

UNFCCC
GUYANA'S REVISED NATIONALLY DETERMINED CONTRIBUTIONS
2021 - 2027

Introduction

In the Paris Accord of 2015, Parties - including those who played no part in precipitating the climate crisis - agreed to submit Nationally Determined Contributions (NDCs) to the UNFCCC. These NDCs set out Parties' commitments to help to mitigate global warming and climate change.

Although all countries share in the responsibility for mitigating climate change, the UNFCCC embeds a recognition that these responsibilities are differentiated. Developed countries with the historical responsibility for global warming must submit hard targets for quantified reduction in emissions, while vulnerable developing countries (i) undertake policies, strategies and actions themselves through *unconditional* commitments coupled with (ii) more ambitious mitigation and adaptation action through *conditional* commitments that rely on the creation of new financial incentives.

Guyana prepared an intended NDC in 2015, and submitted its first NDC to the UNFCCC in early 2016. This revised draft NDC advances from the original NDC, and draws on an extensive national consultation on its provisions, which are grounded in national strategy and policy as documented in Guyana's Low Carbon Development Strategy (LCDS) 2030.

Country Profile

Guyana has a population of a little over three-quarters of a million people, living on 215,000 square kilometers of land, giving it a relatively low population density. It has a narrow coastal plain with 430 kilometers of Atlantic coastline, on which about 90 percent of its population live.

The name of the country derives from an indigenous word meaning land of many waters. Indeed, Guyana boasts hundreds of rivers and creeks and many dozens of waterfalls, many of which have good hydropower potential.

Guyana already prioritizes climate mitigation. The country has about 18.5 million hectares of pristine rainforest, accounting for 85 percent of its land area. As a result of its sustainable forest management policies, coupled with international financial incentives – especially since 2009 - Guyana has been able to maintain some of the lowest rates of deforestation in the world. In 2022, the country's deforestation rate was 0.036 percent, the forest stores over 19.5 Giga tons of CO₂e and removes a further million tons from the atmosphere per annum

At the same time, the country suffers from climate change. The coastal plain has fertile Class 1 soils, and with an abundance of fresh water rivers and creeks dissecting it, it supports commercial agriculture, the historical backbone of the economy.

However, this coastal area lies below sea level, is constantly under threat of inundation and saline intrusion, and has to be protected by sea defenses. The very flat relief of this coastal area, together with its negative elevation, also presents a major problem with drainage. Rising sea levels and high intensity rainfall are therefore existential threats facing the country.

NDC Process

The revision of Guyana's 2015 NDC followed a deliberate sequence of steps.

- i. **STEP ONE:** A desk review was conducted – covering all relevant data, information and reports pertaining to NDC's in general, the post 2015 period in particular, and developments in Guyana from 2015 to the current time.
- ii. **STEP TWO:** Guyana's Low Carbon Development Strategy (LCDS) 2030 was launched in October 2021 for public consultation. LCDS 2030 built from Guyana's original LCDS (from 2009) and encapsulates the priority programmes and targets for low carbon development in the forestry, energy and adaptation sectors. The sectors covered in this NDC were integrated into the draft LCDS 2030 for national consultation.
- iii. **STEP THREE:** Public Consultation on LCDS 2030 was conducted over the period October 2021 to June 2022. As documented in the finalized LCDS 2030, the National Consultation consisted of:
 - (i) national level engagements;
 - a. 77 stakeholder groups were engaged in presentations and discussions; follow-up bi-laterals were held if requested
 - (ii) thematic engagements;
 - a. 5 sessions addressing themes – 2 regarding women and 1 for regional leaders
 - (iii) community based consultations;
 - a. At least one in each region, 16 total attended by representatives of over 200 Indigenous Villages and forest based communities
 - (iv) receipt of written feedback;
 - (v) feedback via a website;
 - (vi) an active public engagement programme;
 - a. Radio and television programmes, public service announcements (PSAs), interviews
 - b. Literature: brochures, flyers, posters, newspaper articles, press releases
 - c. Public events (including Government officials & MSSC members)
 - d. Virtual meetings (Zoom and other platforms)
 - e. Social media platforms (YouTube, Facebook, Instagram, Twitter, and other online sites)

A full report on all LCDS Communication and Consultation activities was also prepared and published on the LCDS Website.
- iv. **STEP FOUR:** Feedback from Public Consultations led to revisions in the LCDS, including in all NDC sector priorities which benefited from discussions through the public consultation process. The finalized LCDS 2030 was released in July 2022. A Report on Stakeholder Feedback and Summary of how each comment was considered was published on the LCDS 2030 website.¹ The Final LCDS 2030² was endorsed by the national body that represents Indigenous Villages in Guyana (the National Toshias' Council – 15th July, 2022)³, approved

¹ <https://lcds.gov.gy/summary-of-feedback/>

² <https://lcds.gov.gy/wp-content/uploads/2022/08/Guyanas-Low-Carbon-Development-Strategy-2030.pdf>

³ <https://lcds.gov.gy/endorsement-of-lcdis-2030-by-the-national-toshaos-council/>

by the Multi Stakeholder Steering Committee that oversees the Strategy Process (18th July, 2022)⁴, and was passed by Guyana’s National Assembly (8th August, 2022)⁵.

- v. **STEP FIVE:** Based on the conclusion of this process and informed by the revised LCDS 2030, a revised NDC was drafted and has now been put into the public domain to create a final opportunity for comments.

Revised NDC – basic information

Coverage

Coverage is at the national level.

Greenhouse gas

Carbon dioxide.

Sectors covered

Sectors covered are the forestry, energy, and adaptation sectors.

Time frame

The time frame of Guyana’s revised NDC covers the period 2021 - 2027.

Methodology/Metrics

Methodologies and metrics are consistent with IPCC guidance.

Contributions

In keeping with Article 4.6 of the Paris Agreement of December 2015, Guyana’s contributions to the global fight against climate change will be in the form of policies, strategies and actions.

Guyana has long demonstrated a commitment to sustainable development, and to grow along a low emission pathway. The country is believed to be the first developing country in the world to set out a low carbon development strategy – with Guyana’s first LCDS being concluded in 2009. Since 2009, Guyana’s main focus has been on the forestry sector, and in recent years this has expanded to include more in depth planning on both the energy sector and adaptation needs. As such, this NDC sets out Guyana’s ambition on maintaining Guyana’s globally significant forests for the good of Guyana and the world; on achieving a decoupling of economic growth and the energy sector; and on investment in adaptation.

⁴ <https://lcds.gov.gy/mssc-approves-finalisation-of-lcds-2030/>

⁵ <https://lcds.gov.gy/parliamentary-resolution-lcds-2030/>

Forestry

Unconditional contributions

- Continue and improve sustainable forest management practices.
- Ensure compliance with the various Codes of Practice that govern the timber industry using local resources.
- Maintain a low rate of illegal logging. Forest monitoring will maintain a high level of timber legality, with the GFC committing 50% of its staff to field monitoring from its 34 forest monitoring stations countrywide.
- Move towards implementation of the Voluntary Partnership Agreement (VPA) under EU- FLEGT.
- Advance programme on national forest certification.
- Encourage added- value activities locally to assist in creating a higher potential for carbon storage in long-use wood products.
- Strengthen support for indigenous communities as they continue the stewardship of their lands.
- Advance work on the Leaders Pledge for Nature, and move towards increasing its current percentage of areas under conservation
- Maintain a comprehensive and robust MRV system, one of the most advanced of its kind, which was been developed under Guyana's REDD+ programme. The development of this system has contributed considerably to the global understanding of how small forested tropical countries can reliably and cost-effectively measure and report on its forest carbon emissions. Guyana is willing to build on the lessons learned thus far to complete and maintain its MRVS if adequate financial resources are provided to do so.

Conditional Contributions

If adequate financial incentives are available, whether through carbon markets or other mechanisms, Guyana will:

- generate internationally transferred mitigation outcomes (ITMO's) and participate in carbon markets in accordance with UNFCCC guidance. If adequate financial incentives are available, whether through carbon markets or elsewhere, Guyana can contribute up to 31.7 MtCO₂e⁶ annually to global mitigation efforts through emissions credits from its forests.
- Enhance the implementation of Reduced Impact Logging (RIL) to continue expanding capacities in the forest sector in sustainable forest management practices.
- Advance EU-FLEGT. Guyana has signed on to EU-FLEGT. Additional resources are required to build institutional and private sector capacity to meet other trade and supply conditions and to fully support EU-FLEGT.
- Support the implementation of the Programme for the Endorsement of Forest Certification (PEFC).
- Develop programmes and project to advance work on protection of biodiversity and Guyana's expression of commitment to the Leaders Pledge for Nature that seeks to expand the protected areas.

⁶ https://redd.unfccc.int/files/guyana_proposal_for_reference_level_for_redd_.pdf (Page 5)

- Expand mangrove restoration along the vulnerable coastline and riverain areas, including conservation of mangrove ecosystems.
- Promote programmes for reforestation and land reclamation in mined out areas, including watershed management guidelines, to protect areas of high value biodiversity.
- Improve mineral mapping in mining areas to identify economically exploitable deposits. This will significantly reduce deforestation by avoiding clearing of forest cover from lands which contain only marginal mineral deposits.

Energy

Guyana’s overall objective is to develop and provide households and businesses an affordable, stable, clean, and reliable power supply. Towards this objective, Guyana intends to support the tripling of GDP growth and a tripling of energy supply by 2027 – while energy-related emissions will stay essentially flat.

This would be one of the most ambitious decoupling of economic growth and greenhouse gas emissions in the world – and will require a rapid energy transition to move from today’s situation where almost 100% of national power supply comes from Heavy Fuel Oil and diesel.

Towards achieving this objective Guyana will transition from dependence on HFO and Diesel to an energy mix that includes hydropower, solar, wind and natural gas, producing approximately 485 MW of power by 2027 with 93% of this energy generated from clean and renewable sources; and producing approximately 913 MW of power by 2035 with 99% generated from clean and renewable energy sources as outlined below.

Year	Peak Load (MW)	Heavy Fuel Oil Share (%)	Natural Gas Share (%)	Renewable Energy Share (%)
2021	161	99	0	1
2027	506	7	62	31
2035	989	1	32	67

Unconditional Contributions

Guyana is undertaking the following unconditionally:

- Regional electrification.
 - Promote/develop small hydro systems. Projects at Moco and Kato are already being implemented.
 - Install regional grids with solar PV. Eight regional grids have Solar PV projects ongoing.
 - Continue to develop regional grids in the townships, including Kwakwani, Port Kaituma and Matthews ridge.

- Replace the electricity in the regional grids which is currently generated with diesel. Government will continue the deployment of Solar PV hybrid solution for all the isolated grids. Four of the current isolated grids will be interconnected to the DBIS Linden, Leguan, Wakenaam and Anna Regina.
- Rural Electrification.
 - Install 10 mini grids in the short term. In 200 villages currently without grid supply, mini grids with solar PV will be gradually implemented.

Encourage the use of solar dryers and solar-powered freezers in the Hinterland and rural communities.

- Energy Efficiency.
 - Continue the program for incentivizing the replacement to LED lighting and gradually replace inefficient streetlights.
 - Support policies to encourage energy efficiency, particularly in cooling technologies:
 - Develop/adopt building standards to reduce cooling demand.
 - Incentivize energy efficiency in cooling appliances.
 - Phase out F-gases in accordance with the Kigali Amendment to the Montreal Protocol.
 - Encourage Energy Efficiency standards in the building sector:
 - Incentives for the use more local material (like timber) for construction.
 - Incentives for the local private community to develop building material industry.

Conditional Contributions

With adequate external support and incentives, including from carbon markets, Guyana can:

- Replace heavy fuels and diesel with natural gas for power generation, reducing emissions from this sector by approximately half.
- Build solar farms to generate up to 36 MW of renewable power
- Continue with the development the Amaila Falls hydropower project, with potential for providing approximately 165MW of power.
- Construct a small hydro system at Kumu.
- Improve and upgrade the national grid (transmission and distribution).
- Employ energy efficiency measures including prioritized appliance change out programmes, replacement of 4-foot fluorescent tubes, incandescent bulbs and compact fluorescent lamps with LED technology, replacement of high-pressure sodium streetlights with LED technology, installation of energy efficient air-conditioners by 2030.

Risks and Assumptions

- i. Guyana's conditional contributions are made on the assumption that adequate external support will be provided for implementation, including through carbon markets.
- ii. It is assumed that financing for the contributions will be new, additional and predictable.
- iii. It is also assumed that SIDS, and in particular coastal low-lying developing states such as Guyana, will receive preferential access and special consideration in accessing climate finance.
- iv. There is a risk that in pledging these contributions, the requisite level of climate financing will not be made available from the international community and carbon markets, and thus constrain implementation.

Adaptation

Unconditional contributions

Guyana will:

- i. Continue basic work on integrated water management infrastructure
- ii. Continue basic maintenance of conservancies, canals and sea defenses,
- iii. Encourage new agricultural techniques such as hydroponics and fertigation.
- iv. Mainstream climate change considerations in all sectors of national development.
- v. Update and finalize Guyana's Climate Resilience Strategy and Action Plan

Conditional contributions

Given adequate support, Guyana can undertake the following actions:

- Sea defence enhancement and maintenance.
- Strengthening drainage and irrigation systems.
- Mangrove restoration and ecosystem protection.
- Implement adaptation measures and build resilience in hinterland areas.
- Development and implementation early warning systems.
- Enhanced weather forecasting including microclimate studies and localized forecasting.
- Building climate resilient agricultural systems through water resource management, a diversified and integrated approach to agri-business, sustainable farm management systems, and capacity building.
- Development and introduction of crop varieties which are:
 - Flood resistant,
 - Drought tolerant,
 - Disease resistant.
- Development of environmental and climate change awareness programmes at all levels.
- Development of innovative financial risk management and insurance measures.