outcomes from renewable projects.

THE PORTFOLIO

Eight projects, all quantified, report 851,079 tCO_2e a year in gross reported estimates across energy, waste, AFOLU and industry. The Paro landfill gas and integrated waste management projects account for 684,800 tCO_2e and are subject to boundary reconciliation. Authorisation with a corresponding adjustment is intended for seven of the eight projects. The Department of Energy of the Ministry of Energy and Natural Resources will be responsible for the agrivoltaics project, and lead implementing agencies for the other projects are to be determined.

PROJECTS IN THIS SECTION

No.	Project	Sector	tCO_2e a year	Route	Authorisation (CA)	Readiness	Page
01	Agrivoltaics Project (1 MW, Agriculture Applications)	AFOLU	1,201	Independent	Intended	Concept	16
02	Efficient Electric Cookstoves Distribution (30,000 units)	Energy	6,300	Independent	Intended	Concept	17
03	Bhutan Solar Initiative: DSP Project (4.4 MW)	Energy	6,368	PACM	Intended	Concept	18
04	Rooftop Solar PV (7.8 MW)	Energy	8,507	PACM	Intended	Concept	19
05	Cement Industry: RDF Fuel	IPPU	103,000	Independent	Intended	Concept	20
06	Biogas Programme	AFOLU	40,903	Independent	Intended	Concept	21
07	Solid Waste: Landfill Project, Paro	Waste	237,600	PACM	Intended	Concept	22
08	Solid Waste: Integrated Waste Management	Waste	447,200	Independent	To be determined	Concept	23

No. 01 BHUTAN AFOLU

Agrivoltaics Project (1 MW, Agriculture Applications)

SUB-SECTOR Agrivoltaics

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

1,201

tCO_2e a year

PROJECT OVERVIEW

A 1 MW agrivoltaic installation in which solar photovoltaic (PV) panels are mounted above productive farmland. The plant generates renewable electricity for agricultural use while the land underneath stays in cultivation.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- AMS-I.D, grid-connected renewable electricity generation, if the plant exports power to the grid.
- AMS-I.F, renewable electricity for captive use or mini-grids, if the plant serves on-farm loads directly.
- Eligibility will be confirmed once the plant configuration is set.

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

Not CCP-approved

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 1,201 tCO_2e a year.
- Offers a model that can be replicated under Bhutan's solar diversification programme.

DECISION REQUIRED

Confirm whether the installations will export power to the grid or serve on-farm loads directly, since this decides which methodology applies.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Agrivoltaics

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 02 BHUTAN ENERGY

Efficient Electric Cookstoves Distribution (30,000 units)

SUB-SECTOR Clean cooking: electric (fuel switch)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

6,300
tCO_2e a year

PROJECT OVERVIEW

Distribution of 30,000 efficient electric cooking devices to households. The devices replace cooking with fuelwood and liquefied petroleum gas (LPG) with cooking powered by Bhutan's hydropower-based electricity grid.

CARBON MARKET PATHWAY

01
MECHANISM OR STANDARD
Verra Verified Carbon Standard (VCS) or Gold Standard

02
APPLICABLE METHODOLOGY
- Gold Standard Methodology for Metered and Measured Energy Cooking Devices (MECD), versions 1.0 to 1.2. This is the preferred option for metered electric cooking.
- Verra VM0050, version 1.0: Energy Efficiency and Fuel-Switch Measures in Cookstoves.

03
AUTHORISATION SOUGHT (WITH CA)
Intended

04
INTEGRITY ASPECT
CCP-approved methodology

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 6,300 tCO_2e a year.
- Delivers health and forest conservation co-benefits.
- Well suited to metered, digitally monitored crediting, in which the electricity used by each device is measured.

DECISION REQUIRED
Obtain host country authorisation and the corresponding adjustment, and select the metered crediting methodology.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Energy

SUB-SECTOR
Clean cooking: electric (fuel switch)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 03 BHUTAN ENERGY

Bhutan Solar Initiative: DSP Project (4.4 MW)

SUB-SECTOR Solar power (rooftop)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

6,368
tCO_2e a year

PROJECT OVERVIEW

A 4.4 MW grid-connected solar PV project under the Bhutan Solar Initiative. It adds daytime generation that complements Bhutan's seasonal hydropower.

CARBON MARKET PATHWAY

01
MECHANISM OR STANDARD
Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02
APPLICABLE METHODOLOGY
- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03
AUTHORISATION SOUGHT (WITH CA)
Intended

04
INTEGRITY ASPECT
PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 6,368 tCO_2e a year.
- Positioned to generate Article 6.4 units authorised by Bhutan, with a corresponding adjustment.

DECISION REQUIRED

Confirm the grid emission factor basis and re-test the volumes, then obtain host country authorisation for the Article 6.4 units and confirm the corresponding adjustment.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Energy

SUB-SECTOR
Solar power (rooftop)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 04 BHUTAN ENERGY

Rooftop Solar PV (7.8 MW)

SUB-SECTOR Solar power (rooftop)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

8,507
tCO_2e a year

PROJECT OVERVIEW

Distributed, grid-connected rooftop solar PV with a combined capacity of 7.8 MW, installed on public and commercial buildings.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**

- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 8,507 tCO_2e a year.
- Can be combined with the Bhutan Solar Initiative (DSP) project into a single PACM programme of activities, so that validation and monitoring costs are shared.

DECISION REQUIRED

Decide whether to register the systems as one PACM programme of activities, and confirm the grid emission factor basis and the volumes before authorisation.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Energy

SUB-SECTOR
Solar power (rooftop)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 05 BHUTAN IPPU

Cement Industry: RDF Fuel

SUB-SECTOR Cement industry

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

103,000

tCO_2e a year

PROJECT OVERVIEW

Co-processing of refuse-derived fuel (RDF) in Bhutan's cement kilns. The RDF partially replaces imported coal, and the municipal and industrial waste used to make it is diverted from disposal.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- ACM0003: Partial substitution of fossil fuels in cement or quicklime manufacture.
- Under consideration: proposed PACM methodology A6.4-PMM010, partial substitution of fossil fuels by municipal solid waste in cement manufacture (public input closed on 14 September 2026).

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 103,000 tCO_2e a year (indicative).
- Combines industrial decarbonisation with a solution for waste management.

DECISION REQUIRED

Confirm the supply of RDF feedstock and the cement plants that will take part, and define the boundary with Nos. 07 and 08, which draw on the same municipal waste stream.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Industrial processes and product use (IPPU)

SUB-SECTOR
Cement industry

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan (industry counterpart to be confirmed)

DATA STATUS OF THE 12 INDICATORS

11 reported · **1** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 06 BHUTAN AFOLU

Biogas Programme

SUB-SECTOR Household biogas from livestock manure

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

40,903
tCO_2e a year

PROJECT OVERVIEW

A national household biogas programme that converts livestock manure into cooking gas. It displaces fuelwood and LPG and reduces methane emissions from manure.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**

- Gold Standard Methodology for Animal Manure Management and Biogas Use for Thermal Energy Generation, versions 1.0 to 1.1, for household digesters.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

CCP-approved methodology

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 40,903 tCO_2e a year.
- Builds on Bhutan's experience with rural biogas.
- Delivers clean cooking and sanitation co-benefits, and bio-slurry that can be used as fertiliser.

DECISION REQUIRED

Confirm the programme's operational status (new or existing digesters).

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Household biogas from livestock manure

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 07 BHUTAN WASTE

Solid Waste: Landfill Project, Paro

SUB-SECTOR Landfill management

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

237,600
tCO_2e a year

PROJECT OVERVIEW

Capture of landfill gas at the Paro solid waste site, for flaring and for energy use.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**
Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**
- A6.4-AMM-001, version 01.0: Flaring or use of landfill gas.

03 **AUTHORISATION SOUGHT (WITH CA)**
Intended

04 **INTEGRITY ASPECT**
PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of 237,600 tCO_2e a year (indicative). The estimate is under review and will be re-baselined from waste-in-place data.
- Positioned for Article 6.4 crediting with a corresponding adjustment.
- Energy recovery adds a second revenue stream alongside carbon credits.

DECISION REQUIRED
Obtain host country authorisation with a corresponding adjustment.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Waste

SUB-SECTOR
Landfill management

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 08 BHUTAN WASTE

Solid Waste: Integrated Waste Management

SUB-SECTOR Integrated solid waste management

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

447,200
tCO_2e a year

PROJECT OVERVIEW

Integrated solid waste management that combines waste segregation, composting or anaerobic digestion, and material recovery, so that municipal waste is diverted from disposal.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**

- ACM0022: Alternative waste treatment processes, covering composting, anaerobic digestion, mechanical-biological treatment (MBT) and refuse-derived fuel (RDF).
- Smaller components may use AMS-III.F (composting) or AMS-III.AO (controlled anaerobic digestion).

03 **AUTHORISATION SOUGHT (WITH CA)**

To be determined

04 **INTEGRITY ASPECT**

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of 447,200 tCO_2e a year (indicative). The figure will be refined with national waste data.
- The volume may overlap with Nos. 05 and 07 and is subject to boundary reconciliation.

DECISION REQUIRED

Define this project's boundary relative to the Paro landfill project (No. 07) and the RDF project (No. 05) to avoid double counting.

PROJECT SHEET

COUNTRY
Bhutan

SECTOR
Waste

SUB-SECTOR
Integrated solid waste management

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Energy (DoE), Ministry of Energy and Natural Resources (MoENR), Royal Government of Bhutan

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks



THE GAMBIA

10	3	40,000	2
projects	sectors	tCO_2e a year reported	at feasibility stage

Energy 4 Waste 2 AFOLU 4

CARBON MARKET SETUP

- The Gambia's NDC 3.0 (August 2026) commits to an unconditional reduction of about 7.2% below the 2035 reference scenario, rising to 31.9% with international support.
- The Ministry of Environment, Climate Change and Natural Resources is the national authority for PACM. The host participation requirements cover renewable energy, energy efficiency, clean cooking, REDD+ and forest landscape restoration, integrated waste management, transport efficiency and the phase-down of HFCs. As a least developed country, The Gambia benefits from the waiver of mechanism fees for activities hosted in least developed countries.
- The Article 6 Pipeline records one cooperative approach and one Article 6.2 activity for The Gambia (October 2026).
- The Gambia's Climate Prosperity Investment and Financing Strategy sets out a phased investment strategy of US$7.3 billion to 2050.

THE PORTFOLIO

Ten projects span energy, AFOLU and waste. Two national energy programmes led by the National Water and Electricity Company (NAWEC) and the Ministry of Petroleum and Energy have reached feasibility stage, including 383 MW of solar with battery storage. Three nature-based projects, covering biochar, mangroves and savanna restoration, report 40,000 tCO_2e a year together, and further volumes will follow from the energy and waste projects.

PROJECTS IN THIS SECTION

No.	Project	Sector	tCO_2e a year	Route	Authorisation (CA)	Readiness	Page
09	Solar-Powered Irrigation Systems (10,000 ha)	Energy	To be quantified	Independent	To be determined	Concept	25
10	ILCAP: Methane Reduction and Genetic Improvement	AFOLU	To be quantified	Independent	To be determined	Concept	26
11	Mainstreaming Biochar Production in The Gambia	AFOLU	15,000	Independent	To be determined	Concept	27
12	National Renewable Energy and Storage Programme (383 MW solar + 272 MWh BESS)	Energy	To be quantified	PACM	Intended	Feasibility	28
13	Mini-Grid Expansion and Grid Integration Programme	Energy	To be quantified	Both open	To be determined	Feasibility	29
14	Clean Cooking Acceleration Initiative (100% clean cooking by 2030)	Energy	To be quantified	Both open	To be determined	Concept	30
15	Biogas from Organic Waste Programme	Waste	To be quantified	Independent	To be determined	Concept	31
16	Mangrove Restoration for Coastal Protection (10,000 ha)	AFOLU	15,000	Independent	To be determined	Concept	32
17	Re-greening Degraded Inland Landscapes (10,000 ha savanna)	AFOLU	10,000	Independent	To be determined	Concept	33
18	Municipal Waste-to-Energy Projects (Kanifing pilot)	Waste	To be quantified	Independent	To be determined	Concept	34

No. 09 THE GAMBIA ENERGY

Solar-Powered Irrigation Systems (10,000 ha)

SUB-SECTOR Solar irrigation

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Solar-powered irrigation across 10,000 hectares, replacing diesel pumps with solar pumping for smallholder farmers. The programme strengthens food security and cuts fuel costs.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Independent crediting mechanisms (VCS or Gold Standard)

02 **APPLICABLE METHODOLOGY**

- AMS-I.B (mechanical energy for the user) or AMS-I.A, under VCS or Gold Standard.

03 **AUTHORISATION SOUGHT (WITH CA)**

To be determined

04 **INTEGRITY ASPECT**

To be determined

KEY POINTS AND DECISION REQUIRED

- Emission reductions come from displacing diesel pumps and could be quantified and credited through a programme of activities.

DECISION REQUIRED

Needs more technical evaluation.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Energy

SUB-SECTOR
Solar irrigation

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Agriculture, Livestock and Food Security (MoALFS), The Gambia

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 10 THE GAMBIA AFOLU

ILCAP: Methane Reduction and Genetic Improvement

SUB-SECTOR Livestock enteric methane

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A livestock programme that combines improved feeding, herd management and genetic improvement. It lowers the intensity of enteric methane, the methane released by livestock during digestion, while raising productivity for Gambian livestock keepers.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**

- Verra VM0041, version 2.0: Reduction of Enteric Methane Emissions from Ruminants through the Use of Feed Ingredients.

03 **AUTHORISATION SOUGHT (WITH CA)**

To be determined

04 **INTEGRITY ASPECT**

To be verified

KEY POINTS AND DECISION REQUIRED

- Feed additive components offer the most direct route to carbon crediting.
- Emission reductions will be quantified as the project is prepared.

DECISION REQUIRED
Needs more technical evaluation.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Livestock enteric methane

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Livestock Services (DLS), Ministry of Agriculture, Livestock and Food Security (MoALFS)

DATA STATUS OF THE 12 INDICATORS

9 reported · **2** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 11 THE GAMBIA AFOLU

Mainstreaming Biochar Production in The Gambia

SUB-SECTOR Biochar and avoided residue burning

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

15,000

tCO_2e a year

PROJECT OVERVIEW

Conversion of crop residues into biochar for application to soils. This creates durable carbon removals, improves soil fertility and avoids the burning of crop residues.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Puro.earth, Isometric or Verra

02

APPLICABLE METHODOLOGY

- Verra VM0044, version 1.2: Biochar Utilization in Soil and Non-Soil Applications.
- Isometric Biochar Production and Storage, version 1.0 (CCP-approved).
- Puro.earth Biochar Methodology 2025, version 2.0 (under assessment by the ICVCM).

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

CCP status depends on the methodology chosen

KEY POINTS AND DECISION REQUIRED

- Estimated removals of about 15,000 tCO_2e a year.
- Durable carbon removals attract strong buyer demand.

DECISION REQUIRED

Confirm feedstock volumes and the production technology.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Biochar and avoided residue burning

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Agriculture, Livestock and Food Security (MoALFS) / National Agricultural Research Institute (NARI) (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

11 reported · **1** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 12 THE GAMBIA ENERGY FEASIBILITY STAGE

National Renewable Energy and Storage Programme (383 MW solar + 272 MWh BESS)

SUB-SECTOR Utility-scale solar PV with battery storage

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A national programme of 383 MW of utility-scale solar PV with 272 MWh of battery energy storage (BESS). It displaces heavy fuel oil generation on The Gambia's grid.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**
Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**
- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03 **AUTHORISATION SOUGHT (WITH CA)**
Intended

04 **INTEGRITY ASPECT**
PACM

KEY POINTS AND DECISION REQUIRED

- Because the grid emission factor is high, each megawatt-hour of solar power yields strong emission reductions.
- Plans propose bundling the solar capacity into certified carbon credit portfolios.
- Emission reductions will be quantified as the project is prepared.

DECISION REQUIRED
Quantify emission reductions and decide how the solar capacity will be bundled into carbon credit portfolios.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Energy

SUB-SECTOR
Utility-scale solar PV with battery storage

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
National Water and Electricity Company (NAWEC) / Ministry of Petroleum and Energy (MoPE)

DATA STATUS OF THE 12 INDICATORS

11 reported · **0** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 13 THE GAMBIA ENERGY FEASIBILITY STAGE

Mini-Grid Expansion and Grid Integration Programme

SUB-SECTOR Mini-grids

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Expansion of renewable energy mini-grids to communities without electricity, with phased integration into the national grid. The programme replaces diesel and kerosene and expands access to energy.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

PACM, Verra VCS or Gold Standard

02

APPLICABLE METHODOLOGY

- VCS or Gold Standard: AMS-I.L (electrification of rural communities using renewable energy) or AMS-I.F (renewable electricity for captive use and mini-grids).
- PACM: A6.4-AMM-003, only if its applicability to isolated mini-grids is confirmed.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

To be determined

KEY POINTS AND DECISION REQUIRED

- Two crediting routes are open: independent crediting mechanisms (VCS or Gold Standard) or PACM, depending on methodology applicability.
- Emission reductions will be quantified as the project is prepared.

DECISION REQUIRED

Choose between PACM and independent crediting mechanisms once methodology applicability to isolated mini-grids is confirmed.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Energy

SUB-SECTOR
Mini-grids

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
National Water and Electricity Company (NAWEC) / Ministry of Petroleum and Energy (MoPE)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 14 THE GAMBIA ENERGY

Clean Cooking Acceleration Initiative (100% clean cooking by 2030)

SUB-SECTOR LPG, electric cooking and bioethanol

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A national programme to reach 100% clean cooking by 2030 through LPG, electric cooking and bioethanol, reducing the use of fuelwood and charcoal.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

PACM, Verra or Gold Standard

02

APPLICABLE METHODOLOGY

- PACM: A6.4-AMM-004, Cooking energy transitions (adopted at the 23rd meeting of the Supervisory Body, October 2026).
- Voluntary market: Verra VM0050, version 1.0, or Gold Standard MECD, versions 1.0 to 1.2, for metered electric cooking.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

To be determined

KEY POINTS AND DECISION REQUIRED

- The Gambia's national carbon finance strategy proposes using carbon revenue to subsidise uptake, and considers Article 6.2 cooperation.
- Emission reductions will be quantified as the project is prepared.

DECISION REQUIRED

Decide on the use of carbon revenue to subsidise uptake.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Energy

SUB-SECTOR
LPG, electric cooking and bioethanol

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Petroleum and Energy (MoPE), The Gambia

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 15 THE GAMBIA WASTE

Biogas from Organic Waste Programme

SUB-SECTOR Urban and agricultural biogas

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Anaerobic digestion of urban organic waste, crop residues and manure to produce biogas for energy and to avoid the methane released when waste decomposes.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Manure digesters: AMS-III.D (small scale) or ACM0010.
- Urban organic waste: AMS-III.AO (controlled anaerobic digestion) or ACM0022.
- Household digesters: Gold Standard Animal Manure Management and Biogas Use methodology (CCP-approved).

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Project plans identify both Article 6.2 cooperation and the voluntary carbon market as finance routes.
- Emission reductions will be quantified as the project is prepared.

DECISION REQUIRED

Choose between Article 6.2 cooperation and the voluntary carbon market.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Waste

SUB-SECTOR
Urban and agricultural biogas

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Petroleum and Energy (MoPE) / municipal councils

DATA STATUS OF THE 12 INDICATORS

9 reported · **2** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 16 THE GAMBIA AFOLU

Mangrove Restoration for Coastal Protection (10,000 ha)

SUB-SECTOR Mangrove restoration (blue carbon)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

15,000
tCO_2e a year

PROJECT OVERVIEW

Restoration of 10,000 hectares of mangroves to protect the coast and to generate blue carbon removals.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Verra VM0033, version 2.1: Tidal Wetland and Seagrass Restoration.
- Alternative: Gold Standard Sustainable Management of Mangroves, version 1.0 (under assessment by the ICVCM).

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated removals of about 15,000 tCO_2e a year, based on a conservative rate of 1.5 tonnes per hectare per year.
- National plans estimate USD 110 million in carbon revenue by 2050 across reforestation and blue carbon. This project would contribute a share.

DECISION REQUIRED

Confirm the sequestration rate to firm up volumes, and decide on authorisation and the corresponding adjustment.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Mangrove restoration (blue carbon)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Forestry / Department of Parks and Wildlife Management (DPWM), Ministry of Environment, Climate Change and Natural Resources (MECCNAR)

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 17 THE GAMBIA AFOLU

Re-greening Degraded Inland Landscapes (10,000 ha savanna)

SUB-SECTOR Savanna restoration and agroforestry

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

10,000
tCO_2e a year

PROJECT OVERVIEW

Restoration of 10,000 hectares of degraded inland savanna through tree planting, assisted natural regeneration and agroforestry.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Verra VM0047, versions 1.0 to 1.1: Afforestation, Reforestation and Revegetation, for tree planting and assisted natural regeneration.
- Verra VM0042, version 2.2: Improved Agricultural Land Management, for soil carbon on agroforestry cropland.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

CCP-approved methodology

KEY POINTS AND DECISION REQUIRED

- Estimated removals of about 10,000 tCO_2e a year, rising as the stands mature.
- Delivers land restoration, livelihood and biodiversity co-benefits.

DECISION REQUIRED

Confirm the species, including neem, against the safeguards of the chosen standard.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Savanna restoration and agroforestry

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Department of Forestry, Ministry of Environment, Climate Change and Natural Resources (MECCNAR)

DATA STATUS OF THE 12 INDICATORS

11 reported · **1** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 18 THE GAMBIA WASTE

Municipal Waste-to-Energy Projects (Kanifing pilot)

SUB-SECTOR Anaerobic digestion or RDF waste-to-energy

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A pilot waste-to-energy facility in Kanifing using anaerobic digestion, refuse-derived fuel processing, or both. It diverts municipal waste from open dumping and generates energy.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- ACM0022 (alternative waste treatment through anaerobic digestion or RDF) or AMS-III.AO (controlled anaerobic digestion).
- Electricity exported to the grid is treated as a separate AMS-I.D component.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Emission reductions will be quantified as the project is prepared.

DECISION REQUIRED

Select the technology supplier.

PROJECT SHEET

COUNTRY
The Gambia

SECTOR
Waste

SUB-SECTOR
Anaerobic digestion or RDF waste-to-energy

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Kanifing Municipal Council (KMC) / Ministry of Petroleum and Energy (MoPE)

DATA STATUS OF THE 12 INDICATORS

9 reported · **2** under review · **1** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

MADAGASCAR

8	3	3	7
projects	sectors	projects with a PACM route	projects with a voluntary route

Energy 3 AFOLU 4 IPPU 1

CARBON MARKET SETUP

- The national authority for PACM is the National Bureau for Climate Change and REDD+ (BNCCREDD+) of the Ministry of Environment and Sustainable Development.
- Madagascar's host participation requirements welcome activities in energy, clean cooking, transport, industry, waste, forestry and agroforestry, sustainable agriculture and livestock. A participation strategy with positive and negative lists, and a procedures manual, are being prepared.
- Decree No. 2025-626 regulates access to the forest carbon market. Project-level forest crediting must be nested with, and not double count, the jurisdictional programme.
- Madagascar's Atiala Atsinanana Emission Reductions Program, in the eastern humid forests, is supported by the World Bank's Forest Carbon Partnership Facility with up to US$50 million for 10 $MtCO_2e$.

THE PORTFOLIO

Eight national flagship projects span AFOLU, energy and industry, from clean cooking for 2 million households to 100 solar mini-grids and 10,000 hectares of mangroves. Several are designed to work together: the agro-processing units and health centres with the solar mini-grids of Flagship Project 3, and the watershed reforestation with a wider national reforestation programme. Emission reductions will be quantified as the projects move to feasibility.

PROJECTS IN THIS SECTION

No.	Project	Sector	tCO_2e a year	Route	Authorisation (CA)	Readiness	Page
19	Flagship Project 2: One District, One Factory (ODOF)	IPPU	To be quantified	Independent	To be determined	Concept	36
20	Flagship Project 3: Access to Clean Energy (100 solar mini-grids)	Energy	To be quantified	PACM	Intended	Concept	37
21	Flagship Project 4: Clean Cooking Transformation Programme (2 million households by 2030)	Energy	To be quantified	Both open	To be determined	Concept	38
22	Flagship Project 5: Climate-Smart Agriculture Transformation Hubs	AFOLU	To be quantified	Independent	To be determined	Concept	39
23	Flagship Project 6: Integrated Marine Resilience and Sustainable Aquaculture Zones (10,000 ha mangroves)	AFOLU	To be quantified	Independent	To be determined	Concept	40
24	Flagship Project 7: Rural Water Security (500 solar boreholes) and 25,000 ha Watershed Reforestation	AFOLU	To be quantified	Independent	To be determined	Concept	41
25	Flagship Project 8: Solarisation and Climate Adaptation of 300 Primary Health Centres	Energy	To be quantified	Both open	Intended	Concept	42
26	Flagship Project 11: National Ecotourism and Biodiversity Corridors Initiative	AFOLU	To be quantified	Independent	To be determined	Concept	43

No. 19 MADAGASCAR IPPU

Flagship Project 2: One District, One Factory (ODOF)

SUB-SECTOR Agro-processing units powered by renewable energy

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 2, One District, One Factory (ODOF), will set up agro-processing units powered by renewable energy in all 22 regions by 2028.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- AMS-I.F (captive renewable electricity) or AMS-I.D (grid-connected), applied site by site.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

Not CCP-approved

KEY POINTS AND DECISION REQUIRED

- Its main carbon value comes from anchoring demand for the solar mini-grids of Flagship Project 3.

DECISION REQUIRED

Confirm the lead agency and plan the installations together with the solar mini-grids of Flagship Project 3.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Industrial processes and product use (IPPU)

SUB-SECTOR
Agro-processing units powered by renewable energy

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Industrialisation / Ministry of Economy and Finance (MEF) (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 20 MADAGASCAR ENERGY

Flagship Project 3: Access to Clean Energy (100 solar mini-grids)

SUB-SECTOR Solar mini-grids with storage

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 3, Access to Clean Energy, will build 100 solar mini-grids with storage. They will bring clean electricity to rural communities and replace diesel generators and kerosene.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02

APPLICABLE METHODOLOGY

- A6.4-AMM-003, version 01.0. Its applicability to isolated mini-grids must be confirmed.
- Alternative under VCS or Gold Standard: AMS-I.F or AMS-I.L.

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

To be determined

KEY POINTS AND DECISION REQUIRED

- The national plan names both the voluntary carbon market and compliance routes.
- Smart-meter data is planned for results-based finance and carbon finance.
- A strong candidate for a programme of activities.

DECISION REQUIRED

Confirm methodology applicability to isolated mini-grids and decide whether to register as a programme of activities.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Energy

SUB-SECTOR
Solar mini-grids with storage

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Energy and Hydrocarbons (MEH) / Rural Electrification Development Agency (ADER) (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

11 reported · **0** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 21 MADAGASCAR ENERGY

Flagship Project 4: Clean Cooking Transformation Programme (2 million households by 2030)

SUB-SECTOR Clean cooking (LPG, ethanol, improved cookstoves, biogas)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 4, the Clean Cooking Transformation Programme, aims to move 2 million households to improved stoves, LPG, ethanol and biogas by 2030, replacing charcoal and fuelwood.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

PACM, Verra or Gold Standard

02

APPLICABLE METHODOLOGY

- PACM: A6.4-AMM-004 (Cooking energy transitions, fuel switch) and A6.4-AMM-005 (Energy efficiency measures in household cooking, improved biomass stoves), both adopted in October 2026.
- Voluntary market: Verra VM0050, version 1.0; Gold Standard TPDDTEC, version 4.0, or MECD.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

PACM

KEY POINTS AND DECISION REQUIRED

- Indicative potential of 2 to 4 $MtCO_2e$ a year at full scale, to be confirmed through quantification.
- The national plan considers Gold Standard and Verra programmatic structures.

DECISION REQUIRED

Select the programmatic route (a PACM, Gold Standard or Verra programme of activities).

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Energy

SUB-SECTOR
Clean cooking (LPG, ethanol, improved cookstoves, biogas)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Energy and Hydrocarbons (MEH) (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 22 MADAGASCAR AFOLU

Flagship Project 5: Climate-Smart Agriculture Transformation Hubs

SUB-SECTOR Climate-smart agriculture hubs (soil carbon, agroforestry)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 5, Climate-Smart Agriculture Transformation Hubs, promotes improved land management and agroforestry.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Verra VM0042, version 2.2: Improved Agricultural Land Management, for soil carbon.
- Verra VM0047, versions 1.0 to 1.1, for agroforestry tree planting.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

CCP-approved methodology

KEY POINTS AND DECISION REQUIRED

- The programme is led by adaptation goals.
- The national plan identifies soil carbon and agroforestry removals as an additional revenue stream.

DECISION REQUIRED

Decide whether to pursue soil carbon and agroforestry crediting alongside the adaptation objectives, and quantify the expected removals.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Climate-smart agriculture hubs (soil carbon, agroforestry)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Agriculture and Livestock (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 23 MADAGASCAR AFOLU

Flagship Project 6: Integrated Marine Resilience and Sustainable Aquaculture Zones (10,000 ha mangroves)

SUB-SECTOR Mangrove restoration (blue carbon)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 6, Integrated Marine Resilience and Sustainable Aquaculture Zones, combines the restoration of 10,000 hectares of mangroves with sustainable aquaculture.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Verra VM0033, version 2.1: Tidal Wetland and Seagrass Restoration.
- VM0047 does not apply to tidal wetlands.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Indicative potential of 50,000 to 100,000 tCO_2e a year at maturity, to be confirmed through quantification.
- The national plan also identifies Plan Vivo, Verra blue carbon methods and blue bonds as financing routes.

DECISION REQUIRED

Quantify removals and select the crediting route from the options identified.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Mangrove restoration (blue carbon)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Fisheries and Blue Economy (MPEB) / Ministry of Environment and Sustainable Development (MEDD) (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

9 reported · **2** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 24 MADAGASCAR AFOLU

Flagship Project 7: Rural Water Security (500 solar boreholes) and 25,000 ha Watershed Reforestation

SUB-SECTOR Watershed reforestation and solar pumping

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 7, Rural Water Security, combines 500 solar-powered boreholes with 25,000 hectares of watershed reforestation, delivering water access and landscape restoration.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Reforestation: Verra VM0047, versions 1.0 to 1.1.
- Solar boreholes: AMS-I.B (or AMS-I.A) where diesel pumps are displaced.
- AMS-I.D does not apply, as the boreholes are off-grid.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

CCP-approved methodology

KEY POINTS AND DECISION REQUIRED

- Reforestation is the main source of carbon credits.
- It can be aggregated with a wider national reforestation programme to achieve scale.

DECISION REQUIRED

Decide whether to aggregate the reforestation with the national programme under Flagship Project 12.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Watershed reforestation and solar pumping

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Water, Sanitation and Hygiene (MEAH) (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 25 MADAGASCAR ENERGY

Flagship Project 8: Solarisation and Climate Adaptation of 300 Primary Health Centres

SUB-SECTOR Solar PV for health facilities

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 8 brings solar PV and climate adaptation upgrades to 300 primary health centres, replacing diesel back-up power and making services more reliable.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

PACM for grid-connected sites, or independent crediting mechanisms for off-grid sites

02

APPLICABLE METHODOLOGY

- A6.4-AMM-003, version 01.0, only for grid-connected facilities.
- Off-grid systems can use AMS-I.A or AMS-I.F under VCS or Gold Standard.

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

PACM

KEY POINTS AND DECISION REQUIRED

- The national plan suggests integration into energy access credit frameworks.
- Well suited to bundling with the solar mini-grids of Flagship Project 3.

DECISION REQUIRED

Decide whether to bundle with the solar mini-grids of Flagship Project 3, and confirm the methodology for off-grid sites.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Energy

SUB-SECTOR
Solar PV for health facilities

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Public Health (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 26 MADAGASCAR AFOLU

Flagship Project 11: National Ecotourism and Biodiversity Corridors Initiative

SUB-SECTOR Biodiversity corridors and forest conservation

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Flagship Project 11, the National Ecotourism and Biodiversity Corridors Initiative, protects and restores forests along key corridors, with tourism revenue supporting conservation.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- Verra VM0048, version 1.0 (REDD+), for avoided deforestation, nested in jurisdictional activity data allocated by Verra.
- Verra VM0047, versions 1.0 to 1.1, for corridor restoration.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

CCP-approved methodology

KEY POINTS AND DECISION REQUIRED

- The national plan cites long-term revenue from carbon markets.
- Its REDD+ components, which reduce emissions from deforestation and forest degradation, are designed to nest within Madagascar's jurisdictional REDD+ programmes.

DECISION REQUIRED

Confirm how the REDD+ components will nest within Madagascar's jurisdictional REDD+ programmes.

PROJECT SHEET

COUNTRY
Madagascar

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Biodiversity corridors and forest conservation

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Environment and Sustainable Development (MEDD) / Ministry of Tourism (to be confirmed)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

PAKISTAN

14	4	5,825,263	9
projects	sectors	tCO_2e a year reported	at feasibility stage



● Energy 4 ● Waste 8 ● AFOLU 1 ● IPPU 1

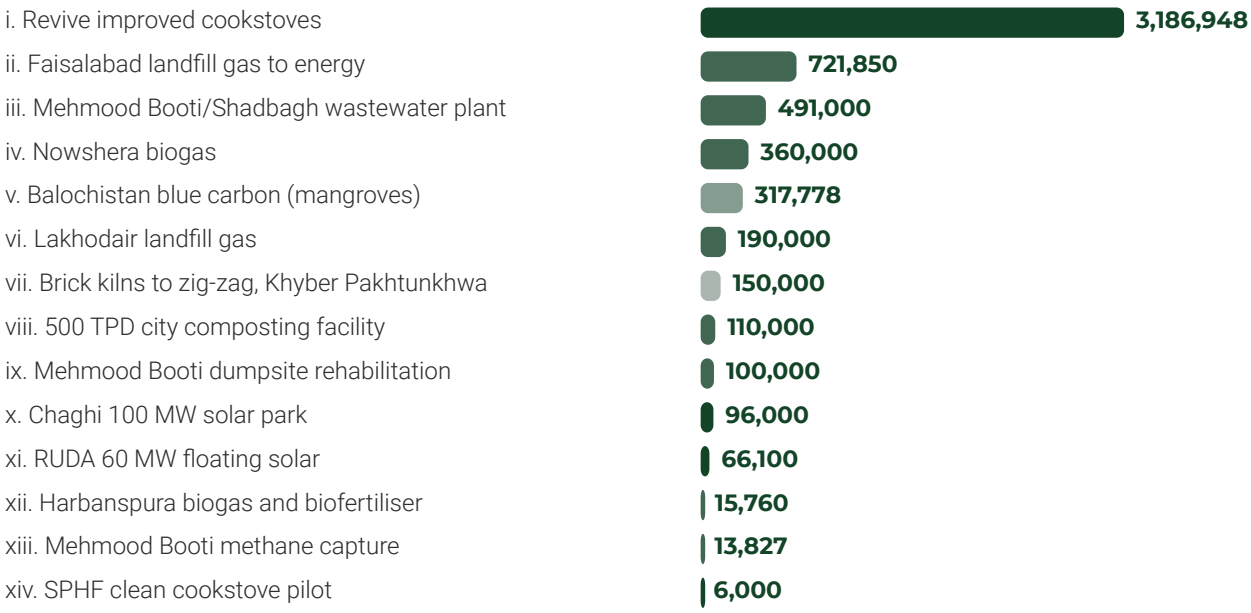
CARBON MARKET SETUP

- Pakistan's NDC 3.0 (September 2025) targets a 50% reduction in emissions below business as usual by 2035: 17% unconditional and 33% conditional on international finance.
- The Policy Guidelines for Trading in Carbon Markets (2024), launched at COP29 and published in January 2025, name MoCC&EC as the National Designated Authority. Projects move from a Project Idea Note and Letter of Intent to a registered Project Design Document, and receive a No Objection Certificate before any transfer.
- Five per cent of credits are deducted at source for Pakistan's NDC, with a corresponding adjustment fee of 12% of net revenue and an administrative fee of 1% of gross revenue.

THE PORTFOLIO

Fourteen projects have been quantified, representing an estimated annual emission reduction potential of 5.83 $MtCO_2e$ in gross reported estimates. Eight projects are in the waste sector, while nine have reached the feasibility stage, the highest number among all countries. The Revive Cookstove Programme and the Faisalabad Landfill Gas Project are the largest projects in the portfolio. The Mehmood Booti dumpsite rehabilitation project (No. 32) and methane capture project (No. 36) are proposed to be consolidated within a single carbon project boundary, together with related activities at the Mehmood Booti site. Because projects No. 31, No. 32 and No. 36 are all located at Mehmood Booti, their reported volumes may overlap and will be reconciled when the boundary is defined.

REPORTED REDUCTIONS BY PROJECT



Gross reported estimates in tCO_2e a year, before overlaps and deductions, ranked by volume. Projects No. 31, No. 32 and No. 36 are subject to boundary reconciliation at Mehmood Booti.

PROJECTS IN THIS SECTION

No.	Project	Sector	tCO_2e a year	Route	Authorisation (CA)	Readiness	Page
27	Mitigating Climate Change through Conversion of Traditional Brick Kilns to Zig Zag Technology	IPPU	150,000	Independent	To be determined	Concept	46
28	Clean Cookstove Project: Pilot Initiative for Sindh People's Housing for Flood Affectees (SPHF)	Energy	6,000	Both open	Intended	Concept	47
29	Chaghi 100 MW Utility-Scale Solar Park (Chagai Solar Park)	Energy	96,000	PACM	Intended	Concept	48
30	RUDA 60 MW Floating Solar	Energy	66,100	PACM	Intended	Concept	49
31	Wastewater Treatment Plant (WWTP) at Mehmood Booti/Shadbagh	Waste	491,000	Independent	To be determined	Feasibility	50
32	Rehabilitation of Mehmood Booti Dumpsite into Urban Forest and Solar Park	Waste	100,000	PACM	To be determined	Feasibility	51
33	500 TPD City Composting Facility	Waste	110,000	Independent	To be determined	Feasibility	52
34	Lakhodair Landfill Gas Collection and Utilization System (LFGCUS): Valorization Project	Waste	190,000	PACM	Intended	Feasibility	53
35	Nowshera Biogas Project: Turning Farm Waste into Clean Energy	Waste	360,000	Independent	To be determined	Concept	54
36	Mehmood Booti Methane Capture Project	Waste	13,827	PACM	Intended	Feasibility	55
37	Landfill Gas-to-Energy Project, Faisalabad	Waste	721,850	PACM	Intended	Feasibility	56
38	Harbanspura Integrated Biogas and Biofertilizer Plant	Waste	15,760	Independent	To be determined	Feasibility	57
39	Revive Environment Improved Cookstoves Project in Pakistan	Energy	3,186,948	Both open	Intended	Feasibility	58
40	Project Balochistan Blue Carbon I: Mangrove ARR Project	AFOLU	317,778	Independent	To be determined	Feasibility	59



No. 27 PAKISTAN IPPU

Mitigating Climate Change through Conversion of Traditional Brick Kilns to Zig Zag Technology

SUB-SECTOR Brick kiln energy efficiency (zig-zag)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

150,000
tCO_2e a year

PROJECT OVERVIEW

Conversion of traditional brick kilns in Khyber Pakhtunkhwa to zig-zag technology, which cuts coal use, air pollution and black carbon.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**
Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**
- AMS-III.Z: Fuel switch, process improvement and energy efficiency in brick manufacture.

03 **AUTHORISATION SOUGHT (WITH CA)**
To be determined

04 **INTEGRITY ASPECT**
Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 150,000 tCO_2e a year.
- Well suited to a programme of activities that brings many kilns together under one registration.

DECISION REQUIRED
Confirm whether the Khyber Pakhtunkhwa Brick Kilns Registration Ordinance 2024 mandates zig-zag conversion. If it does, the reductions may not be additional.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Industrial processes and product use (IPPU)

SUB-SECTOR
Brick kiln energy efficiency (zig-zag)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Environmental Protection Agency (EPA), Government of Khyber Pakhtunkhwa

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 28 PAKISTAN ENERGY

Clean Cookstove Project: Pilot Initiative for Sindh People's Housing for Flood Affectees (SPHF)

SUB-SECTOR Improved biomass cookstoves

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

6,000
tCO_2e a year

PROJECT OVERVIEW

A pilot that provides improved biomass cookstoves to households living in flood reconstruction housing built by the Sindh People's Housing for Flood Affectees (SPHF).

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

PACM, Verra or Gold Standard

02 **APPLICABLE METHODOLOGY**

- PACM: A6.4-AMM-005, Energy efficiency measures in household cooking (adopted October 2026).
- Voluntary market: Gold Standard TPDDTEC, version 4.0 (referenced in project documents), or Verra VM0050, version 1.0.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 6,000 tCO_2e a year.
- Article 6.2 is referenced as a possible engagement mode.
- Offers a template that can be replicated across SPHF's programme of 2.1 million homes.

DECISION REQUIRED

Confirm the crediting route and plan replication across SPHF's housing programme.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Energy

SUB-SECTOR
Improved biomass cookstoves

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Resources Future (Project Developer) with Sindh People's Housing for Flood Affectees (SPHF)

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 29 PAKISTAN ENERGY

Chaghi 100 MW Utility-Scale Solar Park (Chagai Solar Park)

SUB-SECTOR Utility-scale solar PV (mining and grid)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

96,000

tCO_2e a year

PROJECT OVERVIEW

A 100 MW utility-scale solar park in Chaghi, Balochistan, supplying mining loads, the grid, or both.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02

APPLICABLE METHODOLOGY

- A6.4-AMM-003, version 01.0. It applies where the plant feeds an electricity system such as the grid.
- Applicability to a captive mining system will be confirmed at design stage.

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 96,000 tCO_2e a year.
- Displacing diesel used for captive mining loads strengthens the carbon case.
- Carbon revenue could complement the 85% climate fund financing assumed for the project, alongside 15% co-finance from the Government of Balochistan.
- Additionality and the treatment of climate-fund results must be confirmed.

DECISION REQUIRED

Confirm whether the plant will serve the grid, a captive mining network or both, as this decides methodology applicability.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Energy

SUB-SECTOR
Utility-scale solar PV (mining and grid)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Government of Balochistan (15% co-finance); climate-fund Accredited Entity to be confirmed

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 30 PAKISTAN ENERGY

RUDA 60 MW Floating Solar

SUB-SECTOR Floating solar PV (grid-connected)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

66,100
tCO_2e a year

PROJECT OVERVIEW

A 60 MW grid-connected floating solar PV plant on water bodies in the Ravi Riverfront development, Lahore.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**

- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 66,100 tCO_2e a year.
- The plant has a thin margin over its cost of capital, with an internal rate of return (IRR) of 14.72% against a weighted average cost of capital (WACC) of 13.84%. Carbon revenue could improve its resilience to tariff and cost risk, but additionality will need to be demonstrated.
- The licence, tariff and power purchase agreement (PPA) from the National Electric Power Regulatory Authority (NEPRA) are pending.

DECISION REQUIRED

Secure the NEPRA licence, tariff and PPA, and build carbon revenue into the financial model.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Energy

SUB-SECTOR
Floating solar PV (grid-connected)

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ravi Urban Development Authority (RUDA), Government of Punjab

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 31 | PAKISTAN | WASTE | FEASIBILITY STAGE

Wastewater Treatment Plant (WWTP) at Mehmood Booti/Shadbagh

SUB-SECTOR Methane from municipal wastewater

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

491,000

tCO_2e a year

PROJECT OVERVIEW

A new municipal wastewater treatment plant for Lahore at Mehmood Booti and Shadbagh, with recovery of the methane produced during treatment.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- ACM0014: Treatment of wastewater. This methodology is required because the volume exceeds the 60,000 tCO_2e a year limit of the small-scale methodology AMS-III.H.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of 491,000 tCO_2e a year (indicative). The baseline is under review.
- The plant is planned as a public-private partnership paid through an annuity, and carbon revenue could reduce the annuity paid from public funds.

DECISION REQUIRED

Confirm the baseline at feasibility stage and decide how carbon revenue will be applied to the annuity.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Methane from municipal wastewater

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Government of Punjab, public-private partnership (Water and Sanitation Agency (WASA), Lahore)

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 32 | PAKISTAN | WASTE | FEASIBILITY STAGE

Rehabilitation of Mehmood Booti Dumpsite into Urban Forest and Solar Park

SUB-SECTOR Dumpsite closure, landfill gas, urban forest and 5 MW solar

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

100,000

tCO_2e a year

PROJECT OVERVIEW

Rehabilitation of the Mehmood Booti dumpsite in Lahore, combining landfill gas capture, an urban forest and a 5 MW solar park.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02

APPLICABLE METHODOLOGY

- A6.4-AMM-001, version 01.0, for landfill gas capture.
- A6.4-AMM-003, version 01.0, for the 5 MW solar park, if it is grid-connected.
- The urban forest would be registered separately with Verra under VM0047.

03

AUTHORISATION SOUGHT (WITH CA)

To be determined

04

INTEGRITY ASPECT

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 100,000 tCO_2e a year.
- Holds an Article 6.2 Letter of Intent from MoCC&EC (April 2025). The route (Article 6.2 or PACM) and authorisation are to be confirmed.

DECISION REQUIRED

Define one integrated carbon project boundary for the Mehmood Booti site, together with the Mehmood Booti Methane Capture Project (No. 36) and other related activities at the site.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Dumpsite closure, landfill gas, urban forest and 5 MW solar

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Government of Punjab / Ravi Urban Development Authority (RUDA) with private partners

DATA STATUS OF THE 12 INDICATORS

11 reported · **1** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 33 | PAKISTAN | WASTE | FEASIBILITY STAGE

500 TPD City Composting Facility

SUB-SECTOR Composting of municipal solid waste

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

110,000
tCO_2e a year

PROJECT OVERVIEW

A city composting facility processing 500 tonnes a day. It converts municipal organic waste into compost and avoids the methane this waste would produce in a landfill.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**
Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**
- ACM0022: Alternative waste treatment processes.

03 **AUTHORISATION SOUGHT (WITH CA)**
To be determined

04 **INTEGRITY ASPECT**
Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 110,000 tCO_2e a year.
- Project documents assume a credit value of USD 1.5 to 2 million a year, about USD 15 per tonne or around 30% of project revenue. This is an assumption, before deductions.
- Candidate sites are Lahore, Faisalabad and Multan.

DECISION REQUIRED
Select the site and confirm the crediting route under ACM0022, taking into account that diverting organic waste lowers the landfill gas baselines of Nos. 34 and 37.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Composting of municipal solid waste

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Punjab municipal waste management company (entity to be confirmed), PPP on Build-Own-Operate-Transfer (BOOT) basis

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 34 PAKISTAN WASTE FEASIBILITY STAGE

Lakhodair Landfill Gas Collection and Utilization System (LFGCUS): Valorization Project

SUB-SECTOR Landfill gas to bio-CNG and renewable natural gas

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

190,000
tCO_2e a year

PROJECT OVERVIEW

Collection of landfill gas at Lahore's Lakhodair site and its upgrading to bio-CNG, also known as renewable natural gas (RNG).

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**
Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**
- A6.4-AMM-001, version 01.0: Flaring or use of landfill gas.

03 **AUTHORISATION SOUGHT (WITH CA)**
Intended

04 **INTEGRITY ASPECT**
PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 190,000 tCO_2e a year.
- One of the most Article 6-ready projects in the portfolio. It is designed to generate authorised Article 6.4 emission reductions (A6.4ERs) that can be transferred as internationally transferred mitigation outcomes (ITMOs).
- The feasibility study is funded by SPAR6C.

DECISION REQUIRED
Host country authorisation through a Letter of Authorisation (LoA), and a commitment to apply the corresponding adjustment, are needed before concept clearance.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Landfill gas to bio-CNG and renewable natural gas

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Suthra Punjab Authority (SPA), 20-year Design-Build-Finance-Operate-Maintain (DBFOM) concession

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 35 PAKISTAN WASTE

Nowshera Biogas Project: Turning Farm Waste into Clean Energy

SUB-SECTOR Biogas from cattle dung

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

360,000
tCO_2e a year

PROJECT OVERVIEW

Anaerobic digestion of 120 tonnes of cattle dung a day in Nowshera, Khyber Pakhtunkhwa, producing biogas and avoiding the methane released by manure.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**
Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**
- AMS-III.D: Methane recovery in animal manure management systems.
- ACM0010 if the project is large scale.

03 **AUTHORISATION SOUGHT (WITH CA)**
To be determined

04 **INTEGRITY ASPECT**
Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of 360,000 tCO_2e a year (indicative). The estimate is to be re-baselined.

DECISION REQUIRED
Fund the pilot and feasibility study and re-baseline the emission reductions.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Biogas from cattle dung

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Resources Future, Sarhad Rural Support Programme (SRSP), Revgreen

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 36 PAKISTAN WASTE FEASIBILITY STAGE

Mehmood Booti Methane Capture Project

SUB-SECTOR Landfill gas capture for power

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

13,827

tCO_2e a year

PROJECT OVERVIEW

Extraction of landfill gas at the Mehmood Booti dumpsite, Lahore, for power generation.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02

APPLICABLE METHODOLOGY

- A6.4-AMM-001, version 01.0: Flaring or use of landfill gas.

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 13,827 tCO_2e a year on average.

DECISION REQUIRED

Integrate into one carbon project boundary for the Mehmood Booti site, together with the dumpsite rehabilitation project (No. 32) and other related activities at the site.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Landfill gas capture for power

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Ravi Urban Development Authority (RUDA), Government of Punjab

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 37 PAKISTAN WASTE FEASIBILITY STAGE

Landfill Gas-to-Energy Project, Faisalabad

SUB-SECTOR Landfill gas to bio-CNG

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS

Proponent estimate, before deductions

721,850

tCO_2e a year

PROJECT OVERVIEW

Capture of landfill gas in Faisalabad and its upgrading to bio-CNG.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02

APPLICABLE METHODOLOGY

- A6.4-AMM-001, version 01.0: Flaring or use of landfill gas.

03

AUTHORISATION SOUGHT (WITH CA)

Intended

04

INTEGRITY ASPECT

PACM

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 721,850 tCO_2e a year, the largest volume from a single site in Pakistan's portfolio.
- The current financial model shows a minimum debt service coverage ratio (DSCR) of 0.60x, below the level lenders typically require. Carbon pre-finance or offtake, alongside tariff and structuring changes, would be needed to make the project bankable.
- The feasibility study is the next step.

DECISION REQUIRED

Complete the feasibility study and explore carbon pre-finance or offtake to support debt sizing.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Landfill gas to bio-CNG

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Suthra Punjab Authority (SPA), Waste to Value Cell; Faisalabad Waste Management Company (FWMC) and Metropolitan Corporation Faisalabad

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 38 PAKISTAN WASTE FEASIBILITY STAGE

Harbanspura Integrated Biogas and Biofertilizer Plant

SUB-SECTOR Biogas and biomethane from cattle dung

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

15,760
tCO_2e a year

PROJECT OVERVIEW

An integrated biogas and biofertiliser plant in Harbanspura, Lahore, digesting 160 tonnes of cattle dung a day into biomethane and organic fertiliser.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Verra Verified Carbon Standard (VCS) or Gold Standard

02 **APPLICABLE METHODOLOGY**

- AMS-III.D: Methane recovery in animal manure management systems.
- AMS-III.AQ: Introduction of Bio-CNG in transportation applications, for the biomethane-for-vehicles component.
- ACM0010 if the project is large scale.

03 **AUTHORISATION SOUGHT (WITH CA)**

To be determined

04 **INTEGRITY ASPECT**

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 15,760 tCO_2e a year.
- The feasibility study is complete.

DECISION REQUIRED

Build the proposed 70/30 sharing of carbon credits between the Suthra Punjab Authority and Pak Suzuki into the financial model before registration.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Waste

SUB-SECTOR
Biogas and biomethane from cattle dung

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Pak Suzuki Motor Company Ltd. with Suthra Punjab Authority (SPA) and Lahore Waste Management Company (LWMC)

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks

No. 39 | PAKISTAN | ENERGY | FEASIBILITY STAGE

Revive Environment Improved Cookstoves Project in Pakistan

SUB-SECTOR Improved cookstoves (voluntary market, at scale)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

3,186,948
tCO_2e a year

PROJECT OVERVIEW

Large-scale distribution of improved biomass cookstoves across Pakistan.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

PACM, Verra or Gold Standard

02 **APPLICABLE METHODOLOGY**

- Verra VM0050, version 1.0, as the transition from the inactive VMR0006.
- PACM alternative: A6.4-AMM-005, Energy efficiency measures in household cooking.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

VM0050: CCP-approved, subject to conditions

KEY POINTS AND DECISION REQUIRED

- Estimated emission reductions of about 3.19 $MtCO_2e$ a year.
- Registered under the VCS and transitioning to VM0050. Volumes will be re-quantified and are likely to fall.
- Debt-financed, with debt service dependent on carbon revenue.

DECISION REQUIRED

Decide on the Letter of Authorisation applied for with MoCC&EC.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Energy

SUB-SECTOR
Improved cookstoves (voluntary market, at scale)

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
Revive Environment (Pvt.) Ltd.; authorisation by Ministry of Climate Change and Environmental Coordination (MoCC&EC)

DATA STATUS OF THE 12 INDICATORS

12 reported · **0** under review · **0** to follow

- Country
- Project name
- Sub-sector
- Sector
- Annual reductions
- Standard
- Methodology
- Authorisation (CA)
- Integrity aspect
- Readiness
- Lead agency
- Remarks

No. 40 PAKISTAN AFOLU FEASIBILITY STAGE

Project Balochistan Blue Carbon I: Mangrove ARR Project

SUB-SECTOR Mangrove afforestation, reforestation and revegetation (blue carbon)

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

317,778
tCO_2e a year

PROJECT OVERVIEW

Mangrove afforestation and restoration along the coast of Balochistan.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Verra Verified Carbon Standard (VCS)

02 **APPLICABLE METHODOLOGY**

- Verra VM0033, version 2.1: Tidal Wetland and Seagrass Restoration.
- VM0047 does not apply to tidal wetlands.

03 **AUTHORISATION SOUGHT (WITH CA)**

To be determined

04 **INTEGRITY ASPECT**

Not assessed or not listed

KEY POINTS AND DECISION REQUIRED

- Estimated removals of about 317,778 tCO_2e a year on average.
- Developed through a request for proposals (RFP) process. Removal volumes are before the non-permanence buffer contribution required for AFOLU projects.

DECISION REQUIRED

Decide whether the Government of Balochistan's share of revenue is taken as authorised ITMOs.

PROJECT SHEET

COUNTRY
Pakistan

SECTOR
Agriculture, forestry and other land use (AFOLU)

SUB-SECTOR
Mangrove afforestation, reforestation and revegetation (blue carbon)

PROJECT READINESS
Feasibility

LEAD IMPLEMENTING AGENCY
SPV of Fauji Fertilizer Company Ltd. (FFC) (51%) and Ahya Technologies (49%), with Balochistan Public Private Partnership Authority (BPPPA) and Forest & Wildlife Department, Government of Balochistan (GoB)

DATA STATUS OF THE 12 INDICATORS

10 reported · **2** under review · **0** to follow

Country	Project name	Sub-sector	Sector	Annual reductions	Standard
Methodology	Authorisation (CA)	Integrity aspect	Readiness	Lead agency	Remarks



SRI LANKA

6	1	3	1
projects	sector	projects with a PACM route	projects with a voluntary route

● Energy 6

CARBON MARKET SETUP

- Sri Lanka's NDC 3.0 (September 2025) targets a cumulative reduction of 20.09% below business as usual over 2026 to 2035: 8.11% unconditional and 11.98% conditional. It aims for 70% renewable energy in electricity generation by 2030.
- The national authority for PACM is the Ministry of Environment. Sri Lanka submitted its host participation requirements on 6 January 2025 and had approved the transition of eight CDM projects to PACM as of June 2026.
- The host requirements set conditions for electricity activities, including caps on their share of total carbon reduction, and link wind and solar projects to capacity supported by donors and partner governments.
- Japan and Sri Lanka signed a Memorandum of Cooperation on the Joint Crediting Mechanism on 10 October 2022. The Article 6 Pipeline records two bilateral agreements and one cooperative approach for Sri Lanka.

THE PORTFOLIO

Six energy projects span offshore and onshore wind, utility-scale solar, biomass power, off-grid solar home systems and solar pumps. The grid-connected wind and solar projects look to PACM and Article 6.2 cooperation, led by the long-term offshore wind programme of up to 5 GW. The off-grid systems are suited to aggregation as a programme of activities under independent crediting mechanisms. Capacity and emission reductions will be confirmed as the projects advance.

PROJECTS IN THIS SECTION

In the case of Sri Lanka, the country has published a positive priority list identifying activities eligible for corresponding adjustments (The list of positive project areas for implementation of Article 6 of the Paris Agreement in Sri Lanka, September 2024). The corresponding adjustment status in the table below is based on this list. The eligible emission reductions will vary with the corresponding adjustment percentages specified in the list. Projects not on the list may still be credited without authorisation.

No.	Project	Sector	tCO_2e a year	Route	Authorisation (CA)	Readiness	Page
41	Sri Lanka Offshore Wind Array (Jaffna to Puttalam, 5 GW by 2030)	Energy	To be quantified	PACM	Intended	Concept	61
42	Wind Power Project, Hambantota	Energy	To be quantified	PACM	Intended	Concept	62
43	Solar Power Plant, Trincomalee	Energy	To be quantified	PACM	Intended	Concept	63
44	Solar Home Systems for Off-grid Customers	Energy	To be quantified	To be decided	Not intended	Concept	64
45	Biomass-fired Thermal Power Plant	Energy	To be quantified	Independent	Not intended	Concept	65
46	Solar Powered Water Pumps	Energy	To be quantified	To be decided	Not intended	Concept	66

No. 41 SRI LANKA ENERGY

Sri Lanka Offshore Wind Array (Jaffna to Puttalam, 5 GW by 2030)

SUB-SECTOR Offshore wind

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A keystone long-term offshore wind programme of up to 5 GW between Jaffna and Puttalam, which would substantially decarbonise Sri Lanka's grid.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**

- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

PACM

KEY POINTS AND DECISION REQUIRED

- Capital cost of about USD 16 billion.
- Its carbon market relevance includes lowering the grid emission factor and, in the longer term, power that may be exported once interconnection is in place.
- Authorisation must be weighed against Sri Lanka's own NDC renewable energy target.

DECISION REQUIRED

Define the scope for Article 6.2 cooperation, based on the national policy document now under development.

PROJECT SHEET

COUNTRY
Sri Lanka

SECTOR
Energy

SUB-SECTOR
Offshore wind

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Power & Energy (current designation to be confirmed) / Ceylon Electricity Board (CEB)

DATA STATUS OF THE 12 INDICATORS

11 reported · **0** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 42 SRI LANKA ENERGY

Wind Power Project, Hambantota

SUB-SECTOR Onshore wind

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A grid-connected onshore wind farm at Hambantota in southern Sri Lanka, displacing fossil fuel generation on the grid.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**

- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

PACM

KEY POINTS AND DECISION REQUIRED

- Capacity and emission reductions will be confirmed during project preparation.

DECISION REQUIRED

Confirm capacity and quantify emission reductions, and define the scope for Article 6.2 cooperation based on the national policy document now under development.

PROJECT SHEET

COUNTRY
Sri Lanka

SECTOR
Energy

SUB-SECTOR
Onshore wind

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ceylon Electricity Board (CEB) / Sri Lanka Sustainable Energy Authority (SLSEA)

DATA STATUS OF THE 12 INDICATORS

11 reported · **0** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 43 SRI LANKA ENERGY

Solar Power Plant, Trincomalee

SUB-SECTOR Utility-scale solar PV

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A grid-connected utility-scale solar PV plant at Trincomalee in eastern Sri Lanka, displacing fossil fuel generation on the grid.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

Paris Agreement Crediting Mechanism (PACM, Article 6.4)

02 **APPLICABLE METHODOLOGY**

- A6.4-AMM-003, version 01.0: Electricity generation from renewable sources connected to an electricity system.

03 **AUTHORISATION SOUGHT (WITH CA)**

Intended

04 **INTEGRITY ASPECT**

PACM

KEY POINTS AND DECISION REQUIRED

- Capacity and emission reductions will be confirmed during project preparation.

DECISION REQUIRED

Define the scope for Article 6.2 cooperation, based on the national policy document now under development.

PROJECT SHEET

COUNTRY
Sri Lanka

SECTOR
Energy

SUB-SECTOR
Utility-scale solar PV

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ceylon Electricity Board (CEB) / Sri Lanka Sustainable Energy Authority (SLSEA)

DATA STATUS OF THE 12 INDICATORS

11 reported · **0** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 44 SRI LANKA ENERGY

Solar Home Systems for Off-grid Customers

SUB-SECTOR Off-grid solar home systems

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Solar home systems for households without a grid connection, replacing kerosene lighting and diesel with clean electricity.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

To be decided

02 **APPLICABLE METHODOLOGY**

- To be decided.
- VCS or Gold Standard: AMS-I.A, electricity generation by the user (likely).

03 **AUTHORISATION SOUGHT (WITH CA)**

Not intended

04 **INTEGRITY ASPECT**

To be determined

KEY POINTS AND DECISION REQUIRED

- There is a strong precedent for using a programme of activities to aggregate many small systems.

DECISION REQUIRED

Decide whether to register the systems as a programme of activities, bundled with the solar water pumps.

PROJECT SHEET

COUNTRY
Sri Lanka

SECTOR
Energy

SUB-SECTOR
Off-grid solar home systems

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ceylon Electricity Board (CEB) / Sri Lanka Sustainable Energy Authority (SLSEA)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 45 SRI LANKA ENERGY

Biomass-fired Thermal Power Plant

SUB-SECTOR Biomass power

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

A grid-connected power plant fuelled by agricultural residues or dedicated plantations, displacing fossil fuel generation.

CARBON MARKET PATHWAY

01

MECHANISM OR STANDARD

Verra Verified Carbon Standard (VCS) or Gold Standard

02

APPLICABLE METHODOLOGY

- ACM0018: Electricity generation from biomass in power-only plants, for plants above 15 MW.
- AMS-I.D for plants of 15 MW or less.
- AMS-I.C only if heat is co-produced.

03

AUTHORISATION SOUGHT (WITH CA)

Not intended

04

INTEGRITY ASPECT

Not CCP-approved

KEY POINTS AND DECISION REQUIRED

- Emission reductions will be quantified during project preparation.

DECISION REQUIRED

Confirm the plant capacity and the sustainable sourcing of biomass.

PROJECT SHEET

COUNTRY
Sri Lanka

SECTOR
Energy

SUB-SECTOR
Biomass power

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ceylon Electricity Board (CEB) / Sri Lanka Sustainable Energy Authority (SLSEA)

DATA STATUS OF THE 12 INDICATORS

11 reported · **0** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

No. 46 SRI LANKA ENERGY

Solar Powered Water Pumps

SUB-SECTOR Solar irrigation pumps

ESTIMATED ANNUAL REDUCTIONS OR REMOVALS
Proponent estimate, before deductions

To be quantified

PROJECT OVERVIEW

Solar-powered irrigation pumps that replace diesel and kerosene pumps for farmers, reducing fuel costs and emissions.

CARBON MARKET PATHWAY

01 **MECHANISM OR STANDARD**

To be decided

02 **APPLICABLE METHODOLOGY**

- Independent crediting mechanisms are the best fit.
- Alternative under VCS or Gold Standard: AMS-I.B, mechanical energy for the user.

03 **AUTHORISATION SOUGHT (WITH CA)**

Not intended

04 **INTEGRITY ASPECT**

To be determined

KEY POINTS AND DECISION REQUIRED

- Volumes are small, so the project is suited to bundling with the off-grid solar home systems programme (No. 44).

DECISION REQUIRED

Decide whether to bundle with the off-grid solar home systems programme.

PROJECT SHEET

COUNTRY
Sri Lanka

SECTOR
Energy

SUB-SECTOR
Solar irrigation pumps

PROJECT READINESS
Concept

LEAD IMPLEMENTING AGENCY
Ministry of Agriculture (to be confirmed) / Sri Lanka Sustainable Energy Authority (SLSEA)

DATA STATUS OF THE 12 INDICATORS

10 reported · **1** under review · **1** to follow

● Country	● Project name	● Sub-sector	● Sector	○ Annual reductions	● Standard
● Methodology	● Authorisation (CA)	● Integrity aspect	● Readiness	● Lead agency	● Remarks

VI.

KEY FINDINGS AND NEXT STEPS



KEY FINDINGS

01 **Pakistan's waste projects are closest to market.** Seven of Pakistan's nine feasibility-stage projects are in waste, and landfill gas has an adopted PACM methodology and an approved CCP category. Lakhodair is among the most Article 6-ready projects in the portfolio, and Faisalabad carries the largest landfill gas volume.

02 **The route decides the methodology and the price.** Grid-connected renewable electricity and landfill gas suit PACM. Nature-based projects, biochar, biogas and waste treatment look to independent crediting mechanisms.

03 **Aggregation is a recurring strength.** Rooftop solar in Bhutan, mini-grids with health centres and agro-processing in Madagascar, brick kilns in Pakistan and off-grid systems in Sri Lanka can each be grouped into a programme of activities that shares validation and monitoring costs across many sites.

04 **Authorisation decisions will set the pace.** Several projects are ready for a decision: Lakhodair needs a Letter of Authorisation before concept clearance, the Revive programme is a priority Article 6.2 decision, and Balochistan is deciding whether its revenue share is taken as authorised units.

NEXT STEPS

Who	Next steps
Host governments	Confirm lead agencies and project boundaries, and take decisions on authorisation and corresponding adjustments, starting with projects at feasibility stage.
Project proponents	Prepare volume estimates and baselines, confirm methodology applicability, and build carbon revenue and fees into financial models before registration.
Investors and buyers	Engage early on offtake and pre-finance, support programmatic structures, and set out which units they need: authorised or not, PACM or voluntary, carrying the CCP label or not.
Technical and development partners	Fund feasibility and quantification work, and support national registries, MRV systems and authorisation procedures.
CVF-V20 Secretariat	Update the portfolio as projects advance, bring host governments together with buyers and investors, and share project information with the consent of the host government concerned. The Secretariat does not act as a broker or seller of credits.

DEFINITIONS

THE TWELVE INDICATORS

Indicator	Definition	Values used
Country	Host country of the project.	Bhutan, The Gambia, Madagascar, Pakistan, Sri Lanka
Project name	Name of the project as given in the national plan or project documents.	Text
Sub-sector	Type of activity within the sector.	For example landfill gas, solar irrigation, mangrove restoration
Sector	Main emissions sector, following IPCC categories.	Energy; Waste; AFOLU; IPPU
Estimated annual reductions or removals	Proponent estimate of reductions or removals per year, in tCO2e, before deductions (see Deductions in the carbon market terms).	A figure, or To be quantified
Mechanism or standard	Crediting route the project is eligible for or intends to use.	PACM; Verra VCS; Gold Standard; Puro.earth; Isometric; a combination of these; To be decided
Applicable methodology	Methodology or methodologies that would apply, with notes on applicability.	Code, name and version
Authorisation sought (with CA)	Whether authorisation with a corresponding adjustment is intended for the mitigation outcomes. The corresponding adjustment follows from the host country's authorisation decision.	Intended; Not intended; To be determined
Integrity aspect	Status of the methodology under the ICVCM Core Carbon Principles for independent crediting mechanisms, or PACM for projects on the PACM route.	PACM; CCP-approved methodology (label subject to conditions); Not CCP-approved; Not assessed or not listed; To be verified; To be determined
Project readiness	Stage of project preparation.	Concept; Feasibility
Lead implementing agency	Government agency or company leading the project.	Name, or to be confirmed
Key remarks and decision required	Main features of the project and the decision that will move it forward.	Text

CARBON MARKET TERMS

Article 6.2 cooperative approaches	Agreements between two or more countries to transfer mitigation outcomes. The host country authorises each transfer and applies a corresponding adjustment. Examples for countries in this book include Singapore's Implementation Agreement with Bhutan (February 2025) and the Joint Crediting Mechanism between Japan and Sri Lanka (October 2022).
Article 6.4 and the Paris Agreement Crediting Mechanism (PACM)	The UN crediting mechanism established under Article 6.4 of the Paris Agreement and supervised by the Supervisory Body. Its methodologies use baselines that are generally adjusted downwards over time, and require credible evidence that the incentive from A6.4ERs is needed. By October 2026 it had adopted five methodologies: landfill gas (A6.4-AMM-001), nitrous oxide abatement in nitric acid production (A6.4-AMM-002), grid-connected renewable electricity (A6.4-AMM-003) and two for household cooking (A6.4-AMM-004 and A6.4-AMM-005).
Voluntary carbon market	The market in which companies and other organisations buy credits to meet their own climate commitments. Independent standards such as Verra's Verified Carbon Standard (VCS), the Gold Standard, Puro.earth and Isometric set methodologies and register projects.
ITMO	Internationally transferred mitigation outcome: a mitigation outcome authorised by the host Party for use toward an NDC or other international mitigation purposes, including authorised A6.4ERs, once first transferred.
A6.4ER	Article 6.4 emission reduction: the unit issued under PACM. A6.4ERs issued without authorisation are mitigation contribution units, which can be used for results-based climate finance and domestic purposes.
Share of proceeds	The part of PACM issuance and fees set aside for adaptation and administration: 5% of issued A6.4ERs is transferred to the Adaptation Fund, and a monetary share of proceeds covers administrative expenses.
Overall mitigation in global emissions (OMGE)	The cancellation of at least 2% of issued A6.4ERs, which cannot be used by anyone, so that the mechanism delivers a net benefit to the atmosphere.
Deductions	Before credits reach a buyer, reported volumes are typically reduced. Under PACM, the share of proceeds for adaptation and the OMGE cancellation apply. AFOLU projects contribute to a non-permanence buffer pool under their crediting programme. Host countries may also apply their own deductions, such as Pakistan's 5% deduction for its NDC.
Authorisation	A host government's formal approval for a mitigation outcome to be used toward another country's target or other international purposes, usually through a Letter of Authorisation (LoA).
Corresponding adjustment	The accounting entry by which a host country adds authorised, transferred tonnes back to its emissions balance, so that only the buyer counts them.
Methodology	The approved rules for setting a project's baseline, testing additionality, and measuring and monitoring its emission reductions or removals.
Additionality	The requirement that the reduction would not have happened without carbon revenue.
Core Carbon Principles (CCP)	The quality benchmark of the Integrity Council for the Voluntary Carbon Market (ICVCM). Credits in an approved category, defined by project type and methodology, can carry the CCP label.
Programme of activities	A single registration that covers many similar small activities, such as cookstoves or rooftop systems, added over time.
MRV	Monitoring, reporting and verification: the measurement of results and their independent audit before credits are issued.
Reductions and removals	Reductions avoid emissions, for example by capturing landfill methane. Removals take carbon out of the atmosphere, for example through mangroves or biochar.

ANNEX B

ABBREVIATIONS

A6.4ER	Article 6.4 emission reduction
ADER	Rural Electrification Development Agency (Madagascar)
AFOLU	Agriculture, forestry and other land use
ARR	Afforestation, reforestation and revegetation
BESS	Battery energy storage system
BNCCREDD+	National Bureau for Climate Change and REDD+ (Madagascar)
BOOT	Build-Own-Operate-Transfer
CA	Corresponding adjustment
CCP	Core Carbon Principles
CDM	Clean Development Mechanism
CEB	Ceylon Electricity Board
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CNG	Compressed natural gas
COP	Conference of the Parties
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CPP	Climate Prosperity Plan
CVF-V20	Climate Vulnerable Forum and V20 Group of Finance Ministers
DBFOM	Design-Build-Finance-Operate-Maintain
DLS	Department of Livestock Services (The Gambia)
DoE	Department of Energy (Bhutan)
DPWM	Department of Parks and Wildlife Management (The Gambia)
DSCR	Debt service coverage ratio
DSM	Demand-side management
EPA	Environmental Protection Agency
FCPF	Forest Carbon Partnership Facility
FFC	Fauji Fertilizer Company Ltd.
FWMC	Faisalabad Waste Management Company
HFC	Hydrofluorocarbon
ICVCM	Integrity Council for the Voluntary Carbon Market
IPPU	Industrial processes and product use
IRR	Internal rate of return
ITMO	Internationally transferred mitigation outcome
KMC	Kanifing Municipal Council (The Gambia)
LDC	Least developed country
LFG	Landfill gas
LoA	Letter of Authorisation
LOI	Letter of Intent
LPG	Liquefied petroleum gas
LWMC	Lahore Waste Management Company
MBT	Mechanical-biological treatment
MEAH	Ministry of Water, Sanitation and Hygiene (Madagascar)
MECCNAR	Ministry of Environment, Climate Change and Natural Resources (The Gambia)
MECD	Metered and Measured Energy Cooking Devices
MEDD	Ministry of Environment and Sustainable Development (Madagascar)
MEF	Ministry of Economy and Finance (Madagascar)
MEH	Ministry of Energy and Hydrocarbons (Madagascar)
MoALFS	Ministry of Agriculture, Livestock and Food Security (The Gambia)
MoCC&EC	Ministry of Climate Change and Environmental Coordination (Pakistan)
MoENR	Ministry of Energy and Natural Resources (Bhutan)
MoPE	Ministry of Petroleum and Energy (The Gambia)
MPEB	Ministry of Fisheries and Blue Economy (Madagascar)
MRV	Monitoring, reporting and verification
MSW	Municipal solid waste
$MtCO_2e$	Million tonnes of carbon dioxide equivalent
NARI	National Agricultural Research Institute (The Gambia)
NAWEC	National Water and Electricity Company (The Gambia)
NDA	National Designated Authority
NDC	Nationally determined contribution
NEPRA	National Electric Power Regulatory Authority (Pakistan)
NOC	No Objection Certificate
NPV	Net present value
ODOF	One District, One Factory (Madagascar)
OMGE	Overall mitigation in global emissions
PACM	Paris Agreement Crediting Mechanism
PDD	Project Design Document
PoA	Programme of activities
PPA	Power purchase agreement
PPP	Public-private partnership
PV	Photovoltaic
RDF	Refuse-derived fuel
REDD+	Reducing emissions from deforestation and forest degradation, plus conservation and sustainable management of forests
RFP	Request for proposals
RNG	Renewable natural gas
RUDA	Ravi Urban Development Authority
SLSEA	Sri Lanka Sustainable Energy Authority
SPA	Suthra Punjab Authority
SPAR6C	Supporting Preparedness for Article 6 Cooperation
SPHF	Sindh People's Housing for Flood Affectees
tCO_2e	Tonnes of carbon dioxide equivalent
TPD	Tonnes per day
TPDDTEC	Technologies and Practices to Displace Decentralized Thermal Energy Consumption
VCMI	Voluntary Carbon Markets Integrity Initiative
VCS	Verified Carbon Standard (Verra)
WACC	Weighted average cost of capital
WASA	Water and Sanitation Agency
WWTP	Wastewater treatment plant



CLIMATE VULNERABLE FORUM AND V20 GROUP OF FINANCE MINISTERS