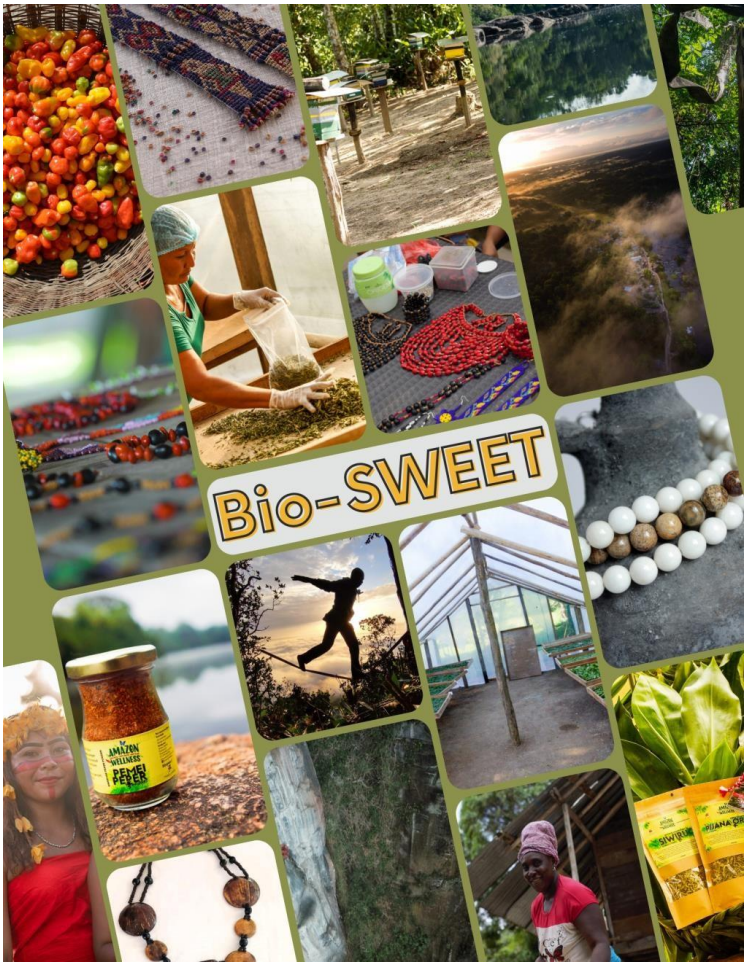

STAKEHOLDERS ENGAGEMENT PLAN (SEP) FOR THE PROJECT 'RURAL ELECTRIFICATION WITH RENEWABLE ENGERGY, POTABLE WATER, AND TELECOMMUNICATIONS IN SURINAME'

Stakeholders Engagement Plan (SEP) required for the preparation of a multiple works' operation ('BIO-SWEET") that will strengthen the bio economy potential for indigenous communities in the Sipaliwini District of Suriname through improvements in energy, water and telecommunication infrastructure.

ABSTRACT

This document contains the Stakeholders Engagement Plan (SEP) performed through this consultancy.

Josta Nieuwendam
Consultant

Paramaribo, 1 July 2024

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1 Introduction

This report presents the results of the "*CONSULTANCY TO SUPPORT FOR RURAL ELECTRIFICATION WITH RENEWABLE ENGERGY, POTABLE WATER, AND TELECOMMUNICATIONS IN SURINAME"* as described in the Terms of Reference (ToR) (Annex 1) and Annex 1 Sociocultural Analysis (SCA) and Indigenous Peoples Plan (IPP) (Annex 2) and Annex 2 Land Acquisition Framework (Annex 3).

The TOR and its annexes provide a non-exhaustive list of the content of an SCA and IPP that were adapted by the consultant to the specific project activities.

The Ministry of Natural resources is the client of this consultancy. The Ministry of Natural Resources is the government agency responsible for electricity supply in the country. The executive organization for the electricity supply is NV EBS (Electricity Company Suriname). The EBS is responsible for power generation, transmission and distribution (Portfolio of power generation includes HFO Diesel Gensets, Solar PV grid tied systems)

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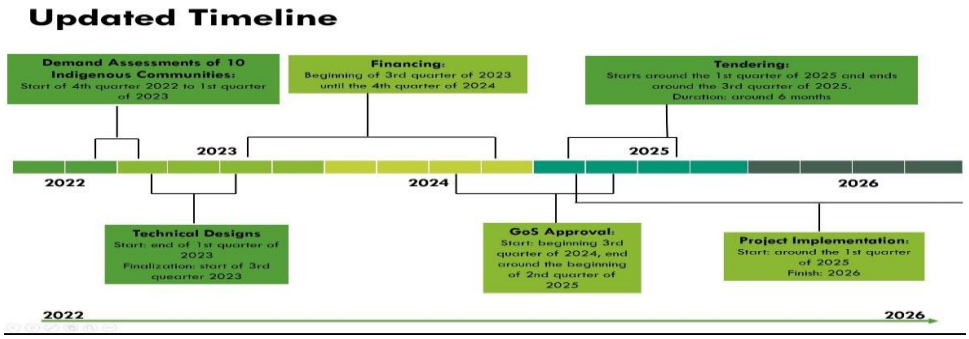
The objective of the Consultancy is to (i) prepare environmental and social (E&S) documents required for the preparation of a multiple work's operation ("Bio-SWEET") that will strengthen the bio economy potential for indigenous communities in the Sipaliwini District of Suriname through improvements in energy, water, and telecommunications infrastructure, in accordance with the requirements of the Bank's E&S Policy Framework (ESPF) and its E&S Performance Standards (ESPSs), building upon the Strategic E&S Assessment (SESA) currently in progress for works in ten communities of the District including other deliverables by following the original ToR and (ii) prepare an E&S scoping report of the proposed 110 kV 131-km transmission line between the Peperpot substation near Paramaribo and Albina.

This Stakeholders Engagement Plan (SEP) is part of the environmental and social (E&S) documents, as described above. This SEP is update on the 1st of July 2024.

2 Background Information

IDB

The Inter-American Development Bank (IDB) is the main source of financing for sustainable, social, economic and institutional development in Latin America and the Caribbean. The bank will facilitate an energy, water and telecommunications project for the sustainable development of Indigenous peoples in Alalapadu, Apetina, Sipaliwini, Kwamalasamutu, Kawemhakan, Kumakapan, Pelelutepoe, Palumeu, Amotopo and Coeroeni.



ACT-Guianas

Amazon Conservation Team Guianas (before Amazon Conservation Team Suriname) was hired as a subcontractor by Trama Tecno Ambiental (TTA) in the information gathering process for supporting the initial engagement strategy in the 10 previously mentioned indigenous villages in South-Suriname. The report prepared by ACT-Guianas under that consultancy assignment served as a key output deliverable for Trama Tecno Ambiental (TTA), who is hired as the main consultant for the project by the IDB.

The Amazon Conservation Team Guianas (ACT-G) is a nonprofit organization that is dedicated to protecting the Amazon rainforest. ACT-Guianas aims to achieve this via partnerships with the local native Indigenous and maroon peoples of Suriname, the traditional inhabitants and users of the rainforest. Respect for, and integration of, their traditional cultural knowledge is crucial for the protection of their land's ecosystems.

ACT-Guianas focuses on three interrelated frameworks: land, governance and livelihood. Supporting them in their livelihood by offering support in maintaining their traditions in turn helps to maintain and protect our beautiful rainforests. The indigenous partners have asked for income generating projects which lead to the creation of several programs including beekeeping and honey production, herbal tea farming and tea production, and pepper farming and ground pepper production. In addition, ACT-Guianas has an active environmental department where local Indigenous rangers are trained to protect their land's biodiversity.

Trama Tecno Ambiental (TTA)

Trama Tecno Ambiental is a global consulting and engineering company with headquarters in Barcelona, Spain. Since its founding in 1986, fully committed to a sustainable energy development, TTA has been providing specialized services in distributed generation through renewable energies, energy management and efficiency, rural electrification, self-generation, integration of renewables in buildings, sustainable architecture, as well as, specialized training, education and technological development related to its activities.

3 Objectives

The main objective was to prepare environmental and social (E&S) documents required for the preparation of a multiple works' operation ("Bio-SWEET") that will strengthen the bio-economy potential

for indigenous communities in the Sipaliwini district of Suriname through improvements in energy, water, and telecommunications infrastructure in 10 communities. These 10 communities in the South of Suriname are all indigenous communities, including Kwamalasamutu, Alalapadu, Sipaliwini, Coeroeni, Amatopo, Palumeu, Apetina, Tepu, Kawemakhan and Kumakapan.

This Stakeholders Engagement Plan (SEP) is part of the E&S documents, mentioned above.

4 Scope of Work

The consultant has performed all the activities needed to achieve the objectives of the consultancy including but not restricted to:

A. Prepare an E&S Management System (ESMS) in accordance with ESPS 1, including an E&S Management Framework (ESMF) for future works outside of the representative sample.
B. Conduct a critical habitat assessment in accordance with the Guidelines on ESPS 6 and present lines of actions for achieving net gains, if applicable.
C. Perform an in-situ Sociocultural Analysis (see Annex 1) of each of the ten (10) communities identified as the representative sample and assist the borrower in achieving free, prior, informed consent (FPIC) and the respective indigenous people development plans (IPDP) in accordance with ESPS 7 and national requirements.
D. Prepare Resettlement and Livelihood Restitution Plan (PRRMV) in accordance with ESPS 5
E. Prepare and E&S Scoping Report of the proposed Peperpot-Albina transmission line, including a rapid site visit (1 or 2 days). This report will identify key risks and impacts related to each of the ten ESPSs and recommendations for the mitigation approach.

It was agreed with the IDB that point A of the assignment, mentioned above, does not apply as there are no other villages in the south of Suriname. Furthermore, IDB also agreed that assignment D was not necessary since resettlement is not applicable in the context of this project.

Due to time pressure and socio-cultural barriers to carrying out the same research with the same target group in a very short time, the consultant has received permission from the IDB to use research material that had already been carried out in the context of this project. This mainly concerns research material provided by TTA in the context of this project.

5 Stakeholders Engagement Plan (SEP)

5.1.1 A Description of the Culturally Appropriate Consultation and Stakeholder Engagement Process and Information Disclosure

Below is the stakeholder analysis, carried out by Ilaco, on behalf of TTA, for the introduction of water, electricity and telecom in the 10 villages in question in the south of Suriname. This report was positively assessed as part of my desk study and was therefore adopted in its entirety within this consultancy.

Furthermore during this year the EBS held consultation meetings in all the 10 communities in a culturally appropriately manner. Those consultation meetings were well documented and the EBS got consent to implement the projects in the communities.

5.1.1.1 Stakeholder Analysis

The main objective of the stakeholder analysis is determining and understanding the current situation of utilizes in the 10 villages, mentioned earlier, in South Suriname, specifically the regulatory and institutional framework. This process aims to identify the institutions and organizations related to rural electrification, potable water supply, and telecom services from different sectors (public, private, academia, etc.); grouping them according to their levels of participation, interest, and influence; and determining how best to involve and communicate with each of these stakeholder groups throughout[1].

Figure 1 Stakeholders analysis process

The process started by **listing the stakeholders** related to rural electrification, water supply and telecom services in the hinterland, according to the experience and knowledge of the consultant.
Then the process continued by holding different **meetings with the listed stakeholders** to: i) know their interest and influence on the definition of a regulatory and institutional framework for rural electrification, water supply and telecom services and ii) include any other stakeholders missing.
After this, the process proceeded by **collecting** as much **information** possible about their **experiences** and relation with rural electrification, water supply and telecom services in Suriname, as well the stakeholders´ **interests and influence** on it, in order to **categorize and classify** them.
Once the stakeholders are categorized and classified, a **communication strategy** for different stakeholders was proposed.

[1] https://www.productplan.com/glossary/stakeholder-analysis/

This Section provides an overview of the key stakeholders in the energy, water and telecom sector. Also, institutions and organizations related to these sectors and other key basic services (linked to energy, water and telecommunications) in rural areas are included due to the importance of these services as well as because of the need of electricity to make these services available in these communities.

5.1.1.1.1 Public sector

Table 1 Stakeholder identification, Public sector

Stakeholder	Category	Key Responsibility	Link to energy	Link to other basic services	Power of Influence	Level of Interest
Ministry of Natural Resources (MNH)	Public (Central Government)	Sustainable and efficient management and development of natural resources potentially present in Suriname. Within the focus area of energy, the ministry is tasked with Energy Policy and supervision of the energy sector. Also, the MNH supervises performance of water services institutions and guides water management.	Yes	Yes (Water)	High	High
Ministry of Regional Development and Sports (MROS)	Public (Central Government)	Responsible for regional development, agricultural development in the interior and sports	Yes	Yes (Economic development)	Medium	High
Ministry of Health	Public (Central Government)	Responsible to better access to healthcare and good quality of care	No	Yes (healthcare)	Low	High
Ministry of Education, Science and Culture	Public (Central Government)	The Education System of Suriname is centralized and coordinated, guided and regulated by the Ministry of Education, Science and Culture	Yes	Yes (education)	Low	High
Ministry of Finance	Public (Central Government)	Monitors the income and expenditure of the state is responsible for the payment of the State's expenditure.	Yes	Yes	High	Low

Ministry of Foreign Affairs, International Business and International Cooperation	Public (Central Government)	Is committed to making Suriname a better country. It does this by establishing and maintaining relationships with various countries and organizations in the world.	Yes	Yes	High	Low
Ministry of Public Works	Public (Central Government)	The Ministry of Public Works develops, builds and maintains public assets	No	Yes (Water)	Low	Low
Ministry of Transport, Communications and Tourism	Public (Central Government)	Responsible for telecommunications services in Suriname	No	Yes (Telecoms)	Low	Low
Stakeholder	**Category**	**Key Responsibility**	**Link to energy**	**Link to other basic services**	**Power of Influence**	**Level of Interest**
Energy Authority of Suriname (EAS)	Public	An independent, supervisory and management body established by law (SB 2016 no. 41) in the energy sector that regulates, monitors, informs and advises. Energy security and sustainability are also important principles.	Yes	No	High	High
Telecommunications Authority Suriname (TAS)	Public	Responsible for legal and regulatory framework of telecoms services	No	Yes (Telecoms)	Low	Low
Suriname Power Utility (EBS)	Public	Responsible for power generation, transmission and distribution (Portfolio of power generation includes HFO Diesel Gensets, Solar PV grid tied systems). Via subsidiary Ogane also responsible for retail of cooking fuel (LPG)	Yes	Yes (Water and Telecoms)	Medium	High
Surinamese Water Pipe Company (SWM)	Public	Water supply company responsible of production and distribution	No	Yes (Water)	Low	Low
The Telecommunications Company Suriname (Telesur)	Public	Stated owned telecoms services company	No	Yes (Telecoms)	Low	Low

Ministry of Natural Resources (**MNH,** https://gov.sr/ministeries/ministerie-van-natuurlijkehulpbronnen/) responsible for the energy policy and supervision of the energy sector. Moreover, its responsibility encompasses sustainable and efficient management and development of natural resources in Suriname, in particularly water, minerals, and energy. The rural electrification is in hands of the MNH´s **Electricity Supply Department (DEV)** which operates and maintains nearly 130 small diesel power systems located in isolated and remote communities. Electricity supply in the Hinterland is under the mandate of DEV. **The Water Supply Directorate (DWV)** which belongs to the MNH is responsible for i) policy advice, policy elaboration and policy coordination of all water matters, ii) developing and monitoring a national drinking water sector plan, iii) providing information about policies, procedural rules and guidelines for decision-making, preparation and implementation of projects and programs to stakeholders, and others. They also distribute water to communities of individuals who do not have a water distribution network in their area or do not have a water connection (yet). DWV provides water to communities or individuals that are not connected to any distribution net, via large water distribution trucks.

Ministry of Regional Development and Sports (MROS, https://gov.sr/ministeries/ministerie-vanregionale-ontwikkeling-en-sport/**)** responsible for regional development, agricultural and interior, and sustainable of indigenous communities. The main tasks are: i) relations between the regional and central government, ii) improvement of life quality in the interior, iii) promotion of public participation, and others. Within the framework of their role and responsibilities, they are engaged in rural and hinterland community projects related to improving access to water and electricity, just to mention these to facets. **The Foundation for the Development of the Interior (SFOB)** is a government foundation under the MROS, it´s the main goal is financing of activities in Suriname, aimed at the advancement and the realization of integrated, self-perpetuated rural economies of the indigenous peoples and maroons living in the interior of Suriname. The aim of the Foundation is to contribute to eliminating the socio-economic disadvantage of the population groups living in the interior, so that self-sustaining rural economies can be created.

Ministry of Health (https://gov.sr/ministeries/ministerie-van-volksgezondheid/**)** is responsible to better access to healthcare and good quality of care. The main tasks are: i) personnel and material facilities in healthcare, including medicines and other medical supplies, ii) management and control of institutions for nursing and/or treating the sick, pharmacies and warehouses of medicines and medical and pharmaceutical supplies; iii) medical examination of persons in State service, iv) health of population groups and individuals who need this care and would otherwise not receive it, and others. Via other entities they also provide (or facilitate) healthcare in rural and hinterland communities, and purchase medicines and other medical consumables using collective bargaining.
In addition to the ministry, the RGD and Medische Zending are entities that respectively provide primary health care in the rural coastal area and the hinterland of Suriname. In some instances, the medical post operated by these entities have solar PV systems for providing their electrical energy needs.

Ministry of Education, Science and Culture (MINOWC https://gov.sr/ministeries/ministerie-vanonderwijs-wetenschapen-cultuur/**)** is responsible for the overall coordination, guidance and oversight of education in Suriname, be it public of private, from primary level up to tertiary level. Please note that oversight is lacking in education quality of some private schools and institutes of higher education.

Ministry of Finance and Planning (https://gov.sr/ministeries/ministerie-van-financien-en-planning/**)** Specifically with regard to their role in relation to hinterland electrification, they have passed regulations whereby solar panels can be imported free of duties and taxes. The intention is to promote in this way the deployment of solar PV systems. Batteries are, however, excluded from this measure.

Ministry of Foreign Affairs, International Business and International Cooperation (https://gov.sr/ministeries/ministerie-van-buitenlandse-zaken-internationaal-business-internationalesamenwerking/**)** chiefly the directorate of International Cooperation is an important directorate within said ministry to facilitate the collaboration on government level for grant funding (or soft loans) for rural and/or hinterland electrification projects, e.g., the India-Suriname credit line of USD 35.8 million (Exim Bank of India) for installation of solar PV plants serving 50 hinterland villages.

Ministry of Public Works (https://gov.sr/ministeries/ministerie-van-openbare-werken/**)** is responsible for i) the preparation and construction of dry and wet civil engineering works and any other infrastructural facilities, ii) ensures the preparation and construction of housing (public housing, service housing, student accommodation, hospitals, etc.), educational institutions (schools), outpatient clinics, police houses and markets in city and government districts, in collaboration with the relevant ministries, iii) the care for

primary, secondary and tertiary drainage and dewatering and the integrated water management of urban and non-urban areas; the same for flood defenses along the coast and rivers, iv) ensuring compliance with water quality standards of surface water for water discharged into the sea, rivers and canals.

Ministry of Transport, Communications and Tourism (https://gov.sr/ministeries/ministerie-vantransport-communicatie-toerisme/**)**

Energy Authority of Suriname (EAS, https://eas.sr/**)** recently created in 2016, it is an independent, supervisory and management body in the energy sector that regulates, monitors, informs and advises. Energy security and sustainability are also important principles. Regarding the rural electrification the main challenges are related to i) infrastructure and access, ii) geographical and environmental tools, iii) cost and funding, iv) technical expertise, v) energy source, vi) storage solutions, vii) community engagement, viii) cultural sensitivity, ix) regulations and permits, and x) long-term sustainability.

Telecommunications Authority Suriname (TAS, https://www.tas.sr/**)** is the official body that enables the rapid development of affordable, high-quality telecom services for the Surinamese public. TAS provides transparent, non-discriminatory and legal regulatory framework for reliable and accessible telecommunications that encourages innovative private sector participation and the acceptance of information services.

Suriname Power Utility (EBS https://nvebs.com/**)** is a stated owned company in charge of the operation of the electricity systems. EBS´s operations entail generation, transmission, distribution, and commercialization of electricity. EBS also operates PV hybrid systems and collaborates with MNH on PV systems in rural areas.

Surinamese Water Pipe Company (SWM https://swm.sr/**)** is an owned stated company in charge of water supply in Suriname (urban area). SMW´s is responsible of water supply network including production and distribution. For communities which are not connected to any distribution net, SWM can provide water by means of water trucks.

The Telecommunications Company Suriname (Telesur https://www.telesur.sr/zakelijk/telesurseogs/telesur-solutions-for-your-business/**)** is the governmental-owned full-telecommunications service provider for Suriname. The services provided by Telesur include telephone, internet and wireless.

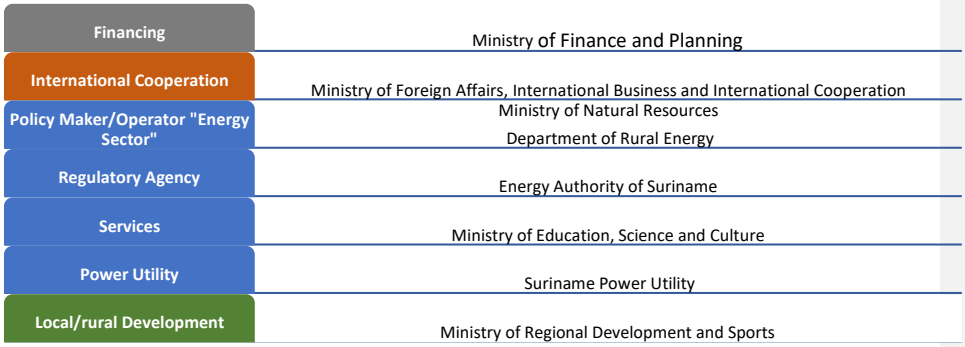


Figure 2 Public Institutions related to rural electrification in Suriname

Figure 3 Public institutions related to water supply in Suriname

Figure 4 Public institutions related with telecoms services in Suriname

In the energy sector, specifically for rural electrification there are three key public institutions involved. These three institutions are: MNH through DEV, EAS, and EBS which oversee policy, planning, regulating, operation, and maintenance of rural electrification projects.

For the water supply there are two institutions in charge of policy, planning, operation and maintenance of water systems in Suriname: MNH through DWV and SWM.
The telecoms services are governed by the Ministry of Transport, Communications and Tourism. Also, there are two additional public institutions in charge of regulating, operation, and maintenance of telecom services in Suriname, these two institutions are: TAS and Telesur.
The rural electrification, water supply and telecoms services depend on financing sources from the Ministry of Finance and Planning and/or the Ministry of Foreign Affairs, International Business and International Cooperation. Regarding the Hinterland and rural communities, the MROS through SFOB is a key stakeholder which oversees the local development policy in the rural areas, also have high influence and incidence in these areas.

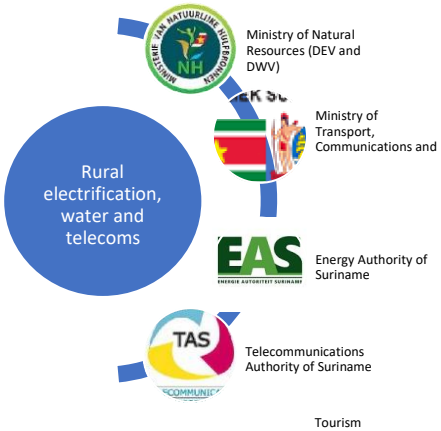


Figure 5 Policy makers and regulatory agencies for rural electrification, water supply and telecoms services, Suriname

5.1.1.1.2 Civil Society & Non-Governmental Organizations

Table 2 Stakeholder identification, Civil Society and Non-Governmental Organizations

Stakeholder	Category	Key Responsibility	Link to energy	Link to other basic services	Power of Influence	Level of Interest
Association of Indigenous Village Leaders in Suriname (VIDS)	Civil Society	It´s main responsibility is defending indigenous peoples' rights, as well as in sustainable development and environmental protection	No	Yes (sustainable development)	Medium	High
Collaboration of Tribal Peoples in Suriname (KAMPOS)	Civil Society	The purpose of the collaboration includes advocating for the land- and other rights, and	No	No	Medium	Medium

		representing the collective interests of Tribal Peoples				
Association of Saamaka Authorities (VSG)	Civil Society	This organization focuses primarily on recognition of the land rights of the Saamaka people.	No	No	Medium	Low
Organization for Indigenous people in Suriname (OIS)	NonGovernmental Organization	OIS's work is focusing on mitigating the consequences of the actual sanitary crisis and foster socio-economic resilience within indigenous communities	No	Yes (sustainable development)	Medium	High
Mulokot Foundation	Civil Society	The goals of the foundation are to bring sustainable development of the Wayana community by capacity building, developing management skills, managing projects in the community, providing training, and advocacy	No	No	Medium	Medium
Amazon Conservation Team -Guianas (ACT)	NonGovernmental Organization	ACT- Guianas mission is to work in partnership with indigenous and maroon communities to protect and preserve biodiversity, their culture and traditional health care in the North-East Amazon.	No	No	Low	Medium
Conservation International Suriname	NonGovernmental Organization	CIS is an environmental organization that has worked in Suriname for the last 25 years. It´s mission is to preserve Suriname´s rich biodiversity and ecosystems.	No	No	Low	Medium
World Wildlife Fund (WWF)	NonGovernmental Organization	Organization that focuses on conserving wildlife and endangered species	No	No	Low	Medium
Green Growth Suriname (GGS)	NonGovernmental Organization	Its mission is to further advance the people of Suriname's wellbeing and welfare by conserving the biological and cultural richness of the country.	No	No	Low	Medium

Association of Indigenous Village Leaders in Suriname (VIDS https://vids.sr/**)** established in 1992 and is an association of indigenous community leaders from all 51 indigenous villages in Suriname. Each leader is appointed by the community or chosen in accordance with traditional practices. VIDS´ main responsibility is defending indigenous peoples' rights, as well as in sustainable development and

environmental protection. It's the most important partner of the government concerning policy issues affecting indigenous peoples in Suriname.

Collaboration of Tribal Peoples in Suriname (KAMPOS)[2] was founded in 2019. KAMPOS represents the six Afro-descendant Tribal Peoples in Suriname, which are Kwinti, Aluku, Matawai, Pamaka, Okanisi, and Saamaka. The purpose of the collaboration includes advocating for the land- and other rights, and representing the collective interests of Tribal Peoples, as well as contribute to the sustainable management of traditional tribal territories and the ecosystems within these areas[3].

Association of Saamaka Authorities (VSG https://www.forestpeoples.org/en/partner/associationsaamaka-traditional-authorities-vsg-vereniging-van-saamaka-gezagsdragers**)** was founded in 2000 and represents the 12 Saamaka sub clans (lö's). This organization focuses primarily on recognition of the land rights of the Saamaka people. Education, including adult literacy and bilingual intercultural education, is another important focus point for VSG.

Organization for Indigenous people in Suriname (OIS) founded in 1992 and works for the defense of indigenous people's rights and self-determination throughout indigenous-led initiatives and projects within the legal boundaries of the State of Suriname. OIS's work is focusing on mitigating the consequences of the actual sanitary crisis and foster socio-economic resilience within indigenous communities through climate smart agriculture pilot projects, promotion of traditional knowledge, health awareness and dissemination of accurate and culturally sensitive information on the current situation.

Mulokot Foundation (https://mulokot.com**)** was founded in 2018. The goals of the foundation are to bring sustainable development of the Wayana community by capacity building, developing management skills, managing projects in the community, providing training, and advocacy. The Mulokot Foundation operates mostly in **the 2** Wayana villages.

The Amazon Conservation Team (ACT https://www.amazonteam.org/**)** established in 2002 as a nongovernmental organization (NGO) under Surinamese law. ACT Suriname's mission is to work in partnership with indigenous and maroon communities to protect and preserve biodiversity, their culture and traditional health care within the North-East Amazon. Indigenous people have been the traditional inhabitants and users of the forest over the centuries and are therefore central to the protection of the tropical rainforest in ACT's programs.

Conservation International Suriname (https://www.conservation.org/suriname/about) is an environmental organization that has worked in Suriname for the last 25 years. It´s mission is to preserve Suriname´s rich biodiversity and ecosystems. Also, this organization designed the Suriname´s ecotourism development plan and has experience on community-owned ecotourism infrastructure with local tribes of Suriname.

World Wildlife Fund (WWF https://www.worldwildlife.org/**)** is an international non-governmental organization that focuses on conserving wildlife and endangered species. Currently in Suriname are being conducting different projects to protect sea, freshwater, forests, wildlife, and others. Its programs include

[2] Includes 6 tribes: Kwinti, Aluku, Matawai, Paamaka, Okanisi and Saamaka

[3] Personal communication with R. Simson, director of KAMPOS

projects to reduce small-scale gold mining which is by far the largest driver of deforestation across Suriname.

Green Growth Suriname (GGS https://greengrowthsuriname.org/about-us/**)** is a non-governmental organization, and its mission is to further advance the people of Suriname's wellbeing and welfare by conserving the biological and cultural richness of the country. The main objectives of this organization are: i) developing and implementing models to include nature in national development processes, ii) designing and executing socio-economic projects that contribute to GGS's mission, iii) building capacity for nationals interested in conservation by organizing training sessions, workshops, seminars, and sociocultural excursions.

5.1.1.1.3 Private sector

Table 3 Stakeholder identification, Private sector

Stakeholder	Category	Key Responsibility	Link to energy	Link to other basic services	Power of Influence	Level of Interest
Digicel Suriname	Private Sector	Is a multinational telecommunications company related to business of internet, and mobile phones	No	Yes (telecoms)	Low	Medium
Power China	Private Sector	Is an international company working with MNH for electricity projects in the Hinterland	Yes	No	Low	High
SinoSoar	Private Sector	Is an international company specialized in solar hybrid and off-grid systems	Yes	No	Low	High
JGH	Private Sector	Is an international company of solar energy specialized in remote areas	Yes	No	Low	High
ElGAWA	Private Sector	Is a local service contractor and distributor of technical products such as generators and electrical materials.	Yes	No	Low	High
Multi Electrical System N.V. (MES)	Private Sector	Is a local technical services provider of electricity	Yes	No	Low	High
HSW Energy	Private Sector	Is a local renewable energy solutions company	Yes	No	Low	High
CleanTech Suriname	Private Sector	Is a local service provider company related to sustainable energy projects	Yes	No	Low	High
InterData N.V.	Private Sector	Is a local service provider company in Suriname related to sustainable energy projects	Yes	No	Low	High

Digicel Suriname (https://www.digicelgroup.com/sr/du.html**)** is a multinational telecommunications company related to business of internet, and mobile phones. It provides internet and mobile phone services in the hinterland. To power their equipment, Digicel uses solar PV installations which they install, operate and maintain (be it via contractors).

PowerChina (https://en.powerchina.cn/2022-09/30/c_817549.htm**)** is an international company working with MNH for electricity projects in the Hinterland, the total power capacity to be installed is estimated to be about 4,200 kWp (Solar Micro Grids, 24/7 hours) in 50 villages in Tapanahony, Upper Suriname, Gran Río, Pikin Río and Marowijne.

SinoSoar (https://www.enfsolar.com/**)** is an international company specialized in solar hybrid and off-grid systems. It has developed, built, and installed PV and energy storage systems in Suriname.
JGH (https://jghsolardk.wpcomstaging.com**)** is an international company of solar energy specialized in remote areas. It is currently working on the supply and installation of 10 PV power plants in Upper Suriname with an estimated total power of 1.7 MWp of solar PV and 7.25 MWh batteries coupled with 0.8 MVA of diesel gensets. This project is being implemented through EBS and financed by the EU IADB.

Elgawa (https://www.elgawa.com/commercial/services**)** is a local service contractor and distributor of technical products such as generators and electrical materials.

Multi Electrical System N.V (MES https://www.mes2q.com/**)** is a local technical services provider in different areas: i) electrical construction, ii) power line construction, iii) maintenance generators and iv) electrical engineering.

HSW Energy (http://hswenergy.com/aboutus.html**)** is a local renewable energy solutions company founded in 2016. It has installed individual pv systems and micro grid systems in the hinterlands.
CleanTech Suriname (https://www.cleantechsuriname.com/**)** is a local service provider company related to sustainable energy projects. It has experience with knowledge institutions and governmental institutions.

InterData N.V. (https://www.interdata.sr/) is a local service provider company in Suriname related to sustainable energy projects. Ted Jantz (tjantz@mediavision.sr), owner and director of InterData N.V. has long time experience in partnering with NGO's and local communities in South Suriname for designing and installing sustainable energy projects.

5.1.1.1.4 Academia

Table 4 Stakeholder identification, Academia

Stakeholder	Category	Key Responsibility	Link to energy	Link to other basic services	Power of Influence	Level of Interest
Anton de Kom University of Suriname	Academia	Is the central point of expertise and personnel capable to serve the community with data, knowledge and skills in various facets of renewable energy systems' operation, maintenance and management	Yes	No	Medium	High
Polytechnic College (PTC)	Applied Sciences	Institute or Applied sciences that provides BSc. Electrical engineering studies with the possibilities of two majors: electrical technology or information technology.	Yes	No	Low	High

The Institute for Natural Resources and Engineering Studies (NATIN)	Vocational	One of the biggest secondary vocational institutions that aims to provide the Surinamese business sector, service industry, and government with well-trained technical middle management personnel.	Yes	Yes	Low	High
Technical Vocational Education & Training (TVET/AMTO)	Vocational	Secondary vocational institution that provides qualitative education and training for adults.	Yes	No	Low	High

Anton de Kom University of Suriname (https://www.uvs.edu/**)** via the Faculty of Technology is a central point of expertise and personnel capable to serve the community with data, knowledge and skills in various facets of renewable energy systems' operation, maintenance and management. Expertise also includes use of software tools, critical evaluation of input data for simulations and small- and large-scale experimental facilities with a state-of-the-art supervisory control and data acquisition system. The university also has a broad network of experts in various European Universities, e.g., KU Leuven, TU Eindhoven, etc.

Polytechnic College (PTC https://www.ptc.edu.sr/**)** Institute or Applied sciences that provides BSc. Electrical engineering studies with the possibilities of two majors: electrical technology or information technology. Majors are very related and necessary for planning, installation, operation and maintenance of mini grids, hybrid systems and individual solar systems.

The Institute for Natural Resources and Engineering Studies (NATIN https://www.natin.sr/over-natin/**)** is an educational institution that aims to provide the Surinamese business sector, service industry, and government with well-trained technical middle management personnel.

Technical Vocational Education & Training (TVET/AMTO https://amto.sr/**)** is an educational institution that provides qualitive education and training for adults.

5.1.1.1.5 Multilateral and bilateral organizations

Table 5 Stakeholder identification, multilateral and bilateral organizations

Stakeholder	Category	Key Responsibility	Link to energy	Link to other basic services	Power of Influence	Level of Interest
Interamerican Development Bank (IADB)	Multilateral Organization and funding source	Is a multilateral bank that supports countries through financial and technical assistance	Yes	Yes	Low	High
United States Agency for International Development (USAID)	Development Agency and funding source	International development Agency	Yes	Yes	Low	Medium
Caribbean Development Bank (CDB)	Multilateral Organization and funding source	Is a multilateral bank that supports countries in different sectors	Yes	Yes	Low	High
United Nations Development Program (UNDP)	Development Agency	Is a development agency focuses on eradication of poverty and reduction of inequalities and exclusion	Yes	Yes	Low	Medium
French Development Agency (AFD)	Development Agency and funding source	Is a development agency that supports Suriname in different sectors	Yes	Yes	Low	Medium
China International Development Cooperation Agency (CIDCA)	Development Agency	Is an international cooperation agency with the objective to develop strategic directives, blueprints, and policies for international assistance	Yes	No	Low	High
India Development Agency	Development Agency	Is an international development agency that has supported Suriname on rural electrification initiatives specifically for solar mini grids	Yes	No	Low	High

European Union – Caribbean Investment Facility (EU -CIF)	Multilateral Organization	Is a funding source that has supported different sectors in Suriname, like: agriculture, water	Yes	Yes	Low	High
	and funding source	supply, and sustainability of the electricity sector.				
CARICOM Development Fund	Regional organization	CARICOM Development Fund (CDF) is an institution of the Caribbean Community to provide financial or technical assistance to disadvantaged countries, regions and sectors in the Community.	Yes	Yes	Low	High

Interamerican Development Bank (IADB https://www.iadb.org/en/countries/suriname/overview**)** is a multilateral bank that supports countries through financial and technical assistance in infrastructure, health, education and others sectors. IADB has supported the energy sector and specially the rural infrastructure initiatives in Suriname. Currently there are some projects financed by IADB, The Rural Electrification Plan and Regulatory, institutional framework for Rural Electrification and final designs of 10 micro grids in South Suriname. Also, IABD has funded various energy related projects such as ones focusing on distributed generation and energy efficiency.

United States Agency for International Development (USAID https://www.usaid.gov/**)** is an international development agency and a funding institution. In Suriname USAID works to advance health, the environment, energy, food security, and the business environment.

Caribbean Development Bank (CDB https://www.caribank.org/**)** is a multilateral bank that supports countries in different sectors. CDB funded engineering, procurement and construction of the 300 kWp and 2000 kWp solar PV plants in Coronie and Nickerie (rural districts along the coast of Suriname).

United Nations Development Program (UNDP https://www.undp.org/suriname**)** is a development agency focuses on eradication of poverty and reduction of inequalities and exclusion. In Suriname are conducting some projects related to climate change, water resource management, disaster risk reduction, and energy sector. Also, is under analysis a rural electrification project near to Marowijne river.

French Development Agency (AFD https://www.afd.fr/en/page-region-pays/suriname**)** is a development agency that supports Suriname in two key areas: more sustainable economic, social, and environmental growth and strengthening regional cooperation, particularly in the east of the country.

China International Development Cooperation Agency (CIDCA http://en.cidca.gov.cn/index.html) is an international cooperation agency with the objective to develop strategic directives, blueprints, and policies for international assistance. It also strives to oversee and provide counsel on significant international aid matters, promote the nation's advancements in foreign aid-related reforms, and pinpoint key initiatives while overseeing and assessing their execution.

India Development Agency Through the Exim Bank of India (India Credit Line) it a loan was granted to Suriname for 35.8 million for 50 additional villages (solar micro grids systems).

European Union – Caribbean Investment Facility (EU-CIF https://www.eu-cif.eu/en/projects**)** is a funding source that has supported different sectors in Suriname, like: agriculture, water supply, and sustainability of the electricity sector.

Caribbean Development Fund (CDF https://caricom.org/institutions/caricom-development-fund-cdf/**)** Is an institution of the Caribbean Community (CARICOM) which mandate is to provide financial or technical assistance to disadvantaged countries, regions and sectors in the Community. In this capacity, the CDF is central to addressing the disparities among the Member States of CARICOM.

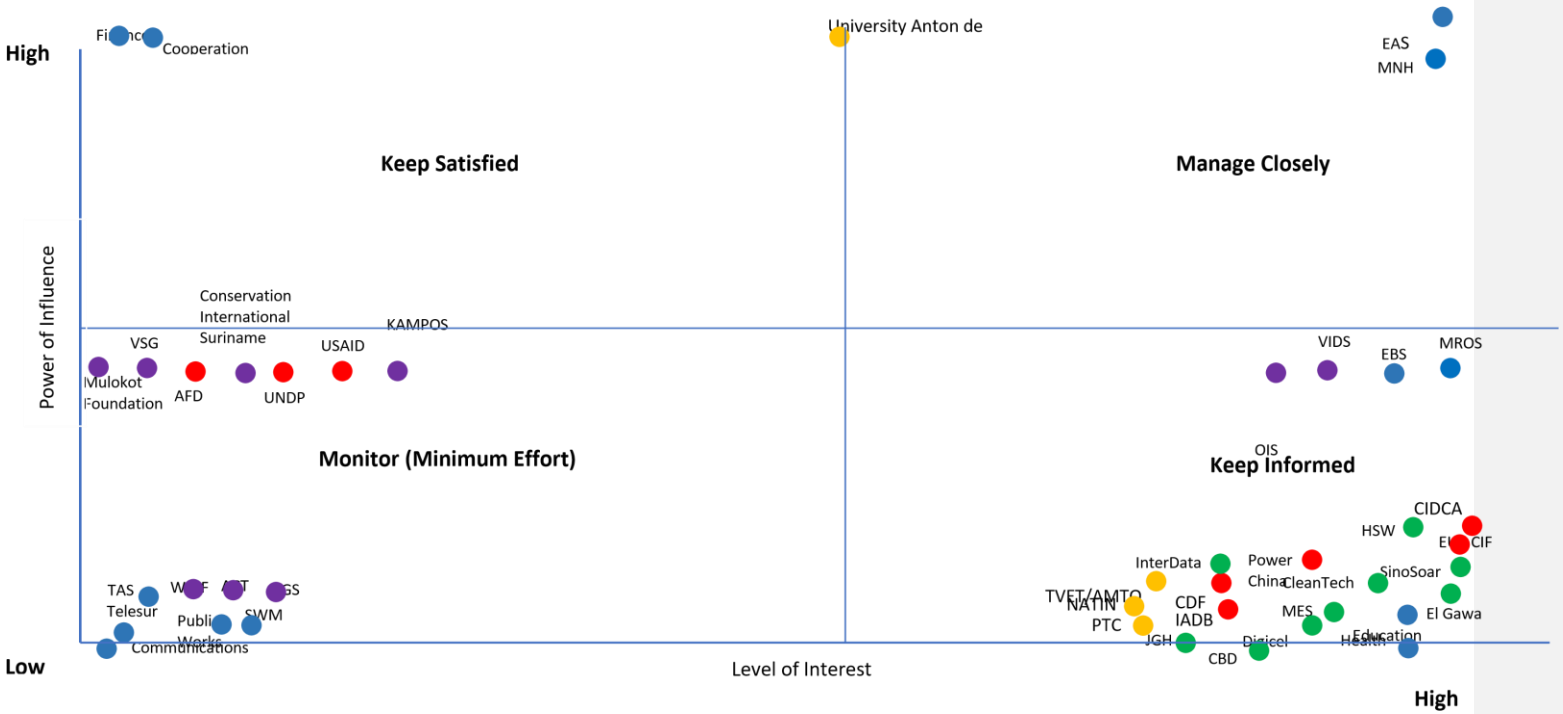


Figure 6 Power and Influence Matrix, Stakeholders

5.1.1.2 Communication Strategy

Once stakeholders have been identified and characterized according to their power and influence the Team proceeded with developing a communication strategy to determine the information to be shared with the stakeholders and the communication tools to be used.

Manage Closely

IADB, MNH and EAS as policy maker and regulatory agency respectively are the main stakeholders and the decision makers for the definition of the regulatory and institutional framework for rural electrification projects. These institutions will be included and informed continuously and closely regarding the consultancy progress. Also, these institutions must participate in meetings and presentations to evaluate progress and present the main deliverables/products of this consultancy. For these stakeholders the following communication methods will be used: emails, meetings, presentations, WhatsApp, and reports. The Academia, specifically the University Anton de Kom would participate as reviewer or adviser of the main deliverables/products, it could include their participation on meetings and presentations also.

Keep Satisfied

The Ministry of Finance and the Ministry of Foreign Affairs should be kept informed on the project, mainly results and reports. The regulatory and institutional framework will be an important tool for rural electrification developing in the country that will need financing support, so participation of these two ministries will be key for success of this initiative. EBS should also be kept satisfied, considering that they are a key player in the provision of the energy service and will need to be included in this process. For these stakeholders' communication methods will be through high-level meetings, final presentations, and sharing reports.

Keep Informed

The multilateral and bilateral organizations (CDB, EU-CIF, CARICOM), ministries of health, education and regional development, civil society organizations (VIDS, OIS), and the private sector (energy services and solar mini grids installers) should be adequately informed. It is recommended to share with these institutions the results of the project and deliverables. For these stakeholders the following communication methods will be used: presentations and final reports.

Monitor

For the rest of the stakeholders who have low interest and low influence it recommends informing the results of the project. For this the communication methods to be used with will be just reports.

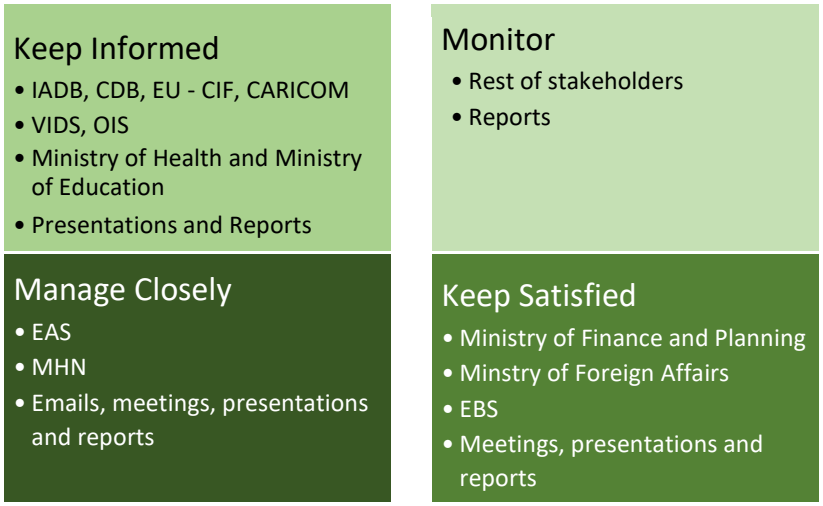


Figure 7 Communication Strategy

5.1.1.3 Institutional Analysis

The structure of the Electricity Sector in Suriname includes the following institutions: **i) Ministry of Natural Resources (MNH)** as representative of central government in charge of policy, planning and supervision of the energy sector; **ii) Energy Authority of Suriname (EAS)** as the regulatory agency, controlling, supervising, and regulating the sector; **iii) Suriname Power Utility (EBS)** as the single stated owned company in charge of generation, transmission, distribution, and commercialization of electricity. EBS operates seven thermal power stations. EBS also operates PV hybrid systems and collaborates with MNH by DEV on PV systems in rural areas.; and **iv) Independent Private Producers (IPP)** in charge of generation power plants operation. These IPP are: i) SURALCO L.L.C a Hydro Power Plant and ii) Staatsolie Power Company Suriname a thermal power plant.

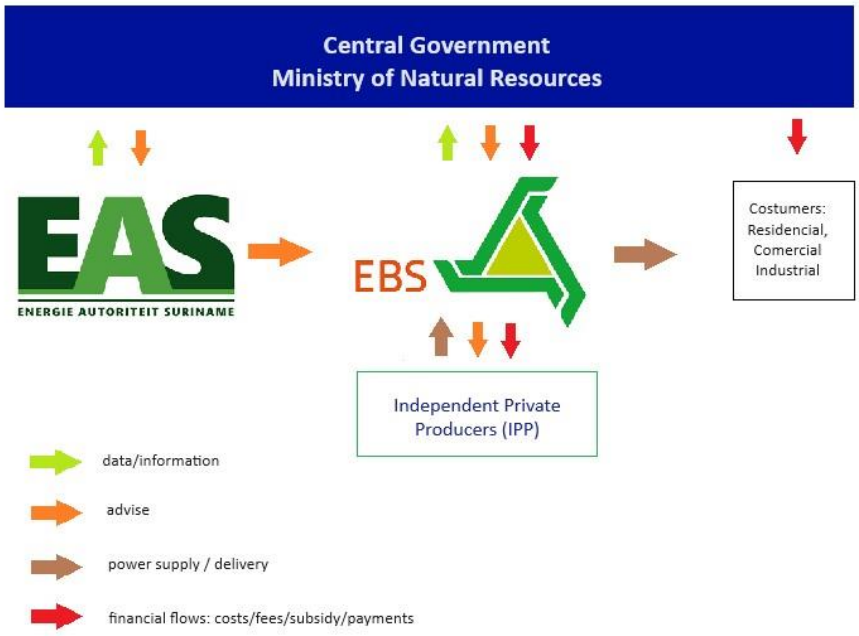


Figure 8 Structure Electricity Sector, Suriname

All the previously listed institutions are in charge of planning, operation and maintenance of the electrical power systems in Suriname. The policy, regulatory and institutional energy sector framework in Suriname is based on policies, regulations, programs, and plans. Specifically, for the rural electrification, currently the planning instruments related to are the following:

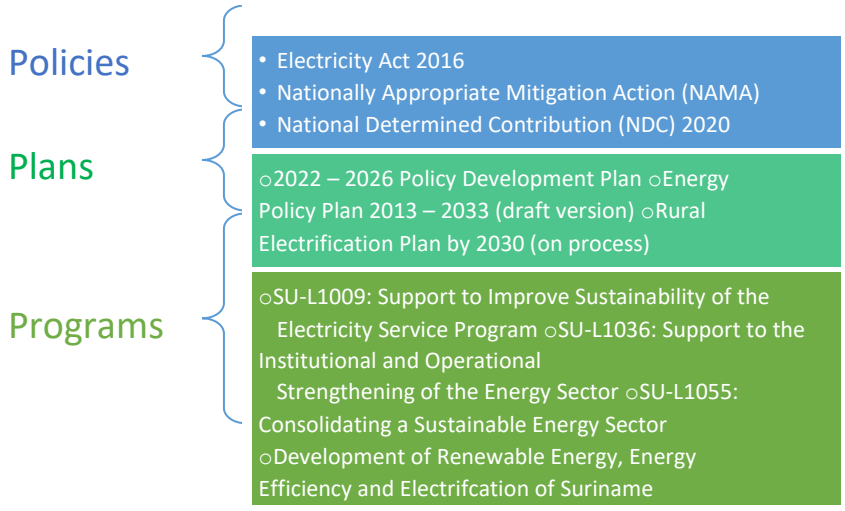


Figure 9 Policy and regulatory framework for rural electrification, Suriname

Electricity Act 2016

The Electricity Act of 2016 updated Suriname power market's regulations to improve the technical and financial situation of the sector. It established the creation of the Energy Authority of Suriname (EAS), entity in charge of providing technical support and advice to the MNH; and responsible for the preparation of the Electricity Sector Plan (PES) a strategic planning document of the electricity sector.

Nationally Appropriate Mitigation Action (NAMA)

Document developed by the Japan-Caribbean Climate Change Partnership (J-CCCP) which focuses on facilitating the adoption and provision of reliable access to affordable renewable energy solutions in rural areas, accelerating the reduction of greenhouse gas (GHG) emissions and contributing significantly to advance in sustainable and inclusive growth and development. The formulation of the NAMA is integrated into national government development plans and climate change and energy policies.

National Determined Contribution (NDC) 2020

Promotes electricity shares from renewable sources above 35% by 2030, adoption of a Renewable Energy Act to provide the legal, economic, and institutional basis for the promotion of the use of renewable energy resources. This Act will also focus on electrification methods for rural areas, such as grid expansion, solar photovoltaic systems, mini-grids, and the development of micro and small hydropower plants. All these projects will support climate change mitigation and adaptation strategies. Specifically, for rural electrification projects were identified different needs such as business models, financing tools, payment systems and others to install, operate and maintain mini-grids. Technical, financial, and institutional support is needed to introduce new modalities, including public-private partnerships.

2022 – 2026 Policy Development Plan

The energy policy set out in the Development Plan 2022-2026 has the following priorities: conduct feasibility studies for renewable energy projects, where value creation, employment and accessibility have a prominent role; launch and operationalize the EAS; lowering the cost of business connections; issue the Electricity Act amendment; establish guarantee fund for renewable energy business models at the household level initiating microgrid solar projects for 50 inland villages through the India Credit line; and; establishing and deploying out standards for energy efficiency.

About the water supply the Development Plan 2022-2026 has the following objectives: submission, adoption, and promulgation of the four water laws; replace, expand, and rehabilitate the water supply system, particularly the water meters; conception of policy for the commercial supply of potable water to shipping; phase out object subsidy and build in subject subsidy on water use; implement programs to protect against toxins, pesticides, herbicides, etc.; expand surface water treatment projects for consumption; and issue the drinking water demand feasibility study 2040.

For the information and communication technology, the Development Plan 2022-2026 has the following priorities: reduction of tariffs on ICT equipment, implement incentives to host virtual local content, setting up PPP for an internet exchange point, establish ICT cluster with allocation of location and startup capital, construction of the designed marker space, drafting and implementation of incentives for the ICT sector, launch of gamification events, split responsibility for telecom infrastructure services, establishment and roll-out of internet protocol version 6, and draw up a plan of approach for the rollout of 5G infrastructure.

Energy Policy Plan 2013 – 2033

The plan presents the long-term vision for Suriname's energy sector and the policy/strategic framework for facilitating access to electricity, ensuring sustainable energy supply using both renewable and fossil fuel energy sources, and exploring options for developing the energy sources available in the country.

Rural Electrification Plan 2030

The main objective is to support the Government of Suriname in establishing a proper regulatory, institutional, and planning framework to achieve universal electricity access in Suriname in 2030. The main outputs of this plan will be: i) Methodology for project execution plan, ii) Strategic plan and iii) Technical Plan. This plan is being developed through a technical assistance from IADB together with MNH.

SU-L1009: Support to Improve Sustainability of the Electricity Service Program

Implemented by Energie Bedrijven Suriname (EBS) between 2016 and 2019 with funding from the InterAmerican Development Bank (IDB), the program aimed to improve the sustainability of electricity services in Suriname by strengthening the institutional capacity of EBS and expanding electricity coverage in rural and hinterland of Suriname. Prior to the project, targeted villages received free energy through subsidized and expensive thermal power for 5-6 hours per day through an off-grid diesel generator. The intervention was intended to provide access to better quality electricity, 24 hours a day, with a new tariff scheme.

SU-L1036: Support to the Institutional and Operational Strengthening of the Energy Sector

The objective of this framework is to organize the sector, and shape the conditions for its sustainability in economic, financial and environmental terms and in order to achieve this goal the GOS decided to focus on the reform of the power sector with support from the IDB. The purpose of this first operation is to support the GOS in commencing the process of policy and legislation formulation.

SU-L1055: Consolidating a Sustainable Energy Sector

The general objective is to improve rural economic development, by ensuring adequate and modern access to sustainable electricity in order to enhance the living conditions of the rural population, while improving the rural business environment with better provision of electricity as a public service. The specific objectives are to: (i) advance the implementation of energy reform through support to the Energy Authority of Suriname (EAS) and operational management of the EBS; (ii) increase the reliability of the power system and promote the diversification of the energy matrix through financing pre-investment activities related to Renewable Energy (RE) and Natural Gas (NG); and (iii) expand electricity coverage through a combination of grid extension and off-grid- systems, increasing the provision of RE systems

Development of Renewable Energy, Energy Efficiency and Electrification of Suriname

Program financed by GCF and its objective was to promote the use of renewable energy (RE) and energy efficiency (EE) technologies in the urban and rural areas and increase access to energy in the Interior of the country.

5.1.1.3.1 Status of rural electrification

The current electricity law stipulates that the EAS is responsible for the energy sector plan, which is then executed, once approved, by various actors, among which EBS. Nonetheless, there is close collaboration between relevant stakeholders. In principle EBS has national concession for power generation, transmission, and distribution. However, because of cost effectivity issues, EBS has not focused much on the hinterland. Hinterland electrification has been historically done by MNH and DEV via two routes: i) DEV with the decentralized Diesel gensets and ii) via various solar PV installation projects. In some cases, under request from MNH, EBS provides ass1istance, or advice in specific projects.

Currently in the interior of Suriname in the hinterland, DEV within MNH is responsible for the electricity supply with small, isolated power generation systems using diesel fuel. The power supply is limited but free for a few hours per day, about 4-6 hours per day from 6:00/7:00 pm – 12:00 pm, depending on diesel provision. In some villages, depending on the percentage of school-aged children in the village, electricity is also available from 5.00-7.00 in the morning, provided that the number of technical working hours is within acceptable limits given the equipment installed at the specific village.

The power generators and the electricity distribution grids are government owned and operated and maintained by DEV**. In this regard DEV has their own staff working in these villages**. Maintenance is both reactive and preventive, yet, the GoS has no fixed long-term policy towards asset management, return on investments and replacement of critical equipment/infrastructure. The present management and operation model does not require recovery of operating costs; by consequence, there is no incentive in the communities to make efficient use of the limited supplied electricity [1].

Although DEV is capable of performing the operation and maintenance of the local electricity equipment/infrastructure, there are key challenges, namely: i) in the case of hybrid power systems (solar PV + diesel generators) DEV has trained personnel of maintenance and troubleshooting if needed for these systems, yet, these technical staff do not live in these villages (this is the case for the villages Gujaba and Godo Olo) and ii) due to the aging workforce of DEV, it is difficult (though not impossible) to find new recruits**. A critical challenge faced by the GoS for many years is the high costs associated with fuel supply for the villages.**

Furthermore, as mentioned earlier hereabove, the availability of technicians in the villages where solar PV systems (hybrid or stand-alone) are installed, is problematic. Lastly, there is a lack of technical standards on designs of mini grids and PV systems, i.e., experience has shown that in the past decade, solar PV systems were haphazardly installed as a patchwork of various system and control designs, whereby **maintenance, training, system longevity and sustainability were deemed of minor importance**. Consequently, if damage occurs, it is unclear which entity has a role to fulfill with clear tasks and responsibilities, there is no stockpile of spare parts, and each village has totally different standards for the technical equipment.

Some hybrid, mini grids solar systems and individual solar systems have been built in the hinterland from different organizations: NGO´s and private sector unfortunately due to lack of operation, maintenance and management plan the systems are out of operation. Below, it shows a list of mini grids systems installed in Suriname.

Table 6 List of solar microgrids in Suriname

Project	Size kWp	Technology	Stakeholder (developer/funder)	Status	Year of commissioning
Good Olo (southeast)	250 kWp	Solar PV microgrid	Global Environment Facility/ Inter-American Development Bank (GEF/IADB)	Operated by EBS and DEV	2021
Pokigron, Atjoni	500 kWp	Solar PV microgrid	Inter-American Development Bank (IADB)	Operated by EBS	2018
Goejaba (upper Suriname)	450 kWp	Solar PV microgrid	Powerchina, Ministry of Natural Resources	Operated by DEV	2021
Pikin Slee (upper Suriname)	300 kWp	Solar PV microgrid	Powerchina, Ministry of Natural Resources	Operated by DEV	2021
Gunzi (upper Suriname)	20 kWp	Solar PV microgrid	WTEC, Ministry of Natural Resources, EBS, University Anton de Kom Suriname	Not in operation	2014

Coeroeni	9.1 kWp	Solar PV microgrid	Amazon Conservation Team (ACT) – Suriname	In operation by ACT	2019
Sipaliwini	3.75 kWp	Solar PV microgrid	Amazon Conservation Team (ACT) – Suriname	In operation by ACT	2019
Pelelu Tepu (Tapanahoni river)	21 kWp	Solar PV microgrid	Amazon Conservation Team (ACT) – Suriname	Operated by DEV (Electrification Service) of the Ministry of Natural Resources.	2018

Table 7 List of Individual Standalone Systems in South Suriname

Project	Size kWh	Technology	Stakeholder (developer/funder)	Status	Year of commissioning
Traditional Medicine Clinic, Apetina	1.925 kwh/day	Solar PV Standalone	UNDP J-CCCP, Amazon Conservation Team (ACT) – Suriname	Supported by ACT	2017
Traditional Medicine Clinic, Peleloe Tepoe	1.925 kwh/day	Solar PV Standalone	UNDP J-CCCP, Amazon Conservation Team (ACT) – Suriname	Supported by ACT	2017
Traditional Medicine Clinic, Kwamalasamutu	1.925 kwh/day	Solar PV Standalone	UNDP J-CCCP, Amazon Conservation Team (ACT) – Suriname	Supported by ACT	2017
Media Center, Kwamalasamutu	12kwh/day	Solar PV Standalone	DOB Ecology, UNICEF, Amazon Conservation Team (ACT) – Suriname	Supported by ACT	2020
Brazil Nut Factory, Alalapadu	31.90 kwh/day	Solar PV Standalone	Green Growth Suriname (GGS), Conservation International (CI) – Suriname	Supported by CI-S	2020

5.1.1.3.2 Regulatory needs

Regarding the regulatory framework for rural electrification in Suriname, it is necessary to detail the responsibilities and tasks of different players from the public sector (policy makers, regulators, etc.) public utilities, NGOs, private sector (installers mainly) and other organizations that could support on planning, developing and operation/maintenance of micro grids, hybrid systems, individual solar systems, and other energy solutions. It is important to include and consider the different ways and alternatives available not only from the central government to support rural electrification, but potential from the private sector, NGO´s, international cooperation, and others.

The regulatory framework must include aspects like **permitting/concession** area, taking account not only the EBS as the entity responsible of generation, transmission, distribution, and commercialization in Suriname and/or the MNH by the DEV in the case of hinterland, but also potentially from different players from private sector, NGOs, international cooperation, etc. Additionally, it must detail what are the **requirements, commitments** and other, for programs, plans and energy solutions that are not promoted by the central government but by new and different players. Also, it must include the management model for the operation and maintenance of these systems which must include participation of communities and direct beneficiaries, and most importantly that long-term sustainability is ensured. The key aspect for the framework is the project implementations are accompanied by sound technical, financial, social, and environmental plans that ensure a sustained and quality service throughout the life of the project.

A key aspect for the regulatory framework is to include key stakeholders identified and related to the rural electrification, detailing their responsibilities, tasks, requirements, etc. to consider viewpoints of different players and be able to participate and develop in the different activities.

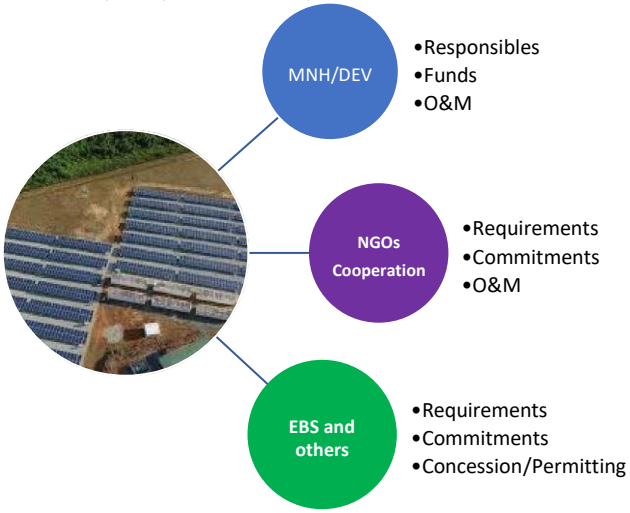


Figure 10 Different players related to promote rural electrification in Hinterland

Regarding the characteristics, needs, and possible requirements of the different energy solutions, technical regulations must establish **i) Quality of service**: detail the commercial parameters and quality levels that each solution must accomplish, also what energy poverty criteria should be used, and define the approach to define what level of service should be guaranteed for a household to be considered as electrified.
ii) Technical standards are an important issue that must be addressed. Technical regulations can help to standardize and control what type of energy solution and technology should be implemented from planning, design, and operation, depending on each community and its own situation. The technical standards must include aspects of grid, AC or DC, low voltage or high voltage, meters, and other aspects.
iii) A tariff scheme is a key aspect to consider the types of tariff regime to assure the sustainability of projects and the is better adapted or reflects the needs in rural areas and consider **iv) subsidies** application depending on social and economic situation of each community, running costs, and social support. In Suriname there is no specific tariff scheme for mini grids, hybrid systems nor individual solar systems.
The tariff scheme for grid connected customers was updated recently in June 2023. This includes a basic tariff according to type and characteristics of customers (voltage levels, 1 phase, 2 phases, 3 phases, households, non-residential) and energy costs set by maximum levels according to monthly demand which depends on amount of kWh consumption. There is currently a 200 SRD direct subsidy applied to all users.

Table 8 Status and institutions related to regulations for rural electrification.

Institutions	Related to	Status
MNH, EAS	Regulatory framework	There is no specific regulatory framework for rural electrification which includes another player. The current framework involves just the public entities.
EAS, DEV, MNH, EBS	Quality of service	There are no technical regulations for mini grids, hybrid systems nor individual solar systems. The distribution standards are applied for mini grids and hybrid systems.
EAS, EBS, MNH, DEV	Technical standards	No technical standards of parameters of rural electrification energy solutions have been issued yet.
Ministry of Finance and Planning, EAS, EBS, MNH, DEV,	Tariff Scheme and subsidies	There is no specific tariff scheme for mini grids, hybrid systems nor individual solar systems.

Following the list of regulations and needs presented above, in the next deliverable "Regulations and normative regarding rural electrification in the hinterland" the consultant team will present a proposal of regulations and regulatory framework which support the development of rural electrification projects in the hinterland. The status and institutions related to different aspects to consider will help to build and propose the regulations necessary.

5.1.1.3.3 Risks

One of main challenges on developing of regulations will be the tariff scheme which must consider the energy solutions investment costs, availability of payment from beneficiaries and subsidies for these users. These variable factors could impact or affect the results and cost of kWh calculated.

To reduce risks for tariff scheme, it will be necessary to have a deep knowledge of local situation in terms social and economic of communities in hinterland, as well about the local market on provision and installation of energy solutions in these areas. This information and data will reduce and avoid mistakes on considerations at time to build the electricity tariff scheme for hinterland. Taking the above into account the following rates and payment models have been developed for electricity, for water and for Telesur.

Rates and Payment models for electricity

Fixed costs	**SRD 212.31 SRD***
Variable costs	
</= 400kWh/month	SRD 1.785
> 401 - 900 kWh/month	SRD 2.664

Package	**Key uses**	**kWh/month**	**SRD/month**
Package 1		16.5	$ 242
Package 2		33	$ 271
Package 3		57.75	$ 315
Package 4		82.5	$ 360
Package 5		123.75	$ 433

Rates and Payment models for water

Group	Explanation	Jan	Feb	March	April	May	June	2026
30a	House connections<16m3	16.00	17.07	18.14	19.21	20.28	21.35	41.81
30b	House connections> 16m3	16.95	17.99	19.03	20.07	21.11	22.15	41.81

How is the water bill calculated?
The water bill is calculated by multiplying the number of cubic meters of water consumed by the rate associated with the rate group you are in and that applies at that time, plus the costs for the meter rental.

Calculation

Rate group	Consumption	Rate per m3	Meter rental
20, 30a, 30b	10m3	SRD 10,71	SRD 40

Water bill

Consumption 10X10.71	SRD 107.10
Meter rental	SRD 40
Total	SRD 147.10

The meter rental for rate groups 20, 30A and 30B amounts to SRD 40.00 as of July 1, 2023.
For the other rate groups, the meter rental is set at SRD 55.00 as of July 1, 2023.

About the management plan it will be important to include local participation from inhabitants of the communities to reduce costs and increase technical response on sites and reliability of the systems. This action will impact positively on users of these power systems promoting development of new and more energy solutions.

Lack of villagers with technical and management capacities is considered a risk for maintenance and managing the facilities after finalizing the project . To reduce this risk, it will be important to coordinate with the different institutions involved (MNH, DEV, EBS, Academia) **training programs for local community members.** During the presentation in the villages by EBS it was indicated with regard to training that the EBS and the SWM will train villagers and hire them for providing technical and administrative services after the construction of the project. Telesur will also offer technical training for solving certain technical problems to local capacities.

The technical standards are key for the successful implementation and sustainability of the projects. For this it will be important to build and propose updated and reliable technical standards. Participation of local technicians and designers with deep knowledge and experience in the field could reduce and avoid risks to determine an inadequate technical regulation. Finally, it is key in the regulation to have a close understanding of rural areas and make sure regulations consider the reality of remote areas and is better adapted to needs and conditions, rather than imposing the same regulations of e.g. EPAR.

5.1.1.4 Conclusions Stakeholders Analysis

- MNH-DEV and EAS are the key decision makers on the definition of a regulatory and institutional framework for rural electrification projects, so the communication and their participation on meetings, discussions and deliverables reviews will be key for the project success.
- The regulatory framework for rural electrification must focuses on technical standards about the different energy solutions, like hybrid systems, solar micro grids and/or individual solar systems, defining main characteristics of power lines, poles, meters, batteries, and others. These aspects

are important to be standardized for assuring the quality and lifetime of the new projects and systems in operation what will impact positively on the sustainability of these energy solutions.

- These kinds of solutions (hybrid systems, solar micro grids and individual solar systems) are more expensive in terms of investment (CAPEX) compared to conventional solutions but cheaper in terms of operation and maintenance (OPEX) so empowering by the beneficiaries will be key. For this **it will be necessary to structure a suitable tariff scheme which includes payment of users and** subsidies according to the local social and economic situation.

- Quality standards must be studied in detail to avoid establishing high or restrictive standards like short time for fault repair, aspects that can affect and impact on high operational and maintenance costs. **For this it should analyze the suitable quality standards with the EAS including the operational experience of EBS and DEV.**

- Different organizations and institutions in hinterland related to services like health, education, water supply, telecoms and others request and demand a constant and reliable electricity supply to develop their activities. A specific, detailed, and accurate rural electrification regulatory framework can promote energy access to support development and supply of different services that impact positively inhabitants of hinterland communities.

5.1.1.5 Community Engagement Plan

5.1.1.5.1 Introduction

'Community Engagement' is a strategic process to directly involve local populations in all aspects of decision-making and implementation to strengthen local capacities, community structures and local ownership as well as to improve transparency, accountability, and optimal resource allocations across diverse settings.[4]

This report, a part of Deliverable #4 'Final Designs', delves into a Community Engagement Plan aimed to empower stakeholders, especially with the focus on the communities, and drive forward the shared vision of 24/7 access to energy, water, and telecommunication in South Suriname, and empowering the socioeconomic wellbeing through the development of the bio economy. Its primary goal is to establish a strategic framework that promotes active participation, open communication, and collaboration among community members, local authorities, and relevant stakeholders.

[4] *Guterres, A. (2020), Community Engagement Guidelines, United Nations, www.un.org/peacebuilding/sites/www.un.org.peacebuilding/files/documents/un_community-engagement_guidelines.august_2020.pdf*

Figure 11 United Nation's strategic aspects for 'Community Engagement'

Methodology

To develop a comprehensive community engagement plan, it is crucial to grasp the specific context in which this plan will operate. Equally important is an understanding of the fundamental principles outlined by community partners, as well as the socio-cultural dynamics expressed by communities during the project's demand assessment phase.

5.1.1.5.2 Project background

The main objective is to support the IADB and MNH in the assessment of ten mini grids to enhance accessibility to water, telecommunications, and energy needs in South Suriname, and ultimately empowering socioeconomic development through supporting the development of the Amazon biome bio economy.

BIO ECONOMY

The term bio economy refers to the share of the economy based on products, services, and processes derived from biological resources (e.g., plants and microorganisms). The bio economy is crosscutting, encompassing multiple sectors, in whole or in part (e.g., agriculture, textiles, chemicals, and energy). Many predict that the bio economy will be a key component of the future economy. Specifically, many view the development of and transition to predominantly a bio economy as a means to address grand challenges such as climate change, food security, energy independence, and environmental sustainability. Advancing the bio economy is also viewed as an opportunity to create new jobs and industries, improve human health through the development of new drugs and diagnostics, and boost rural development. Some experts estimate the direct economic impact of bio-based products, services, and processes at up to $4 trillion per year globally over the next 10 years. Congressional Research Services, 2022

Ten communities have been visited for the assessment. These communities include Kwamalasamutu, Sipaliwini Savana, Alalapadu, Amatopo, Curuni, Pelelu Tepu, Palumeu, Apetina, Kawemhakan, and Kumakapan. To be better informed about the project, it is recommended to refer to Deliverable #2 Diagnosis Report Demand Assessment.

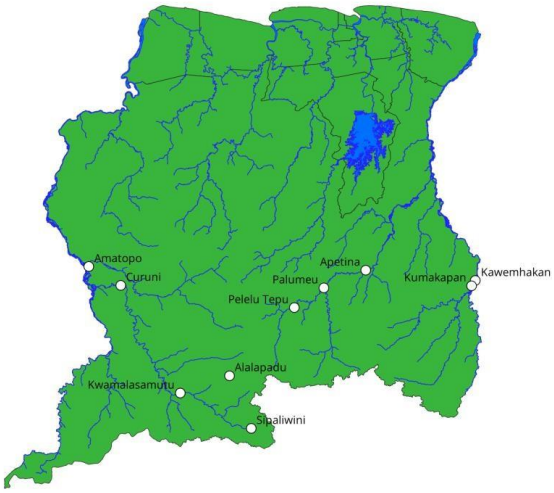


Figure 12 The ten indigenous (Wayana and Trio) communities in South Suriname

5.1.1.5.3 Basic principles of community engagement

To ensure a successful community engagement, VIDS & VSG suggests consistently incorporating the ten fundamental principles illustrated in the figure below.[5]

[5] VIDS & VSG. Community Engagement Strategie voor de Overheid (versie 1.1. – maart 2016). Paramaribo, Conservation International Suriname, 2016.

Figure 13 The 10 recommended basic principles for effective community engagement

The following table outlines the basic principles for an effective community engagement and demonstrates their application within the context of this project.

Table 9 Principles' explanation and how it will be implemented in the project

Principle	Explanation	Project Implementation
Respect	Partnering with indigenous requires a respectful approach. A respectful approach that clearly demonstrates a basis of equality and partnership based on equal opportunity and input, constitutes the fundamental basic principle throughout the entire engagement process.	Respect is a principle that should be considered all the time, if it's in an informal or formal setting. During the 1st phase, where communication and project socialization will be discussed in depth, there will be communication channels, methods, and guidelines composed by all parties involved which provides the baseline of communicating and treating all involved with respect.
Ownership and leadership	The concepts of ownership and leadership are intertwined. Ownership implies that the group for whom the intervention/project was initiated takes responsibility for the process; it becomes or already is their own project. If it is successful, it is their success of which they are proud; if it fails, it feels like their own failure. Ownership should ideally begin at the inception or design stage of a project. When there is ownership, the community naturally also wants and needs to play a leading role to exercise that ownership effectively.	During the 1st phase, all key players will have the chance to meet and discuss the project, roles, responsibilities et al altogether. In addition to the traditional leaders playing a pivotal role, they should also identify whether other community members have the willingness and capacity to take on various potential roles and responsibilities throughout this process and the project's lifetime.

Principle	Explanation	Project Implementation
	Leadership entails the community making its own decisions, whether good or bad, and confidently determining the direction of the design and implementation of the process. External technical support can be provided (and sometimes must be), but decisions should not be made by others for the community or about the community.	
Human capital strengthening, empowerment, and independency	Another fundamental principle that should be consistently observed and applied in an effective community development process is capacity building (sometimes also referred to as capacity development), and related to this, empowerment. Development can only be called genuine and sustainable development if it is rooted and perpetuated by local capacities. "Capacity" can be described as the ability of individuals, institutions, and societies to perform tasks, solve problems, and formulate and achieve objectives in a sustainable manner.	At different stages, communities and their members will engage in decision-making processes, both in collaboration with other important stakeholders and within their own community. However, to guarantee the long-term viability of the services, capacity-building initiatives will be arranged, customized to address both the community's specific requirements and the needs of the services. Both technical and administrative training will be provided.
Right-based Approach	A human rights-based approach entails that an organization: • Frames the outcomes of the intervention/project as aiming to achieve one or more human rights, such as the right to education, health, employment, culture, property, access to information, legal protection, etc. • Respects human rights in every phase and activity of its work (including respecting the right to participation, as well as the right to culture and way of life). • Empowers rights-holders (including indigenous and tribal communities) to assert their rights and empowers duty-bearers (such as healthcare providers) to fulfill their responsibilities.	This project aims to improve the overall wellbeing of the communities. To provide a better idea on how well this project contributes to the communities, in regard to the right-based approach, is to link the project with the SDG's. Direct or indirect, the project contributes to: 3. Good Health & Well-being 6. Clean water and sanitation 7. Affordable and clean energy 8. Decent work and economic growth 9. Industry, innovation and infrastructure 11. Sustainable cities and communities 12. Responsible consumption and production 13. Climate Action 14. Life below water 15. Life on land 17 . Partnerships for the goals.

Principle	Explanation	Project Implementation
Information, communication, and transparency	It goes without saying that information, communication, and transparency are crucial for the success of any intervention. Another key aspect of effective communication is the use of understandable, culturally appropriate communication methods. There is little point in communicating in a language that is not well understood or using expressions or concepts that the other party is unfamiliar with or may not interpret in the same way (for example, using a proverb to clarify something, but it is interpreted literally, leading to a misunderstanding).	Within the 1st phase where communication and project socialization are the topic, communities will be able to express their preferred communication methods and protocols. Based on the mutually agreed channels, methods and protocols, all parties must adhere throughout the project's lifetime.
Effective participation	This concerns effective participation, which means involvement by the community where they can make a substantial contribution and/or have a genuine impact.	The purpose of having a community engagement plan is to have the communities involved and have their opinions for and in every step of the progress.
Trust	Another fundamental principle to be observed when working with indigenous and tribal communities is the establishment or reinforcement of mutual trust. When a good trust relationship exists, cooperation and communication will proceed smoothly and quickly, and project partners will indeed be seen as mutual partners rather than just "service providers" or "recipients." Trust is also a crucial aspect of information exchange. Information that comes to or goes from a trusted person will be much more profound and will also resonate more.	By establishing relationships between different key players and to have the communication methods, channels, guidelines, is a step towards gaining trust, if not, growing the trust. By holding true to agreements, is to ensure trust.

Cultural sensitivity	It is essential for every intervention to be culturally sensitive because otherwise, they can be perceived as unpleasant or even intrusive, or as attempts to ignore or promote cultural assimilation. This can apply to thematic activities within a project (e.g., providing health education in a culturally sensitive manner) but also to the intervention process, especially the interaction among project stakeholders. To be culturally sensitive, it is necessary, or at the very least, beneficial, to understand certain key aspects of the culture of the involved communities. One of these aspects is the collective approach that indigenous and tribal societies typically have. For instance, community interest, rather than individual interest, is the standard against which a project/intervention will be evaluated. Decision-making can be an iterative community process involving various segments of the village community, and	Understanding the Indigenous culture plays an important role on how the project progresses. Especially for local capacity building, awareness and communication needs to be adapted to their way of living – best practices will be adapted from the communities' partners, NGO's and CBO's.

Principle	Explanation	Project Implementation
	multiple steps may be required that are not always visible to an outsider.	
Gender sensitivity	A gender-sensitive approach is sometimes underdeveloped in development interventions, especially when it comes to culturally appropriate gender perspectives. Cultural appropriateness should be consistently considered, even in matters related to gender, because "Western" norms and procedures are not always directly applicable in indigenous or tribal communities (the norm or value itself may be universal, but the process of adhering to that norm might differ from an urban setting where the focus is on an individual approach rather than social collectiveness).	**The results from ACT's social risk and impact analysis have shown interest from women to participate actively in the energy, water, and telecommunication projects.**

Age sensitivity	Like the gender-sensitive approach, there may be instances where it is necessary to create specific conditions or circumstances to facilitate effective participation and empowerment of various age groups, either as additional or specifically incorporated activities. In addition to ensuring effective participation in a project or intervention, it is also important to examine the potential positive and especially the potential negative impacts of a project or intervention on different age groups. An activity or project may be beneficial for one group but detrimental to another.	Not only will gender equality be addressed, but it is also important to be inclusive of men and women, of all ages, with utmost consideration of what they are capable of.

5.1.1.5.4 Sociocultural and economical aspects

ACT has carried out an evaluation of potential social and environmental impacts and risks for this project for all communities in South Suriname. The result suggests a three-stage social safeguard approach: a safeguard ensuring Free Prior and Informed Consent (FPIC), a safeguard focused on enhancing community capacity, and models addressing socioeconomic capabilities and ownership.[6]

Stage 1: Free Prior and Informed Consent safeguard.

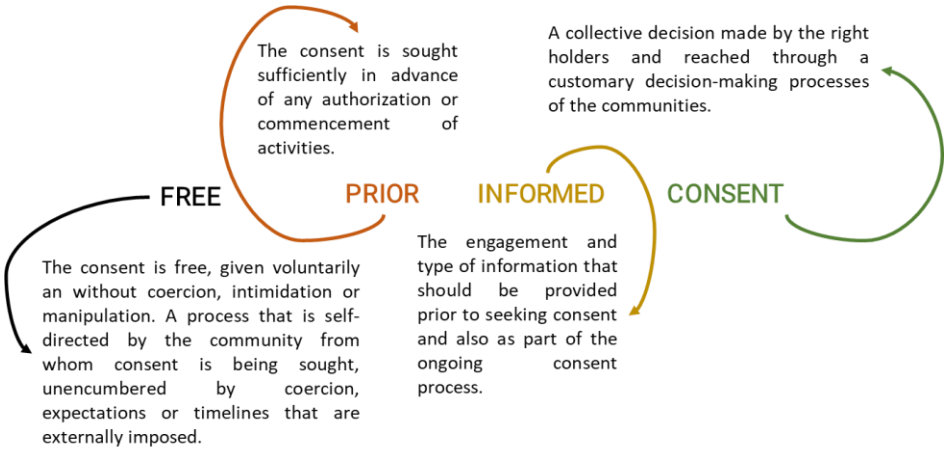


Figure 14 FPIC defined by FAO

[6] *ACT, Nieuwendam, J., & Ronosemito, R. (2023, April). Social Safeguard for the Development of Water, Energy, and Telecommunication for South Suriname. Report.*

The principle of FPIC refers to the right of Indigenous peoples to give or withhold consent for any action that would affect their lands, territories or rights. Legally speaking there is no official recognition in Suriname's land law that states that native groups own the land they live on. However, a constitutional amendment and a draft Law on Collective Rights of Indigenous people and Tribal groups is composed by a land rights management team consisting of representatives of the government and traditional communities of Indigenous people and Maroons which addresses their right to self-determination, cultural integrity, FPIC and the composition of traditional authorities.

By starting the FPIC process early in the engagement process, community ownership and responsibility is encouraged and built-in early on. This community engagement plan has been considered the analysis via the positive impact analysis executed by the Amazon Conservation Team. The conclusion of aforementioned analysis indicates that in general all communities showed significant willingness to participate in every step of the energy, water and telecommunication projects, and that they are excited about the opportunity and think that the projects would have significant beneficial effect on their social group.
With that being said, the Wayana communities have their own consultation protocol composed that is also following the outline of the FPIC protocol as described above[7].

Stage 2: Community capacity building safeguard

The report indicates **a significant gap in local technical capacity** which should be considered during the progress of the project. Not only for the longevity of the infrastructures to be installed, but also for the critical enhancement of the ownership, **community members should be identified and trained to certain levels of operation and maintenance.** These trainings can happen **'on the job'** during project building work or during periodic refreshers to help build capacities further. Most villages prefer in person training, although inhabitants of Alalapadu and Sipaliwini are open to online training.

Another aspect to consider is **promoting gender equality and empowering women**. Given that women comprise the biggest users of these services, their active involvement in all stages of the project is crucial. This will enhance community ownership and contribute to the long-term sustainability of these services.

Stage 3: Socioeconomic capacities and ownership.

Within the socioeconomic capacities and ownership, based on the dialogues with focus groups, the following socioeconomic factors where gathered;

1. the willingness to pay, their current potential to pay and the potential future economic activities that can be potentiated, and
2. the financial ownership models to sustain operation and maintenance costs.

It is noteworthy that there are plans composed to tackle the economic distress of payments (see 'Productive Uses Strategy') and financial ownership models to sustain operation and maintenance costs.

[7] *Mulokot Foundation (2023, December). Wayana Consultation: Protocol Protection of the rights of the Wayana's in the field of selfdetermination, participation and decision-making, Brochure.*

Project Contribution to Sustainable Development Goals

Figure 15 SDG link to renewable resources

Considering every aspect of the principles, FPIC protocols, and the sociocultural and economical aspects to engage the communities in every step towards the goal, it can be concluded that this community engagement plan in harmony with the energy, water, and telecommunication project will significantly directly or indirectly contribute to the Sustainable Development Goals, which some of those will be explained briefly in the following table.

Table 10 Project contribution to the Sustainable Development Goals

SDG	Contribution
Good health and wellbeing (no. 3)	Providing energy, water, and telecommunication services to communities enhances access to improved healthcare, fosters better environmental and domestic conditions, and has a demonstrated positive impact on mental health and overall well-being. Through various training and awareness initiatives, communities become better equipped to make informed decisions regarding their overall health and well-being.
Clean water and sanitation (no. 6)	Communities will have access to clean and potable water at all times, and leaving no one behind.
Affordable and clean energy (no. 7)	The energy part of the project ensures that access to reliable, sustainable, and modern energy is available and affordable for everyone.
Decent work and economic growth (no. 8)	One additional outcome of this project is the implementation of Productive Uses of Energy, Water, and Telecommunication, which is expected to result in the creation of approximately **500 new employment opportu**nities for both men and women across all ten indigenous communities.
SDG	**Contribution**

Industry, Innovation and Infrastructure (no. 9)	Maintaining and enhancing the existing energy, communication, and water infrastructure, while also promoting the existing local economy and potential income alternatives.
Sustainable Cities and Communities (no. 11)	The 10 indigenous communities will fight to be socially, economically, and environmentally sustainable, and where their community members have access to basic services, and a better quality of life.
Responsible consumption and production (no. 12)	Within this community engagement plan, the aim will be reducing waste generation, promoting sustainable resource use, and encouraging sustainable practices in production and consumption through a thorough waste management plan, training and awareness on rational use of energy, water, and telecommunication services.
Climate Action (no. 13)	With responsible consumption and production, Climate action has a better chance to be achieved.

5.1.1.5.5 Key Components

Given the context, basic principles, and socio-cultural safeguards, we have identified and described five essential components for the community engagement plan. These key elements encompass stakeholder analysis, communication methods and guidelines, project involvement initiatives, enhancing local capabilities and awareness, as well as feedback and conflict resolution mechanisms.

5.1.1.5.6 Stakeholder mapping

Stakeholder mapping is recognizing and classifying stakeholders according to their interests, impact, and potential contributions to the community's progress. At the project's onset, the consulting team has already outlined the various stakeholders, with the community as the central focus. The next step involves identifying and cultivating connections based on specific themes such as Energy, Water, Telecommunication, Bio economy Activities, Waste Management, and more. This approach will facilitate the development of an effective communication framework and ensure the participation of a number of community members.

5.1.1.5.7 Communication methods and guidelines

As mentioned in 3.1, mapping stakeholders can facilitate the development of an effective communication framework and ensure the participation of a number of community members. Why is having communication methods and guidelines important and how can this benefit the community engagement in its entirety?

They are important for the following reasons:

Clarity and understanding: clear communication ensure that information is conveyed accurately and is easily understood by all stakeholders. This reduces the likelihood of misunderstandings or misinterpretations.

Inclusivity: effective communication methods cater to various learning styles, languages, and literacy levels within the community, ensuring that all members can participate in the engagement process.

Engagement and participation: well-defined communication methods encourage active participation from community members. When they feel that their voices are heard and valued, they are more likely to engage meaningfully in the process.

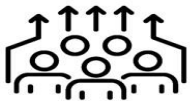
Building trust: transparent and consistent communication builds trust between project organizers and the community. It demonstrates a commitment to open dialogue and collaboration.

Managing expectations: clear communication helps manage expectations regarding the project's objectives, timeline, and potential impacts. Realistic expectations can help prevent disappointment or conflict later on.

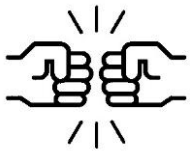
Adaptability: guidelines for communication should also allow for flexibility to adapt to the unique dynamics and preferences of the specific community being engaged. This ensures that the communication approach remains relevant and effective.

5.1.1.5.8 Local capacity building and awareness

To secure the long-term viability of the energy, water, and telecommunication services, it is crucial not only to designate and train local members as technicians and administrators, but also to provide training and increase awareness among community members who utilize these services. This is essential for promoting the efficient and responsible use of these resources. More details on local capacity building and awareness in 3.5.



5.1.1.5.9 Feedback & conflict resolution mechanisms



Although the feedback & conflict resolution mechanism can be considered part of 3.2 communication methods and guidelines, it merits special attention. The process of brainstorming, discussing, documenting, and implementing these mechanisms beforehand is just as vital as the entire project itself, and can significantly impact the progress of the developments.

5.1.1.5.10 Project engagement activities

Project engagement activities not only consist of activities to achieve a well defined stakeholder relationship, to compose communication methods and guidelines, or organize trainings to build local capacity and raise awareness, or prepare feedback & conflict resolution mechanisms. Project engagement activities should also include activities or initiatives to safeguard the momentum, trust and relationship between all stakeholders.

5.1.1.5.11 Action plan & budget overview

Phase I – Communication and project socialization

The initial phase involves disseminating information about the project and reaching a consensus on the way forward. This includes informing the communities about the current project status, introducing and shaping the community engagement plan, outlining the stakeholders and their relationships, specifying communication methods and guidelines, and detailing feedback and conflict resolution procedures.

Table 11 Activities for communication and project socialization

Phase	Activity
I Communication and Socialization	1.1 Project socialization
	1.2 Facilitating in shaping a community engagement plan
	1.3 Identify stakeholders and define relationships, communication channels and protocols
	1.4 Facilitate feedback and conflict mechanisms

1.1 Project Socialization is the communication of any information sharing activities between all stakeholders. This activity happens before, during, and after the community engagement plan – this is an ongoing activity. Although there is no communication channels, protocols and methods established yet, communication with and to the communities prior to initiating any project activities is eminently important – addressing the FPIC protocol.

1.2 Facilitate in shaping a community engagement plan. Within this activity, the object is to propose this document to the communities as a preliminary work done to shape the actual engagement plan.

The first task is to inform all the communities about the engagement plan: inform what a community engagement plan is, and inform why it is important for all stakeholders and inform why it is important for the energy, water, and telecommunication project. The second task is for the community to assign community members who has the best knowledge of their communities to help shaping a community engagement plan. **The third task is to organize a gathering with all the assigned community members to discuss and shape the community engagement plan and its timeline**. The fourth task is to finalize, translate, and distribute this plan to all communities. The fifth, and the last task for this activity is that the community members is going to inform the community of the final community engagement plan.

1.3 Identify stakeholders and define relationships, communication channels, and protocols is the first activity after having a mutually agreed community engagement plan produced. The outcome of this activity is to come up with communication channels, protocols and a basis to improve the trust. In order to achieve this outcome, it is necessary to identify the stakeholders who are going to be engaging with the communities prior to, during, and post to the whole trajectory of this project. The second task is to define every stakeholder's responsibility and role within these projects. The third task is to establish communication channels and protocols. This is important to mitigate miscommunication, important for the sake of coordination flow, and important to keep everyone rightfully and truthfully informed.

1.4 Facilitate feedback and conflict mechanisms. It is also important to actively support and enable processes for receiving input, comments, and addressing conflicts within this project. This involves creating structured channels for stakeholders to provide feedback, as well as establishing mechanisms for resolving disputes or disagreements that may arise during the course of the project or engagement. The aim is to ensure that communication is open, issues are addressed promptly, and conflicts are managed effectively to maintain a productive and harmonious working environment. Although this activity is described as a separate activity, due to its importance, this can be achieved altogether or within the communication channel and protocol activity.

Phase II – Local capacity building and awareness raising

The second phase focusses on local capacity building and awareness raising. Local capacity building refers to the process of enhancing skills, knowledge, and abilities of Wayana and Trio communities. It aims to empower them to take on responsibilities, make informed decisions and effectively manage and sustain the different project initiatives that benefit the Wayana and Trio communities. On top of that, activities and efforts will be also involved to increase the understanding, knowledge, and consciousness among the community members about rational use of the energy, water, and telecommunication services, about the services' tariffs, rules and regulations, and also about the waste management plan.

Table 12 Activities for local capacity building and awareness raising

Phase	Activity
II Local Capacity Building and Raising Awareness	2.1 Technical training for energy, water, and telecommunication services
	2.2 Administrative training for energy, water, and telecommunication services
	2.3 Training and awareness of rational use of energy, water, and telecommunications services
	2.4 Awareness on tariffs, rules, and regulations of energy and water services
	2.5 Internship energy, water and telecommunication for local employees

2.1 Technical trainings for energy, water and telecommunication

The local employees, that have been identified and selected, will receive technical trainings for the energy, water, and telecommunication services. The first task is to identify the necessary responsibilities and roles to maintain the services, followed by tailoring the training material to their context and capacity (yet, building towards the anticipated capacity). After having the training done in their community, an internship or fellowship program should be joined by the selected or identified community members fulfilling the important responsibilities and roles.

Each of the services (energy, water, and telecommunication) have their own team of trainers and will be having their own curriculum considering the communities culture and personal workload. It is also recommended to have these trainings per services done within different timeframes.

2.2 Administrative trainings for energy water and telecommunication

Parallel to the technical trainings per service type, administrative trainings will also be provided. The identified and selected community members who shall fulfill these roles, will get the necessary training inventory, basic financials, and also basic ICT training to keep track of the aforementioned. After the successful completion of the administrative training, the selected administrative employees will also follow through an internship or fellowship program.

2.3 Training and awareness of rational use of energy, water, and telecommunications services. Training and awareness of rational use of the services is necessary to provide the clients (read as communities benefiting from the services) instructions, guidelines, and practical knowledge on how to utilize energy, water, and telecommunications services in a way that minimizes waste, conserves resources, and promote sustainability. **In this activity it is also considered to teach techniques to reduce energy consumption, emphasizing water conservation practices, and encouraging efficient use of telecommunication technologies**.

The period to organize these trainings and awareness of rational use of the services should go in parallel with the timeframe of the technical and administrative trainings.

2.4 Awareness on tariffs, rules, and regulations of energy and water services.

Raising awareness on tariffs, rules, and regulation of energy and water services entails making the community aware and familiar with the established pricing structures, rules, guidelines, and legal requirements that govern the distribution, consumption, and conservation of energy and water resources. This awareness is crucial for the community members to make informed or better decisions about their energy and water usage, as well to ensure compliance with the relevant regulations.

Phase III – Crosscutting knowledge and experience exchange

The third phase is to facilitate or create a platform for the communities to exchange their knowledge, their experiences, and the impact these past activities has brought. But it will also be a time to exchange and discuss their concerns; issues, identified risks, et al. And more importantly, how will they mitigate, if not prevent, these potential risks.

Table 13 Activities for the crosscutting community project knowledge and experience exchange

Phase	Activity
III Crosscutting Community Project Knowledge and Experience Exchange	3.1 Training and awareness on sustainable waste management practices 3.2 3.2 Organize exchanges with communities to share experiences, best practices, and positive impacts
	3.3 Facilitate discussion on identified and/or potential risk and a risk mitigation plan

3.1 Training, awareness and sustainable implementation of a waste management plan. Before starting any construction activities for the energy, water, and telecommunication projects, and technical or

administrative trainings and awareness, it is important to compose a waste management plan that works for the communities. In this case, the Amazon Conservation Team, has a working program in one of the communities and could provide support to other communities as well. On top of supporting the communities with trainings and awareness, this project will support the sustainable implementation of the waste management for 4 years. The waste management plan deserves to be recognized as a project on its own considering its intensity, long-term contribution to this project as well as other activities in the communities. See Annex II for the draft program outline of the Waste Management Plan of ACT.

3.2 Organize exchanges with communities to share experiences, best practices, and positive impacts. There will be 2 moments created where the
communities would gather and where they can share their experiences, their best practices and their positive impacts. This frequency will be that after every 5 communities have their services established or finalized, the communities will gather together and share their experiences, best practices, and positive impacts**.**

3.3 Facilitate discussion on identified and/or potential risk and a risk mitigation plan. After every gathering where experiences, best practices, and positive impacts are presented by the communities, they will have the opportunity to also discuss their identified and/or potential risks, eventually come to an idea or conclusion on how to mitigate these risks.

Activities 3.2 and 3.3 can be conducted consequently and in parallel. Creating three (3) moments wherein each moment the communities can both share experiences, best practices, and positive impacts as well as discuss identified and/or potential risks, and come up with a risk mitigation plan.

Phase IV – Transition phase

The last phase is the transition phase. Each of these activities in this phase will be done separately – meaning that each community will have an appreciation of stakeholders' participation and efforts activity, and an official handover of the services to communities and partners.

Table 14 Activities for the transition phase

Phase	Activity
IV Transition Phase	4.1 Monitoring, evaluation, and improvement

4.1 Monitoring, evaluation, and improvement. This is a responsibility for every stakeholder. It is important to keep track at all times on how well all stakeholders progress in growing and taking ownership and leadership of their responsibilities, thus the project and its outcomes. This activity goes in parallel with phase I where communication is discussed.

To support the monitoring, evaluation, and continuous improvement, it is recommended to install a group of community awareness officers (community watch group) that oversee the rational use of the services, the leadership, the clientele satisfaction or issues, and the equal use and advantage of services for every woman, child, and men of all ages. In short, oversee the social, economic, and environmental factors for sustainability.

Summary Budget Overview

The following table provides a summarized budget overview of the whole community engagement plan trajectory as support to the energy, water, and telecommunication project for 10 indigenous communities in South Suriname for 3-4 years.

Table 15 Estimated budget for Community Engagement Plan

		2024		2025		2026		2027		Total per line
	PROJECT MANAGEMENT	**Sem 1**	**Sem 2**	**Sem 3**	**Sem 4**	**Sem 5**	**Sem 6**	**Sem 7**	**Sem 8**	**3-4 years**
5.1	Coordination and execution team	29,750.00	4,250.00	4,750.00	2,500.00	2,500.00	4,750.00	1,250.00	1,250.00	**51,000.00**
5.2	Experts, trainers, facilitators to execute engagement plan	14,900.00	22,500.00	1,250.00	750.00	750.00	2,000.00	500.00	500.00	**43,150.00**
5.3	Technical and financial reporting	1,250.00	1,250.00	1,500.00	1,350.00	1,350.00	1,600.00	350.00	350.00	**9,000.00**
5.4	Logistics Support	2,500.00	2,500.00	1,900.00	2,100.00	2,100.00	2,750.00	450.00	450.00	**14,750.00**
5.5	SOR insurances	900.00	900.00	700.00	700.00	700.00	500.00	450.00	450.00	**5,300.00**
	COMMUNITY RESOURCES									
6.1	Local collaborators and resource persons	2,950.00	2,950.00	7,000.00	6,000.00	6,000.00	2,750.00	1,750.00	1,750.00	**31,150.00**
6.2	Project oversight leadership, Trijana,	4,250.00	5,500.00	3,250.00	3,750.00	3,750.00	2,750.00	1,500.00	1,500.00	**26,250.00**
6.3	Communication facilitation	1,500.00	1,625.00	1,000.00	875.00	875.00	1,000.00	750.00	750.00	**8,375.00**
	LOGISTICS									
7.1	Domestic Flights (All flights)	108,000.00	63,000.00	132,000.00	114,000.00	87,000.00	66,000.00	12,000.00	12,000.00	**594,000.00**
7.2	Domestic Transport (Land, Water)	1,650.00	1,650.00	1,700.00	2,000.00	2,000.00	2,450.00	1,250.00	1,250.00	**13,950.00**
7.3	Fuel Domestic Transport	600.00	600.00	500.00	525.00	525.00	675.00	350.00	350.00	**4,125.00**
7.4	Accommodation	1,375.00	1,375.00	2,000.00	1,000.00	1,000.00	1,000.00	-	-	**7,750.00**

7.5	Food & Beverages (Trainings, Meetings, Dialogues in communities)	2,550.00	2,050.00	4,500.00	2,450.00	2,450.00	2,450.00	-	-	**16,450.00**
	I COMMUNICATION AND SOCIALIZATION									
1.1	Project socialization	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	1,250.00	**10,000.00**
1.2	Facilitating in shaping a community engagement plan	22,500.00	12,500.00	-	-	-	-	-	-	**35,000.00**
1.3	Identify stakeholders and define relationships, communication channels and protocols	-	17,500.00	-	-	-	-	-	-	**17,500.00**
1.4	Facilitate feedback and conflict mechanisms	-	10,000.00	-	-	-	-	-	-	**10,000.00**
	II LOCAL CAPACITY BUILDING& RAISING AWARENESS									
2.1	Technical trainings for energy, water, and telecommunication services	35,000.00	-	35,000.00	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00	**120,000.00**
2.2	Administrative training for energy, water, and telecommunication services	-	20,000.00	20,000.00	20,000.00	-	-	-	-	**60,000.00**
2.3	Training and awareness of rational use of energy, water, and telecommunications services	-	-	12,500.00	12,500.00	12,500.00	-	-	-	**37,500.00**
2.4	Awareness on tariffs, rules, and regulations of energy and water services	-		15,000.00	15,000.00		-	-	-	**30,000.00**
	III CROSSCUTTING COMMUNITY PROJECT KNOWLEDGE & EXPERIENCE									
3.1	Training and awareness on sustainable waste management practices	20,000.00	35,000.00	45,000.00	45,000.00	15,000.00	15,000.00	15,000.00	15,000.00	**205,000.00**

3.2	Organize exchanges with communities to share experiences, best practices, and positive impacts	-	-	12,500.00	-	-	12,500.00	-	-	**25,000.00**
3.3	Facilitate discussion on identified and/or potential risk and a risk mitigation plan	-	-	7,500.00	-	-	7,500.00	-	-	
	IV TRANSITION PHASE									
4.1	Monitoring, evaluation, and improvement	1,750.00	1,750.00	2,250.00	2,250.00	2,250.00	2,250.00	2,250.00	2,250.00	**17,000.00**

Total	**252,675.00**	**208,150.00**	**313,050.00**	**244,000.00**	**152,000.00**	**139,175.00**	**49,100.00**	**49,100.00**	**1,407,250.00**
Contingency (10%)	**25,267.50**	**20,815.00**	**31,305.00**	**24,400.00**	**15,200.00**	**13,917.50**	**4,910.00**	**4,910.00**	**140,725.00**
Community Engagement Plan Total	**277,942.50**	**228,965.00**	**344,355.00**	**268,400.00**	**167,200.00**	**153,092.50**	**54,010.00**	**54,010.00**	**1,547,975.00**

Year 1: 506,907.50 USD

Year 2: 612,755.00 USD

Year 3: 320,292.50 USD

Year 4: 108,020.00 USD

The estimated budget necessary for 4 years to support the community engagement plan is **1.54 MUSD.**

5.1.1.6 Engagement process in the assessment phase

In the assessment phase of the project the main objective was to prepare environmental and social (E&S) documents required for the preparation of a multiple works' operation ("Bio-SWEET") that will strengthen the bio economy potential for indigenous communities in the Sipaliwini district of Suriname through improvements in energy, water, and telecommunications infrastructure in 10 communities. These 10 communities in the South of Suriname are all indigenous communities, including Kwamalasamutu, Alalapadu, Sipaliwini, Coeroeni, Amatopo, Palumeu, Apetina, Tepu, Kawemakhan and Kumakapan (see map below for the location of the 10 villlages).

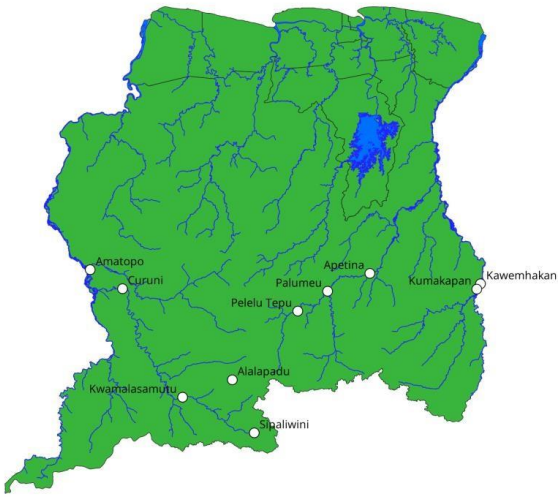


Figure 16 The ten indigenous (Wayana and Trio) communities in South Suriname

Process followed to prepare a community engagement strategy and plan

In this phase of the project all the communities were visited by the team of consultants, guided by the non- governmental organizations, VIDS (Association of indigenous chiefs in Suriname) and VSG (Association of Saamacca Traditional Authorities).

Engagement with the communities was done since a very early stage of the project, even before the Project Team participation. In this regard, the Ministry of Regional Development (MROS) and Ministry of Natural Resources (MNH) had pre-identified 10 communities with high energy needs: Kwamalasamutu, Apetina, Palumeu, Pelelutepoe, Kumakapan, Kawamhakan, Sipaliwini, Alalapadu, Amatopo and Coeroeni.

From the project Team ACT has led this task, with support from TTA, relying on the relations, presence, and knowledge of the communities.

Some aspects that were considered in preparing a community engagement strategy and plan are described below:

- The Consultant Team planned for the community engagement process. The communities (leaders/members) were informed that they were identified to receive a mini grid (and improved water access, and telecommunications). They were also informed of the benefits, costs, obligations, and financial requirements of participating.
- In explaining the project, the assessment phase and the future implementation, the team provided timelines, asked the communities' opinion and determined the risks of not meeting deadlines. This process was carried out through posters, and provided the communities with the opportunity to think through the commitments and impacts of project.
- Invitations were extended to the broad community with special focus on women and vulnerable groups to have broad discussions on energy, water, and telecommunications issues in the community. One of the aspects discussed was that communities facilitate the land to allocate the mini grid's infrastructure.

Intergenerational aspect

In terms of an inter-generational perspective, IP communities have 2 groups, children and adults. Once a child is a teenager, she is an adult to the IP community. Hence it is a homogeneous group. In the consultation process, the intergenerational aspect is guaranteed by the way in which the consultations took place. The meeting system of the Indigenous people, or krutu, was used for this, in which everyone was free to participate. Krutus, or community gatherings, are the traditional engagement method for the Indigenous peoples in the South of Suriname. Within this system, everyone's opinion is respected. It was observed that there is a lot of respect for the elderly and their views. The opinions of young people were also highly valued partly in view of their, in general, higher education.

Gender aspect

The aspect of gender has been considered by organizing separate meetings for men and women, since infrastructural projects can have different impacts for men and women. This was necessary because women often feel inhibited from expressing themselves in front of men. Both groups were asked gender-specific questions in relation to the project.

Feedback from IP

The krutu system is the meeting system par excellence. Therefore, feedback about the chosen consultation system is not considered appropriate.

Broad participation ensuring indigenous priorities

Broad participation was guaranteed by holding consultations in all the 10 villages. The krutu system was used for broad consultation/engagement and to receive optimal feedback about the project. During these meetings it became clear that the project fully meets the communities' own priorities, as it involves basic facilities that have been waited for decades. The conclusion is that the project has high priority for all the communities.

Adherence to FPIC-procedures

Free Prior and Informed Consent (FPIC) was needed and obtained. The FPIC procedures followed are described below, including the documents used to inventory consent or differing views.

A FPIC consent form (see attachment) was designed to obtain approval from the 10 villages. Per krutu, each participant had the opportunity to sign this form as a token of approval for the implementation of the project. This document was drawn up in Dutch. The translator explained the content to the participants. Consent has been given via this form for the following aspects of the project: the nature, methods, purpose, goals, entering the village for the time frame to perform building works, installation of solar panels, telecommunications network and/or water infrastructure. The participants also confirmed by signing the form that a translator had explained the content of this document. The signed consent form documents are available and enclosed within the report.

In the consent forms it is stated that the data gathered via the surveys, photos or audio recordings, can be used for internal use or publication to third parties, namely IDB. The Indigenous peoples' main language is Trio and a local translator was necessary to perform the interviews.

The consent form in the table below was used. This model was also used in krutu's in the next phase of the project.

Figure 17 Model consent form

Krutu/interview date:	
I hereby declare that: **I have been informed about the nature, methods and purpose of the IDB projects.** **that the inhabitants of [*location name*] have been informed about the nature, methods and purpose of the IDB projects.** **(Optional) Krutu date:** **Location:** **I hereby give [*organization name/ person's name*] consent to install solar panels, telecommunication networks and/or water infrastructure in [*location name*]** **I will allow project workers to enter the village for the discussed time frame to perform building work.** **I understand that operational and maintenance costs are not covered by IDB/ project investors and their working partners [*organizations name/ person's name*].**	
Location:	
Name(s) of translator(s):	
Signature of translator(s):	

Name.	**Traditional leader role: Granman/ Captain/ Basja.**	**Signature.**
Name.	**Governmental bodies: Board supervisor/ assistant board supervisor.**	**Signature.**
Name of inhabitant. **"I hereby declare to have been informed on IDB's project goals".**		**Signature.**
Notes of discussions		

When?

The initial FPIC process was carried out during the conduct of the study "Social Safeguards for the development of Water, Solar Energy and Telecom infrastructure on Indigenous Land in the south of Suriname", ACT-Suriname, Josta Nieuwendam, April 2023. The krutu's were held in November 2022 and February 2023.

Another FPIC process was carried out during the EBS consultation meetings in the 10 communities. The project design for each community was presented and EBS received consent from the communities to implement the project.

Commented [JM1]: Please update this paragraph by highlighting the consultation process conducted this year during project design

Where?
In all 10 villages in both cases

With whom?
With all the villagers, including the traditional authorities, who participated in the krutu that was organized especially for conducting interviews in both cases

Field visits
Visits by the team of consultants to the villages were announced in advance by letters from governmental authorities to the traditional authority. The visits were only made after permission had been obtained that the team was welcome in the villages. The villagers have been verbally invited by the traditional authorities of their village.

For the visits and other information of the EBS consultation meetings see 5.1.1.7 Engagement process pre-execution phase

Interview process

Interviews, using semi-structured interview questions, also called 'qualitative' interviews or 'in-depth' interviews were performed to open dialogue about environmental and social issues regarding the project (table 66).

The questions were pre-structured to cover diverse best practice social and environmental indicators. Open-ended, yes/no and 5-point liker-scale statement questions (strongly agree/ agree/ neutral/ disagree/ strongly disagree) were used to determine social and environmental metrics of the Indigenous peoples at that moment in time.

Figure 18 Semi-structured interview questions

Semi-structured interview questions.
1. Social factor: baseline village info
1a. How many people live in your village? 1b. How many households live in your village? 1c. How many houses? 1d. How many males live in this village/ How many females/ How many children?
2. Baseline energy, water and telecom usage

2a. What energy systems does your village currently have? 2b. Does the village have a generator? 2c. If yes, do you use an electric cooking stove? 2d. Do you use diesel motors for fuel generation? 2e. How much do you need? 2f. And what do you need it for? 2g. Where do you get the oil from and who pays for it? 2h. Do you use kerosene fuel for light lamps or power? 2i. Inside your house or outside your house? 2j. Do you use candles? How many? 2k. Do you have battery powered lights in your homes? 2l. Do you need light at night and what do you use? 2m. Where do you fetch your current drinking water? 2n. Are you able to save drinking water? 2o. What is the source of your current bath water? 2p. Where do you bathe?
2q. What alternative water sources do you have? 2r. What is the current telecom operation system in the village 2s. Do you have phone reception here? 2t. Who is responsible for maintaining it? (write down names). 2u. Do you have radio reception in the village? 2v. Do you own mobile phones? 2w. Do you have internet connection? 2x. Have you been 'on' the internet/ do you know what the internet is? 2y. Wired internet or via a phone?
3. Demand assessment
3a. Are you familiar with solar/water or telecom models? Have you seen it in other villages? 3b. Do you feel you need alternative energy options in your village? Yes, we need it. We don't need it, but we want it. No, we don't want it or need it. 3c. Do you feel that you need alternative clean water sources? Yes, we need it. We don't need it, but we want it. No, we don't want it or need it. 3d. Do you feel you need radio in your village? Yes, we need it. We don't need it, but we want it. No, we don't want it or need it. 3e. Do you feel you need telephone service in your village? Yes, we need it. We don't need it, but we want it. No, we don't want it or need it. 3f. Do you feel you need internet access in your village? Yes, we need it. We don't need it, but we want it. No, we don't want it or need it. 3g. Is light at night important to you?

Yes, very important. No not so important. Unimportant. Very unimportant.

4. Physical wellbeing: health and nutrition status, food security and agricultural production

4a. How do you currently keep food conserved?
4b. How do you feel about storing food and drinks in a fridge?
4c. Comment on the following:
If there were electricity, I would a fridge to store food.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree
4d. I will only store my fruits and crops in the fridge
Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 4e.
I will store hunted game in the fridge/freezer.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
4f. Comment on the following:
I would love a fridge.
I am not fond of the idea.
Why/ elaborate.
4g. If you had a fridge or freezer, would you want to save more food as a reserve for the village?
Water:
4h. Has your current drinking water caused illnesses? What kinds? 4i. Have
people ever gotten seriously sick from contaminated water?
4j. Optional: Is diarrhea or pneumonia something villagers often deal with?]

4k. What water source do you use for your agricultural plots?
4l. Do you think that a clean water system will help increase your agricultural crop production?
why?
4m. Do you have enough crops in the dry season?
Telecom:
4n. How do you currently reach the Medical mission if there is a medical emergency in your village?

5. Physical wellbeing: leisure/device dependency

5a. Would you like a tv for entertainment
Absolutely yes/Yes/Neutral/No/Definitely
not. 5b. Would you like radio for
entertainment?
Absolutely yes/Yes/Neutral/No/Definitely not.
5c. comment on the following:
No, I do not want a tv or radio, otherwise nobody would want to work. Strongly
agree/ agree/ neutral/ disagree/ strongly disagree.
5d. If you had a fridge, would you enjoy drinking cold beverages like coca cola?

6. Emotional wellbeing: safety, security, contentment, lack of stress.
6a. Will having more light in the village at night make you feel safer? Why? 6b. Could you see snakes or other wild animals better with light at night? 6c. Comment on these statements: Having water access would make my life easier, because it is a lot of work (to fetch and cook water) and I could use my time for other things. Or I don't really mind spending extra time fetching and cooking water. 6d. I feel that personal phone access would make me feel safer. Ask the men: Absolutely yes/Yes/Neutral/No/Definitely not. Ask the women: Absolutely yes/Yes/Neutral/No/Definitely not. 6e. Listening to the radio would ease my daily stressors in life. yes/Yes/Neutral/No/Definitely not. Elaborate/ What would you want to listen to on the radio?
7. Material wellbeing: housing, possessions (impact socio-economic differences and preferences) Independence: personal value.
7a. Would you eventually like electricity access right to your house. Or would central community lighting be enough for you. Why? 7b. How many of you own a cellphone or would love to own a cellphone? 7c. How many of you have no interest in owning a cell phone? 7d. How many of you own a radio of would love to own a radio? 7e. How many of you have no interest in owning a radio? 7f. How many of you have ever personally used a computer? 7g. How many of you would love to learn how to use a computer? 7h. How many of you have completely no interest in learning how to use a computer?
8. Socio-economic: existing businesses that could cover the operational and maintenance costs
Once installed, the operational and maintenance costs of these projects, can be expensive. 8a. With what businesses could you pay for it? 8b. Would you want to pay for it together as a community? 8c. Or would you rather only those that want to use energy, water or telecom pay for it? Comment on these statements: 8d. We'd rather be dependent on outside funding. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 8e.I do not want outside funding because we can't trust that they always have enough money for us. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 8f. We want to pay for the maintenance costs ourselves. Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
8g. We want to learn how the installations work. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 8h. Have you ever been promised funding for water or electricity before? By whom or what organization/political party?

9. Socio-economic: creation of sustainable business opportunity
9a. Do you see tourism as a business opportunity for your village? 9b. If yes, do you think more energy, water and telecom access would allow more tourists to visit your village?
10. Innovation or elevation of business opportunity/ use of new tools
10a. Would you work longer hours if you had (electric) light at night? 10b. How would you use phones if you could take them to work/ to daily activities? Would you take them with you to your workplace? 10c. If you didn't have to fetch and cook water, what would you do with freed up time? Would you use this time to work on other things or would you use it to relax?
11. Social participation: social networks (feeling supported)
11a. Do you feel excited about the potential of energy? 11b. Do you feel excited about the potential of clean water systems? 11c. Do you feel excited about telecom opportunities? Radio/ phone/ internet? 11d. Would you feel more supported if these projects came to your village?
12. Social participation: rights (human rights and legal rights/access, justice).
12a. Would you feel like you have equal rights as people in the city if you have access to water energy and telecom? To help frame for them: Comment on the following statements: 12b. I want equal rights to people in the city. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 12c. I think having energy, telecom or water systems would give me equal rights. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. Elaborate
13. Independence: personal development (educational status, access to quality education)
13a.Will energy create extended study hours? /Would your kids be able to study more/longer with access to light? 13b. Do you think more elementary school teachers would come to the village if you had energy, water and telecom? Water: 13c.Men: how important is clean water in the village for you? Very important. Not so important. Unimportant. Why? 13d.Women: how important is clean water in the village for you? Very important. Not so important. Unimportant. Why? Telecom: the city and other places in the world, kids have access to internet so they can learn and look up things they want to learn. 13e. Would you want your kids to learn about the internet here as well? 13f.Adults: video courses and training via internet or videocalls? Yes, I'd like to have trainings via video calls. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. No, I'd rather trainers come to us in person. Strongly agree/ agree/ neutral/ disagree/ strongly disagree. No, I'd rather go to the city for trainings. Strongly agree/ agree/ neutral/ disagree/ strongly disagree.

14.Independence, self-determination (choices, autonomy)
14a.Decision making process: How would you decide as a village if this project is feasible?
14b.Would you vote to see if all villagers agree with the terms? 14c.What would the role of the captain be in this process?
15. Socio-cultural community: highlighting traditional knowledge. Socio-economic.
15a. Would you like to share your knowledge of traditional medicine with outsiders? 15b.Do you see selling medicinal products as business opportunity?
16.Socio-cultural community: maintaining a traditional way of living
16a. Do you think the energy, water and telecom projects would make you become a different person? 16b. Would you rather live as you live right now? Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 16c. Would you want call family members in the city? Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 16d. I wouldn't want my children to watch tv, I'd rather they play outside. Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
17. Socio-cultural: promoting gender equality/ consideration of traditional gender roles. Culture shifts: gender behavior. Traditional use of land /women empowerment.
17a. Do you think women would have less work if water access was closer? 17b. Do you think men would hunt more, or less, if you had a fridge to save food in? 17c. Men: would you give your wife a cell phone? Elaborate. 17d. Women: would you want to use a cellphone? Elaborate. 17e. Women: would you keep cooking with fire or would you want an electric stove to cook quicker? What would you do with your freed-up time?
18. Socio-cultural/environmental territories: access to indigenous spiritual or other important sites.
18a. Are there areas in your village where you don't want outsiders to come and build things or walk through? For what reason: Spiritual Personal property Other. 18b. Can you mark these on a map for us?
19. Environmental: land (climate change, natural disasters).
19a. Can you mark for us on a map where you experience a lot of flooding during rain seasons?
20. Environmental: land (wildlife protection and ecosystem shifts).
20a. Where are your hunting grounds 20b. can you mark them on a map for us? 20c. Where are your fishing ground? 20d. Can you mark them on a map for us? 20e. Are there park rangers in your village? Rangers help with forest monitoring and management. 20f. Are there more people interested to become a park ranger to help protect and monitor your lands and the animals during project building activities?
21. Environmental: land (flora and fauna and water protection/deforestation.)

21a. Rangers: baseline water quality measurements of the area? 21b. Are you okay with possible deforestation to build the solar, water and telecom systems? Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
22. Environmental: Land (discarding of waste/ waste management system/pollution, recycling)
22a. Where do you discard of fuel carriers? 22b. Are the fuel carriers brought back to the city?
22c. Where do you discard of empty batteries or old motors?
23. Environmental: Territories and Resources (use of local materials/ repurposing.)
23a. If you used less wood to cook your food and water for, because of electric appliances. Would you use wood for other purposes? Like what? 23b. Would you help find materials to help build project objectives
24. Environmental: potential for allowing research of land and biodiversity systems during project activities as an environmental safeguard.
24a. Villagers: would you be willing to let scientific researchers assess whether the animals and land will be disturbed during the project building? (wildlife and biodiversity research by universities through funding? As an environmental safeguard).
25. Socio-economic/ social participation/ social inclusion/ capacity gap analysis/ independence/ self-determination/ ownership models.
25a. Would any of the villagers like to work on the solar/ water or telecom energy project? Write down names. 25b. Would you like to upkeep (operation and maintenance) all these new projects yourself? 25c. Would you rather outside people get paid to do the building work? Or would you like to help? 25d. Would you rather outside people get paid for general operation and maintenance? 25e. Would you accommodate those people in your village? 25f. Would you like to be educated on how to maintain the solar panel, water networks and telecom in your village by yourselves?
26. Grievance mechanism, environmental examples. Aspect: land, indicators: air quality and noise.
With the building activities, there might be some noise and dust production. 26a. Would you be okay with this? 26b.Where would you not be okay with this? School for example? Other places? Mark for us on a map. 26c. If you still experience grievance from this in other places, they would like you to tell them. Who would you want to go to?
27. Grievance mechanism, social examples. Aspect: social conflicts, indicators: social inclusion.
What if you do decide to continue with these projects: if outsiders come to help with project building, and you get conflicts with them. 27. Who would you tell about this? Or would you keep it to yourself?
28. Concluding statements.

Comment on the following statement
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28a. I am content with the way things are. I don't need energy or telecom Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28b. I am looking forward to the project
Strongly agree/ agree/ neutral/ disagree/ strongly disagree. 28c.
I am worried about finances for this project.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28d. I am worried about deforestation in this project
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28e. I am worried about shifting of gender roles
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28f. I am worried that it won't fit our way of life
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28g. I am worried about the game/animals that will go away with too much noise.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28h. I trust that this project will be good for my village.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.

28i. I do not trust this project will be good for my village.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28j. I am not sure how I feel about this project.
Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28k. I would like to learn more about the different energy and telecom systems and how to use it. Strongly agree/ agree/ neutral/ disagree/ strongly disagree.
28l. Access to energy 24/7; Good. Why?
Bad. Why?
28m. Access to water 24/7 Good.
Why Bad. Why?
28n. Access to radio, internet and phones.
Good. Why
Bad. Why

The translator translated the interview questions drawn up by the consultant from Dutch to Trio/Wayana.
The translator asked the questions to the villagers during the krutus.
The translator translated the villagers' answers into Dutch.
The consultant analyzed and processed the answers.
The consultant reported the findings and recommendations, and where necessary presented them in tables.

An overview of the sample sizes is provided in the table below.

Table 16 Sample sizes: the number of krutu participants

Samples sizes (n)					
village	Krutu with the men (n)	Krutu with the women (n)	Total (n)	Total population	Percentage of population interviewed
Alalapadu	17	15	32	150	21.3%
Apetina	6	20	26	400	6.5%
Sipaliwini	15	15	30	179	16.76%
Kwamalasamutu	15	27	42	800	5.25%
Kawemhakan	20	4	24	300	8%
Kumakapan	0	1 (personal interview)	1	7	14.29%
Pelelutepoe	14	9	23	450	5.11%
Palumeu	7	5	12	300	4%
Amotopo	6	7	13	40	32.5%
Coeroeni	8	0 (no women's krutu due to time limits).	8	70	11.43%
Total (n)	108	103	211	2696	7.83%

Information Disclosure

Information disclosure focused on transparency, accountability and informed decision-making. This has been achieved by sharing complete information, conducting dialogue with each other in a respectful manner, ensuring that the speaker has understood the consultant and conversely that the villagers have understood the consultant, giving the villagers time to decide to involve all participants as much as possible in the discussions held, also by involving the minority groups (sub-tribes in the village), as well as by gaining insight into the force field and the decision-making structures within the villages. The foregoing has been of paramount importance for guaranteeing an optimal outcome of the consultation and engagement process. This, among other things, ensured that the participants felt free to give their input, what the project means to them, highlight potential risks, as well as indicate how to increase the potentially positive impact of the project.

5.1.1.7 Engagement process pre-execution phase (consultations)

Summary of the consultations for the Bio-Sweet project in the villages of Kwamalasamutu, Apetina, Palumeu, Pelelu Tepu, Curuni, Amatopo, Alalapadu, Sipaliwini and Kawemhakan/Kumakapan in South Suriname.

The objective of the consultations

The objective of the consultations was to present the project objectives and components of the Bio-Sweet project, by the Surinamese government, represented by the Ministry of Natural Resources specifically the Energie Bedrijven Suriname (EBS), or Energy Companies Suriname. The presentation also clarifies the

activities that will be conducted for the benefit of all the communities involved, to strengthen the bio-economy potential for indigenous communities in the Sipaliwini district of Suriname.

Communication procedures

In order to carry out these consultations, deliberations had to be held between various important stakeholders such as IDB, TTA, Ministry of Natural Resources, Ministry of Regional Development, ACT. After that, contact had to be made with the communities at various times. First, the communities were approached to inform them that these consultations would be carried out and whether they wanted to give permission for this. When permission was obtained, exact dates were agreed with the communities and invitation letters were sent. ACT was willing to translate the invitation letters into Trio and Wayana. Finally, agendas for that day were drawn up and NH created an itinerary for that day.

Delegation members

The delegation that carried out these consultations consisted of the Director of Energy of the Ministry of Natural Resources and a representative of the Energy Companies Suriname, the District Commissioner of the Curuni Region or of the Tapanahony Region of the Ministry of Regional Development and Sports, chairperson of Trijana Foundation: a foundation of the traditional authorities of the Trio and Wayana Indigenous people and a consultant of the IDB. During most visits, a representative of TTA was also part of the delegation. During the 2 first visits observers of the IDB were also part of the delegation.

Consultations in the villages

In all villages the delegation members were welcomed by the highest authority in the village, i.e. for the 2 villages Kawemhakan/Kumakapan and Kwamalasamutu this was the Paramount Chief Granman of the Wayana's and Granman of the Trio's. In the other 7 villages the captains were the highest authority of the villages.

After the greeting of the village authority, the DC started the meeting on behalf of the government. Then the director of NH spoke and introduced the delegation members to the villagers. After that the delegate of the EBS gave a presentation in each village in which the designed electricity and water system and the Telecom system for that individual village were presented.

Summary EBS presentation

In each village the number of households was indicated and the number of possible institutions and commercial establishments. For example, for Kwamalasamtu there were 225 households and the possibility of 13 institutions and 3 commercial institutions.

During the implementation of the project a good relationship between the community and the contractor will be of crucial importance. Important elements for the success of the project are:

1. The community is considered to deliver **electricity posts** in 2 sizes. They will be paid for their work. The electricity posts cannot be made by stihl saw but must be modelled with the hack.
2. The community is considered to help the contractor with **lodging and cooking**. They will be paid for their services provided.
3. If the contractor needs **extra workers** during implementation, some villagers are considered to work in the project for payment, as long as the implementation of the project lasts.
4. The villagers will have **to pay** for electricity, water and telecom provided through this project. Every household in the village will get a meter for water and for electricity use. Payment is important otherwise the facilities are not sustainable.

5. **Bio-Sweets** offers villagers the opportunity to generate income by developing sustainable livelihoods. The intention is that the villagers will be able to pay for the utilities provided with the income generated from the livelihoods.
6. The village is considered to make the **needed land** for the project available.
7. The community and the traditional authorities are considered to reaffirm their earlier given **confirmation for plots** where the constructions will be established.
8. A certified installer from the city will install the **electricity and water meters**. The installer will train some young men and or women from the village on the job so they can learn to do new installations on village level in the future, after project closure.
9. Some young boys or girls will be **trained** in Paramaribo by EBS to enable them to do small maintenance. They will be hired by EBS to work as EBS employees in the village. EBS will also hire an administrator from the community.
10. **Telesur** will follow the same approach as EBS by training young men and women from the village to carry out small maintenance.

The electricity, water and telecom rates that would have to be paid were also presented. The calculation of those rates was indicated. This information is already presented in this document.

Summary identified community assistance per village

The identified community assistance per village were presented in the tables below.

ENERGY

	Land (> m^2)	Labor	Posts	Food	Lodging
Kwamalasamutu	2700	14man-6months	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR
Sipaliwini	450	7man-6months			
Alalapadu	600	7man-6months			
Curuni	450	7man-6months			
Amatopo	300	7man-6months			
Apetina, Tutu Kampu	150	7man-6months			
Apetina	1500				
Palumeu	900	7man-6months			
Pelelu Tepu	900	7man-6months			
Kawemhakan	600	7man-6months			
Kumakapan	150	7man-6months			

WATER

	Land (> m^2)	Labor	Posts	Food	Lodging
Kwamalasamutu	1000	14man-6months	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR
Sipaliwini	200	7man-6months			
Alalapadu	350	7man-6months			
Curuni	300	7man-6months			
Amatopo	300	7man-6months			
Apetina, Tutu Kampu	150	7man-6months			
Apetina	350				

Palumeu	350	7man-6months			
Pelelu Tepu	450	7man-6months			
Kawemhakan	360	7man-6months			
Kumakapan	150	7man-6months			

Pipelines/Distribution Lines: not able to provide land area that will be worked on.

TELECOMMUNICATIE

	Land (> m^2)	**Labor**	**Posts**	**Food**	**Lodging**
Kwamalasamutu	Office for WATER/ENERGY/TELCOM in shared location	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR	TO BE DETERMINED BY THE CONTRACTOR
Sipaliwini					
Alalapadu					
Curuni					
Amatopo					
Apetina, Tutu Kampu					
Apetina					
Palumeu					
Pelelu Tepu					
Kawemhakan					
Kumakapan					

Minimal use of land as equipment will be installed on poles. Managing and maintenance of the network will be conducted in the shared building of ENERGY-WATER

When presenting the designed models in the individual villages, the possibilities of income generating activities for that village were also indicated, the so-called Bio-Sweet possibilities and how many job opportunities are linked to them.

Feedback of the villagers

All the villagers of the 10 villages were very enthusiastic about the planned execution of this project.

The villagers of all the 10 villages accept the proposed method of working during the implementation of the project. The needed land is not a problem for the village because they identified the possible location and even if another plot is needed for the project they are willing to contribute the land for the project. They all agree to work together with the contractor and to make their contribution so that the projects can be carried out successfully; there are enough young men and possibly women in the village who wants to work for the contractor during the construction of the project. As soon as they know the sizes and the number of the posts they have to deliver for the project they will work on producing them. The villagers also agree to accommodate the contractor and his workers with lodging and women are available to cook for the group. For all those activities the villagers expressed that they are willing to rent and work for a reasonable price and fee.

They all agree to pay for all the facilities: the used electricity, potable water and telecom. They also agree that some local young men and women will follow training in Paramaribo to do the local small maintenance in the villages and to do local necessary administrative work when the project is implemented.

They expressed that they need the project real hard because in the dry season water is a big problem and they have to go far to get water. Especially old people said they want to see the project realized before they die: “a lot of people come to talk, but do nothing. It has to happen as soon as possible.”
The project is urgently needed. Light is also very important especially for the children, school, homework, for the policlinic.
Telecom is not always stable and so, at those times they are isolated. When the Telcom is unstable or doesn’t work they cannot get in touch with their relatives in Brazil and Guyana.
The Bio-Sweet component is not a problem for the villagers. In almost all the villages they already have economical activities like beekeeping, making arts, jewelry and crafts and processing of tea, pepper and Brazil nuts. And they expressed the willingness to learn new skills if necessary to produce and make things so that they can earn money.
As soon as a date is set for the start of the project the paramount chief of the Trio will make sure the plot of land that will be used for the electricity grid in his village is cleared. He wants a powerful electricity grid that will be useful now and in the future. The villagers are part of this world and they also want to thrive and develop, thus they need this project.

Distrust of the government was expressed in all of the villages. Some villagers expressed that the government has a history of not keeping their promises to the villagers, especially in election times. It was stated that many people come to talk and explain but nothing happens and therefore the government should not promise and do nothing. Villagers commented that presentation is good, but the government must not mislead the villagers. The villagers had a lot of complaints about the government and the way they treat the people living in the interior. Almost all the speakers expressed doubts that the project will really be implemented because they have been fooled many times by the government on all levels from the infrastructural needs to education, food security, flooding and so on. One of the highest-level indigenous authorities expressed concerns about the potential for mismanagement of the finances for the project by the institutions and that he hopes that the funds for this project will be used appropriately.
Reaction of the Government
The NH representative said she is glad that the villagers are eager and positive for the project to be completed, adding that all utilities and facilities must be the same for every person in Suriname. She has heard that they want to pay and that the youths want to follow the necessary training courses, that the young men and women are available for training by EBS and to be hired by the EBS even the ones who are already employed by the Ministry of NH and are not paid for many months. She will see to it that this problem will be fixed. The DCs let the villagers know that they are happy now that the villagers have accepted the project and want to do their part and they thank the community because they want to pay for the services that means they are choosing for development. The DCs know that there are many problems in the villages with food and teacher housing, with water and electricity. One DC promised that he will talk to the minister to visit the villagers in person and listen to their complaints.

5.1.1.8 Engagement process in the execution phase

Below is a description of the processes that should be considered in the next phase, in particular the implementation phase of this project.

Introduction
The success and sustainability of a project depends on community involvement at all stages of the project. The local population must be involved in all aspects of decision-making and implementation. This is necessary to ensure that the villagers' capacities can be used as best as possible, not only in the implementation phase, but also in the maintenance phase and the construction of new connections in the future. This is also conducive to local ownership and guaranteeing sustainability.

Authority structure
These indigenous communities in Suriname consist of 10 villages and 2 tribes, namely the Trios and Wayanas. Of the 10 villages, 5 are Trio villages (Kwamalasamutu, Alalapadu, Sipaliwini, Curuni, Amatopo), 3 are Wayana villages (Kawemhakan, Apetina, and Kumakapan) and 2 are Trio/Wayana villages (Palumeu and Tepu).

The table below gives an overview of the above.

Table 17 Indigenous Tribes in Suriname

	Tribe
Alalapadu	**Tirió**
Apetina	**Wayana**
Sipaliwini	**Tirió**
Kwamalasamutu	**Mostly Tirió**
Kawemhakan	**Wayana**
Kumakapan	**Wayana**
Pelelutepoe	**Mostly Tirió**
Palumeu	**Tirió and Wayana**
Amotopo	**Tirió**
Coeroeni	**Tirió**

The authority structure within all indigenous communities is hierarchically as follows:

1. Paramount chief
2. (Head) chief
3. Chief
4. (Head) basja
5. Basja

Not all villages have all 5 functions. The positions that occur in all villages are Chief and Basja. There is one Paramount Chief, or granman, per tribe, specifically one for the Trios and one for the Wayanas. The Paramount chief of the Trios, is based in Kwamalasamutu, while the Paramount chief of the Wayanas, is based in Kawemhakan.

In the table below, the functions on village level are presented.

Table 18 Key Stakeholders

villages	function
kwamalasamutu	granman
kwamalasamutu	head-captain
kwamalasamutu	captain
kwamalasamutu	captain
kwamalasamutu	head-Basja
kwamalasamutu	Basja
kwamalasamutu	head-Basja
kwamalasamutu	Basja
kwamalasamutu	Basja
kwamalasamutu	Basja
amotopo	head-captain
amotopo	captain
amotopo	head-Basja
amotopo	Basja
sipaliwini	captain
sipaliwini	head-captain
sipaliwini	Basja
sipaliwini	Basja
sipaliwini	Basja
sipaliwini	Basja
Alalapadu	captain
Alalapadu	head-Basja
Alalapadu	Basja
Alalapadu	Basja
Alalapadu	Basja
Alalapadu	Basja
coeroeni	head-captain
coeroeni	captain
coeroeni	Basja
coeroeni	Basja
coeroeni	Basja
coeroeni	Basja
apetina	Basja
apetina	captain

apetina	head-captain
apetina	Basja
apetina	captain
apetina	Basja
apetina	Basja
apetina	Basja
apetina	Basja
apetina	Basja
apetina	chief
apetina	captain
apetina	Basja
apetina	captain
Kawemhakan	Basja
Kawemhakan	Basja
Kawemhakan	Basja
Kawemhakan	Basja
Kawemhakan	captain
Kawemhakan	Basja
Kawemhakan	chief
Kawemhakan	head-captain
Kawemhakan	head-Basja
palumeu	Basja
palumeu	head-captain
palumeu	Basja
palumeu	Basja
palumeu	Basja
palumeu	Basja
palumeu	head-Basja
pelelutepoe	captain
pelelutepoe	Basja
pelelutepoe	captain
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	head-captain
pelelutepoe	Basja

pelelutepoe	head-Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	captain
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
pelelutepoe	Basja
kumakapan	Not yet appointed as Basja

An important key stakeholder is Trijana, the umbrella organization of the 10 indigenous villages in South Suriname. This organization can play an important role in communication between GoS, IDB and contractors on the one hand and the indigenous communities on the other. This offers a number of advantages to bridge the language barrier, the physical presence of some members in Paramaribo, and the availability of some experience in administrative procedures. In addition, they have a representative in each village, which benefits mobilization.

In addition to Trijana, the committees in the villages for various themes, which were created during the Life Plan process, can also play a role in the implementation and development of a payment model.

Communication plan

To achieve active participation, there must be open communication with the villagers, through their appropriate structures and in compliance with the FPIC principles. Communication with the villages must always go through the highest authority figure.
Gaining insight into indigenous communication structures is important for the project given the applicable procedures that must be observed. The main communication procedures relevant for the project are described below.

Activity	**Communication method/medium**	**Who**	**Digital Tool**	**Explanation**

Approval for field visit	Letter	GoS	WhatsApp	Explain the purpose of the visit and request approval to make a visit.
Reception at the airstrip		Member of the village council		

Greeting and introduction		Highest authority figure		Explain the purpose of the visit verbally.
Meeting with the villagers	Krutu	Everyone		Information disclosure and ask for input and concerns.
Meeting with the villagers who have been nominated by the traditional authority and who are willing to support	Separate subkrutus			Planning, logistics, and further discussion of the work that will be carried out by the villagers in the context of ownership, fees.

Decision structure

The highest decision-making authority for a tribe lies with the Paramount chief.
The highest decision-making authority for a village lies with the (Head) captain.
Decisions are made by the traditional authority, or the village council, consisting of the Paramount chief, (Head) chief, Chief, (Head) basja, and Basja.
Decisions are made in the village council or during krutus. The great chief has a lot of influence and his opinion is almost always followed, but if necessary he will have to justify his decision during a krutu. In villages where no Paramount chief lives, the captain has the most influence. The difference with a Paramount chief is that his opinion is not always followed. In general, the traditional authority will try to reach consensus in the village council as well as during krutus.

The traditional leaders make the final decisions and should therefore decide if the local government board supervisors should be included in the FPIC process. In addition, it is recommended to actively inform villagers in a krutu setting or, at a minimum, to interview villagers to test their informed consent about their head captain's final decision.

Village characteristics influencing the communication

Additional characteristics of the villages that may affect communication and should therefore be considered are shown below.

Overview of indigenous characteristics

Characteristic	When/What	Explanation
Belief system	Wednesday/Sunday	Since both tribes are almost 100% Baptist, the church is very powerful in the villages and in some villages, everyday mis are normal. But for Sunday and Wednesday there is mis in every village.
Holiday season	November and December	Because of Christmas and the end of the year /beginning of the year festivities, it is not possible to visit in the month of December and most of the time also in November till the middle of January.
Foodsecurity	August till October	Every year the villagers of all the villages prepare at least 1 plot to plant cassava and vegetables for their
		own consumption. So, every year they need to cut the trees, burn, clean up to be able to plant the crops. Especially for the clearing of the plots they work together and afterwards the family they worked for treat them with food and cassiri, their local alcoholic drink. So, on those days you cannot depend on anybody because they are in the field working or are having a feast. When they start planting most of the time they stay in the forest. Especially from the middle of august and September because then the local school have their holidays and the children can also go to the forest with them.
Language	Translator	A translator is needed to translate from the Trio or Wayana language to Dutch or Srenan. Another translator is needed to translate from Dutch to English.
Logistics	Take along your food and organize a place to stay	Charter a plane because only the Tapanahony villages you can reach by boat. But that takes days and then you need to hire a boat and boats men. When you are in the village and you want to go up the river you can hire a boat. The longest flight time is 2 hours with a Chesna that can take along 400kilo cargo, your body weight included. All the food and drinks you have to take along because there are no shops in the villages. Some villages, especially on the Lawa river, have shops in the neighborhood. But the items in the shop are very expensive.

Engagement		On arrival pay respect to the Paramount chief and other authorities present and explain the aim of the visit. The Paramount chief will set a time for the big krutu with the villagers. A krutu is a village meeting where all the necessary items are being discussed. The traditional krutu method is the best way to engage with the villagers and discuss project purposes, planning and goals.

5.1.2 A Description of the Grievance Mechanism (GM)

This component is involved with a description of the culturally appropriate procedures included in the project's grievance mechanism to address grievances/queries by Indigenous Peoples arising from project implementation and operation.

The GM should consider both the availability of judicial recourse and customary dispute settlement mechanisms applicable to Indigenous Peoples.
The grievance mechanism should provide for fair, transparent, and timely redress of grievances without costs, and if necessary, provide for special accommodations for women, youth and the elderly, and other vulnerable groups within the community, to make their complaints.

In all villages the traditional engagement method is the krutu format. In the occasion of grievances during site visits, the inhabitants stated that they would notify project workers via their traditional leaders.

The GM considers the usual dispute resolution mechanisms applicable within the indigenous communities involved. Government legal remedies also apply but are not part of the GM, which is why we have not included it.

The complaints mechanism provides for timely handling of complaints without costs. No statement can be made about fairness and transparency, but since this mechanism has been in use for centuries and meets the need, it can be assumed that the GM also provides for these aspects to a certain extent. The GM serves all villagers, including women, youth and elderly, as well as other vulnerable groups within the community, to register their complaints.

Table 43 shows the stated preferred grievance mechanism per village.

Table 19 Grievance mechanism per village as stated during krutu sessions

Grievance mechanism	
village	Grievance mechanism
Alalapadu	The villagers will let the captain or basja know if grievances should occur.
Apetina	The villagers would let the head captain know and then the remaining captains or basjas.
Sipaliwini	They would notify the traditional leaders, first the captain, then the basjas.
Kwamalasamutu	They would let the granman know.

Kawemhakan	They would let the granman or the head captain know.
Kumakapan	Not answered, but most likely the current village leader who wants to become appointed as Basja (their head captain died 4 years ago).
Pelelutepoe	They would let the captain know, then the village management.
Palumeu	They would let the captain know.
Amotopo	They would let the captain and the traditional leaders know. The captain will see if everyone agrees, and the traditional leaders will decide in the end.
Coeroeni	They would let the captain know and he would express the concerns to the builders.

Figure 19 The captain of Alalapadu, board supervisors, TTA consultants, and villagers of Alalapadu during TTA field consultation in 2022