GOVERNMENT OF SIERRA LEONE
ENVIRONMENT PROTECTION AGENCY
CENTRE FOR ENVIRONMENTAL DATA AND STATISTICS

Sierra Leone's Climate Promise

NDC 3.0, 2025 to 2035: what the country has committed to do, how it will be paid for, and how progress will be tracked



Inside this atlas

01 What a climate promise is and why it matters
02 The target: cutting emissions by 2035
03 Energy, transport and waste
04 Forests, mangroves and farming
05 Adapting: food, water, health, schools, infrastructure, early warning
06 Where action happens and what is already being lost
07 Paying for it
08 The right technologies
09 Tracking progress and including everyone

Cut emissions
Mitigation

Stay safe
Adaptation

Pay for it
Finance and technology

Show results
Tracking and reporting

Based on Sierra Leone's NDC 3.0 (October 2025), its Adaptation and Mitigation Measures, Climate Finance Roadmap and MRV Plan, and the Technology Needs Assessment (July 2026).

01 WHAT A CLIMATE PROMISE IS, AND WHY IT MATTERS

Sierra Leone adds very little to global warming but is among the countries most exposed to it

The promise, in four parts

Cut emissions
Mitigation in energy, transport, waste, forests and farming

Adapt to impacts
Food, water, health, schools, infrastructure and warnings

Pay and equip
Finance, technology and skills to deliver

Be accountable
Measure, report and verify, with everyone included

Milestones on the road

- **2021** Updated NDC submitted
- **2024** First Biennial Update Report
- **Oct 2025** NDC 3.0 launched, covering 2025 to 2035
- **2027** End of MRV Phase I, when the digital system is built and piloted
- **2030** First set of targets due

Words used in this atlas

NDC Nationally Determined Contribution: a country's own climate plan under the Paris Agreement

Adaptation getting ready for climate impacts

Mt and Gg million tonnes and thousand tonnes of CO_2 equivalent

Conditional depends on international support

Mitigation cutting greenhouse gas emissions

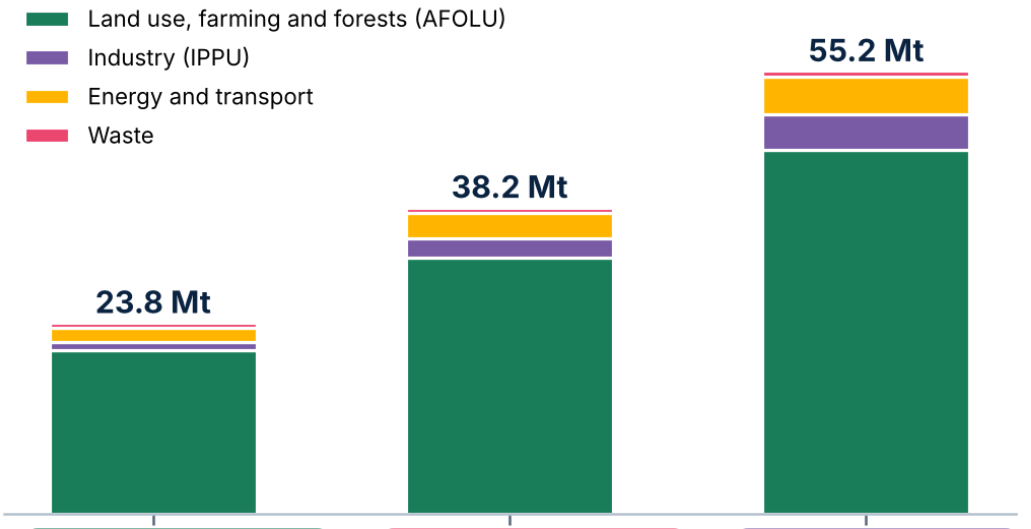
BAU "business as usual": emissions if nothing changes

MRV measuring, reporting and verifying progress

Unconditional paid for at home

Emissions on the current path, million tonnes CO_2e

Without action, emissions more than double between 2024 and 2035



82%
of emissions in 2035 come from land use, farming and forests

2.3×
growth in total emissions, 2024 to 2035

0.02%
of global emissions come from Sierra Leone

185 / 193
Sierra Leone's rank on the Human Development Index

179 / 187
rank on the ND-GAIN index of climate vulnerability

4 sectors
drive the rise: farming and land, industry, energy, waste

Why act Sierra Leone faces less predictable rain, longer dry seasons, floods, watershed damage and rising heat, while its own emissions grow fastest in land use and industry.

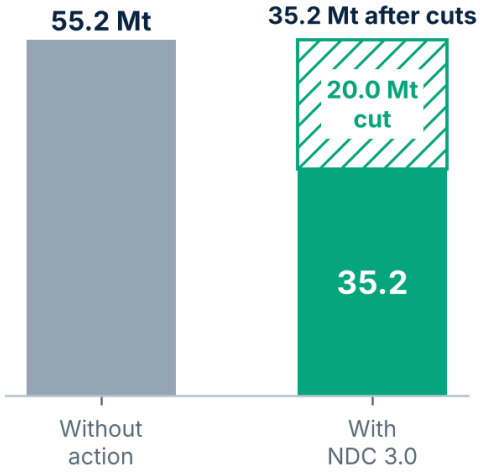
Sources: NDC 3.0 (section 4.2); TNA report, executive summary. Totals follow the NDC 3.0 baseline table; the NDC text quotes slightly higher totals.

02 THE TARGET: CUTTING EMISSIONS BY 2035

One national goal, set sector by sector

The national goal

Yearly emissions in 2035, million tonnes CO_2e

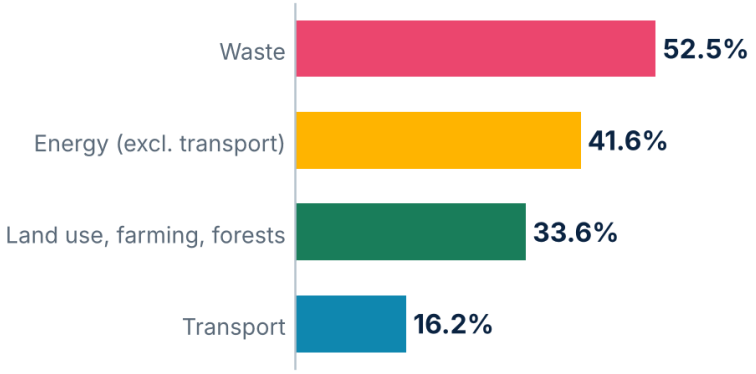


36.2%
below the business-as-usual path by 2035

19,987 Gg
of CO_2e avoided each year by 2035

How deep the cut goes in each sector

Percentage below business as usual in 2035



52.5%
waste cut is the deepest

16.2%
transport cut is the smallest

How NDC 3.0 is built, and where to find each part

Mitigation
Energy, transport, waste, forests and farming. Pages 4 to 6.

Adaptation
Seven sectors plus loss and damage. Pages 7 to 9.

Finance
Who pays and what it buys. Pages 10 and 11.

Technology
Eight priority technologies. Page 12.

Tracking and people
Reporting, gender and inclusion. Page 13.

NDC 3.0 lines up with the Medium-Term National Development Plan 2024 to 2030, the Energy Transition and Green Growth Plan and the Feed Salone strategy, and with the Paris Agreement, the Sustainable Development Goals, the African Union's Agenda 2063 and the Sendai Framework for disaster risk reduction.

Target Mitigation is designed to bring in private money, lower dependence on imported fuel and create green jobs.

Sources: NDC 3.0, executive summary and chapters 1 and 4. Sector targets are as stated in the NDC 3.0 summary.

03 ENERGY: POWER AND CLEAN COOKING

Targets for 2030 and 2035; the bar shows how much of the 2035 goal is due by 2030

Electricity

Capacity and households served

Rural mini-grids
Solar and mini-hydro with batteries
2030 **25 MW** — 2035 **50 MW**

Households on mini-grids
Plus productive-use connections
2030 **20,000** — 2035 **50,000**

Solar for businesses and institutions
Factories, schools, clinics, 10 then 20 sites
2030 **20 MW** — 2035 **35 MW**

Solar home systems
Households and micro-enterprises
2030 **4,000** — 2035 **5,000**

Clean cooking

Households and institutions

Improved cookstoves
Households using certified stoves
2030 **315,000** — 2035 **730,000**

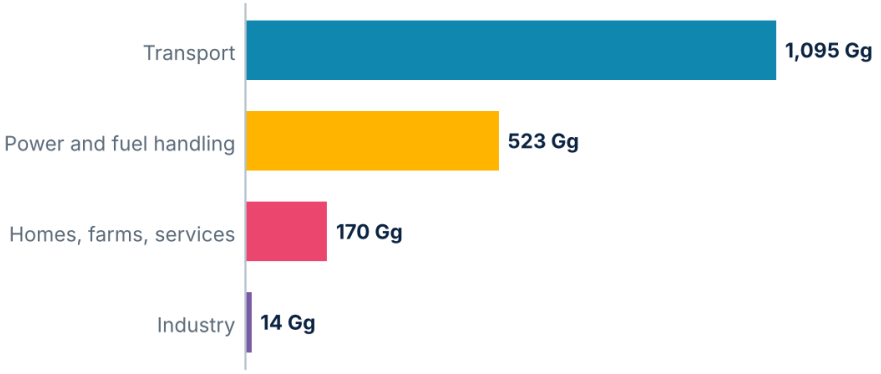
Institutional stoves
Schools, canteens and enterprises
2030 **6,000** — 2035 **9,000**

LPG cooking
New household connections with starter kits
2030 **30,000** — 2035 **60,000**

Biogas digesters
Household units
2030 **25,000** — 2035 **50,000**

Where energy emissions come from today

Share of 1,788 Gg energy-sector emissions in 2024



61% of energy emissions come from transport

29% from power and fuel handling

10% from homes, farms and industry

The wider energy plan

Targets quoted in the TNA from national energy plans

78% of people with electricity by 2030 (Mission 300)

52% of installed capacity from renewables by 2030

4.5 GW of clean generation by 2050

Energy Cooking is the biggest household saving: improved stoves also cut smoke indoors and reduce wood and charcoal use by 40 to 50 per cent.

Sources: NDC 3.0 (section 4.3, outcome tables 15 to 20; section 4.10); Mitigation Measures; TNA report (energy chapter). Where the NDC summary and its measure tables differ, the measure tables are used.

03 TRANSPORT AND WASTE

Cleaner journeys and cleaner cities

Transport

Targets for 2030 and 2035

Electric buses
Freetown corridors to Lungi and Waterloo
2030 **50** — 2035 **100**

Electric kekehs (three-wheelers)
Share of all kekehs: 35% then 70%
2030 **5,000** — 2035 **10,000**

Charge points for kekehs
Plus battery-swap kiosks: 25 then 50
2030 **150** — 2035 **300**

Vehicle inspection coverage
Older vehicles scrapped: age limit 10 then 8 years
2030 **70%** — 2035 **90%**

Fuel used per vehicle
Reduction against 2025
2030 **10%** — 2035 **20%**

Waste

Targets for 2030 and 2035

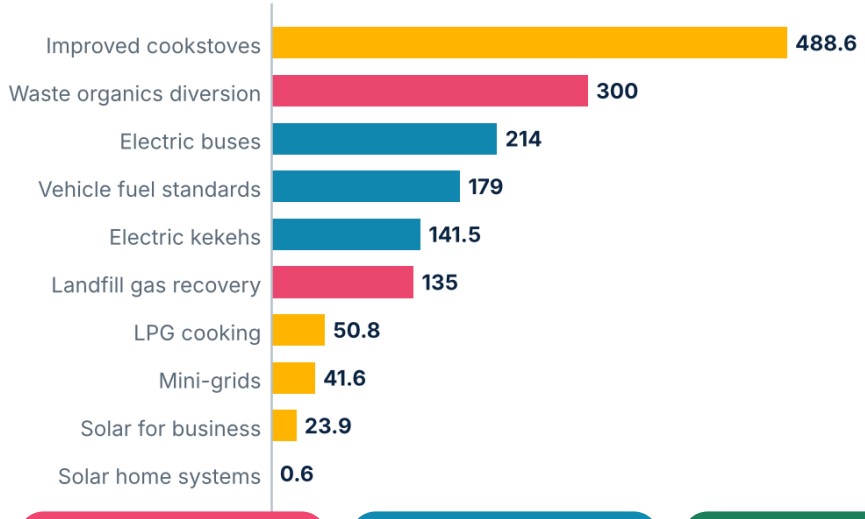
Kitchen and market waste composted or digested
Thousand tonnes a year diverted from dumps and fires
2030 **80 kt** — 2035 **150 kt**

Engineered landfill cells with gas capture
First cell at Granville-Brook, then three
2030 **1** — 2035 **3**

Power from landfill gas
Gas engines
2030 **1 MW** — 2035 **3 MW**

Emissions avoided each year by 2035

Thousand tonnes CO_2e per year; energy in amber, transport in blue, waste in coral



2 in 3
households burn their refuse in streets or backyards today

45 to 70
million litres of fuel saved each year by 2035

4 to 5
compost hubs and 4 to 5 digester sites by 2035

15,000
passengers a day on electric buses by 2035, up from 7,500 a day in 2030

Safer dumps
compacted daily, drained, with two access routes and fire cover, to prevent landslides and fires

Transport and waste Electric buses and kekehs, fuel standards and organic-waste diversion together keep cities moving and cut methane from dumps.

Sources: NDC 3.0 (sections 4.4, 4.7 and 4.10; outcome tables 21 to 26) and adaptation summary for waste; Mitigation Measures; TNA report.

04 FORESTS, MANGROVES AND FARMING

The largest source of emissions, and the largest opportunity

Protecting and restoring land

Targets for 2030 and 2035

Forests under improved management
Hectares, with community agreements and patrols
2030 **100,000 ha** — 2035 **200,000 ha**

Mangroves under improved management
Hectares
2030 **30,000 ha** — 2035 **60,000 ha**

Forest and mangrove land restored
Hectares planted or regrown, with 70 to 75% tree survival
2030 **60,000 ha** — 2035 **120,000 ha**

Households sharing the benefits
Livelihood support and benefit-sharing
2030 **10,000** — 2035 **20,000**

Land that also protects people

Adaptation measures in forests and land use

Community-managed forest
Co-managed protected areas; deforestation falls by at least 25% where it is highest
50,000 ha by 2030

Agroforestry
Smallholders adopting tree-crop practices on 30,000 ha; farm income up at least 10%
30,000 by 2030

33.6%
cut below business as usual in land use, farming and forests

18,204 Gg
a year avoided from forests and mangroves by 2035

910 Gg
a year avoided from farming practices

Farming that cuts emissions and builds income

60,000 ha
of farmland not burnt during farming by 2035

90,000 ha
added through sedentary (settled) farming

60,000
households gain better livelihoods and co-benefits

2 in 3
tonnes of 2035 emissions come from biomass burning and rice methane on the current path

What the land gives back

Steadier rivers
Better soil retention and streamflow in co-managed zones

New income
Beekeeping, eco-tourism and forest products for communities

Coastal shield
Mangroves and wetlands reduce flood and storm risk

Wildlife
Habitat for fish, crustaceans and plant species

Land Land use, farming and forests are about four-fifths of the country's emissions, so most of the 2035 cut has to come from here.

Sources: NDC 3.0 (sections 4.2, 4.5, 4.6, 5.6; outcome table 24); Adaptation Measures (forests and land use). Amounts avoided are as stated in the NDC 3.0 summary.

05 ADAPTING: FOOD, WATER AND THE COAST

Protecting harvests, drinking water and shorelines

Food and farming

2030 and 2035 targets, with the cost of each measure 2025 to 2035

Climate-smart farming households

Agroecology; yields up 15%, then 20% · US$132m

2030 **30,000** — 2035 **60,000**

Land with irrigation

Hectares, solar pumps and water harvesting · US$180m

2030 **30,000 ha** — 2035 **60,000 ha**

Households using certified seed

Four regional seed hubs by 2030 · US$120m

80,000 by 2030

Harvest lost after picking

Rice and maize losses in target districts

2025 **35%** — 2030 **15%**

Safe water and watersheds

People with reliable safe water

Solar water systems · US$100m

2030 **350,000** — 2035 **750,000**

Slopes restored and eroded land controlled

Seven river basins · US$120m

30,000 ha by 2030

River and weather stations upgraded

Sites; dry-season flow up 10% by 2035

50 by 2030

Coastal resilience

Mangrove restoration and urban flood protection

4 to 6 m
a year of shoreline lost in places such as Konakridee, Lakka and Hamilton

1,881
buildings could be lost to sea-level rise by 2050

US$46.8m
to replace them

Why water and farms come first

Erratic rain
Dry spells and floods cut harvests for rain-fed smallholders

Feed Salone
Solar irrigation, resilient seed and storage support the national food strategy

Shared management
Water user associations and basin committees run schemes and enforce plans

Advice by phone
Text and voice messages timed to local planting windows; 200 demonstration plots

The detailed measures name the Rokel, Sewa, Jong/Panpana, Moa, Mano, Great Scarcies and Little Scarcies basins for watershed management, and Bombali and Bo for demonstration plots. The map on page 9 shows them.

Adaptation Food, water and coastal measures take US$802m of the adaptation budget, the largest share of any group of measures.

Sources: Adaptation Measures (measures 1 to 6); NDC 3.0 (sections 5.1 to 5.2, 5.11). Cost shares from the Climate Finance Roadmap. Where documents give different irrigation figures, the Adaptation Measures are used.

05 ADAPTING: HEALTH, SCHOOLS, INFRASTRUCTURE AND EARLY WARNING

Keeping clinics open, children learning, roads passable and people warned

Health

2030 and 2035 targets

Climate-proofed health facilities

Mostly solar power; then all 14 district hospitals

2030 **50** — 2035 **164**

Bed-net use in target districts

Heat warnings reach 70% of at-risk Freetown residents

85% by 2030

Faster response to outbreaks

Response time falls 25%; outbreaks shrink 30%

2030 **25%** — 2035 **30%**

Schools

Share of schools

With disaster and learning-continuity plans

Also evacuation guidelines

2030 **20%** — 2035 **35%**

Retrofitted or built to climate-smart standards

Plus more schools meeting WASH standards

2030 **8%** — 2035 **10%**

Teachers trained in climate education

Climate clubs in 50% then 80% of schools

2030 **15%** — 2035 **40%**

Roads, energy and homes

Infrastructure

Roads upgraded to resilient standards

Kilometres, plus 40 bridges by 2030

2030 **600 km** — 2035 **1,200 km**

Early warning and disaster readiness

85%
of people covered by alerts by 2030

35% to 60%
coverage of weather observation networks

+30%
forecast accuracy from artificial intelligence

300
communities with disaster committees and volunteers by 2030

-50%
disaster deaths by 2035 against 2020 in covered areas

-25%
emergency response times by 2030

Safer places to live and work

10,000
residents relocated from extreme-risk zones to serviced plots by 2030, with no forced evictions

80%+
of critical energy infrastructure climate-resilient by 2035

-60%
days of road closure on critical links by 2035

Fairness and security

A rights-based approach guides recovery for the groups hit hardest. Conflict-sensitive planning reduces local tension over land and water: half of hotspot districts by 2030, and national fragility scores down by more than half by 2035.

Adaptation These measures take US$978m of the adaptation budget, covering health, schools, infrastructure, early warning and cross-cutting policy.

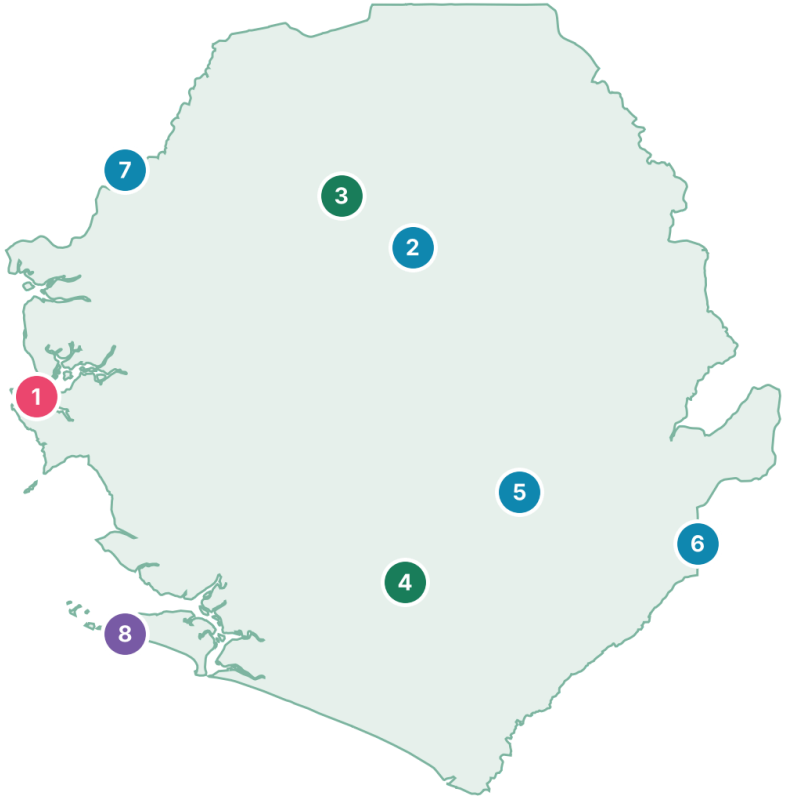
Sources: Adaptation Measures (measures 7 to 30); NDC 3.0 (sections 5.3 to 5.8). Cost shares from the Climate Finance Roadmap. Teacher and climate-club targets are for 2030 and 2035 as listed.

06 WHERE ACTION HAPPENS, AND WHAT IS ALREADY BEING LOST

Place-based measures and the cost of climate harm already felt

Where the named measures sit

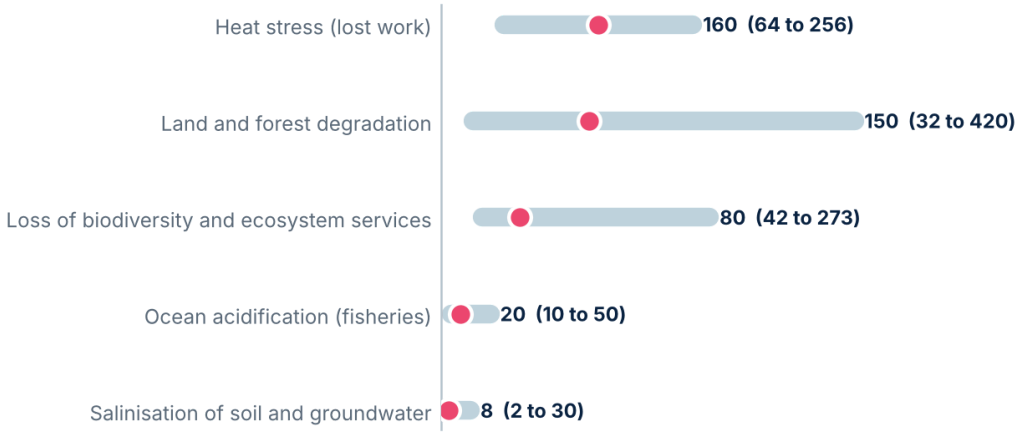
Approximate positions; each river basin is shown at one point



1. Freetown area: landfill methane, e-bus routes, flood works
2. Bumbuna hydropower, Rokel basin
3. Farmer demonstration plots, Bombali
4. Farmer demonstration plots, Bo
5. Sewa basin
6. Moa and Mano basins
7. Great and Little Scarcies basins
8. Plantain Island: land loss and displacement

Climate harm already measured each year, US$ million

Proxy estimates: low, central (dot) and high



25%

of mangroves lost since 1990, about 42,500 of 170,000 hectares

100,000 ha

of forest lost each year, with under 5% of forest cover left

US$200m

a year from fisheries, 10 to 30% depending on mangroves

A new fund for people who must move

National Climate Relocation and Resettlement Fund. Sierra Leone commits to set up a dedicated fund for dignified, planned relocation of households and coastal communities threatened by sea-level rise, erosion and salt water. It builds on the 2023 Plan of Action on Human Mobility, the National Resettlement Policy and the Coastal Resilience Project. Plantain Island is already losing land.

Loss and damage Heat stress and land degradation head the list of measured yearly losses, which is why NDC 3.0 pairs adaptation with a relocation fund.

Sources: NDC 3.0 (section 5.11, loss and damage; section 5.2); Adaptation Measures. Estimates are proxies with moderate to low confidence, as stated in NDC 3.0.

07 PAYING FOR IT: WHO PAYS

US$, 2025 to 2035

US$2.974b
needed over ten years for mitigation and adaptation together

US$1.024b
for mitigation: cutting emissions

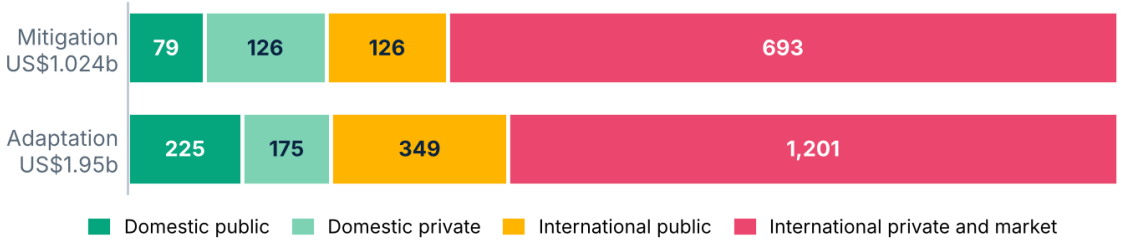
US$1.95b
for adaptation: coping with impacts

1 : 2
mitigation to adaptation, a fair balance for a developing country

US$605m
from national sources: US$304m public and US$301m private and community

Who pays for each part

Share of each budget

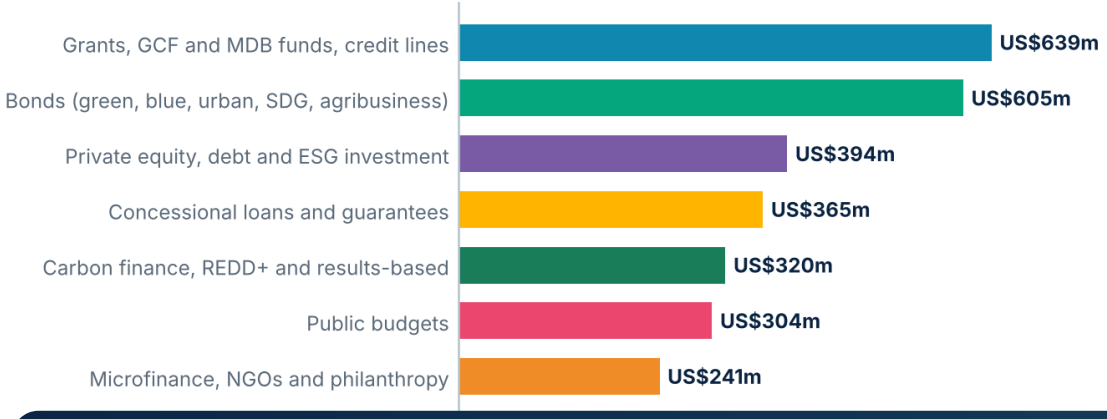


20%
of mitigation (US$205m) is unconditional: US$79m public and US$126m private

80%
of mitigation (US$819m) depends on international support, led by US$126m of public risk-sharing that aims to bring in US$693m

Where the money comes from, by type of instrument

US$ million; the full envelope is US$2.974b



20.5%
of adaptation (US$400m) is unconditional: US$225m public and US$175m private

79.5%
of adaptation (US$1,550m) is conditional: US$349m public and US$1,201m private and market

44%
classical finance: grants, concessional loans, public budgets and technical help (US$1,308m)

56%
innovative finance: bonds, private equity, carbon, insurance and results-based payments (US$1,666m)

Money Sierra Leone commits US$605m of its own and sets out how international support would multiply public risk-sharing into private investment.

Sources: Climate Finance Roadmap (tables 1, 2 and 14); NDC 3.0 (section 6.1 and executive summary).

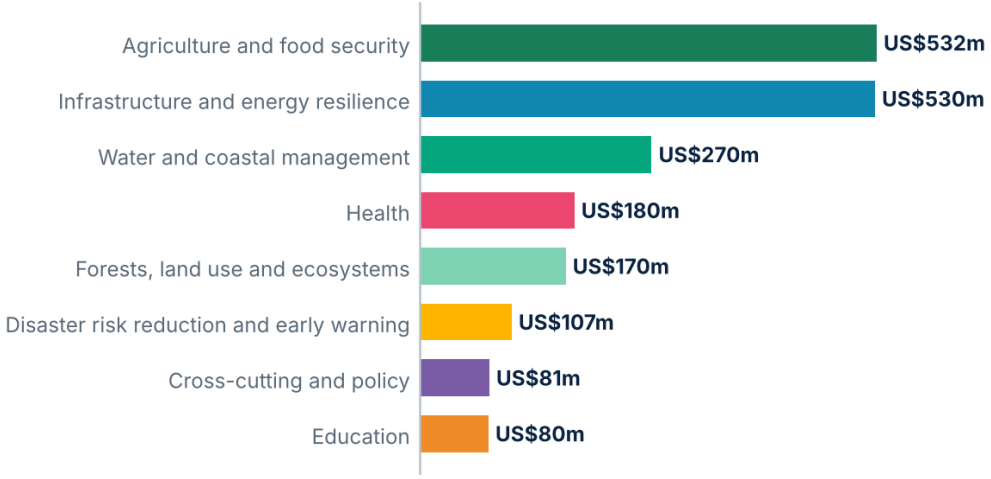
07

PAYING FOR IT: WHAT IT BUYS AND HOW

Adaptation by sector, selected mitigation measures and the money tools

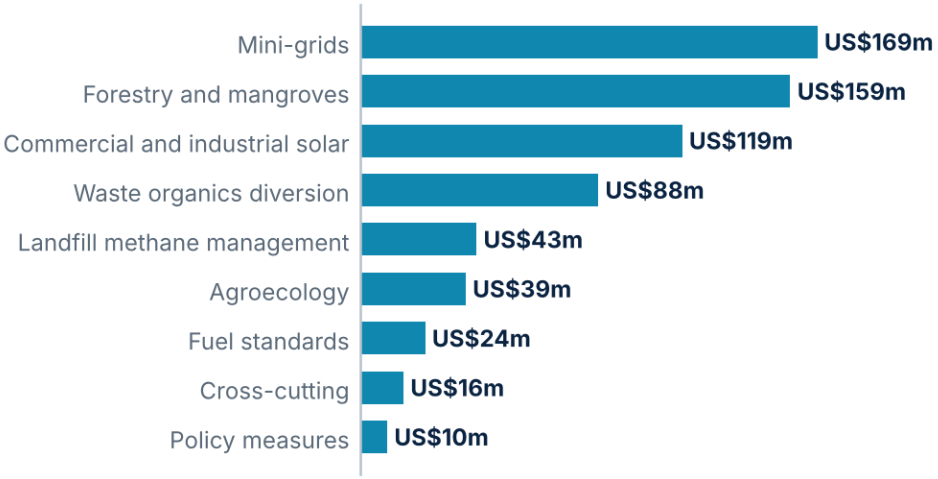
Adaptation: needs by sector, 2025 to 2035

US$ million, totalling US$1.95b



Mitigation: cost of selected measures

US$ million, 2025 to 2035



Money tools, explained

Green and blue bonds

Investors lend money for climate infrastructure or water projects and are repaid over time.

Guarantees and concessional loans

Public money takes part of the risk so that private lenders will invest in early projects.

Results-based finance

Payment follows verified results, such as stoves in use or hectares restored.

Carbon markets and REDD+

Payments for forest carbon and ecosystem services, and for emission cuts sold under Article 6.

Parametric insurance

Pays out automatically when an index such as rainfall or storm strength passes a set level.

Public-private partnerships

Risk is shared with private partners to build large infrastructure such as bus depots.

Debt-for-climate swaps

Debt payments are redirected to domestic climate investment.

Phased roll-out

Pilots first, then Wave 1, then full scale, so that systems are tested and investor confidence builds.

Finance New income will also come from measures themselves, such as infrastructure resilience levies, early warning service fees, landfill taxation and public-private partnerships.

Sources: Climate Finance Roadmap (tables 11, 12 and 14; instrument sections); NDC 3.0 (abbreviations and section 6.3). Mitigation costs are those stated for each measure in the roadmap.

08 THE RIGHT TECHNOLOGIES

Technology Needs Assessment: from 48 options to 8 priorities

48
candidate technologies, 12 for each of 4 sectors

11
criteria used to score each one, agreed by stakeholders

8
technologies chosen as national priorities

How it was done

Stakeholders from government, councils, universities, civil society and the private sector scored the options live at a national workshop in Freetown on 11 and 12 June 2026, and every score was agreed by consensus. A multi-criteria analysis gave each technology a weighted score out of 10,000. Inclusiveness, which captures the needs of women and girls who manage household energy, carried a 7% weight in the energy sector.

The eight priorities

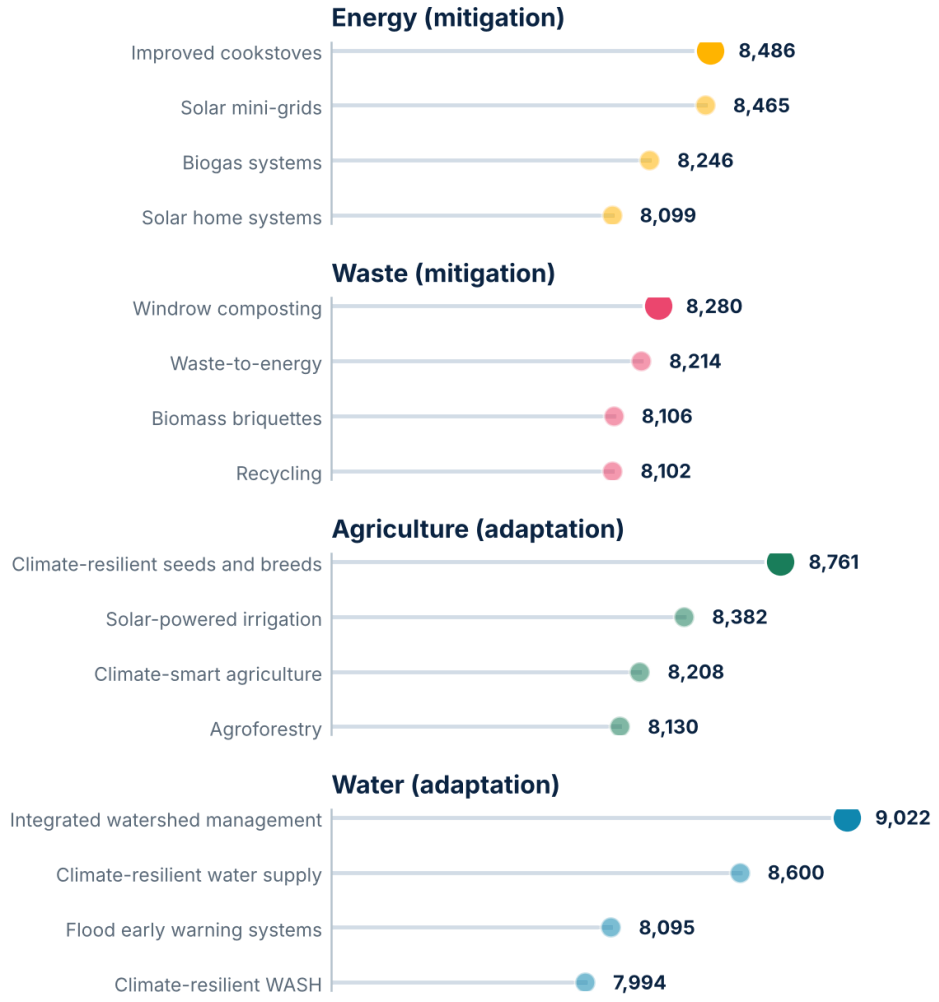
Track	Sector	Priority technology
Mitigation	Energy	Improved cookstoves; solar mini-grids
Mitigation	Waste	Windrow composting; waste-to-energy
Adaptation	Agriculture	Climate-resilient seeds and animal breeds; solar-powered irrigation
Adaptation	Water resources	Integrated watershed management; climate-resilient water supply

9,022
the highest score of all: integrated watershed management

Tight race
cookstoves (8,486) edged mini-grids (8,465) by 21 points

Top four technologies in each sector

Weighted score out of 10,000; the top scorer in each panel has the larger dot



Technology All eight priorities match NDC 3.0 and national plans, and they lead into technology action plans and investment proposals.

Source: Technology Needs Assessment report for Sierra Leone (July 2026), tables 0.1, 2.4, 3.4, 4.4 and 5.4.

09 TRACKING PROGRESS AND INCLUDING EVERYONE

Measuring results, reporting openly and sharing the benefits

The measuring system

Measurement, Reporting and Verification (MRV)

2025 to 2027

Foundations and pilots

Institutions, digital platform and first sector pilots

2028 to 2030

Scaling and reporting

All sectors covered; Biennial Transparency Reports; finance tracking

2031 to 2035

Integration and markets

Built into national systems; ready for Article 6 carbon markets

EPA-SL

is the MRV Secretariat, working with the climate ministry, Statistics Sierra Leone and local councils

US$50 to 60m

is the estimated cost of the MRV system, 2025 to 2035

Public

dashboards will come from one digital platform that consolidates data

What gets tracked

Targets for 2030 and 2035

Climate actions tracked in the national registry

Each with baselines and a monitoring plan

2030 **50** — 2035 **120**

Emissions report published after year-end

Months, so quicker is better

2030 **6** — 2035 **4**

6 sectors

have their own tracking: energy, transport, land, waste, industry, coastal and urban

3

carbon market programmes authorised by 2035 under Article 6

80%

of people aware of NDC commitments by 2030

Including everyone

Targets set in NDC 3.0

30%

of programmes for women's empowerment

30%

of young people involved in climate-smart farming

30%

involvement and funding for people with disabilities

Sources

1. Government of Sierra Leone, *National Determined Contributions (NDC 3.0): 2025 to 2030 / 2035*, October 2025.
2. *NDC 3.0 Adaptation Measures*, October 2025.
3. *NDC 3.0 Mitigation Measures*, October 2025.
4. *Climate Finance Roadmap, NDC 3.0*.
5. *MRV Framework (MRV Plan), NDC 3.0*.
6. EPA-SL, UNEP-CCC and GEF, *Technology Needs Assessment Report for Sierra Leone*, July 2026.
7. geoBoundaries, Sierra Leone national boundary (CC BY 4.0), used for map outlines.

Accountability "Your taxes, your future, your climate resilience": results will be reported openly so that citizens can see whether the promises are kept.

Sources: MRV Plan (executive summary, roadmap); NDC 3.0 (sections 4.8, 8.2 to 8.5, table 12).