



Suriname

## Project title: RE SOUTH EAST SURINAME AS PART OF THE NAMA

### Project needs

- **Renewable energy solutions such as PV mini-grids as a key factor to stabilize sustainable development in rural Suriname** and at the same time contribute in combating the effects of climate change through mitigating GHG-emissions from fossil fuel burning as pledged in the Second NDC of Suriname.
- Suriname has committed itself **to improve the welfare and wellbeing of its people**, alleviate poverty and create employment for all
- Though Suriname is a net sink country but also **one of countries that its most vulnerable to climate change effects** such as extreme weather and flooding.
- **Building resilience** to cope with its changing future and in the meantime improving the welfare and wellbeing of its people in a sustainable way is an immense challenge for Suriname
- A **significant disparity exists between the coastal zone and the interior** in Suriname, where the interior faces significantly higher levels of deprivation, including access to services such as electricity.
- **Fuel supply in the interior is constrained due to cost**, losses and logistical reasons affecting services, quality of life and economic activity

### Mitigation impact

Estimated mitigation impact over lifespan	~25000 tCO <sub>2</sub> eq
Estimated project lifespan	20 years
Project duration	5 years

## Project overview

**Currently, electrification provision in the interior is limited to an average of six hours per day if diesel is available**, and is mainly only sufficient to meet the needs of household lighting and appliances, thus preventing it from becoming an engine of economic development. To overcome this problem, this project aims to promote sustainable and low carbon development for the interior of Suriname.

**The enhancement of the socio-economic development in the interior of Suriname through an intervention which allows for income-generating activities** which in turn create business opportunities for the population in the targeted areas and will stimulate participation of the private sector by creating a regulatory, policy and market environment that enables public-private-partnership (PPP) activities in the Renewable Energy (RE) sector.

- The **greatest difficulties have been around financing and sustainability of the system**. Some did not have the impact, operation or sustainability desired due to flaws in the design, operation or business model, as a result of economic, technical or cultural difficulties.
- **The installation of two renewable hybrid mini grids and establishment of four ground mounted solar plants** connected to the existing mini grids.
- Creating a **hybrid system based on diesel-solar (Preferably 30% diesel – 70% solar)** with a capacity of 150 kWp
- **Establishment of solar shops** in four areas in the interior.
- Expected set of components/outputs and subcomponents/activities to address the above barriers identified that will lead to the expected outcomes.

## National context

- **In line with Suriname's NAMA.** The NAMA is tailored to achieve sustainable development through improving access to renewable energy in the interior of Suriname.
- The NAMA is designed to bring transformational change through necessary policies/ regulatory and institutional measures.
- The proposed lifespan of the NAMA is 20 years (2020-2040) including the implementation phase, which will take place in the first five years. The goal was for the NAMA to start with implementation in 2020, but that of course depends upon receiving approval and securing funding.
  - The implementation will be carried out in three main steps:
    - Step 1: Establishment of the institutional structure and securing funding.
    - Step 2: Implementing the measures including capacity development and awareness trainings
    - Step 3: Implementation of the technical interventions
- The following institutional bodies at the country level will be created:
  - 1. the NAMA National Focal Point or National NAMA Approver (NA)
  - 2. the NAMA Coordinating Authority (NCA) including the National Steering Committee (NSC) and the Project Implementation Unit (PIU)
  - 3. the NAMA Implementing Entity (NIE) including the Fund Management Team (FMT)
  - 4. NAMA Executing Entities (NEEs)

## Justification of funding request

- High Initial Investment: Large upfront costs associated with infrastructure development and solar panel installation in remote areas.
- Limited financial resources available in the country's public and private sectors for such a substantial investment.
- Insufficient existing infrastructure (roads, transmission lines, etc.) in remote interior areas
- Limited electricity demand in sparsely populated interior regions, making the project less economically viable for private investors: Reduced potential for a return on investment due to low energy consumption.
- Uncertainty regarding the energy market in remote areas, which discourage private investors
- Public and private financing in Suriname are currently mostly directed towards other pressing national priorities, such as healthcare, education, and infrastructure in more densely populated areas due to the crises.
- Co-financing in the form of grants and/or concessional loans received from international financiers will be used for the measures described in Readiness Component I of the NAMA.
- By carefully structuring the grant financing, focusing on affordability and sustainability, and actively involving local communities, the benefits of the solar PV project can be effectively passed on to end-users and beneficiaries, through a balanced system of pre-paid tariffs.

### Finance required

Total Project cost USD	USD 5 million
Requested funding amount	USD 5 million
Financial instrument	X% Debt; Y% Equity
Duration of project	5 years

## Justification of funding request

- The NAMA will achieve > 24,570 tones in avoided CO2eq emissions.
- Provide electricity to 6000-8000 Tribal peoples in Southeast Suriname. Location: Snesikondre with surrounding villages such as Loka Loka, Nason.
- Installation of one (1) 250 kWh renewable hybrid mini grid at Snesikondre (preferably 30% diesel- 70% solar PV) and two (2) renewable hybrid mini grids with each a capacity of 150 kWh, 1 RPZ and 2 solar shops.
- RPZ will be supported by rural women organizations

Description	Estimated Costs (USD)
1 hybrid mini grid 250 kWp	2,000,000
2 Rural Productivity Zones	180,000
2 solar shops	14,000
2 hybrid mini grids 150 kWp	3,000,000
Total Costs	5,194,000



## Sustainability and replicability of the project (exit strategy)

### Ensuring Sustainability :

- **Community Ownership:** Encourage community involvement and ownership by involving local residents in decision-making and operations.
- **Local Employment:** train local individuals for project maintenance and management, creating job opportunities and ensuring local expertise.
- **Regular Maintenance:** Develop a schedule for routine maintenance and repairs to ensure the system operates efficiently over time.
- **Tariff Structure:** Implement a fair and affordable tariff structure that allows to cover operating costs and encourages continued use.
- **Energy Efficiency Programs:** Educate users about energy conservation practices to maximize the lifespan of the system.
- **Monitoring and Evaluation:** Continuously monitor the system's performance to identify and address issues promptly.
- **Legal Framework:** Ensure the project adheres to local regulations and is structured to comply with evolving legal requirements.
- **Long-Term Commitment:** Develop a long-term commitment plan for project sustainability, with provisions for ongoing support, expansion, and upgrades.
- **Public Awareness:** Maintain public awareness campaigns to highlight the benefits of the project and the importance of energy sustainability.

### Post-Implementation Monitoring:

- **Performance Metrics:** Continuously monitor energy production, system uptime, and financial viability to ensure it meets project goals.
- **User Surveys:** Conduct regular surveys and feedback sessions with end-users to gauge their satisfaction and address concerns.
- **Community Engagement:** Maintain an open line of communication with local communities to address evolving needs and concerns.
- **Environmental Impact Assessments:** Periodically assess the project's environmental impact and adjust practices as necessary.
- **Capacity Building:** Continue training and capacity building for local technicians and community members.
- **Flexibility:** Be flexible and adaptive in making necessary adjustments based on the monitoring and evaluation findings. How the project sustainability will be ensured in the long run and how this will be monitored, after the project is implemented with support.